

APPLE VALLEY TRUCK AND TRAILER FACILITY TRAFFIC IMPACT ANALYSIS

Town of Apple Valley

October 14, 2024



Traffic Engineering • Transportation Planning • Parking • Noise & Vibration
Air Quality • Global Climate Change • Health Risk Assessment

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prepared by

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EXECUTIVE SUMMARY

This section summarizes the proposed project, operational findings, and identifies recommendations (if any) as specified in this study.

Project Description

The 14.86-acre project site (APN: 0440-014-11) is located on the southside of Waalew Road between Ramona Street and Navajo Road in the Town of Apple Valley, California. The project site is currently vacant and zoned Planned Industrial (I-P).

The proposed project involves the development of truck and trailer parking lot with 426 truck/trailer parking spaces (12' by 55') and three standard parking spaces (9' x 19'). Vehicle access for the project site is proposed via gated access to Waalew Road.

Project Trip Generation

The proposed project is forecast to generate approximately 666 daily vehicle trips, including 33 vehicle trips during the AM peak hour and 43 vehicle trips during the PM peak hour, which equates to approximately 1,240 daily PCE trips, including 60 PCE trips during the AM peak hour and 75 PCE trips during the PM peak hour.

Level of Service Analysis

The study intersections currently operate within acceptable Levels of Service (D or better) during the peak hours for the Existing conditions.

The study intersections are forecast to continue operating within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2026) conditions.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Build-out Year (2040) conditions, except for the following intersections that are forecast to operate at an unacceptable Levels of Service F during the peak hours:

- | | |
|--|-----------------|
| 1. Dale Evans Parkway (south) (NS) at Waalew Road (EW) | LOS F - PM |
| 2. Dale Evans Parkway (north) (NS) at Waalew Road (EW) | LOS F - AM & PM |

Summary of Improvements

The roadway frontage and site access improvements to be constructed in conjunction with the proposed project are outlined in the Site Access & On-Site Circulation (see Section 7).

The *Dale Evans Parkway at Waalew Road Realignment* project includes realigning Dale Evans Parkway on the north leg to align with Dale Evans Parkway on the south leg, installing traffic signals and improving pedestrian crossing. This project is funded and has a preliminary schedule for construction with completion in 2027.

To maintain an acceptable Level of Service at the study intersections the following improvements, associated with the *Dale Evans Parkway at Waalew Road Realignment* project, are shown for Build-out Year (2040) conditions.

1. Dale Evans Parkway (NS) at Waalew Road (EW)
 - Install Traffic Signal

As the improvements are identified to address cumulative Level of Service deficiencies, a project fair share cost estimate is provided based on the volume of project traffic for Year (2040) conditions. The study area intersections operate at acceptable Levels of Service with the listed improvements.

Fair Share Analysis

A fair share analysis was prepared to identify the share of project trips contributed to substantially impacted locations for which improvements are identified that may not be currently included in the Town's Development Impact Fee program. To the extent that any of the identified improvements are not included in the Town's Development Impact Fee program, the project should contribute towards those improvements on a fair share basis. The project fair share is based on the proportion of project peak hour trips contributed to the improvement location relative to the total new peak hour traffic volume (see Section 8).

Vehicle Miles Traveled Analysis

Based on the VMT Screening Tool results for the project site, the proposed project satisfies the screening criteria for projects located in a low VMT area and the project's VMT impact may be presumed to result in a less than significant impact. The SBCTA VMT Screening Tool results for the project site are provided in Section 9.

1. INTRODUCTION

This section provides an overview of the proposed project and the general scope of the analysis.

PURPOSE AND OBJECTIVES

The purpose of this study is to evaluate the potential for transportation impacts resulting from the development of the proposed project in the context of the Town of Apple Valley's discretionary authority for conformance with locally established operational standards. Although this is a technical report, effort has been made to prepare the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with technical terms.

This study was prepared in consultation with the Town of Apple Valley staff following the procedures and methodologies for assessing transportation impacts established by the Town of Apple Valley. To assess the project's conformance with local operational standards, this study evaluates the project's effect on traffic operations and, if necessary, identifies recommended improvements or corrective measures to alleviate operational deficiencies substantially caused or worsened by the proposed project. For compliance with California Environmental Quality Act (CEQA) requirements, the proposed project's vehicle miles traveled (VMT) impact are also evaluated.

PROJECT DESCRIPTION

The 14.86-acre project site (APN: 0440-014-11) is located on the southside of Waalew Road between Ramona Street and Navajo Road in the Town of Apple Valley, California. The project site is currently vacant and zoned Planned Industrial (I-P). Figure 1 and Figure 2 show the regional and project location maps.

The proposed project involves the development of truck and trailer parking lot with 426 truck/trailer parking spaces (12' by 55') and three standard parking spaces (9' x 19'). Vehicle access for the project site is proposed via gated access to Waalew Road. Figure 3 illustrates the project site plan.

SCOPE OF ANALYSIS

The scope of this analysis was determined in consultation with the Town of Apple Valley as documented in the Town-approved scoping agreement provided in Appendix B.

Study Area

Figure 4 illustrates the study area. In accordance with the Town of Apple Valley requirements, the study area was determined in consultation with the Town of Apple Valley engineering staff and consists of classified roadway intersections to which the project is forecast to contribute 50 or more peak hour trips. Based on the project trip generation and distribution forecasts presented later in this report, the study area consists of the following study intersections, each within the Town of Apple Valley jurisdiction:

1. Dale Evans Parkway (south) (NS) at Waalew Road (EW)¹
2. Dale Evans Parkway (north) (NS) at Waalew Road (EW)
3. Navajo Road (NS) at Waalew Road (EW)
4. Project Driveway (NS) at Waalew Road (EW)

¹ (NS) = north-south roadway; (EW) = east-west roadway.

Analysis Scenarios

This study includes an evaluation of the following analysis scenarios for weekday AM and PM peak hour conditions:

- Existing
- Existing Plus Project
- Opening Year (2026) Without Project
- Opening Year (2026) With Project
- Year 2040 Without Project
- Year 2040 With Project

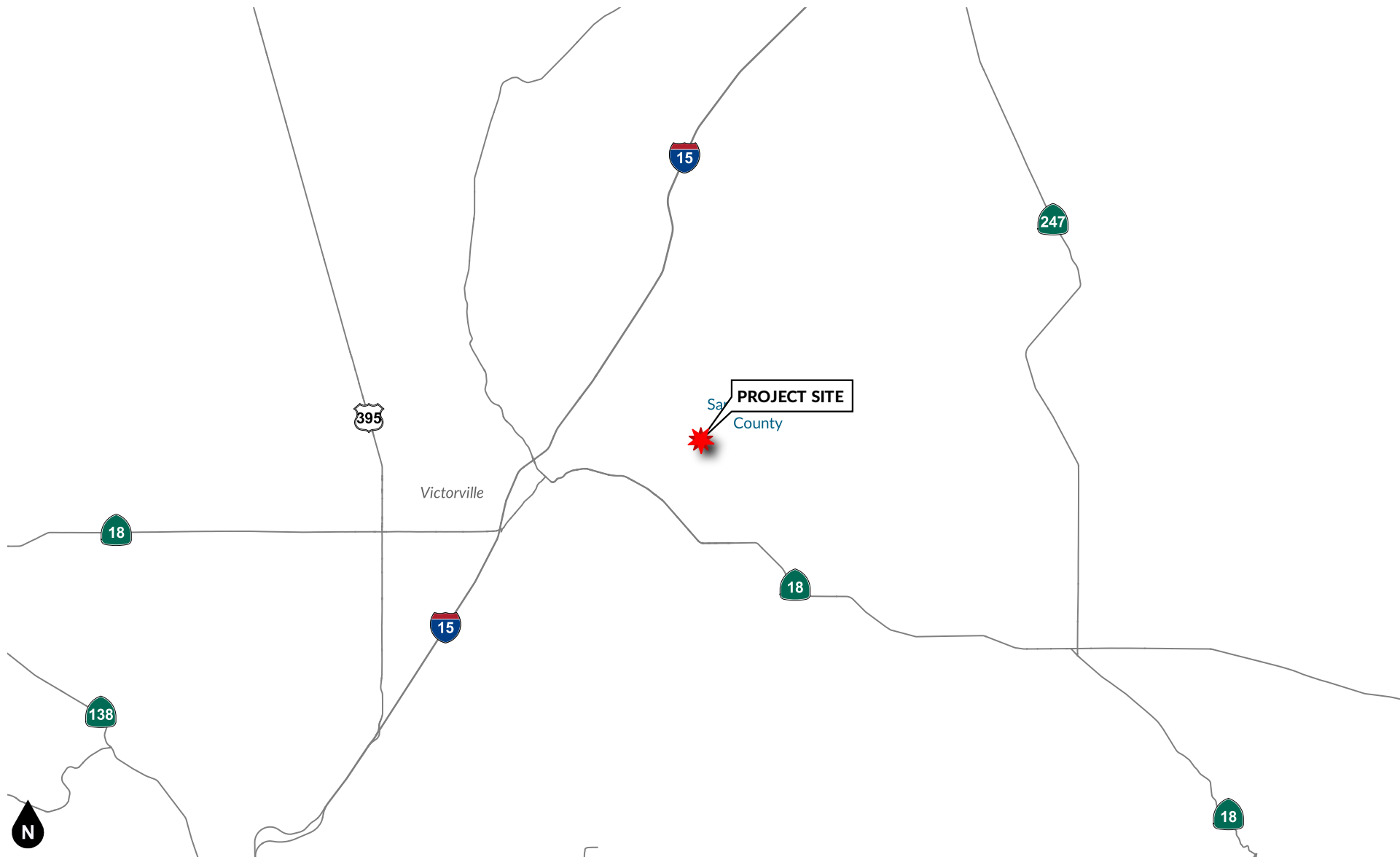


Figure 1
Regional Location Map

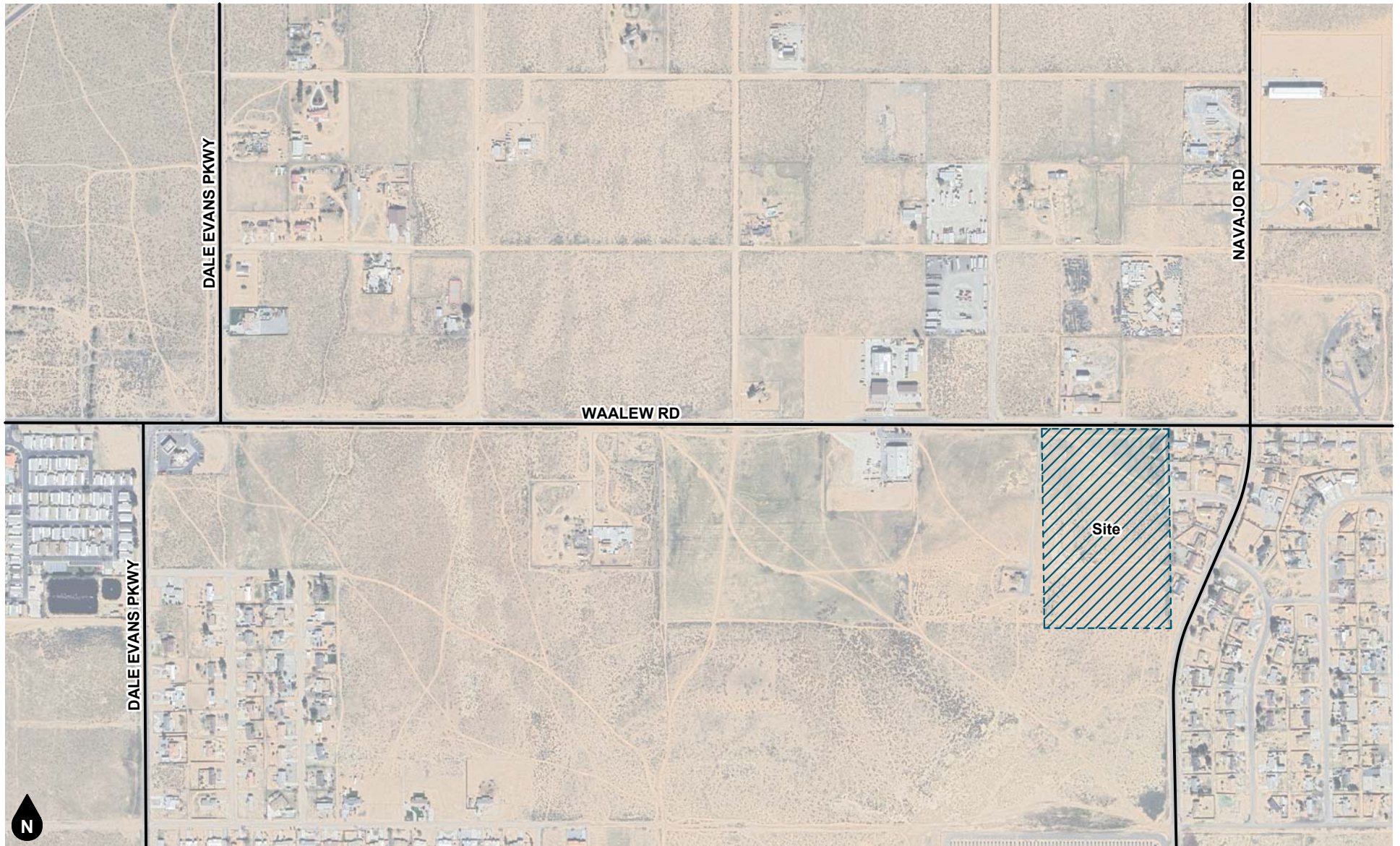
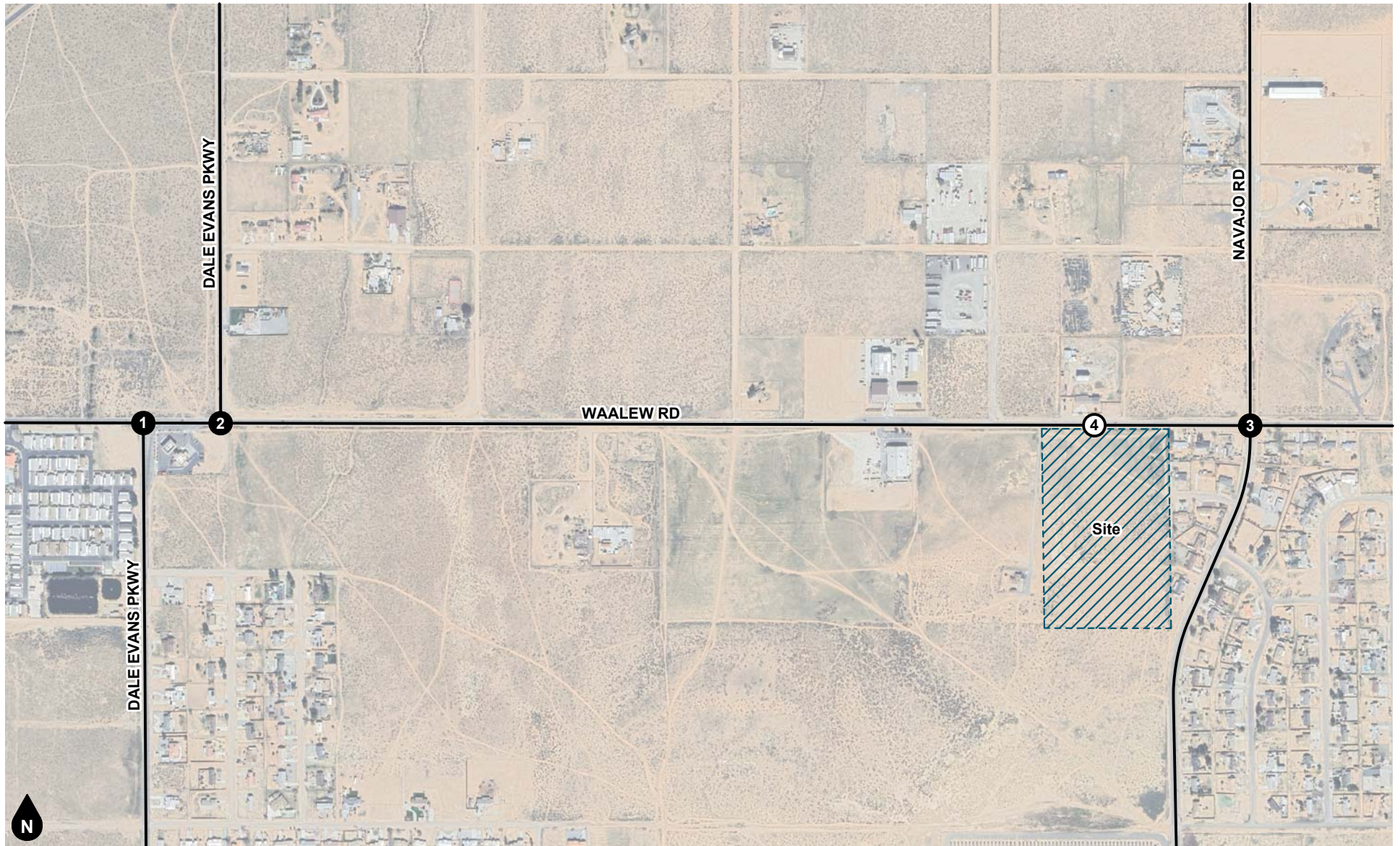


Figure 2
Project Location Map



Legend

- # Study Intersection
- # Project Driveway

Figure 4
Study Area

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies. This traffic impact analysis was prepared in accordance with the Town of Apple Valley standard procedures, which are based on the County of San Bernardino *Transportation Impact Study Guidelines* (July 2019) ["County TIA Guidelines"].

LEVEL OF SERVICE/OPERATIONAL ANALYSIS METHODOLOGY (Non-CEQA)

Level of Service (LOS) analysis is performed to assess conformance with General Plan and operational standards established by the applicable agencies. In accordance with current CEQA provisions, a project's effect on automobile delay (as measured by Level of Service) shall not constitute a significant environmental impact.

Intersections Delay Methodology

The methodology used to assess the performance of intersections in the Town of Apple Valley is known as the intersection delay methodology based on procedures contained in the *Highway Capacity Manual* (HCM) (Transportation Research Board, 7th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection Level of Service is based on the following HCM thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Unsignalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board *Highway Capacity Manual* (7th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with either traffic signal or all-way-stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst minor street approach or major street left-turn movement. The delay and Level of Service analysis were performed in accordance with parameters specified in the County TIA Guidelines using Vistro software.

PERFORMANCE STANDARDS

The Town of Apple Valley General Plan Circulation Element Program 1.A.4 has established LOS (D or better) as acceptable level of service for all intersections during the morning and evening peak hours.

Substantial Operational Deficiency Criteria

In accordance with County TIA Guidelines, intersection deficiencies would occur under the following conditions:

- If a project causes intersection level of service to degrade from LOS (D or better) to LOS (E or F).
OR
- If a project worsens an already deficient signalized intersection operating at LOS (E or F) by increasing delay by 5.0 seconds or more.
OR
- If a project worsens an already deficient unsignalized intersection operating at LOS (E or F) by increasing delay by 5.0 seconds or more, and the intersection meets the peak hour traffic signal warrant after the addition of project traffic.

Deficient intersections require improvement to satisfactory LOS (D or better) for intersections operating at an acceptable LOS prior to the addition of the project or to pre-project delay for intersections currently operating at an unacceptable LOS. Where improvements are identified to address cumulative Level of Service deficiencies, a project fair share cost estimate is provided based on the volume of project traffic using the impacted facility divided by the total “new” traffic (i.e., ambient growth and other developments).

VEHICLE MILES TRAVELED ANALYTICAL METHODOLOGY (CEQA)

For compliance with California Environmental Quality Act (CEQA) requirements, the proposed project's vehicle miles traveled (VMT) impact are also evaluated. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region.

The project VMT impact has been assessed in accordance with the Town of Apple Valley Resolution No. 2021-08 [“VMT Resolution”] and the County of San Bernardino *Transportation Impact Study Guidelines* (July 2019) [“County TIA Guidelines”]. A project's VMT impact is typically evaluated in two steps: 1) first an initial screening assessment followed by, if necessary, 2) more detailed VMT modeling/estimation for non-screened projects. For non-screened project's, the Town's VMT Resolution establishes the following thresholds of significance:

A project would result in a significant project-generated VMT impact either of the following conditions are satisfied:

- The baseline project-generated VMT per service population exceeds the Town of Apple Valley General Plan Buildout VMT per service population, or
- The cumulative project-generated VMT per service population exceeds the Town of Apple Valley General Plan Buildout VMT per service population.

The project's effect on VMT would be considered significant if it resulted in either of the following conditions to be satisfied:

- The baseline link-level boundary Town-wide VMT per service population increases under the plus project condition compared to the no-project condition, or
- The cumulative link-level boundary Town-wide VMT per service population increases under the plus project condition compared to the no-project condition.

3. EXISTING CONDITIONS

This section describes the existing transportation setting in the project study area.

EXISTING ROADWAY SYSTEM

Figure 5 shows the lane geometry and intersection traffic controls for existing conditions based on a field survey of the study area. Regional access to the project site is provided by Interstate 15 approximately 5.3 miles to the west and State-Route 18 approximately 2.6 miles to the southwest of the project site. Local north-south circulation is provided by Dale Evans Parkway and Navajo Road; and east-west circulation is provided by Waalew Road.

Dale Evans Parkway: This two-lane undivided to two-lane divided roadway trends in a north-south direction and is classified as a Major Divided Parkway (142 feet ROW and 112 feet roadway) on the Town of Apple Valley circulation system. On-street parking is not permitted in the project vicinity based on the current roadway width and the lack of shoulders. There are designated bicycle lanes south of Waalew Road, and a Class 1 bike lane is proposed in the General Plan Circulation Element north of Waalew Road. Sidewalks are not provided in the project vicinity. The posted speed in the project vicinity is 55 miles per hour.

Navajo Road: This two-lane undivided roadway trends in a north-south direction and is classified as a Collector (60 feet ROW and 20 feet roadway) on the Town of Apple Valley General Plan Circulation Element south of Waalew Road. On-street parking is not permitted in the study area based on the current roadway width and the lack of shoulders. There are designated bicycle lanes south of Waalew Road. Sidewalks are not provided in the project vicinity. The speed limit is not posted speed in the project vicinity.

Waalew Road: This two-lane undivided roadway trends in an east-west direction and is as a Major Road (104 feet ROW and 80 feet roadway) on the Town of Apple Valley General Plan Circulation Element in the project. On-street parking is not permitted in the study area based on the current roadway width and the lack of shoulders. Currently, there are no designated bicycle facilities in the project vicinity; however, a Class 1 bike lane is proposed in the General Plan Circulation Element. Sidewalks are provided on the northwest corner of Bimini Street and Abbey Lane. The posted speed in the project vicinity is 55 miles per hour.

PEDESTRIAN FACILITIES

Existing pedestrian facilities in the project vicinity are shown on Figure 6. As shown on Figure 6, currently sidewalks are not provided along the project site frontage.

TRANSIT FACILITIES

Figure 7 shows the existing Victor Valley Transit Agency (VVTA) system map in the project vicinity. Bus Route 42 runs along Dale Evans North and Waalew Road west of Dale Evans North. The closest bus stop to the project is southwest of Dale Evans North and Waalew Road.

GENERAL PLAN CONTEXT

Figure 8 shows the Town of Apple Valley General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The Town of Apple Valley standard roadway cross-sections are illustrated on Figure 9.

BICYCLE FACILITIES MASTER PLAN

The Town of Apple Valley Bicycle Master Plan is shown on Figure 10.. As shown on Figure 10, there are proposed bike facilities on Waalew Road and Dale Evans Parkway north of Waalew Road in addition to the existing bike lanes south of Waalew Road on Dale Evans Parkway and Navajo Road in the project vicinity.

DESIGNATED TRUCK ROUTES

The Town of Apple Valley Truck Routes are shown on Figure 11.. As shown on Figure 11, designated truck routes in the study area include Waalew Road, Dale Evans Parkway and Navajo Road south of Waalew Road.

EXISTING ROADWAY VOLUMES

Figure 12 shows the existing average daily traffic volumes. Existing average daily traffic volumes were factored from peak hour intersection turning movement volumes at locations using the following formula for each intersection leg:

$$\text{PM Peak Hour (Approach Volume + Exit Volume)} \times 11.5 = \text{Leg Volume}$$

Figure 13 and Figure 14 show the existing AM and PM peak hour intersection turning movement volumes. Existing peak hour intersection turning movement volumes are based upon AM peak period and PM peak period intersection turning movement counts obtained in September 2024 during typical weekday conditions. The weekday AM peak period was counted between 7:00 AM and 9:00 AM and the weekday PM peak period was counted between 4:00 PM and 6:00 PM; these periods capture the peak times for commuter traffic when the roadway system is typically experiencing peak demand. The actual peak hour within each two-hour count period is determined based on the sum of the four consecutive 15-minute periods with the highest total volume entering the intersection. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM and may vary at other intersections depending on the four consecutive 15-minute periods that have the highest total volume. Intersection turning movement count worksheets are provided in Appendix C.

EXISTING INTERSECTION LEVEL OF SERVICE

The study intersection Levels of Service for Existing conditions are shown in Table 1. Detailed Level of Service worksheets are provided in Appendix D.

As shown in Table 1, the study intersections currently operate within acceptable Levels of Service (D or better) during peak hours.

Table 1
Existing Intersection Levels of Service

Study Intersection	Traffic Control ¹	AM Peak Hour		PM Peak Hour	
		Delay ²	LOS ³	Delay ²	LOS
1. Dale Evans Parkway South at Waalew Road	CSS	11.2	B	14.4	B
2. Dale Evans Parkway North at Waalew Road	CSS	13.2	B	14.2	B
3. Navajo Road at Waalew Road	AWS	8.6	A	9.3	A

Notes:

1. CSS = Cross Street Stop; AWS = All Way Stop.
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

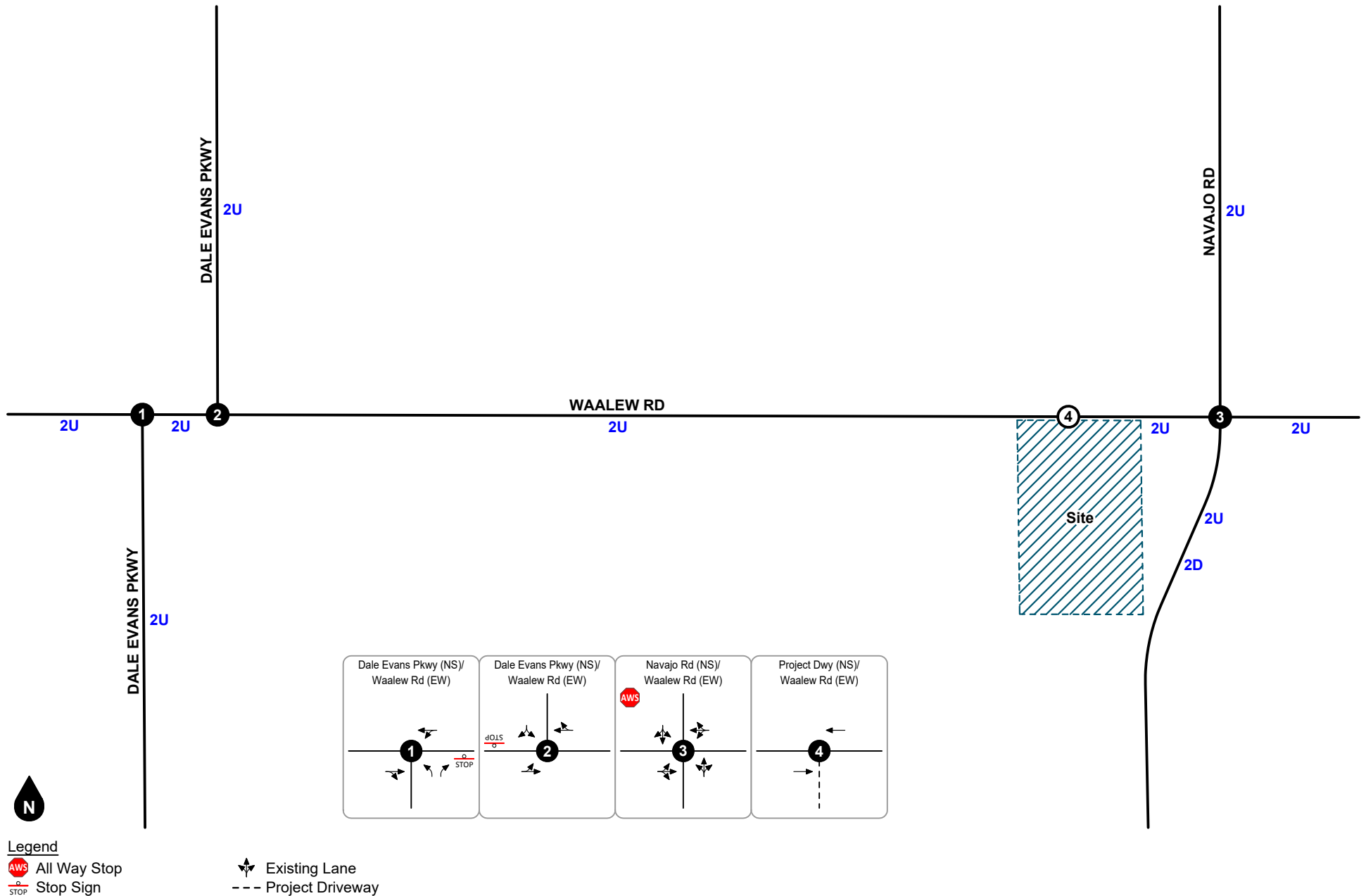
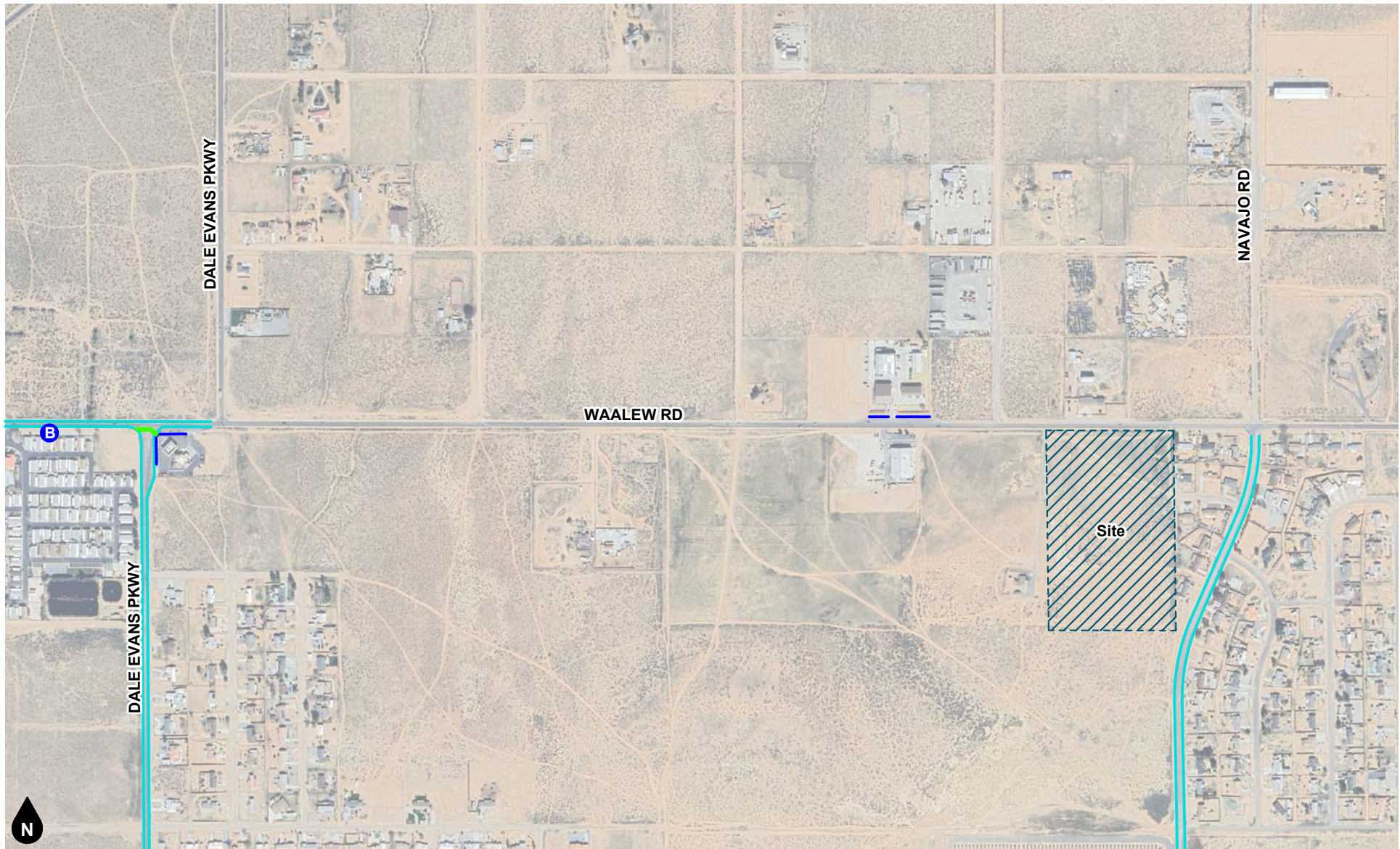


Figure 5
Existing Lane Geometry and Intersection Traffic Controls



Legend

- Sidewalk
- Cross Walk
- Class II Bike Lane
- B Bus Stop

Figure 6
Existing Pedestrian Facilities

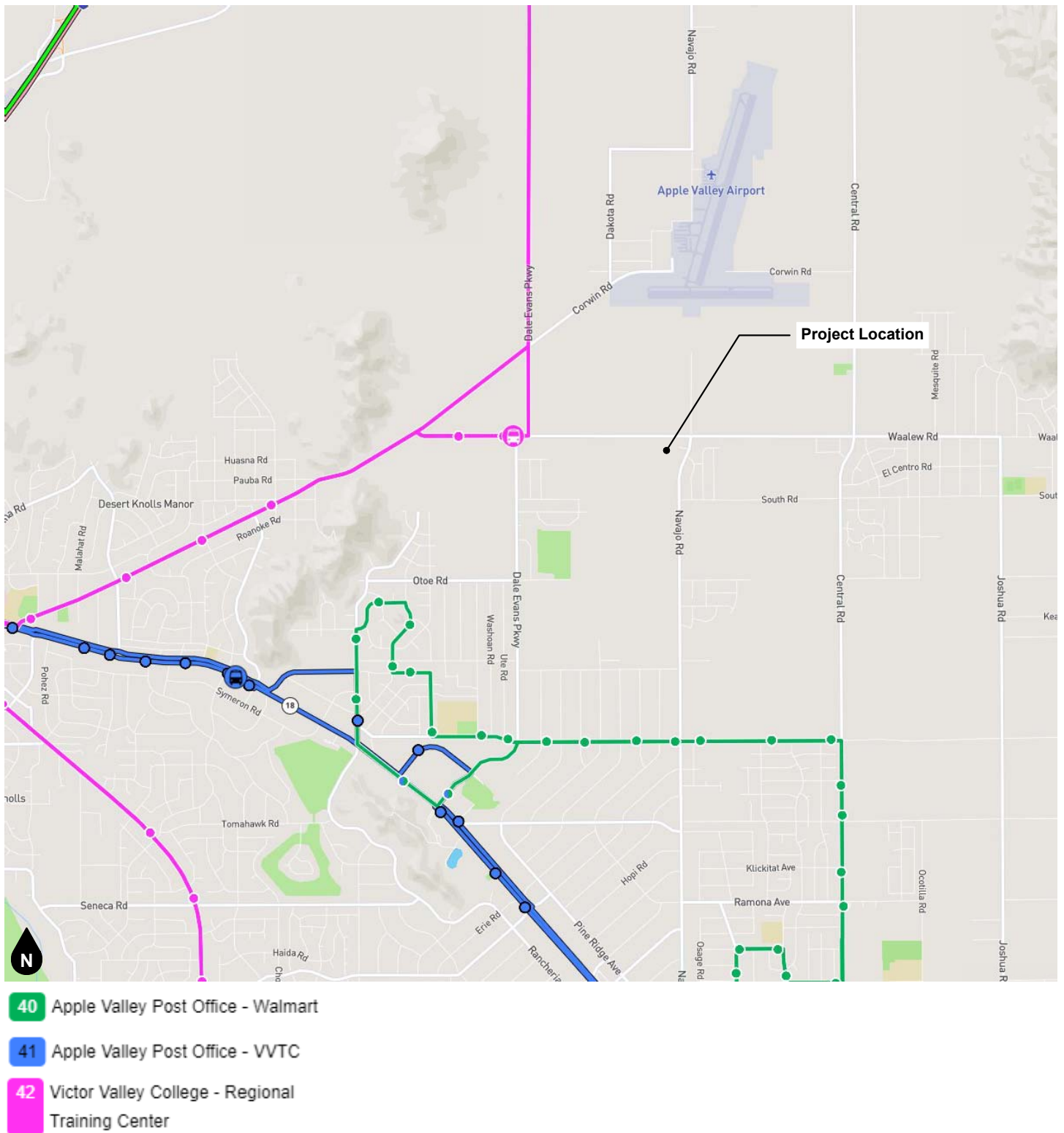


Figure 7
Existing Transit Routes

Source: Victor Valley Transit

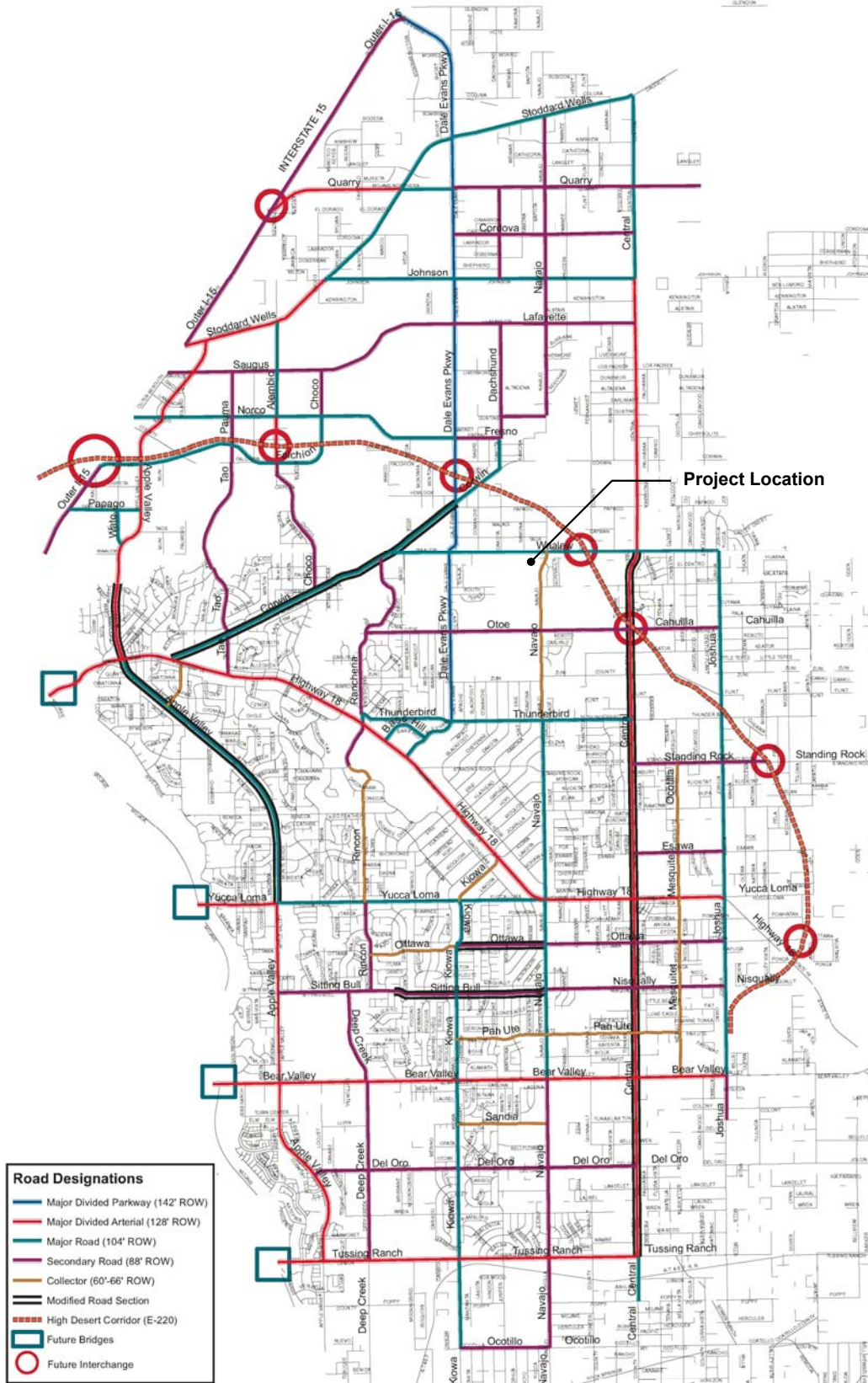


Figure 8
Town of Apple Valley General Plan Circulation Element

Source: Town of Apple Valley

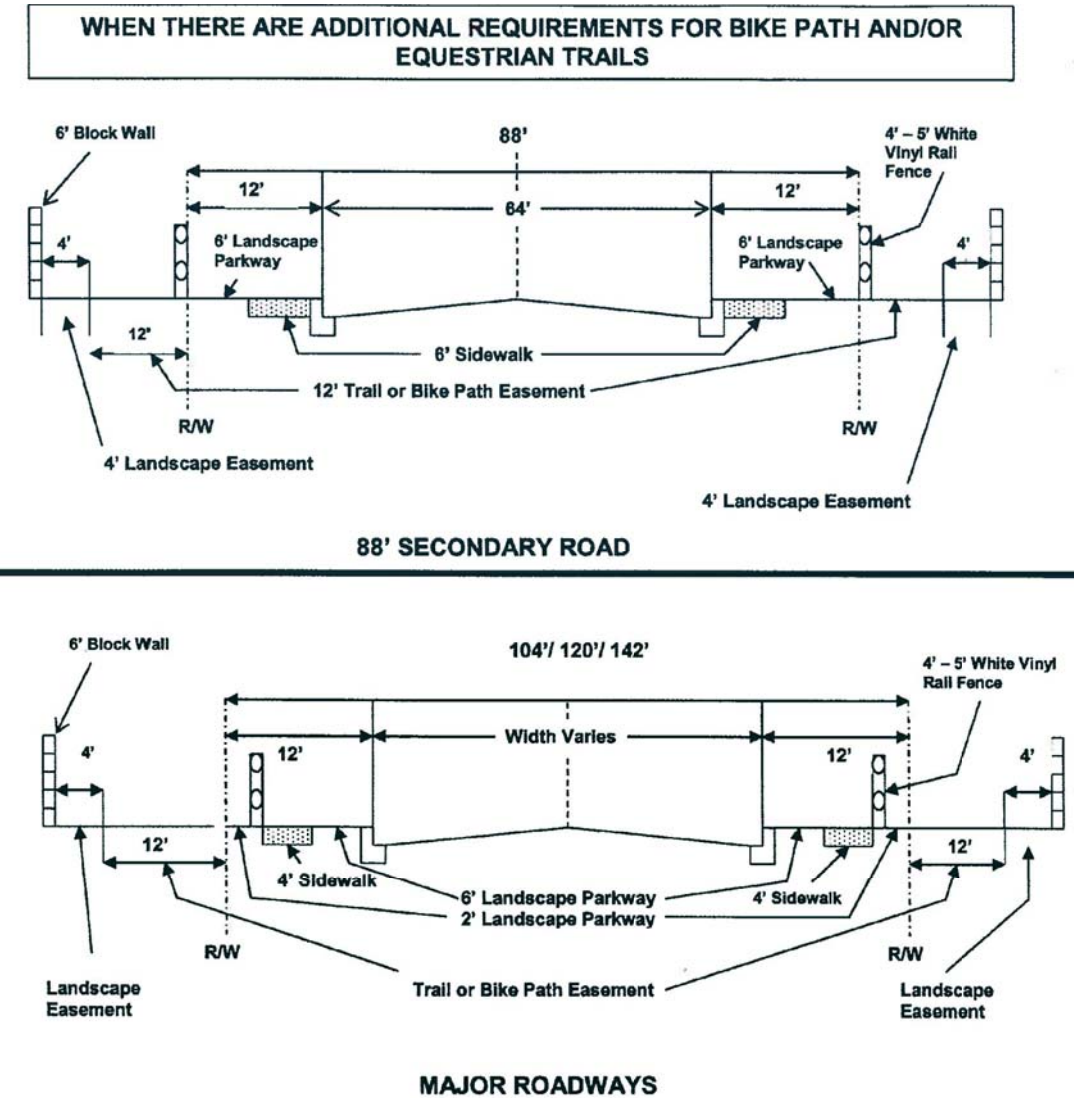
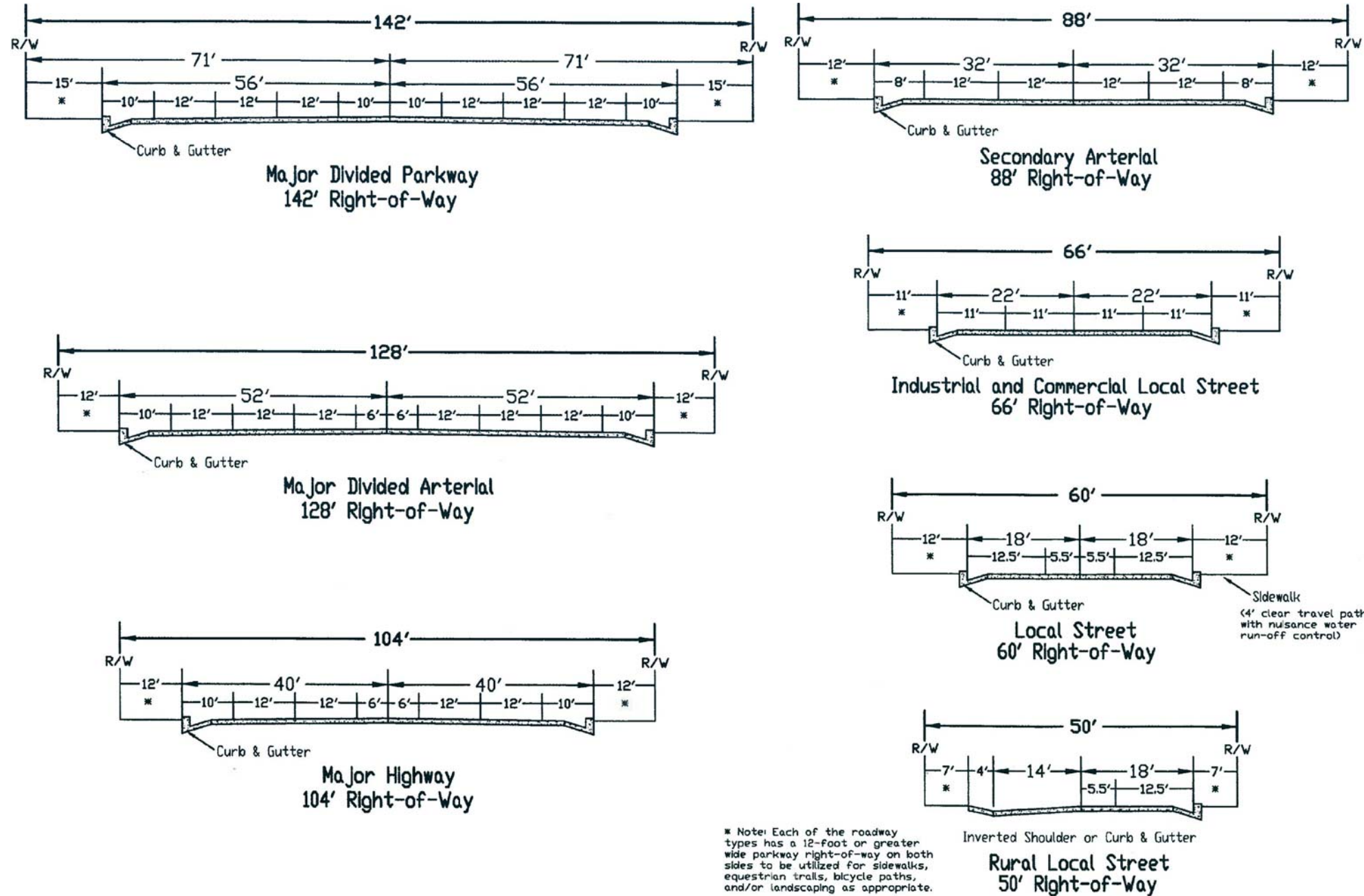


Figure 9

Town of Apple Valley General Plan Roadway Cross-Sections

Legend

- Class I
- Class II
- Class II on Frontage Roads
- Class III

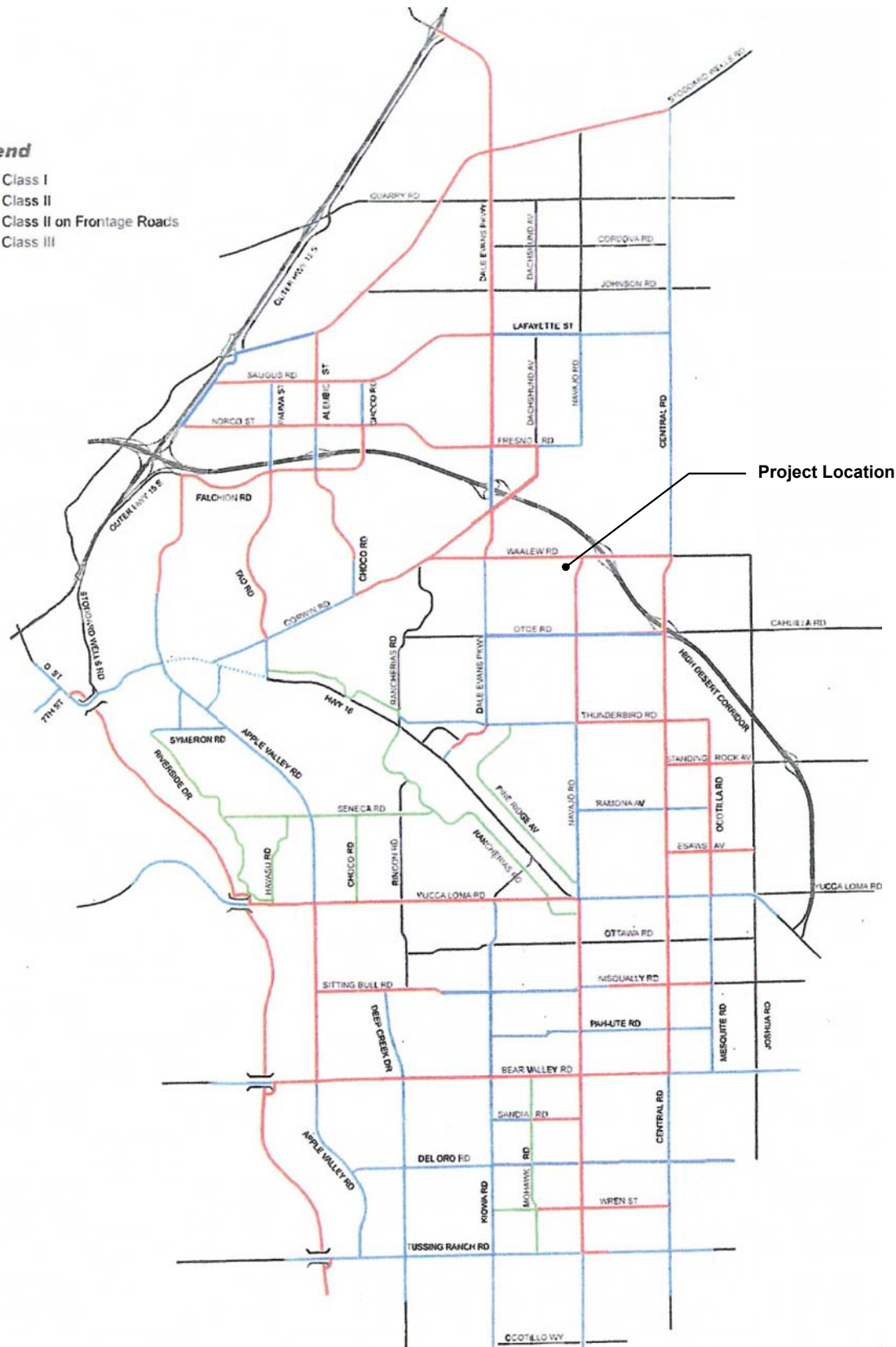


Figure 10
Town of Apple Valley Bicycle Facilities Master plan

Source: Town of Apple Valley



Apple Valley Truck and Trailer Facility
Traffic Impact Analysis
19763

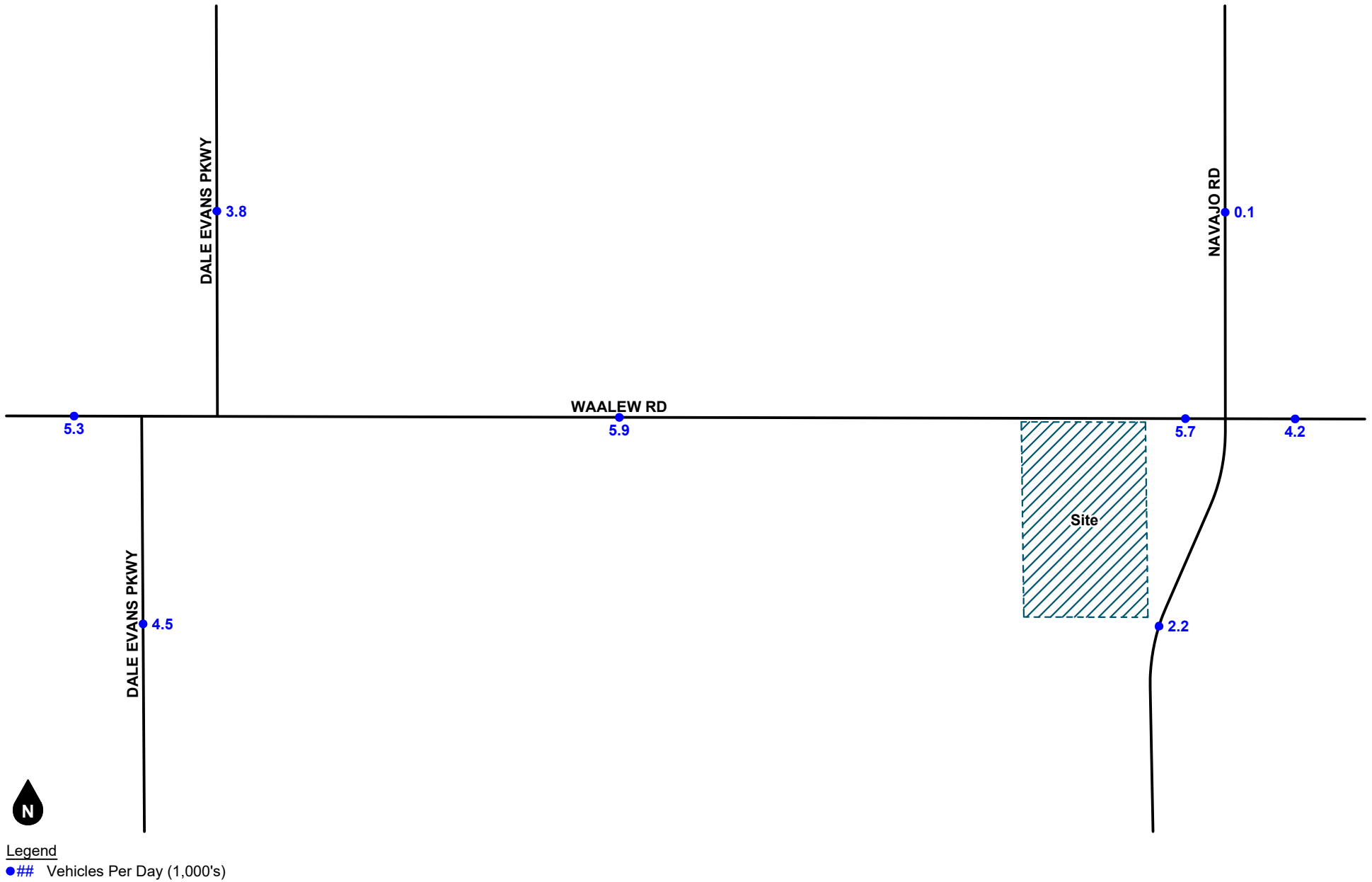
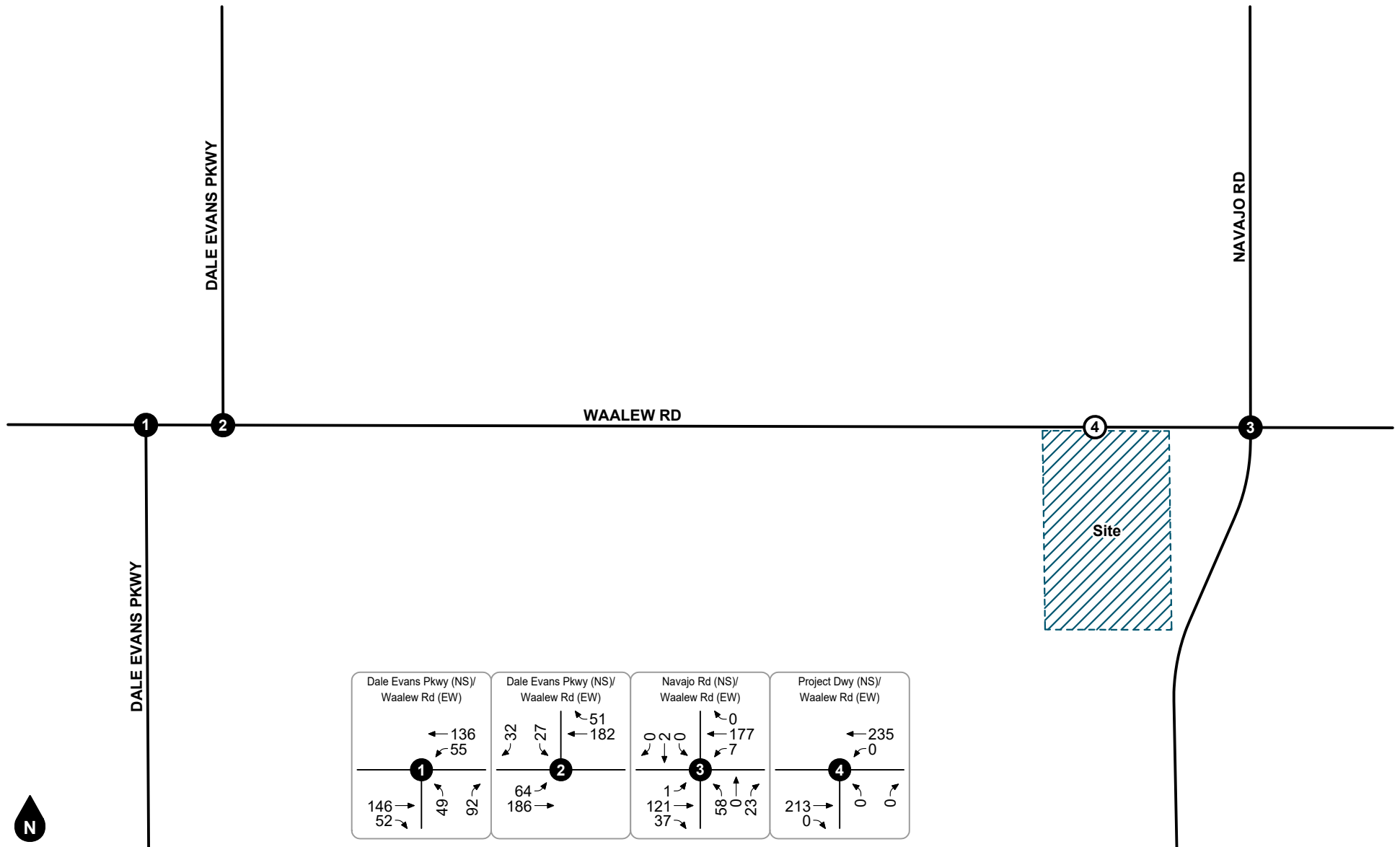


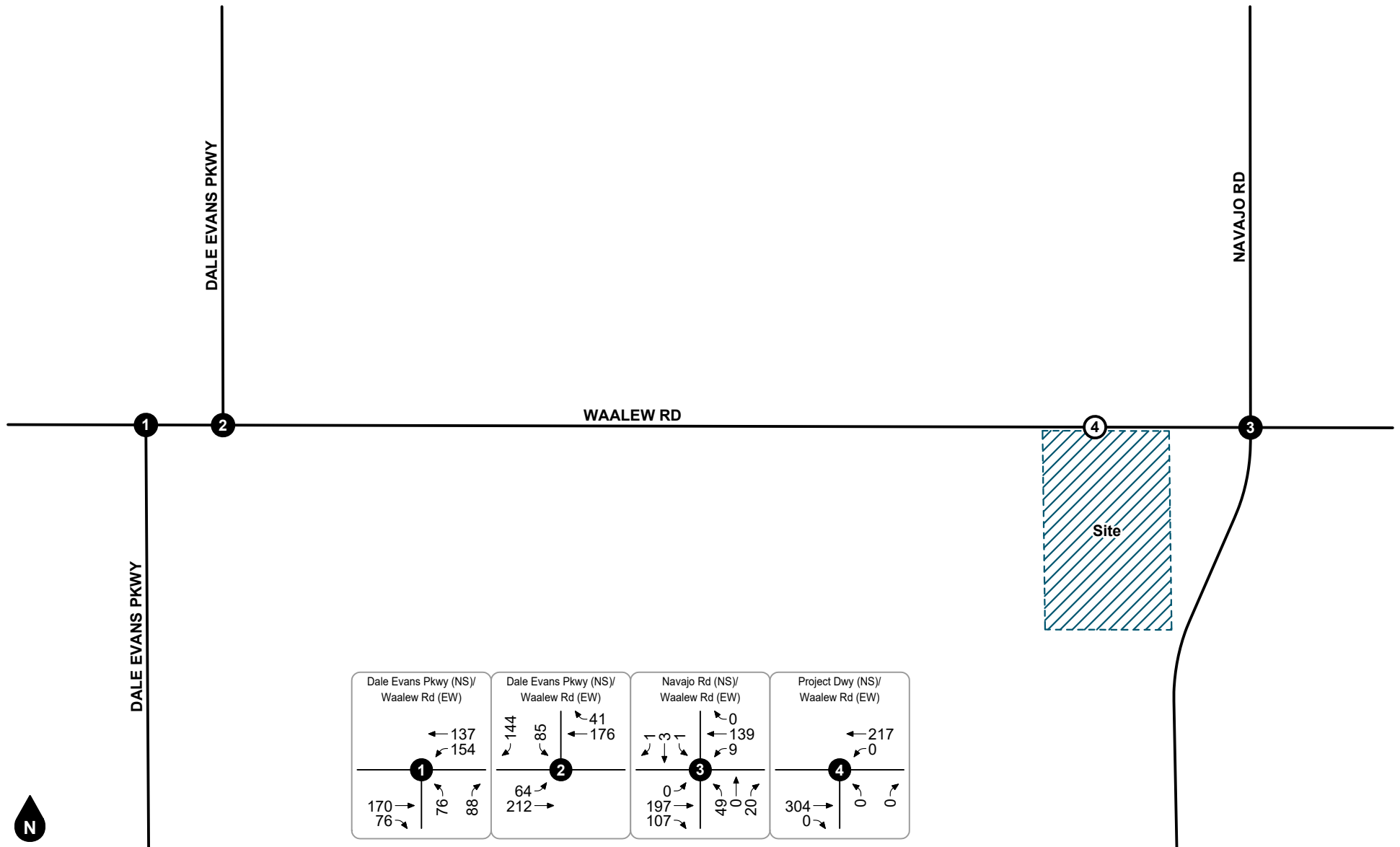
Figure 12
Existing Average Daily Traffic Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 13
Existing AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 14
Existing PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated in the figures contained in this section.

TRIP GENERATION

TRUCK-TRAILER PARKING FACILITY

Since the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) does not include trip generation data for truck trailer parking facilities, trip generation rates for the proposed project were obtained vehicle counts conducted at comparable facilities. The trip generation analysis derived trip generation rates from counts of five existing truck trailer parking facilities. Based on the observed trip counts, trip generation rates for the following vehicle classifications were calculated per acre. Trip count worksheets and trip generation calculations for a truck-trailer parking lot are provided in the scoping agreement (see Appendix B).

Truck Trips

The project trip generation was also calculated in terms of Passenger Car Equivalent (PCE) trips. Truck trips were converted to PCE trips based on the PCE factors as recommended in the County of San Bernardino Congestion Management Program: 1.5 for 2-axle light-duty trucks, 2.0 for 3-axle medium-duty trucks, and 3.0 for 4+-axle heavy-duty trucks.

Project Trips

Table 2 shows the proposed project trip generation forecast is based on average rates developed from trip count surveys of similar facilities. As shown in Table 2, the project is estimated to generate approximately 666 daily vehicle trips, including 33 vehicle trips during the AM peak hour and 43 vehicle trips during the PM peak hour, which equates to approximately 1,240 daily PCE trips, including 60 PCE trips during the AM peak hour and 75 PCE trips during the PM peak hour.

PROJECT TRIP DISTRIBUTION & ASSIGNMENT

Figure 15 to Figure 18 show the forecast outbound and inbound directional distribution patterns for the project generated trips, respectively. The project trip distribution patterns were developed using engineering judgment in consultation with the Town engineering staff based on a review of existing traffic data, surrounding land uses, and the local and regional roadway facilities in the project vicinity.

Based on the identified project trip generation and distributions, the project-generated average daily traffic volumes are shown on Figure 19. The project-generated AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 20 and Figure 21.

Table 2
Project Trip Generation

Vehicle Type	Quantity ¹	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Trip Generation Rates ²	per AC							
Passenger Cars		0.486	0.313	0.799	0.509	0.733	1.243	17.272
2-Axle Trucks		0.136	0.124	0.260	0.260	0.000	0.260	3.947
3-Axle Trucks		0.129	0.454	0.582	0.395	0.275	0.670	10.749
4+ Axle Trucks		0.225	0.309	0.534	0.397	0.292	0.689	13.011
<i>Total</i>		0.976	1.200	2.176	1.561	1.300	2.861	44.979
Vehicle Trips Generated	14.81 AC							
Passenger Cars		7	5	12	8	11	19	256
2-Axle Trucks		2	2	4	4	0	4	58
3-Axle Trucks		2	7	9	6	4	10	159
4+ Axle Trucks		3	5	8	6	4	10	193
<i>Total</i>		14	19	33	24	19	43	666
PCE Trips Generated	PCE Factors ³							
Passenger Cars	1.0 PCE	7	5	12	8	11	19	256
2-Axle Trucks	1.5 PCE	3	3	6	6	0	6	87
3-Axle Trucks	2.0 PCE	4	14	18	12	8	20	318
4+ Axle Trucks	3.0 PCE	9	15	24	18	12	30	579
<i>Total</i>		23	37	60	44	31	75	1,240

Notes:

1. AC = Acre(s)
2. Source: Trip generation surveys conducted at five existing trailer storage facilities in Southern California; see Appendix B.
3. PCE = Passenger Car Equivalent.

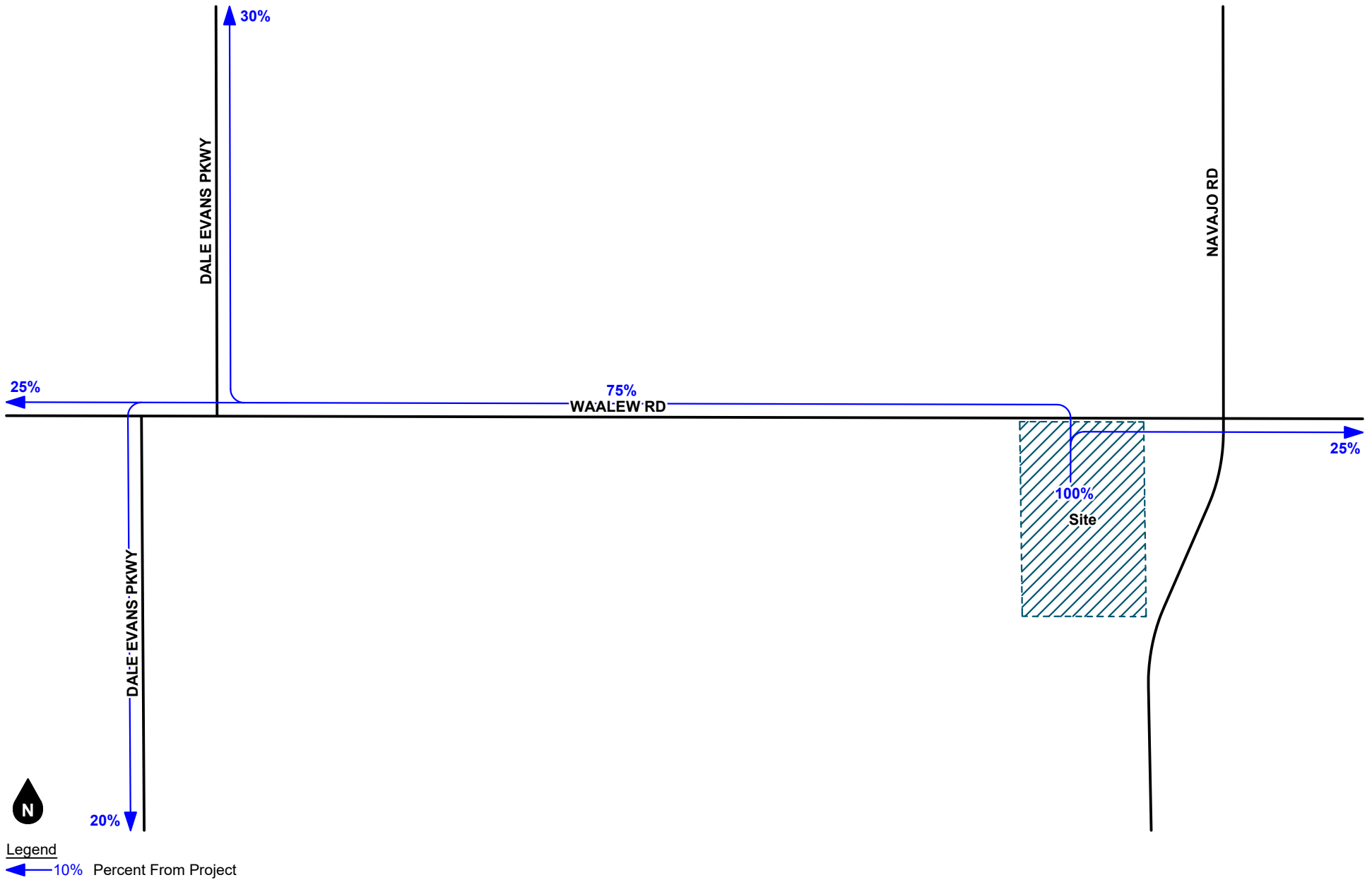


Figure 15
Project Trip Distribution (Outbound) - Trucks

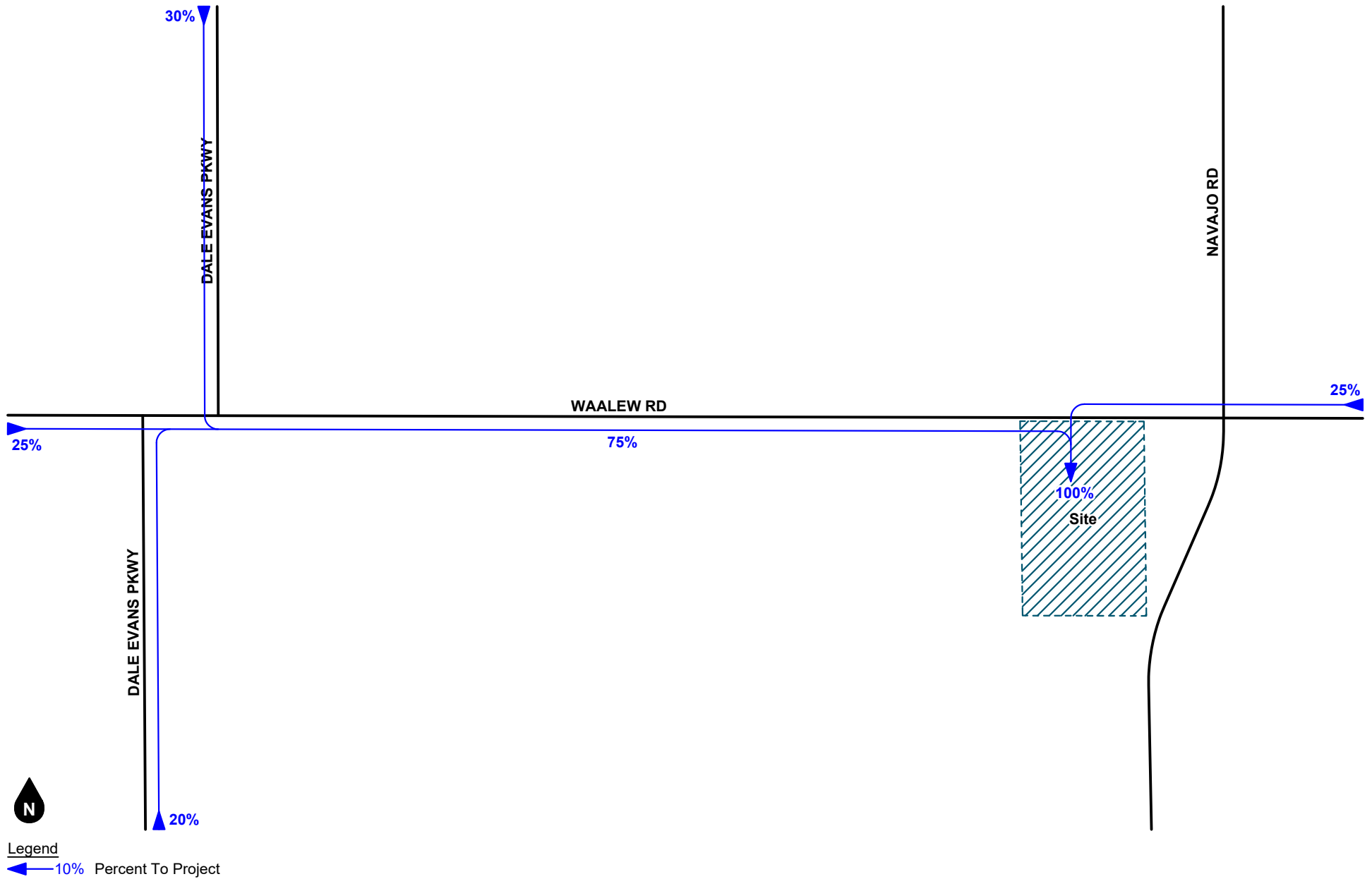


Figure 16
Project Trip Distribution (Inbound) - Trucks

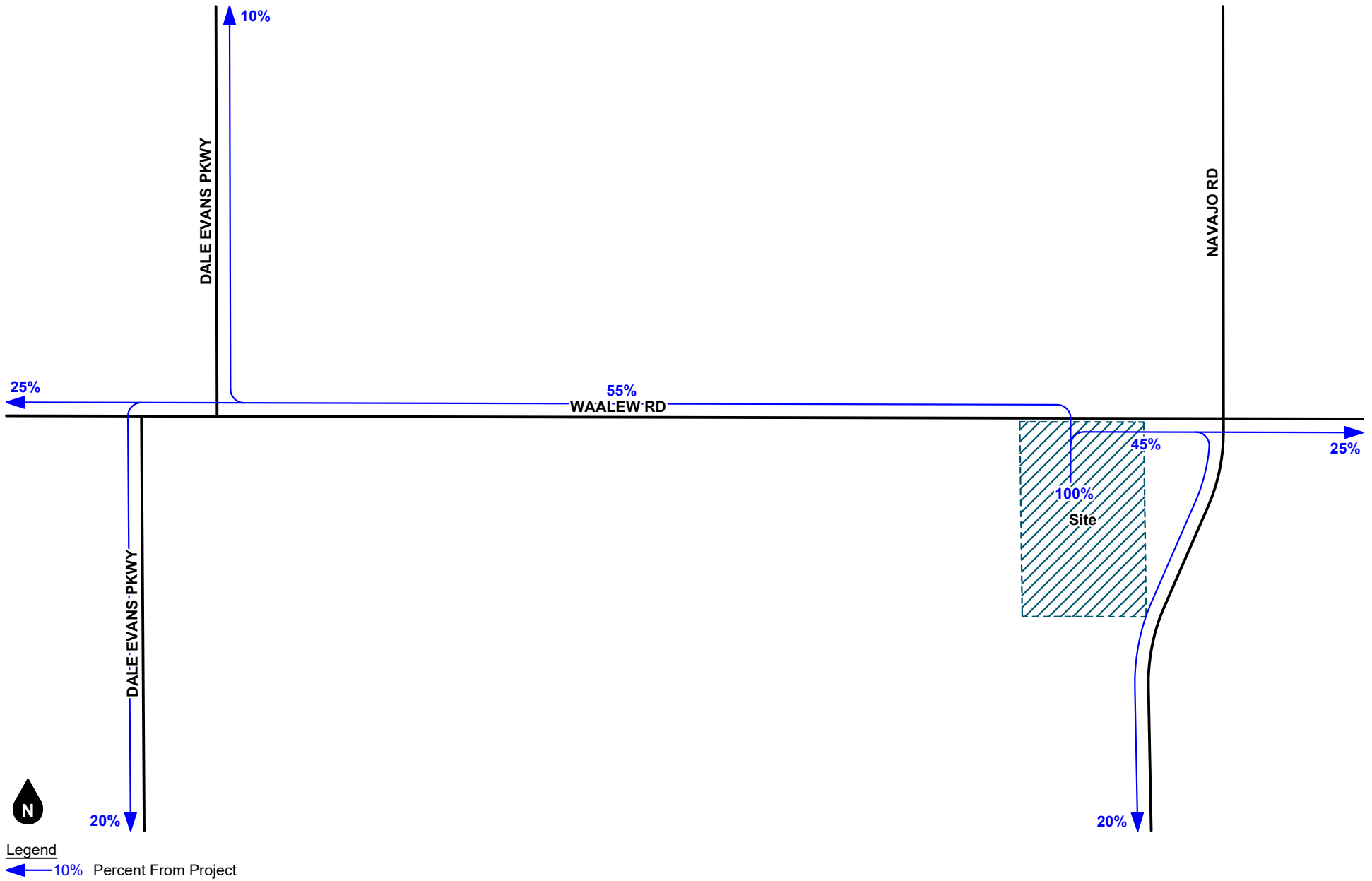


Figure 17
Project Trip Distribution (Outbound) - Employee / Visitor

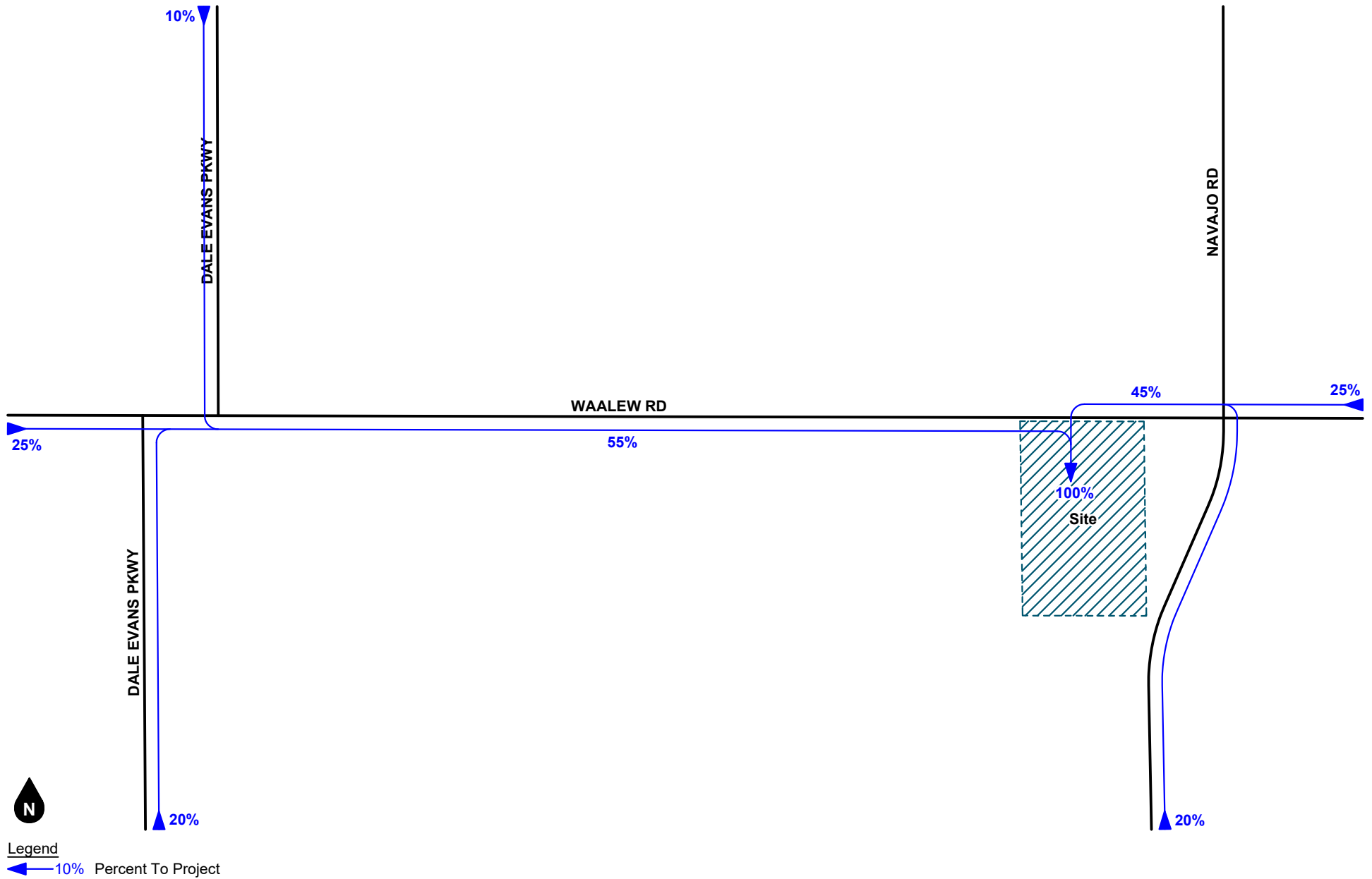


Figure 18
Project Trip Distribution (Inbound) - Employee / Visitor

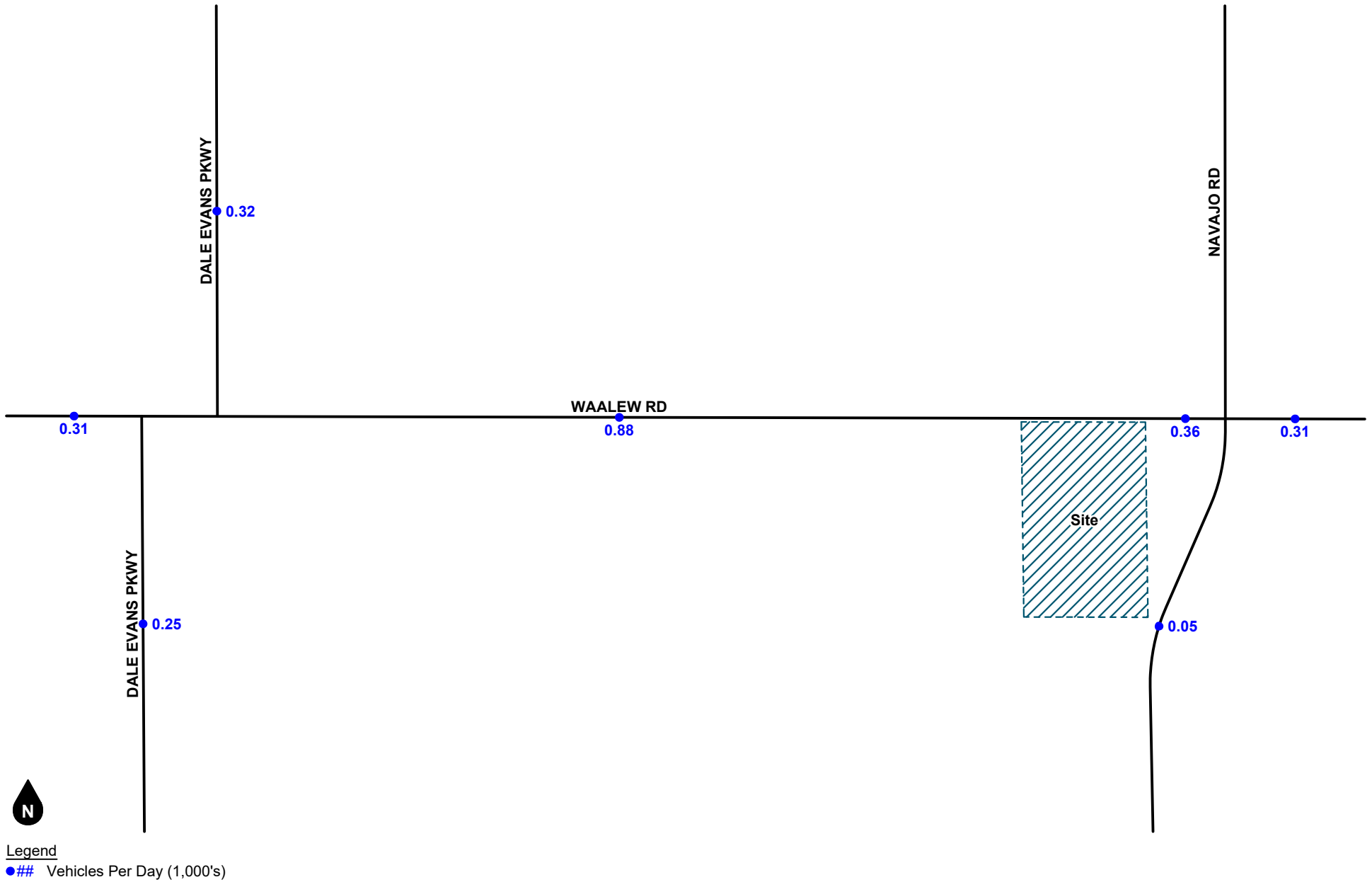
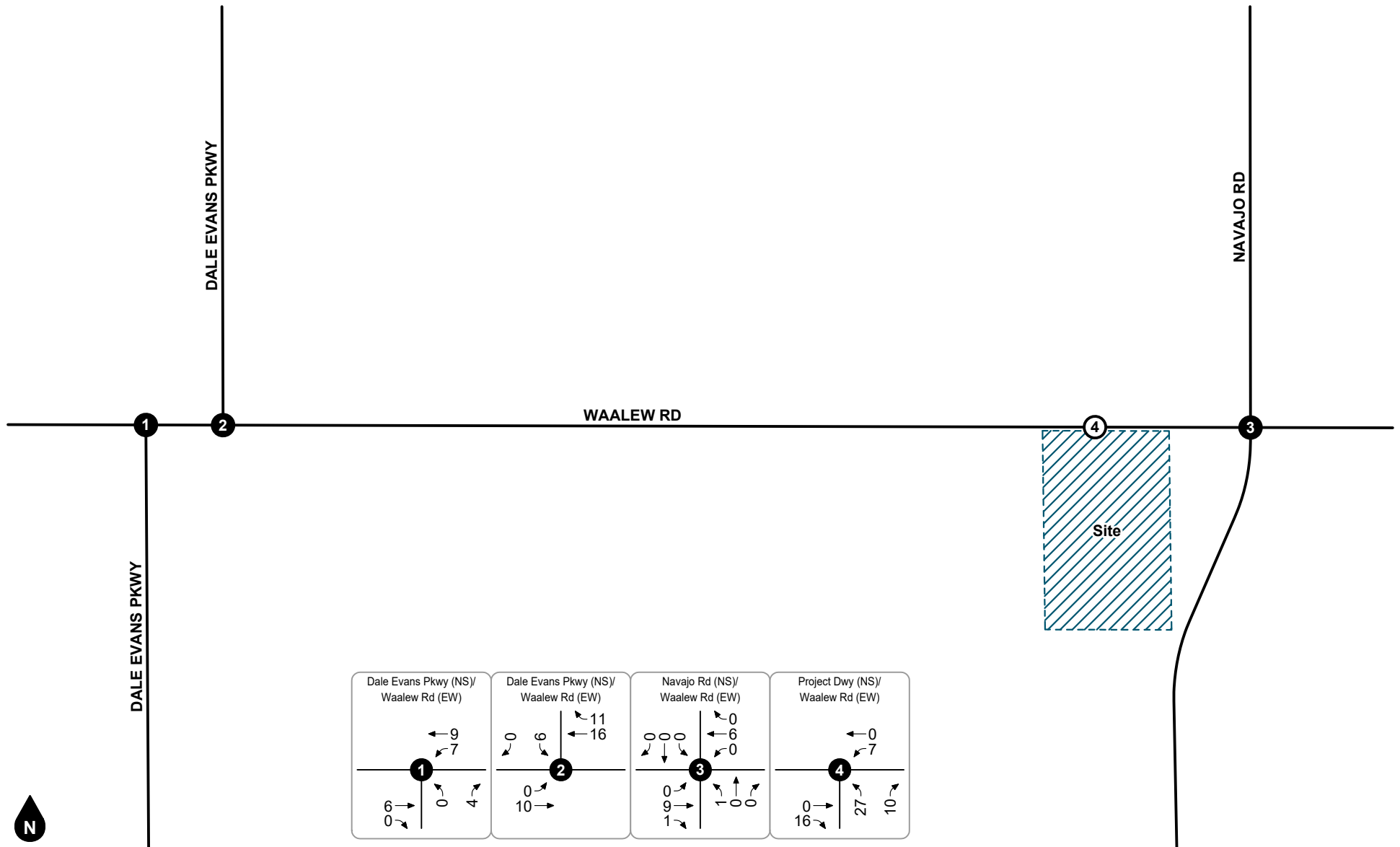


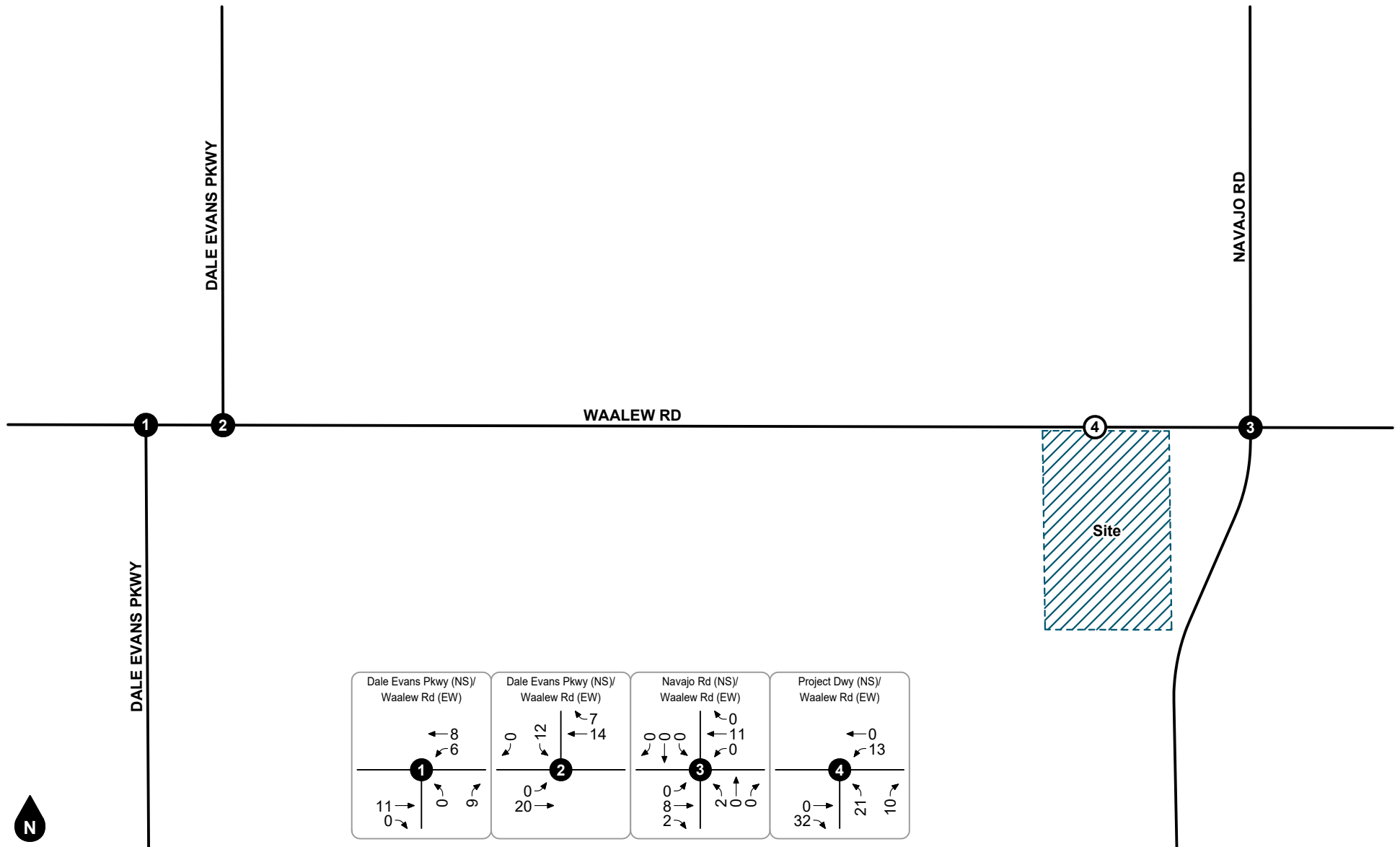
Figure 19
Project Average Daily Traffic Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 20
Project AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

Project Driveway

Figure 21
Project PM Peak Hour Intersection Turning Movement Volumes

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated in the figures contained in this section.

METHOD OF PROJECTION

To assess future conditions, existing volumes were combined with project trips, ambient growth, and other development trips. The project completion date for analysis purposes in this report is 2026.

Ambient Growth

To account for ambient growth, Opening Year (2026) roadway volumes were developed by increasing existing (year 2024) volumes by a growth rate of two percent (2.0%) per year over a two (2) year period for a total growth factor of 1.04. The ambient growth was applied to all movements at the study intersections.

Other Developments

To account for growth associated with other development projects, trips generated by other pending or approved but unconstructed developments in the Town of Apple Valley were reviewed and added to the study area as appropriate. The other development trip generation is shown in Table 3. The regional ambient growth is assumed to account for any additional trips generated by other developments not specifically listed in Table 3. Figure 22 shows the other development location map.

Average daily traffic volumes generated by other developments are shown on Figure 23. Figure 24 and Figure 25 show the forecast AM peak hour and PM peak hour intersection turning movement volumes for trips generated by other developments.

Regional Travel Demand Model Growth

Year 2040 AM and PM peak hour intersection turning movement volumes were determined using the San Bernardino County Transportation Analysis Model (SBTAM) Year 2040 travel demand model plots and forecasting procedures outlined in the National Cooperative Highway Research Program Report 255.

To derive AM and PM peak hour intersection turning movement volumes, the traffic volume growth forecasts were further refined using a spreadsheet program developed by the Federal Highway Administration and consistent with traffic volume forecasting procedures outlined in the National Cooperative Highway Research Program Report 255. The spreadsheet program uses a linear programming algorithm to calculate future turning movements based on the relationship of existing intersection turning movements and forecast model growth. The forecast turning movements developed by the spreadsheet program were reviewed for reasonableness and adjusted as necessary to ensure growth over near-term forecasts. The end results of the post-processing procedures are future intersection turning movement volumes suitable for analysis. Travel demand model post-processing worksheets are provided in Appendix E.

ANALYSIS SCENARIO VOLUMES

Existing Plus Project

The Existing Plus Project volume forecast was developed by adding project-generated trips to existing volumes. Existing Plus Project average daily traffic volumes are shown on Figure 26. Existing Plus Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 27 and Figure 28.

Opening Year (2026) Without Project

The Opening Year (2026) Without Project volume forecast was developed by applying the ambient growth factor to existing volumes and adding trips generated by other developments. Opening Year (2026) Without Project average daily traffic volumes are shown on Figure 29. Opening Year (2026) Without Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 30 and Figure 31.

Opening Year (2026) With Project

The Opening Year (2026) With Project volume forecast was developed by adding project-generated trips to the Opening Year (2026) Without Project volumes. Opening Year (2026) With Project average daily traffic volumes are shown on Figure 32. Opening Year (2026) With Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 33 and Figure 34.

Year 2040 Without Project

The Year 2040 Without Project volume forecast was developed based on the regional travel demand model growth as described above. Year 2040 Without Project average daily traffic volumes are shown on Figure 35. Year 2040 Without Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 36 and Figure 37.

Year 2040 With Project

The Year 2040 With Project volume forecast was developed by adding project-generated trips to the Year 2040 Without Project volumes. Year 2040 With Project average daily traffic volumes are shown Figure 38. Year 2040 With Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 39 and Figure 40.

Table 3
Other Development Trip Generation

Trips Generated											
ID	Name/Address	Land Use	Source ¹	Quantity / Unit Variable ²	AM Peak Hour			PM Peak Hour			Daily
					In	Out	Total	In	Out	Total	
1	TTM 20306 SE of Corwin & Waalew	Single-Family Detached Housing	ITE 210	160 DU	28	84	112	95	55	150	1,509
2	Apple Valley Logistics Center NWC Central & Corwin	General Light Industrial	ITE 110	348.074 TSF							
		Cars		PCE	223	30	253	29	192	221	1,606
		Trucks		PCE	10	1	11	7	4	11	208
		HCW Cold Storage	ITE 157	348.074 TSF							
		Cars		PCE	24	2	26	6	24	30	475
		Trucks		PCE	11	17	28	14	14	28	624
		HCW Transload and Short-Term	ITE 154	2784.588 TSF							
		Cars		PCE	308	52	360	159	258	417	4,399
		Trucks		PCE	75	74	149	37	35	72	1,630
		Subtotal Cars			555	84	639	194	474	668	6,480
		Subtotal Trucks			96	92	188	58	53	111	2,462
		Subtotal			651	176	827	252	527	779	8,942

Notes:

1. ITE = *Institute of Transportation Engineers Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.
All rates based on General Urban/Suburban setting.
2. DU = Dwelling Units; TSF = Thousand Square Feet; PCE = passenger car equivalents.
3. PCE = passenger car equivalent. PCE factors are based on the *County of San Bernardino Congestion Management Program (2016 Update)*.

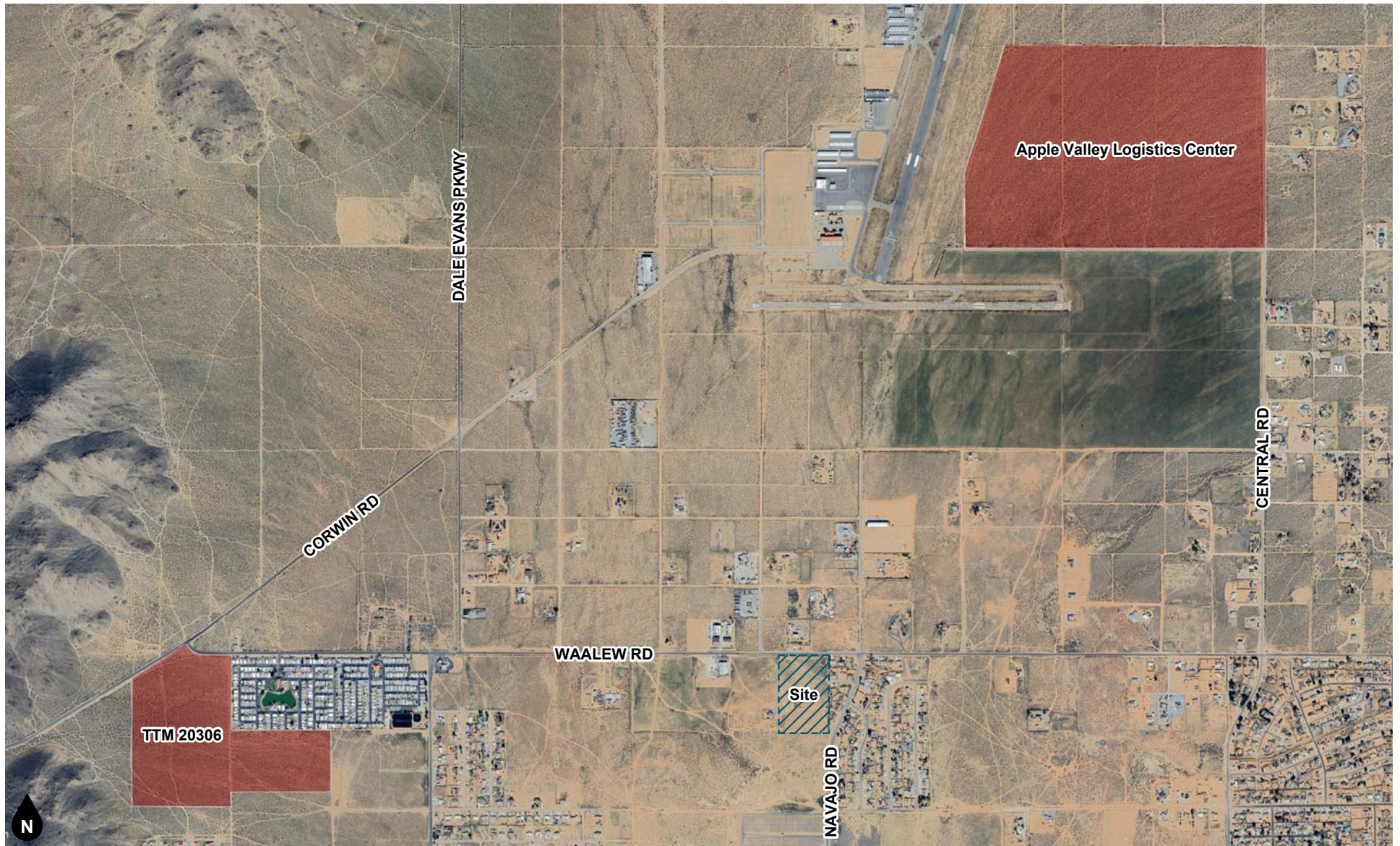


Figure 22
Other Development Location Map

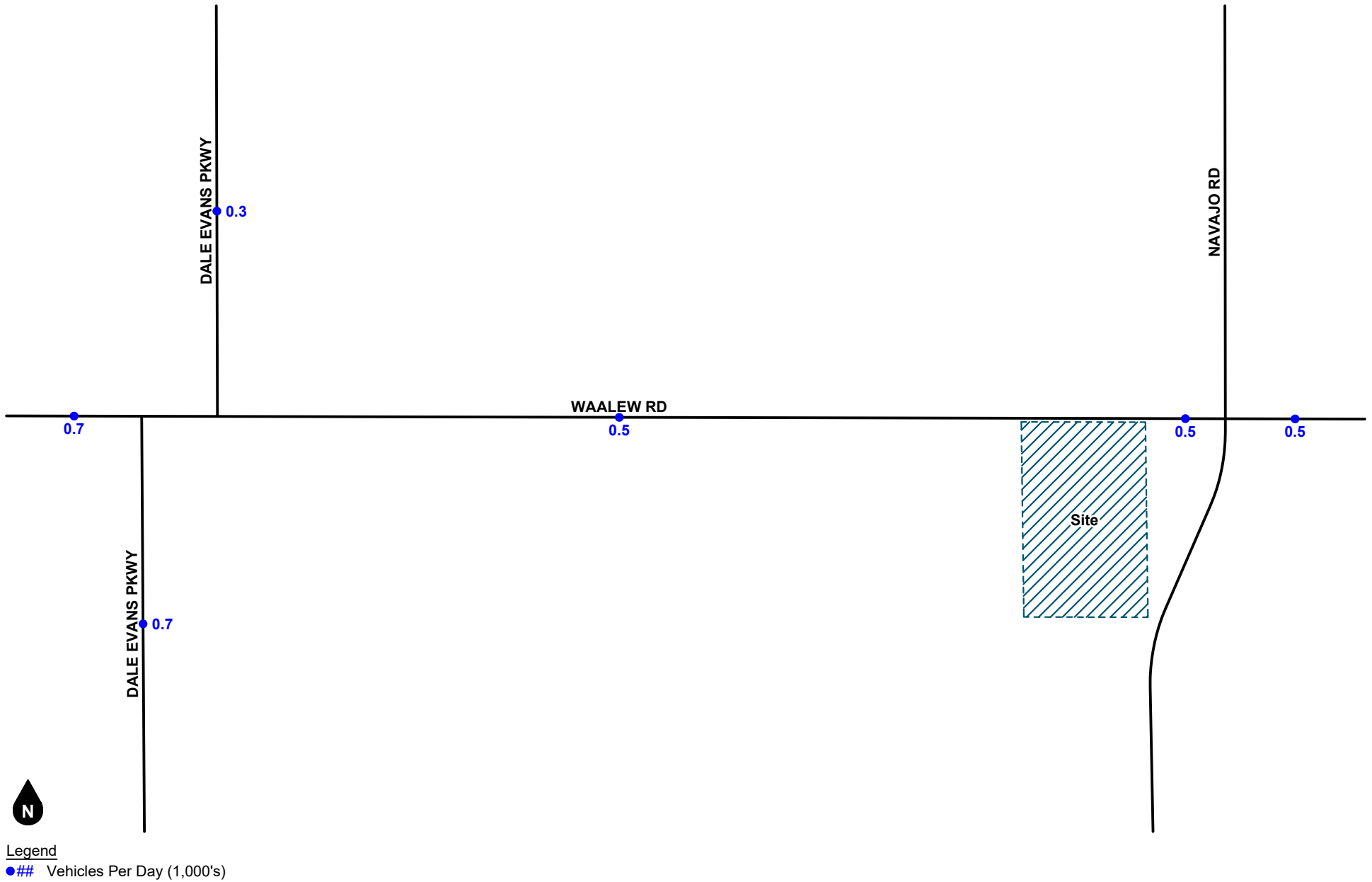
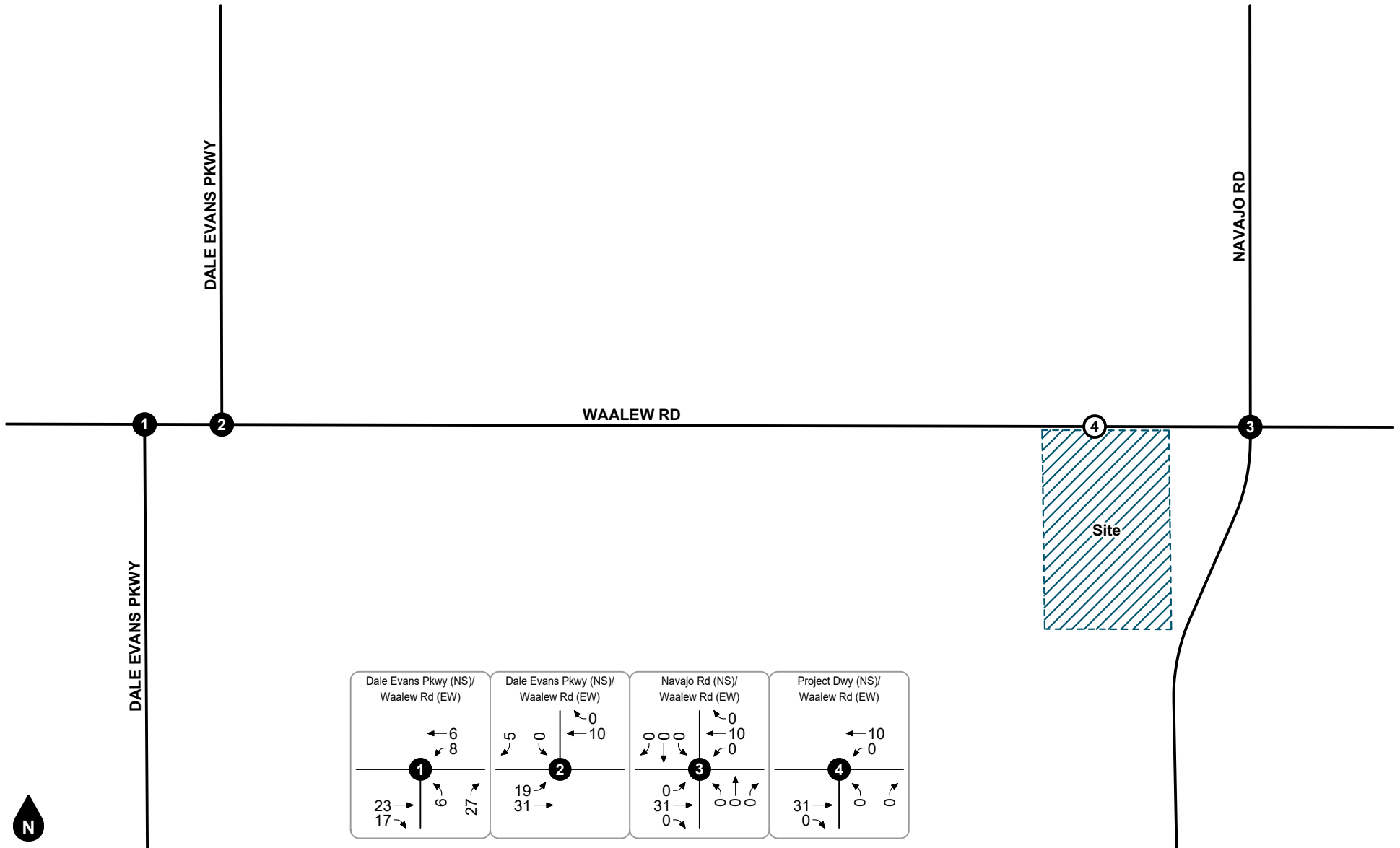


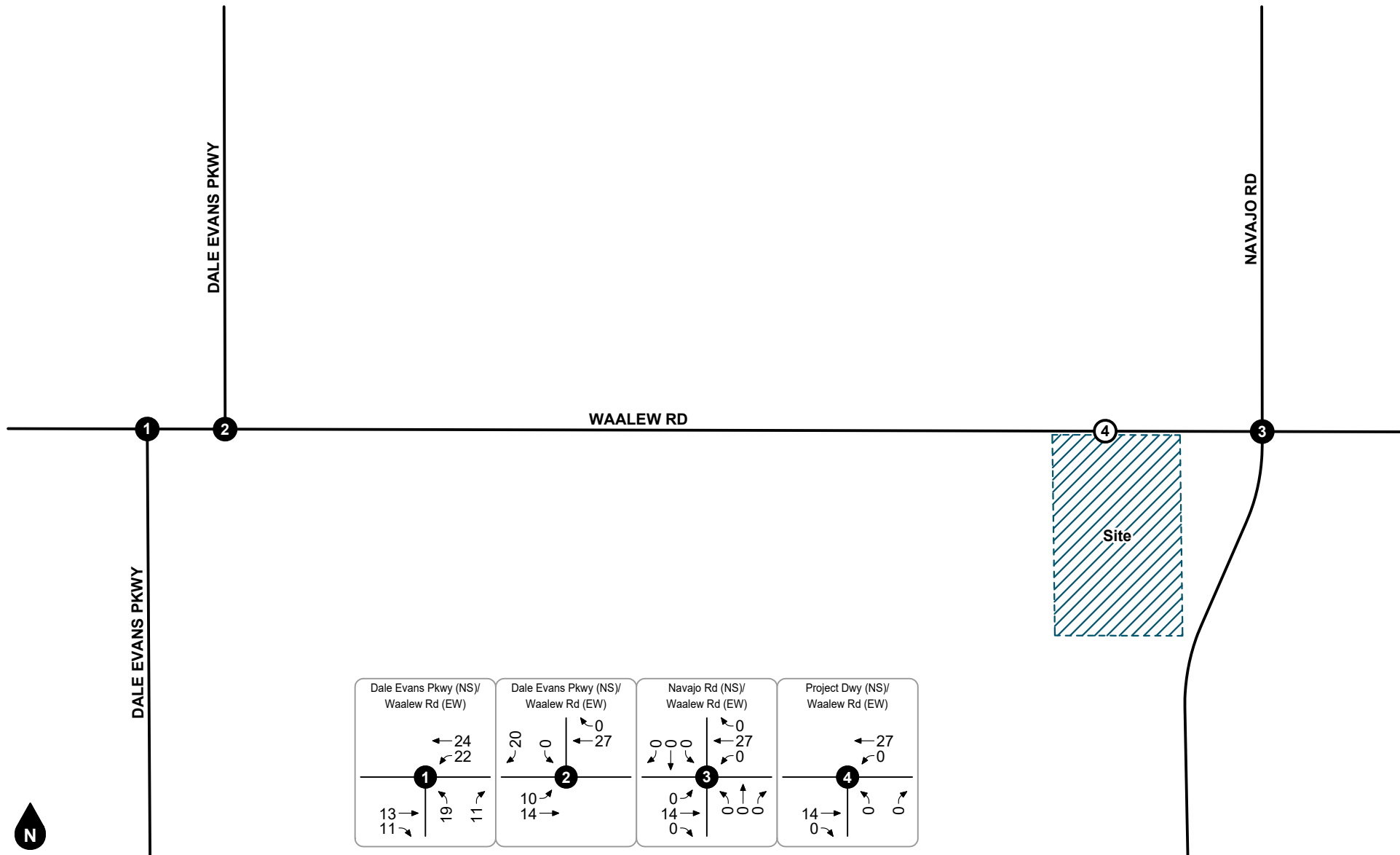
Figure 23
Other Development Average Daily Traffic Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 24
Other Development
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 25
Other Development
PM Peak Hour Intersection Turning Movement Volumes

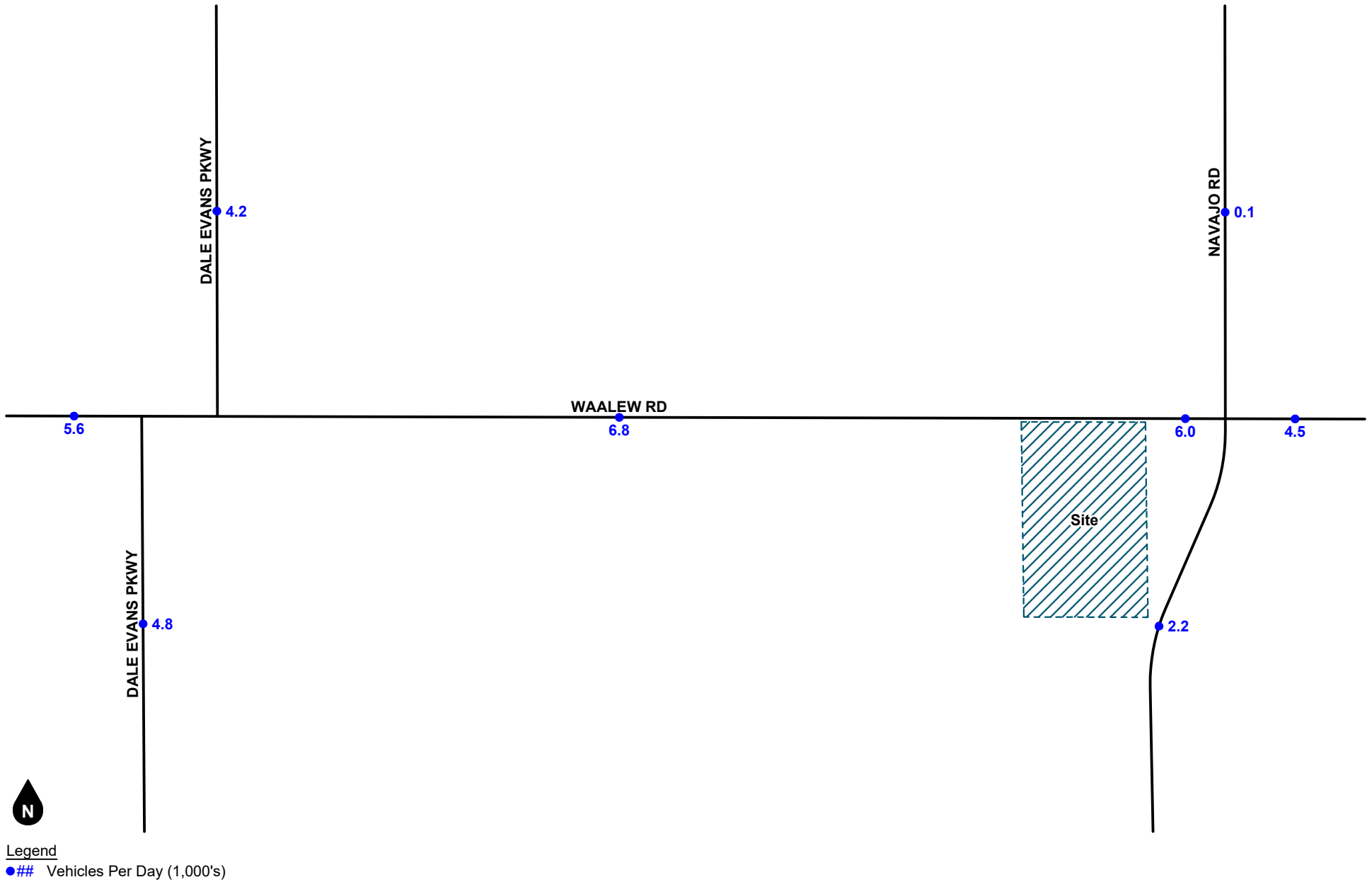
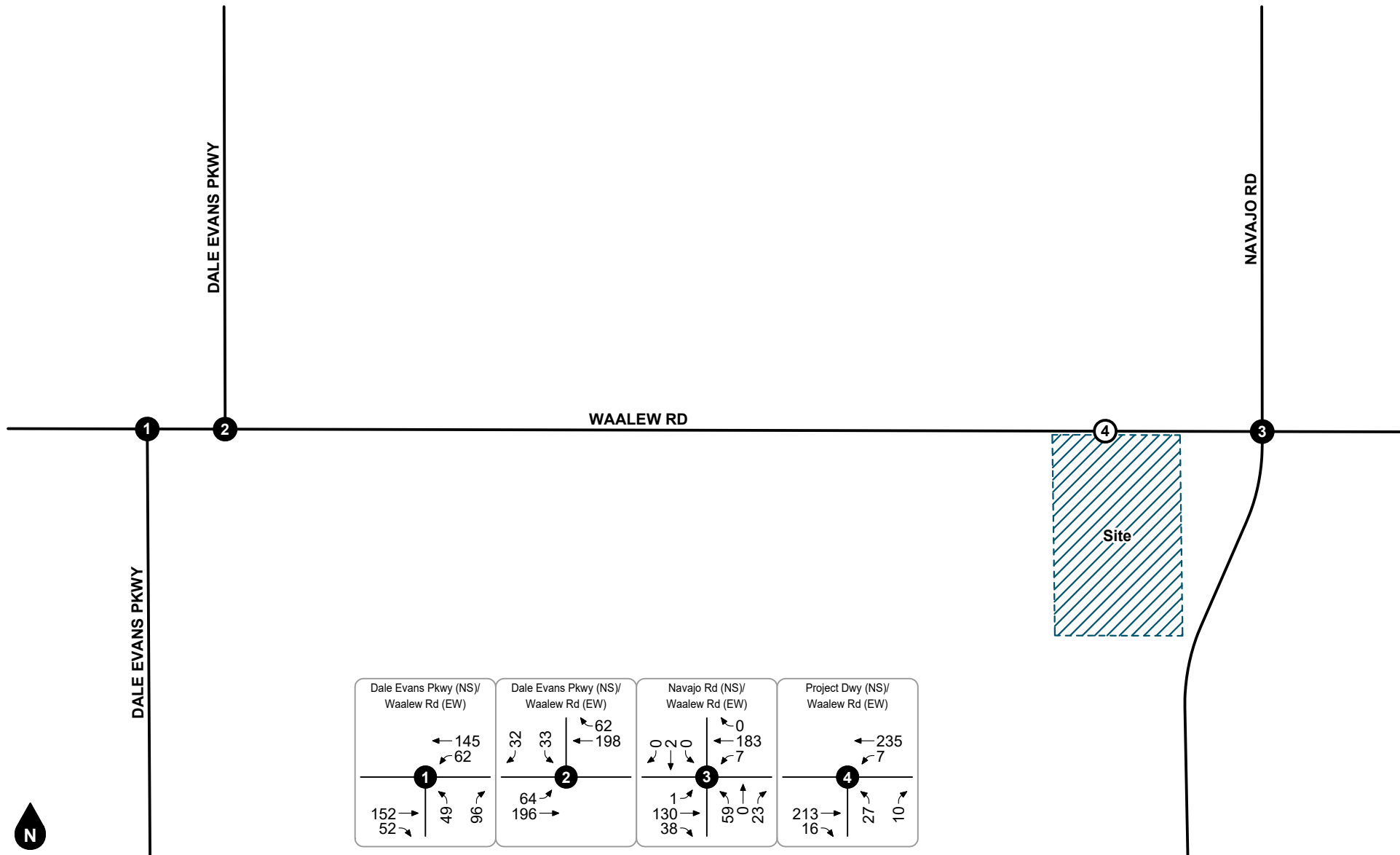
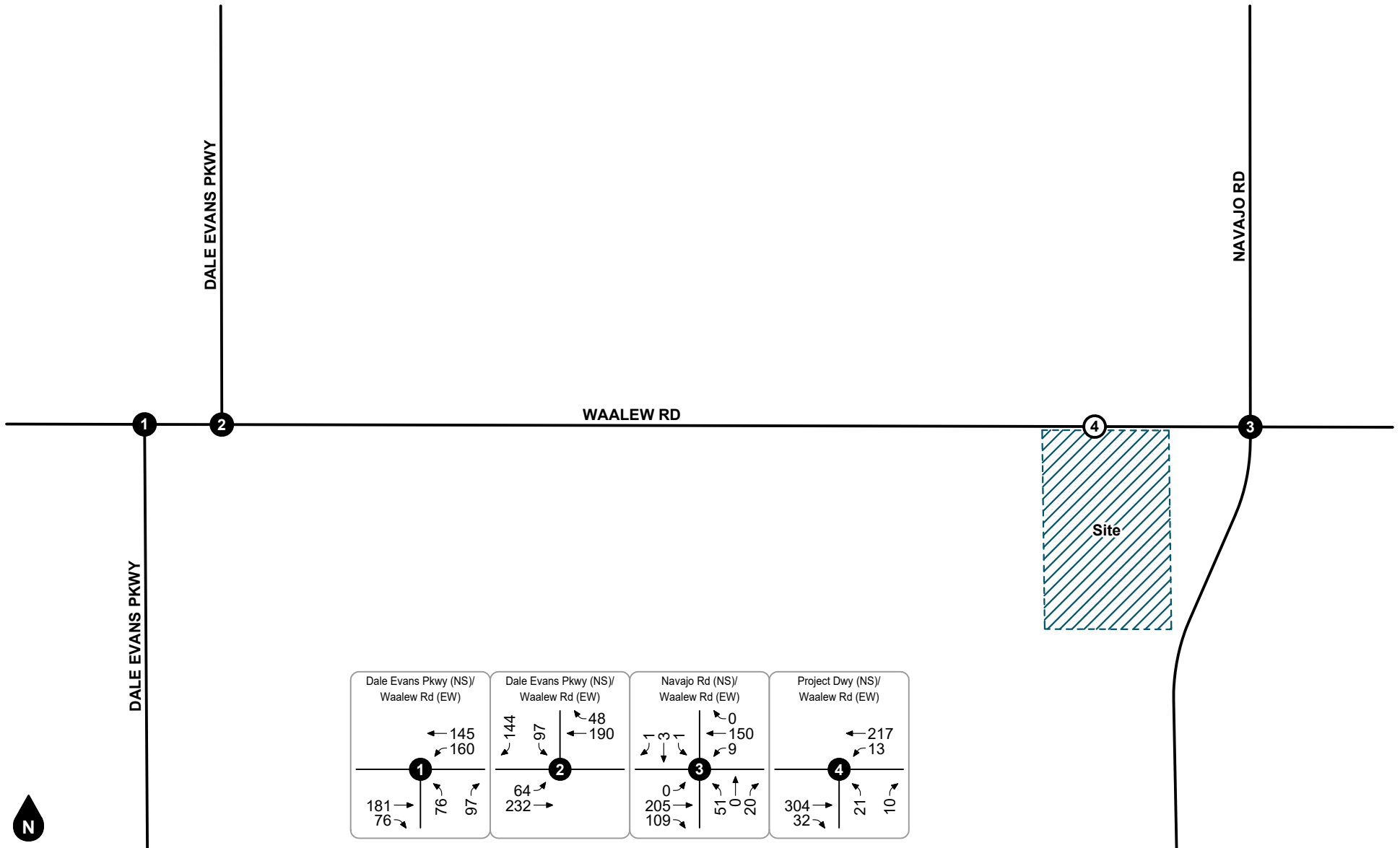


Figure 26
Existing Plus Project Average Daily Traffic Volumes



- Legend**
- # Study Intersection
 - # Project Driveway

Figure 27
Existing Plus Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 28
Existing Plus Project
PM Peak Hour Intersection Turning Movement Volumes

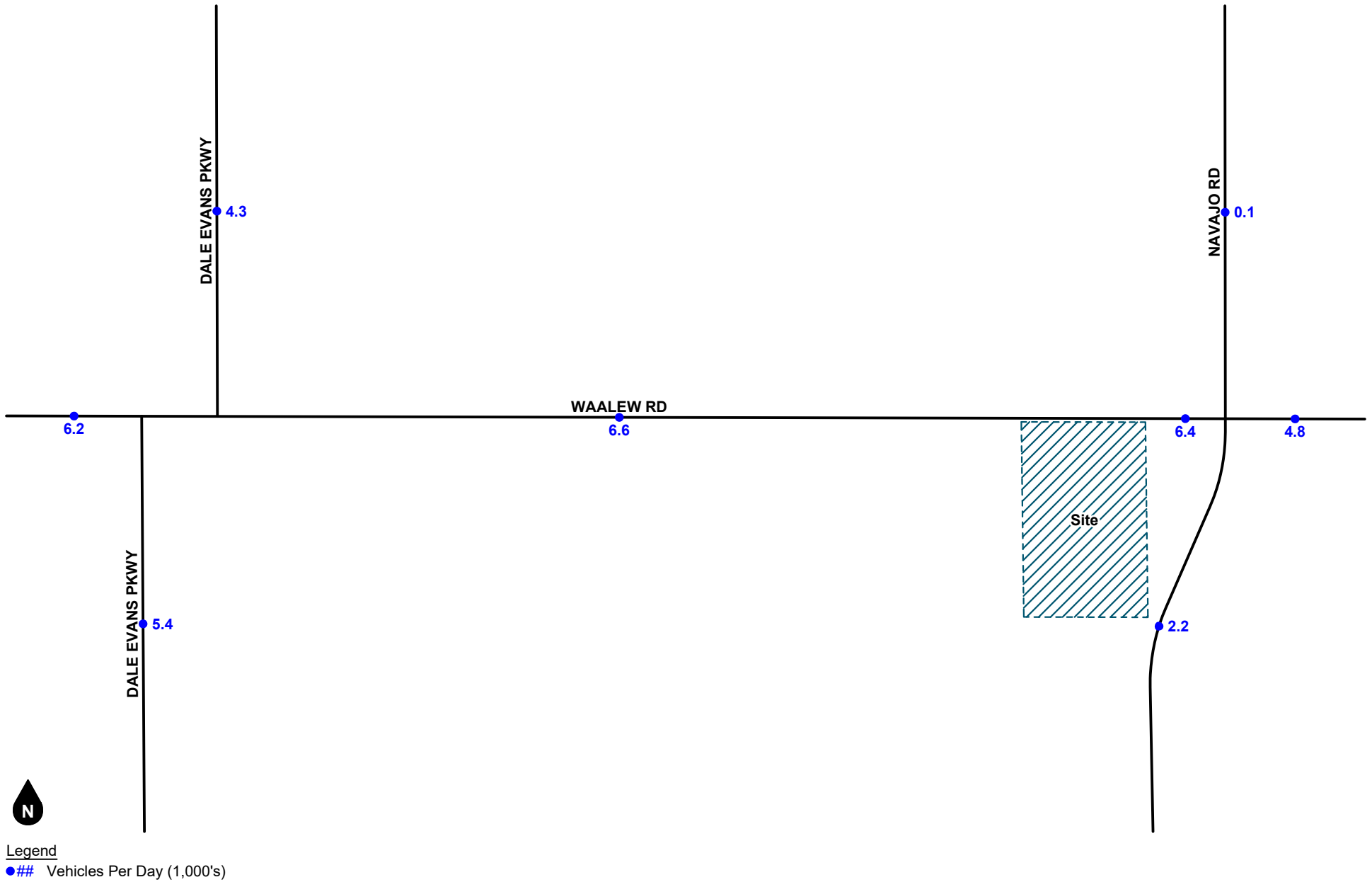
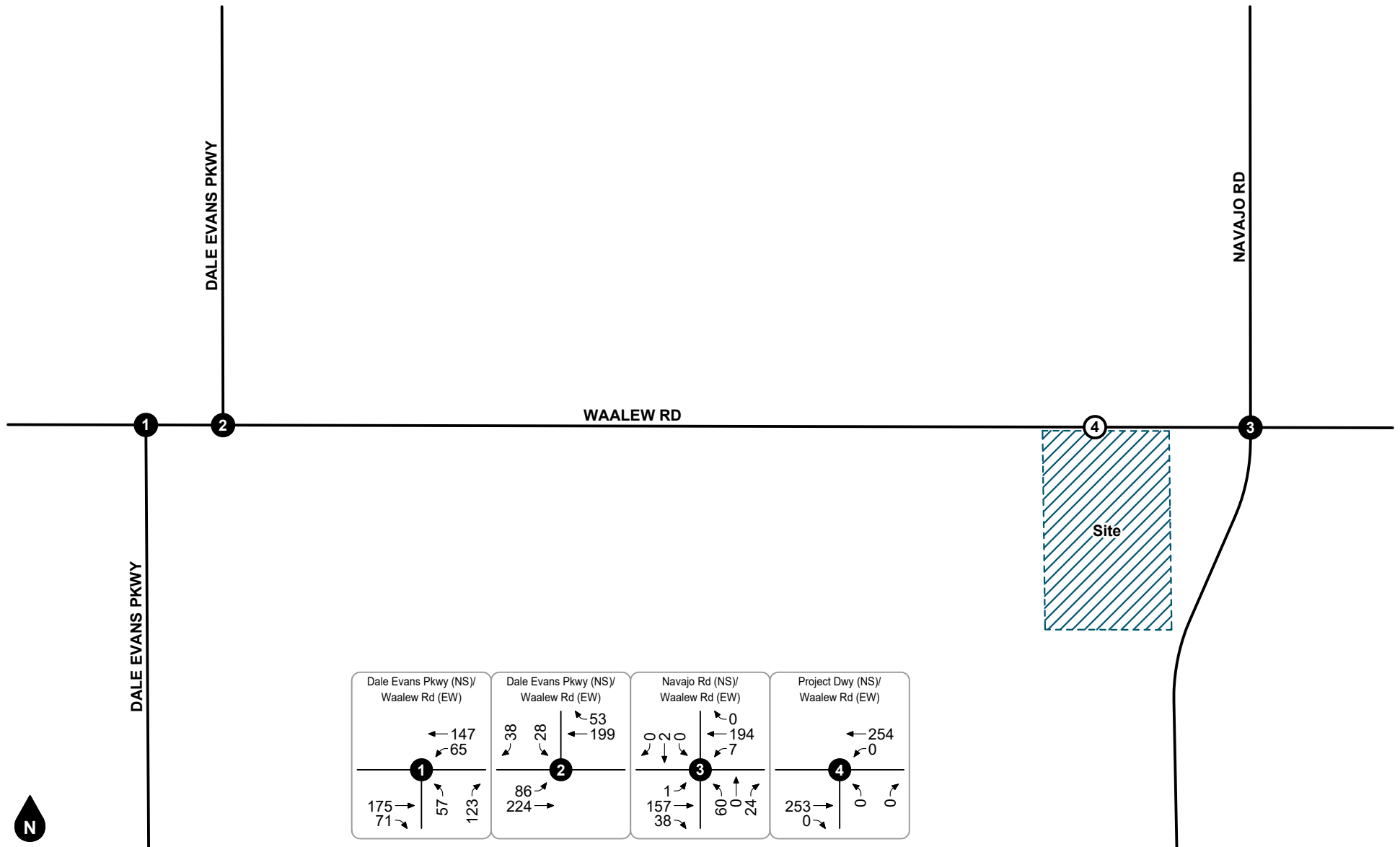


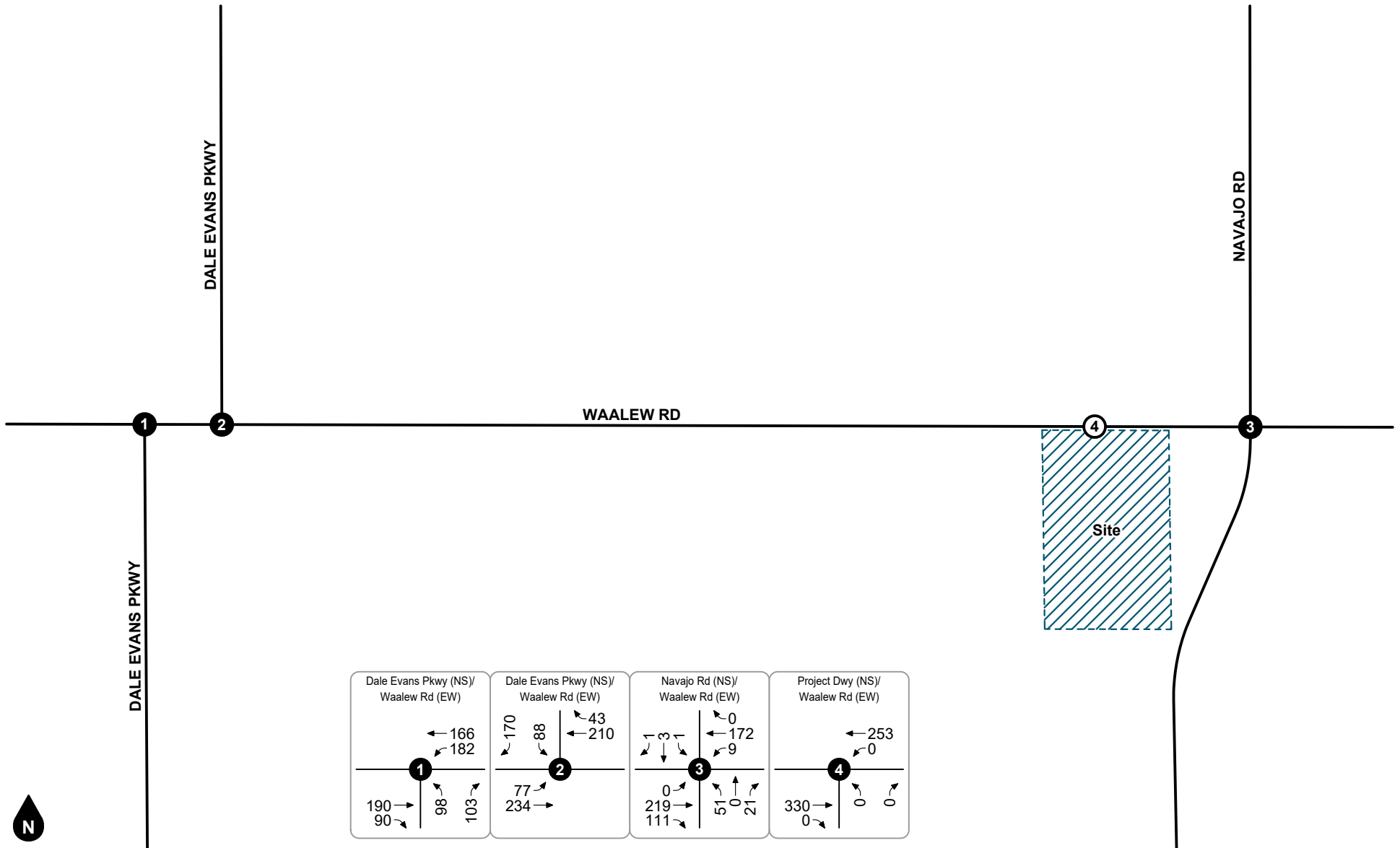
Figure 29
Opening Year (2026) Without Project Average Daily Traffic Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 30
Opening Year (2026) Without Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 31
Opening Year (2026) Without Project
PM Peak Hour Intersection Turning Movement Volumes

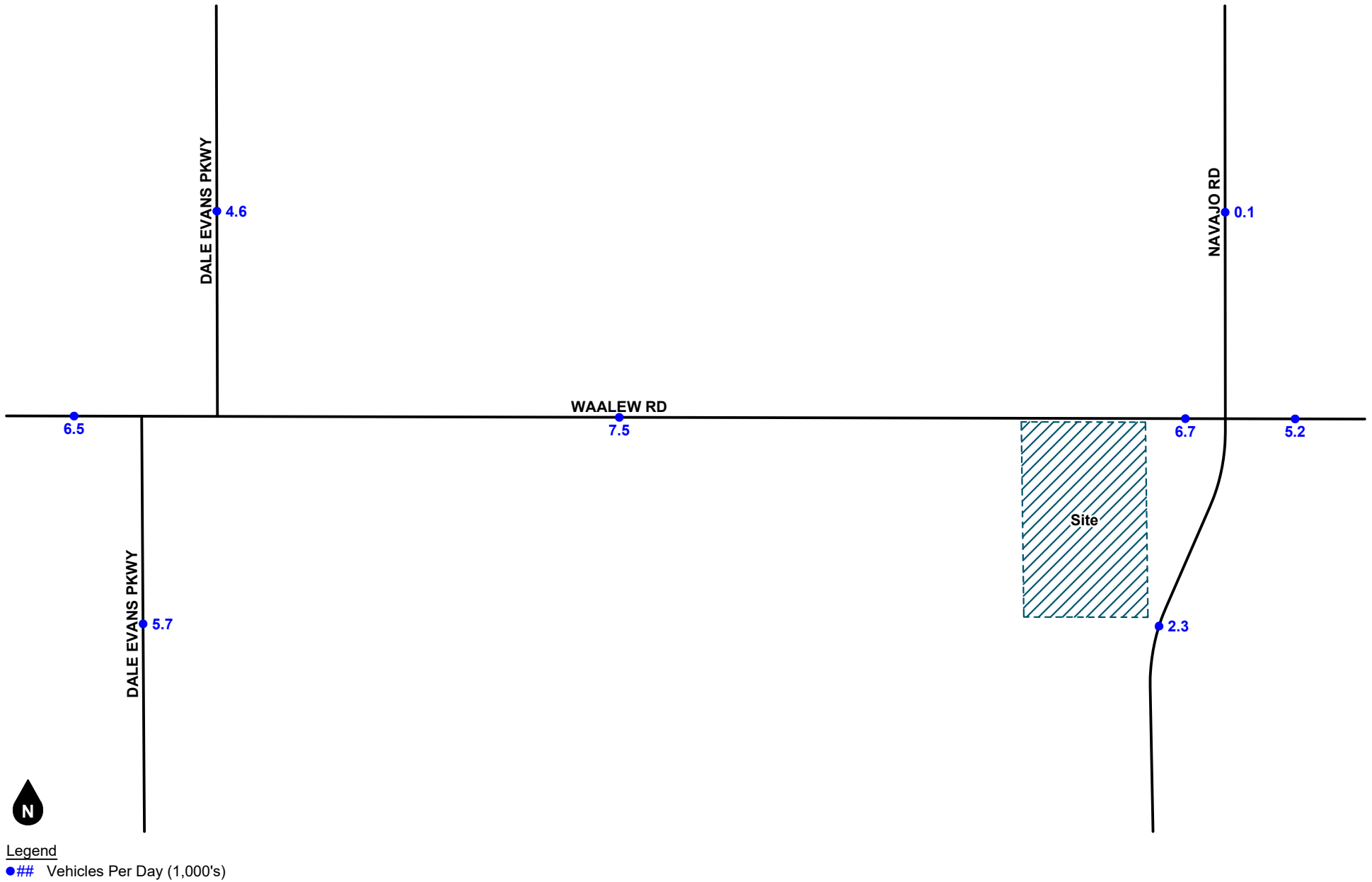
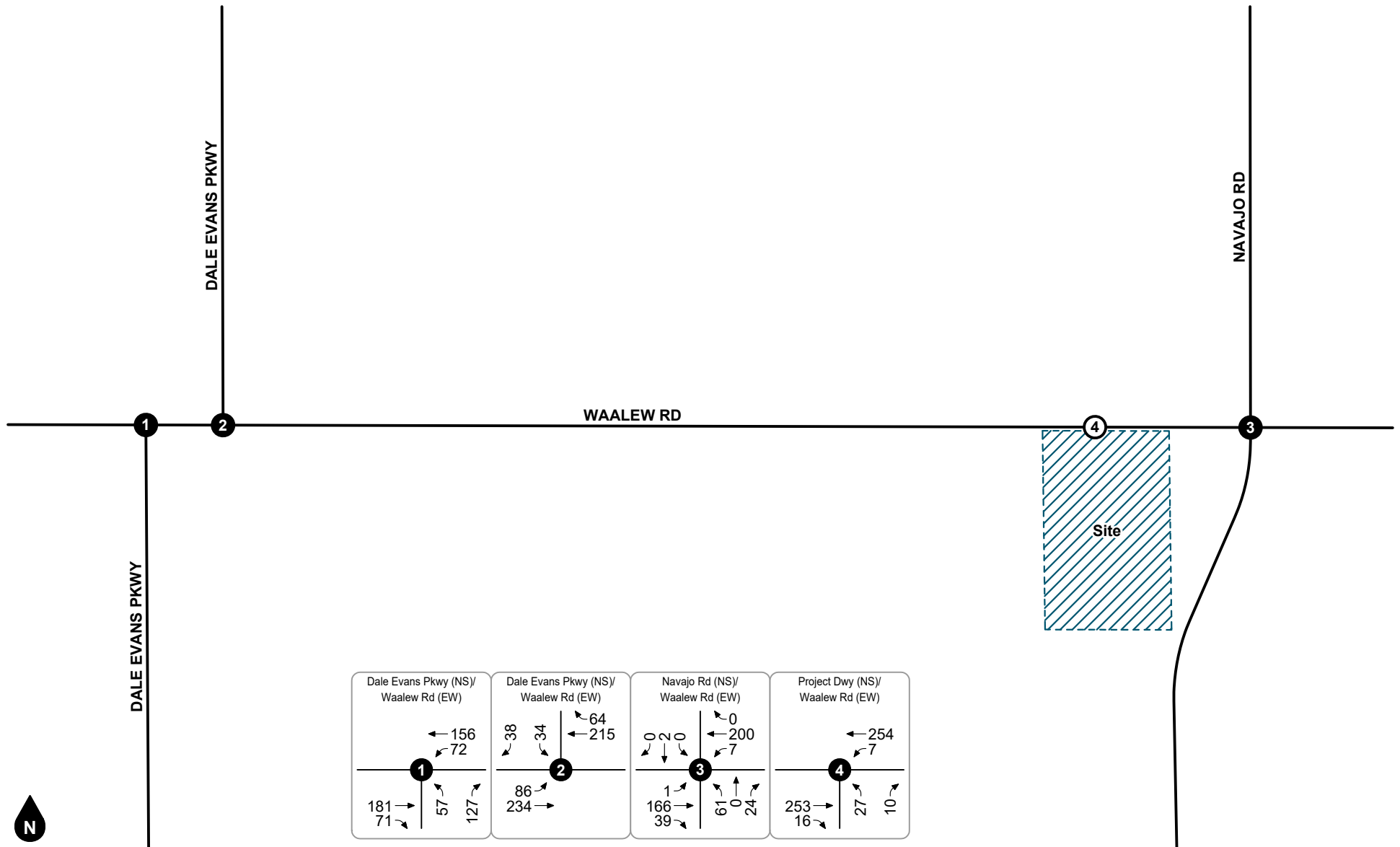


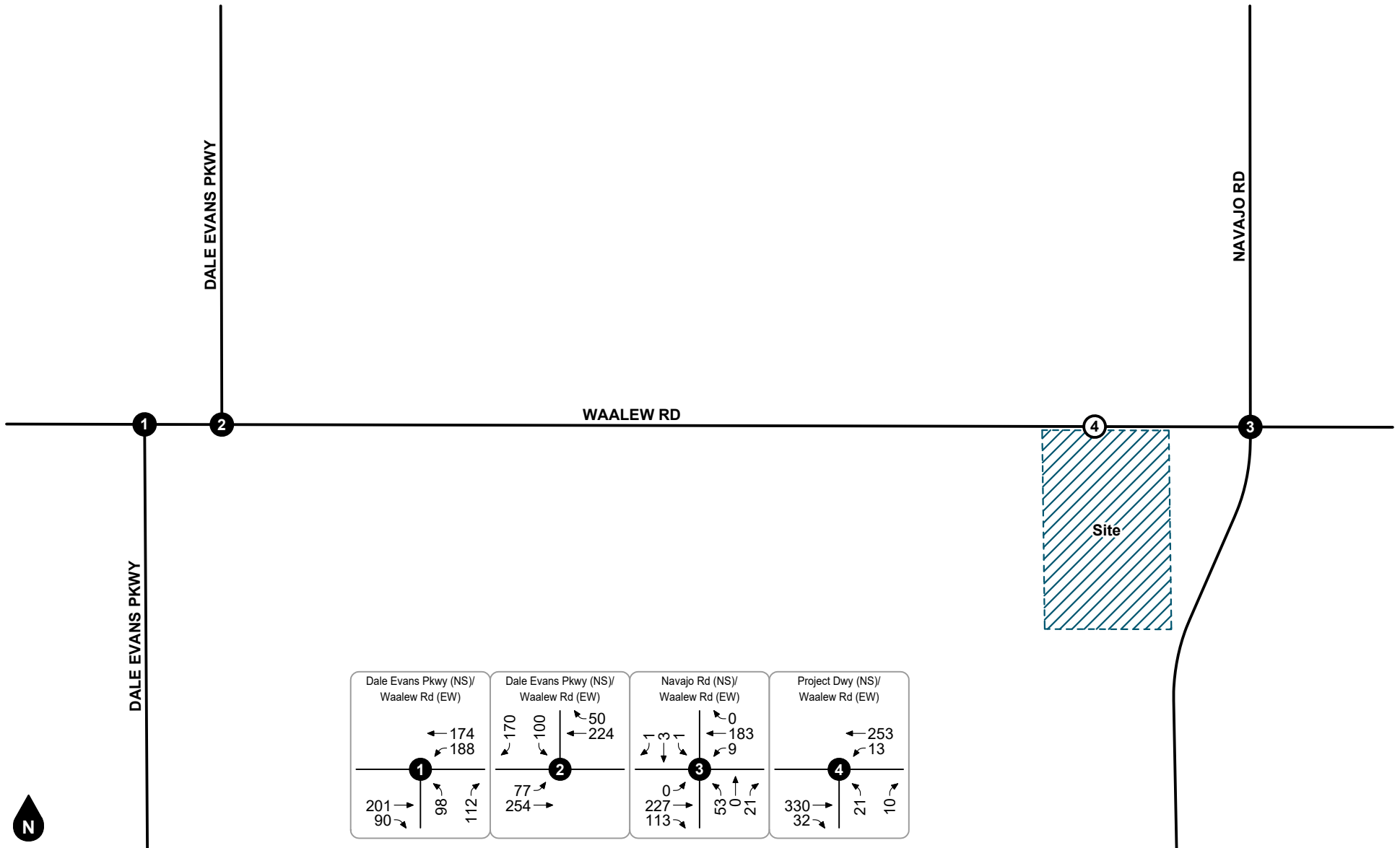
Figure 32
 Opening Year (2026) With Project Average Daily Traffic Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 33
Opening Year (2026) With Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 34
Opening Year (2026) With Project
PM Peak Hour Intersection Turning Movement Volumes

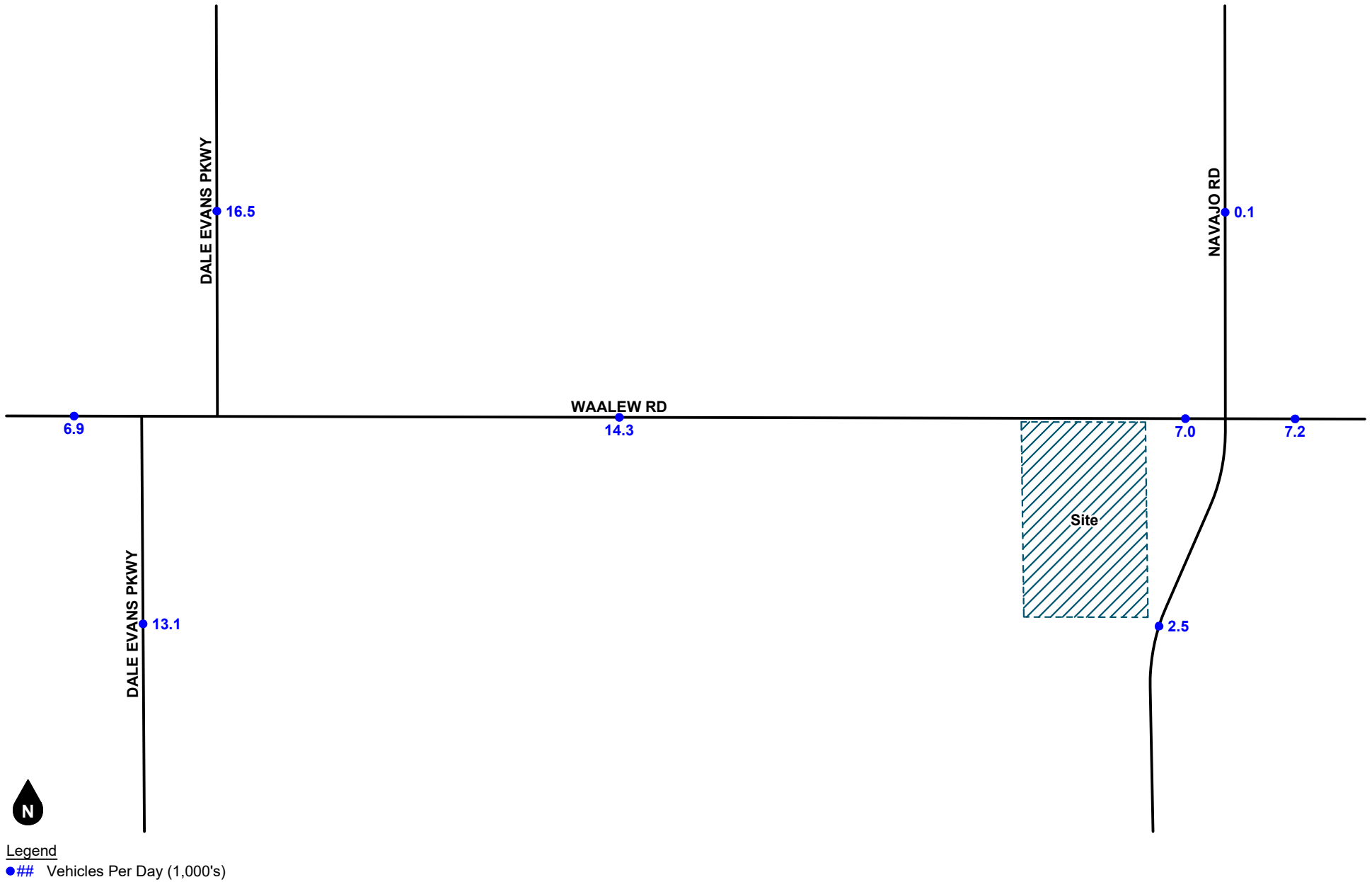
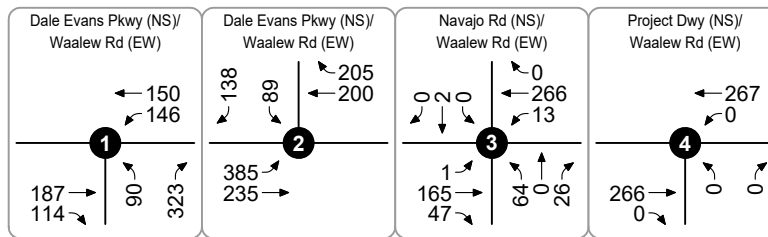
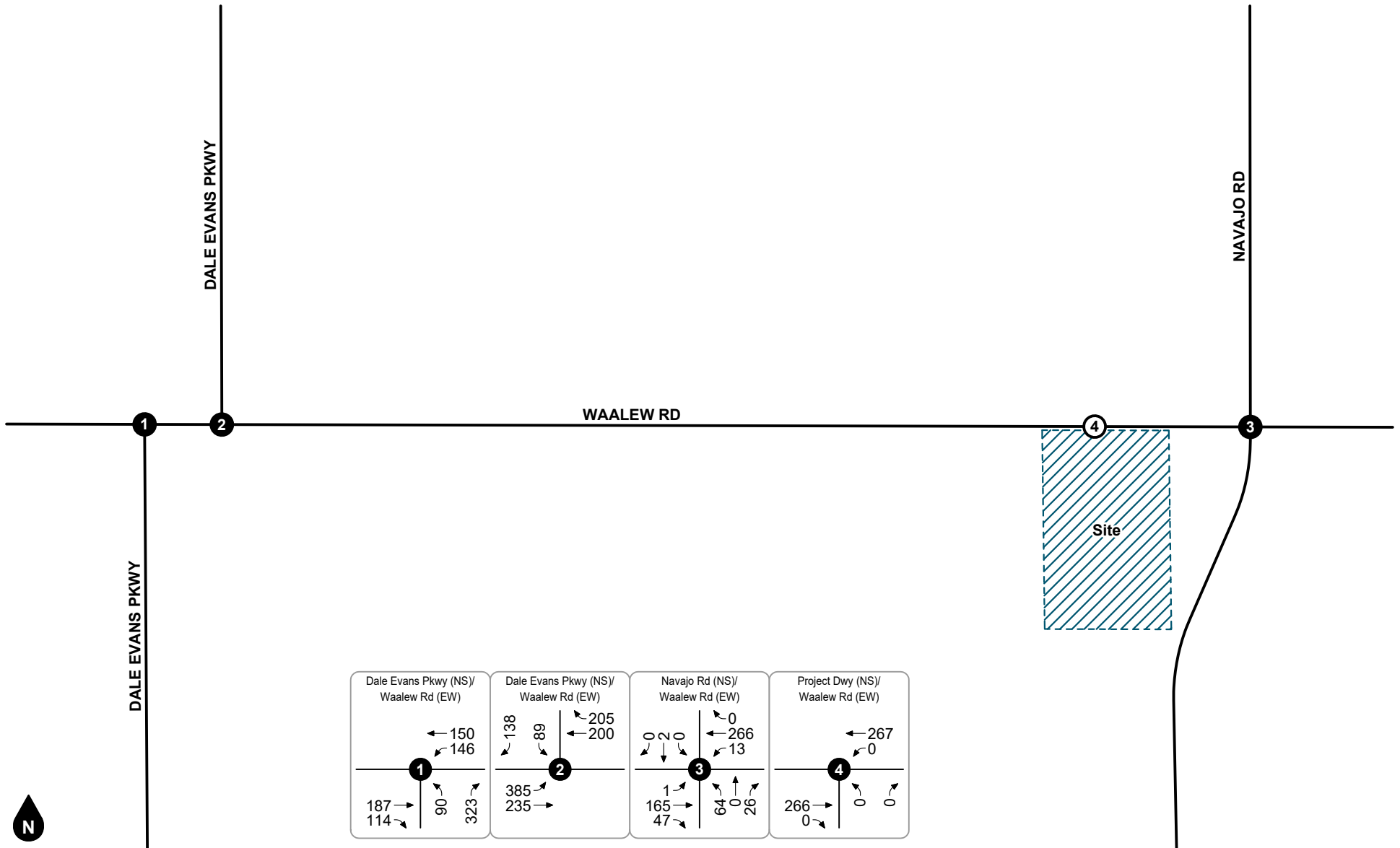


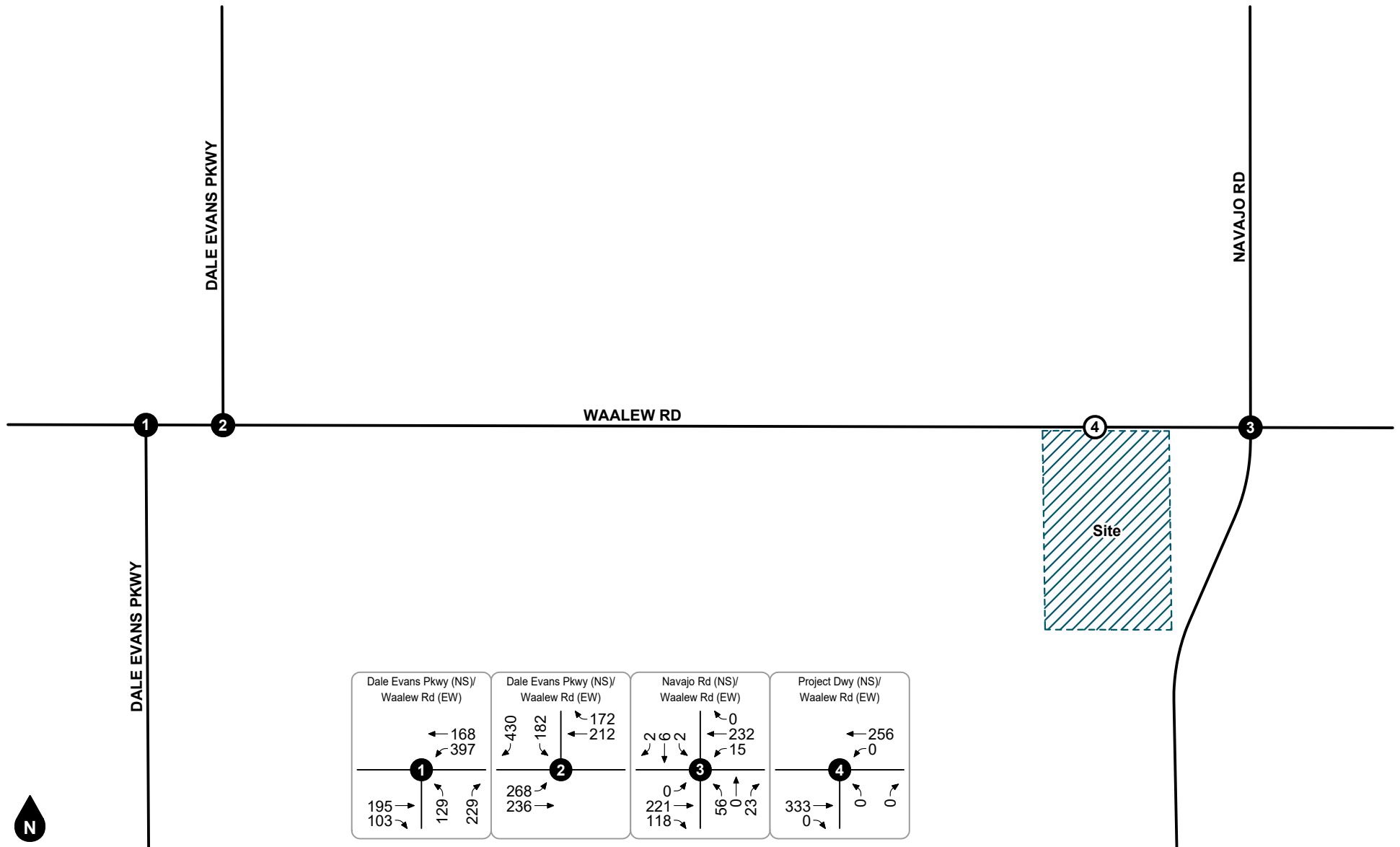
Figure 35
 Year 2040 Without Project Average Daily Traffic Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 36
Year 2040 Without Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 37
Year 2040 Without Project
PM Peak Hour Intersection Turning Movement Volumes

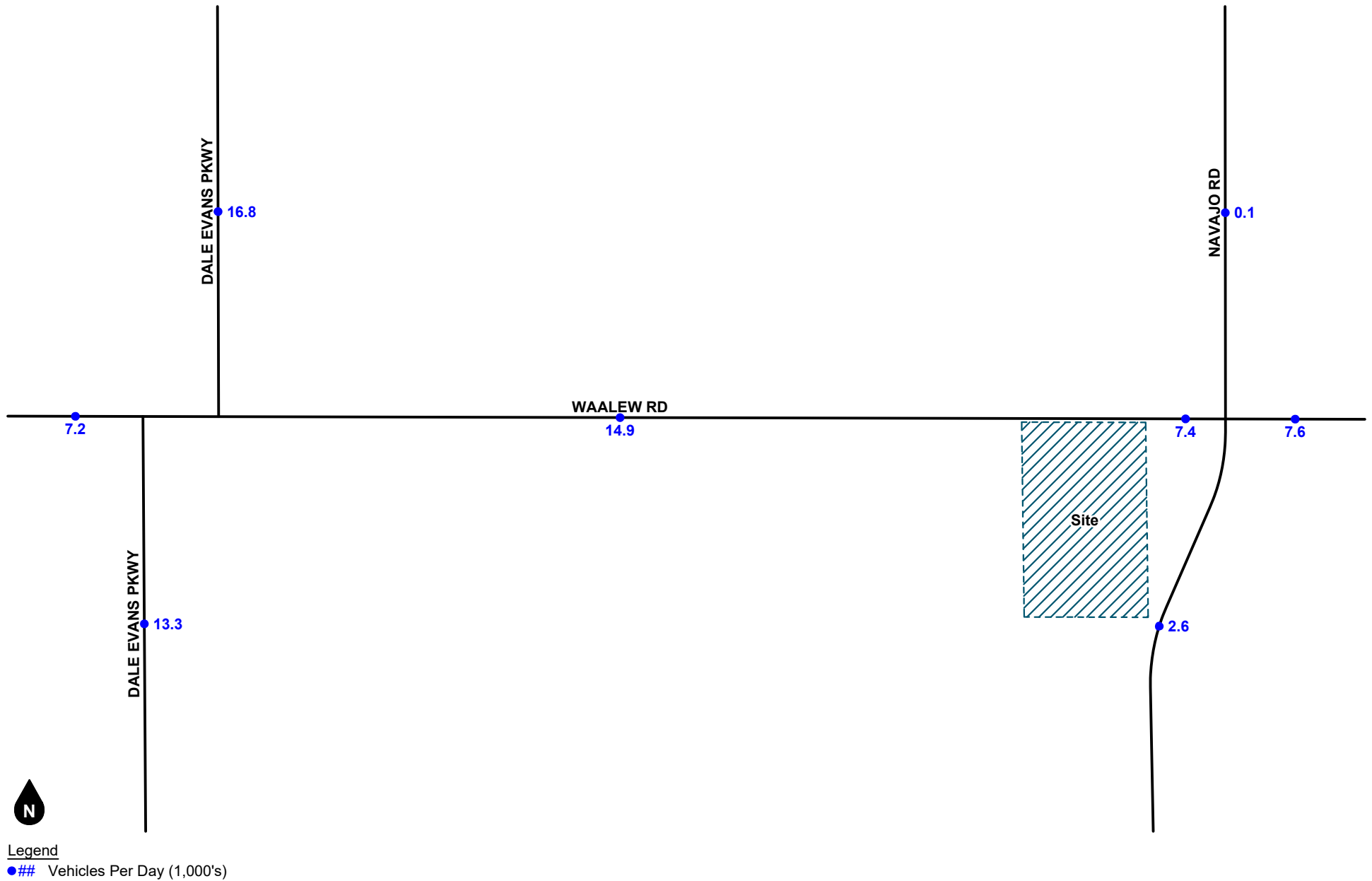
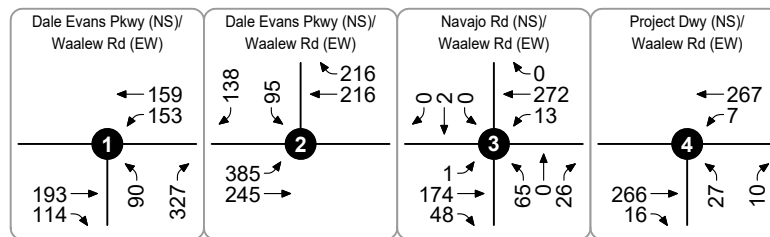
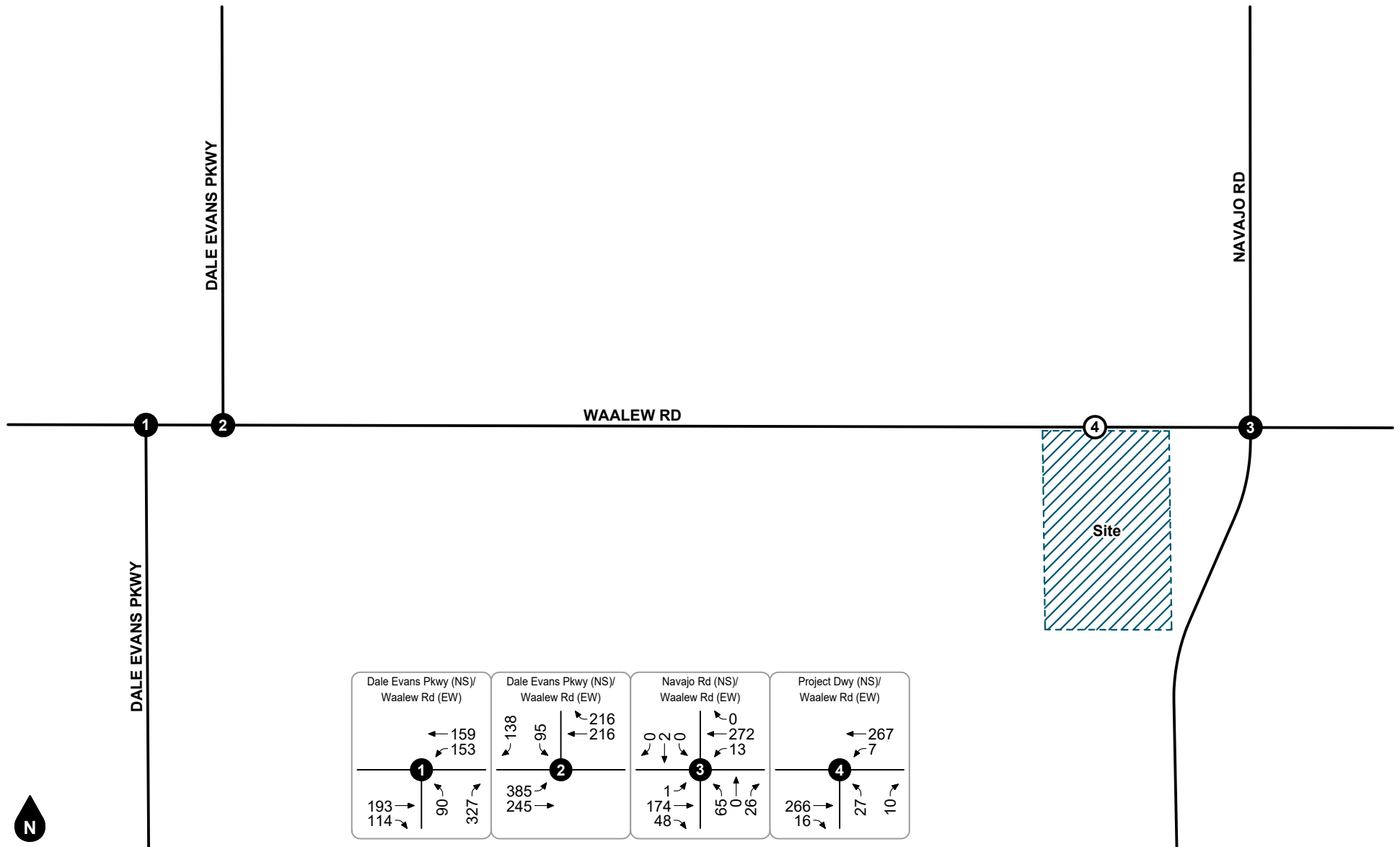


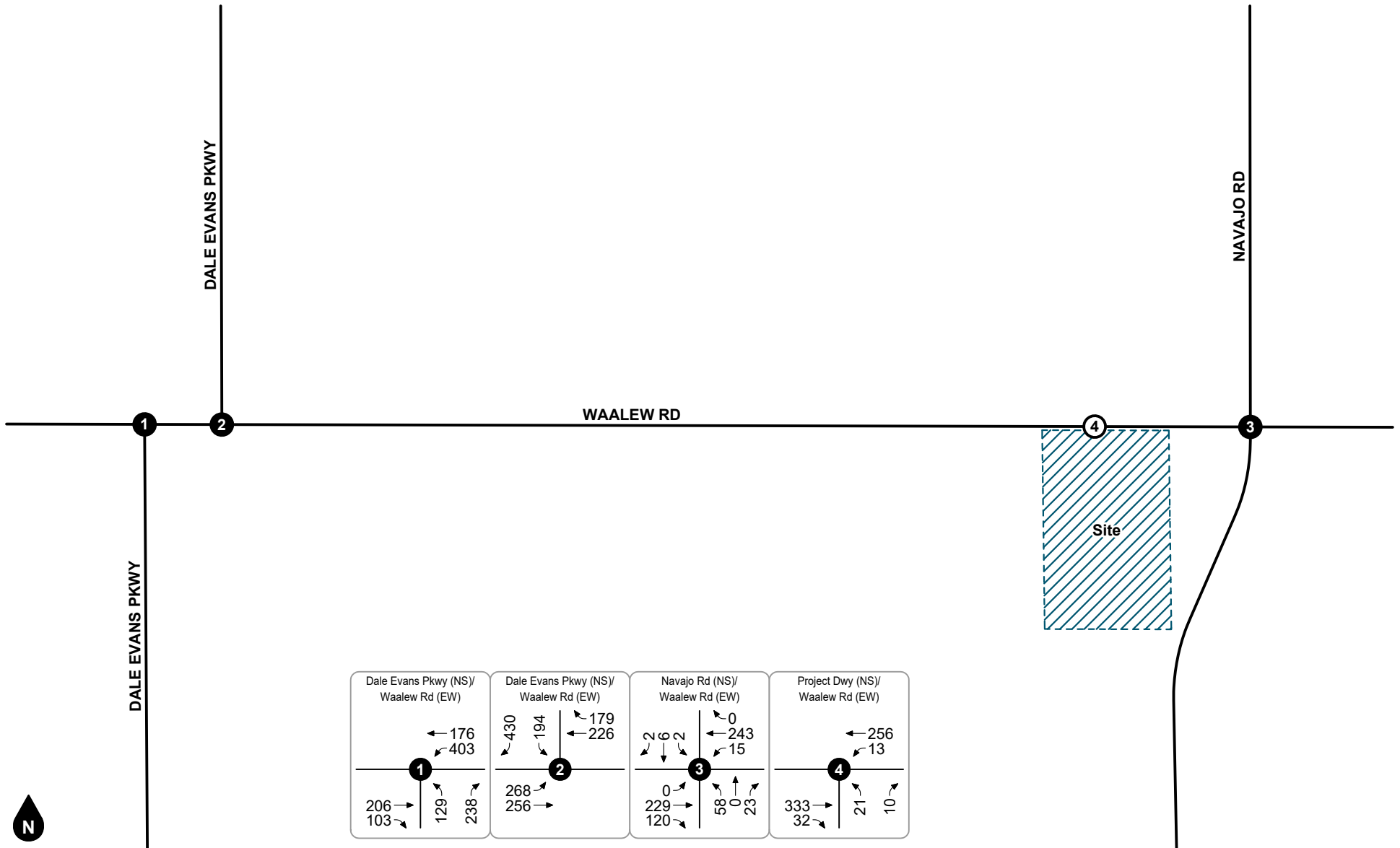
Figure 38
 Year 2040 With Project Average Daily Traffic Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 39
Year 2040 With Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway

Figure 40
Year 2040 With Project
PM Peak Hour Intersection Turning Movement Volumes

6. FUTURE LEVELS OF SERVICE ANALYSIS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix D.

Project design features, such as improvements necessary to provide project site access, are assumed to be constructed by the proposed project and are described in further detail in the Site Access & Circulation section presented later in this report.

Existing Plus Project

The study intersection Levels of Service for Existing Plus Project conditions are also shown in Table 4. As shown in Table 4, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Project conditions.

As shown in Table 4, the proposed project is forecast to result in no substantial transportation effects based on the Town-established criteria at the study area intersections for Existing Plus Project conditions:

Opening Year (2026) Without Project

The study intersection Levels of Service for Opening Year (2026) Without Project conditions are shown in Table 5. As shown in Table 5 the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2026) Without Project conditions.

Opening Year (2026) With Project

The study intersection Levels of Service for Opening Year (2026) With Project conditions are also shown in Table 5. As shown in Table 5, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2026) With Project conditions.

As shown in Table 5 the proposed project is forecast to result in no substantial transportation effects based on the Town-established criteria at the study area intersections for Opening Year (2026) With Project conditions.

Year 2040 Without Project

The study intersection Levels of Service for Year 2040 Without Project conditions are shown in Table 6. As shown in Table 6, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Year 2040 Without Project conditions, except for the following intersections that are forecast to operate at an unacceptable Levels of Service F during the peak hours:

- | | |
|--|-----------------|
| 1. Dale Evans Parkway (south) (NS) at Waalew Road (EW) | LOS F - PM |
| 2. Dale Evans Parkway (north) (NS) at Waalew Road (EW) | LOS F - AM & PM |

The *Dale Evans Parkway at Waalew Road Realignment* project includes realigning Dale Evans Parkway on the north leg to align with Dale Evans Parkway on the south leg, installing traffic signals and improving pedestrian crossing. This project is funded and has a preliminary schedule for construction with completion in 2027. The proposed roadway realignment project exhibit is provided in Appendix F.

To maintain an acceptable Level of Service at the study intersections the following improvements, associated with the *Dale Evans Parkway at Waalew Road Realignment* project, are shown for Build-out Year (2040) conditions.

1. Dale Evans Parkway (NS) at Waalew Road (EW)
 - Install Traffic Signal

As the improvements are identified to address cumulative Level of Service deficiencies, a project fair share cost estimate is provided based on the volume of project traffic for Year (2040) conditions. The study area intersections operate at acceptable Levels of Service with the previously listed improvements.

Year 2040 With Project

The study intersection Levels of Service for Year 2040 With Project conditions are also shown in Table 6. As shown in Table 6, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Year 2040 With Project conditions, except for the following intersections that are forecast to continue operating at an unacceptable Levels of Service F during the peak hours:

- | | |
|--|-----------------|
| 1. Dale Evans Parkway (south) (NS) at Waalew Road (EW) | LOS F - PM |
| 2. Dale Evans Parkway (north) (NS) at Waalew Road (EW) | LOS F - AM & PM |

As shown in Table 6, the proposed project is forecast to result in no substantial transportation effects at the study intersections for Year 2040 With Project conditions with the recommended improvements.

Table 4
Existing Plus Project Intersection Levels of Service & Project-Related Effect

Study Intersection	Traffic Control ¹	Existing				Existing Plus Project				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change	Substantial Effect?	Change	Substantial Effect?
		Delay ²	LOS ³	Delay ²	LOS	Delay ²	LOS ³	Delay ²	LOS				
1. Dale Evans Parkway South at Waalew Road	CSS	11.2	B	14.4	B	11.4	B	14.8	B	+0.2	NO	+0.4	NO
2. Dale Evans Parkway North at Waalew Road	CSS	13.2	B	14.2	B	14.3	B	15.5	C	+1.1	NO	+1.3	NO
3. Navajo Road at Waalew Road	AWS	8.6	A	9.3	A	8.7	A	9.4	A	+0.1	NO	+0.1	NO
4. Project Driveway at Waalew Road	CSS	-	-	-	-	11.7	B	12.5	B	+11.7	NA	+12.5	NA

Notes:

1. CSS = Cross Street Stop; AWS = All Way Stop.
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn
3. LOS = Level of Service

Table 5
Opening Year (2026) Intersection Levels of Service & Project-Related Effect

Study Intersection	Traffic Control ¹	Opening Year (2026) Without Project				Opening Year (2026) With Project				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change	Substantial Effect?	Change	Substantial Effect?
		Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³				
1. Dale Evans Parkway South at Waalew Road	CSS	12.1	B	18.6	C	12.4	B	19.4	C	+0.3	NO	+0.8	NO
2. Dale Evans Parkway North at Waalew Road	CSS	14.8	B	16.4	C	16.3	C	18.5	C	+1.5	NO	+2.1	NO
3. Navajo Road at Waalew Road	AWS	9.0	A	9.7	A	9.1	A	9.9	A	+0.1	NO	+0.2	NO
4. Project Driveway at Waalew Road	CSS	-	-	-	-	12.3	B	13.2	B	+12.3	NA	+13.2	NA

Notes:

1. CSS = Cross Street Stop; AWS = All Way Stop.
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn
3. LOS = Level of Service

Table 6
Build-out Year (2040) Intersection Levels of Service & Project-Related Effect

Study Intersection	Traffic Control ¹	Build-out Year (2040) Without Project				Build-out Year (2040) With Project				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change	Substantial Effect?	Change	Substantial Effect?
		Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³				
1. Dale Evans Parkway South at Waalew Road With Improvements	CSS TS	18.0 29.4	C C	128.0 32.5	F C	18.8 29.5	C C	143.1 32.8	F C	+0.8 +0.1	NO NO	+15.1 +0.3	YES NO
2. Dale Evans Parkway North at Waalew Road Intersection Realigned with No. 1	CSS	1,242.2 NA	F	434.9 NA	F	1,571.9 NA	F	521.9 NA	F	+329.7 NA	YES	+87.0 NA	YES
3. Navajo Road at Waalew Road	AWS	9.8	A	10.4	B	10.0	A	10.6	B	+0.2	NO	+0.2	NO
4. Project Driveway at Waalew Road	CSS	-	-	-	-	12.6	B	13.3	B	+12.6	NA	+13.3	NA

Notes:

1. CSS = Cross Street Stop; TS = Traffic Signal; AWS = All Way Stop.

2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn

3. LOS = Level of Service

7. SITE ACCESS & ON-SITE CIRCULATION

This section evaluates the project site access and on-site circulation. Vehicular access for the project site is proposed via one full access driveway on Waalew Road.

PROJECT DESIGN FEATURES

This analysis assumes the following improvements will be constructed by the project to provide project site access:

Roadway Segments

Waalew Road

- Construct ultimate half-section width (Major Road with 104 feet ROW and 80 feet roadway), including landscaping and parkway improvements along project boundary abutting Waalew Road (approximately length 665 feet) in conjunction with the development.

Intersections

4. Project Driveway (NS) at Waalew Road (EW)

- Construct the project driveway with one inbound lane and one outbound lane.
- Install outbound stop control for southbound site egress.

This analysis also assumes the project shall comply with the following conditions as part of the Town of Apple Valley standard development review process to ensure adequate geometric design and emergency access:

- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the Town of Apple Valley.
- All on-site and off-site roadway design, signing/striping, and traffic control improvements relating to the proposed project shall be submitted to the Town for review and constructed following applicable State/Federal engineering standards to the satisfaction of the Town of Apple Valley.
- The final grading, landscaping, and street improvement plans shall demonstrate that applicable sight distance requirements are met.
- The project shall comply with the Town of Apple Valley municipal parking requirements which will be reviewed as a part of the standard development review process.
- Final project plans shall demonstrate adequate emergency vehicle access and circulation to the satisfaction of the Town of Apple Valley Public Works and Fire Departments.
- A construction worksite traffic control plan shall comply with applicable engineering standards outlined in the *California Manual of Uniform Traffic Control Devices* and shall be submitted to the Town for review and approval before the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction-related trips shall be restricted to off-peak hours to the extent possible.

SITE ACCESS QUEUING ANALYSIS

Table 7 summarizes the results of the queue analysis to check for potential conflicts between the project driveways and the adjacent key intersection. The forecasted queue lengths shown in Table 7, are based on the HCM 95th-percentile back-of-queue methodology. Queuing calculations for the project driveways and the adjacent intersection are shown in the Level of Service worksheets provided in Appendix D.

As shown in Table 7, vehicle queue lengths at the project driveway and adjacent intersection are forecast to not exceed the available storage lengths during the peak hours for the Year 2040 With Project conditions.

GATE STACKING ANALYSIS

Vehicle stacking at the proposed gated access points was evaluated to ensure adequate on-site vehicle storage length allows vehicles a place to wait for the gate to open without blocking the public right-of-way. The vehicle stacking area is measured from the gate to the edge of sidewalk.

The gate queueing analysis was performed based on procedures outlined in the ITE *Transportation and Land Development* (1988). The methodology estimates the number of queueing vehicles at the service point based on a Poisson distribution algorithm for estimating the effect of surges and random arrivals. Analysis inputs include the number of inbound vehicles, the number of gated access locations, the number of service lanes per access, service rate capacity of the gate, and the confidence interval used for the analysis. The length of necessary stacking space is then based on the design vehicle length multiplied by the expected number of vehicles per service lane.

Table 8 summarizes the project driveway gate access analysis; a gate stacking worksheet is provided in Appendix H. A card operated gate design service rate of 340 vehicles per hour was reduced to reflect the lower service rate for trucks to enter the gate. The computations are based on the total number of vehicles at the lower service rate and the length of vehicle increased to account for trucks. As shown in Table 8, based on the inbound volume, the forecast queue length of 75 feet (approximately one truck or three cars) and the storage capacity of 135 feet, the gates have sufficient storage to accommodate the forecast queue length.

TRAFFIC SIGNAL WARRANT ANALYSIS

The potential need for installation of a traffic signal at the project driveways was evaluated based on the *California Manual on Uniform Traffic Control Devices* ("California MUTCD," November 2014), Section 4C-04, peak hour volume warrant (Warrant 3). The *California MUTCD* Section 4C-01 states "satisfaction of one or more traffic signal warrants shall not in itself require the installation of a traffic signal" as engineering judgement should be applied to the physical considerations of the location.

Installation of a traffic signal is not warranted at the project driveway based on the peak hour volume warrant (Warrant 3) for the analysis scenarios.

Table 7
Site Access Queuing Analysis

Study Intersection	Approach	Lane	Storage Length (Feet) ²	Peak Hour 95th-Percentile Queue Length (Feet) ¹		Adequate Storage Provided
				Year (2040) With Project		Year (2040) With Project
				AM	PM	
3. Navajo Road at Waalew Road	Eastbound	Shared	660	90	170	YES
4. Project Driveway at Waalew Road	Northbound	Shared	85	<20	<20	YES
	Eastbound	Shared	1200	<20	<20	YES
	Westbound	Shared	660	<20	<20	YES

Notes:

1. The forecast 95th-percentile queue lengths shown in the delay calculation worksheets have been rounded up to nearest 5-foot increment
2. Length of turning lane storage or distance to the adjacent driveway.

Table 8
Gate Stacking Minimum Queue Requirements

Gate / Peak Hour	Peak Hour	Demand Flow (veh/hr) ¹	Service Lanes	Service Rate Capacity (veh/hr/ln) ²	Utilization Factor	Queue Length (feet) ³	Storage Length (feet)	Adequate Storage Provided
4. Project Driveway at Waalew Road	AM Peak Hour	14	1	110	0.13	75	135	YES
	PM Peak Hour	24			0.22	75		YES

Notes:

1. AM and PM peak hour inbound demand is shown for all vehicles of which trucks are 50 to 67 percent of the total.
2. Service rate capacities from *Entrance-Exit Design and Control for Major Parking Facilities* (Crommelin, 1972). For a conservative estimate, the card code or RFI code design rate of 340 vehicles per hour for cars was reduced to 110 vehicles per hour for trucks.
3. Based on Transportation and Land Development (Institute of Transportation Engineers, 1988) "Applications of Queuing Analysis" methodology; see Appendix G.

8. IMPROVEMENTS & FAIR SHARE ANALYSIS

This section summarizes the recommended improvements identified in the previous sections of this report and the project's fair share toward any improvements required for cumulative conditions.

Project design features (as detailed in the Site Access & On-Site Circulation Section 7) involve improvements necessary to provide project site, and the construction along the project site frontage.

To maintain an acceptable Level of Service at the study intersection, the following improvements, associated with the *Dale Evans Parkway at Waalew Road Realignment* project, are recommended for Year 2040 Without Project conditions:

1. Dale Evans Parkway (south) (NS) at Waalew Road (EW)
 - Install Traffic Signal

As the improvements are identified to address cumulative Level of Service deficiencies, a project fair share cost estimate is provided based on the volume of project traffic for Year (2040) conditions. The study area intersections operate at acceptable Levels of Service with the previously listed improvements.

FAIR SHARE ANALYSIS

A fair share analysis was prepared to identify the share of project trips contributed to substantially impacted locations for which improvements are identified that may not be currently included in the Town's Development Impact Fee program. To the extent that any of the identified improvements are not included in the Town's Development Impact Fee program, the project should contribute towards those improvements on a fair share basis. The project fair share is based on the proportion of project peak hour trips contributed to the improvement location relative to the total new peak hour traffic volume.

The fair share analysis is shown in Table 8. Cost estimates are sensitive to the quantity and location of work specified for a given installation. These values represent the relative magnitude of the cost and should be verified through the bidding process.

DEVELOPMENT IMPACT FEE

The proposed project shall contribute towards the Town of Apple Valley General Plan Circulation Element Program 1.A.4, Development Impact Fee program (Municipal Code Chapter 3.28) and regional transportation development mitigation fee program (County of San Bernardino Measure I). The Development Impact Fee provides a funding mechanism for arterial streets, traffic signals, interchange improvements as well as emergency services. The purpose of such fees is to minimize, to the greatest extent practicable, the impact that new development has on the Town's public services and public facilities. The Town intends for new development project applicants to pay their fair share of the costs of providing such public services and public facilities. Unless otherwise approved by the Town, all development projects are required to pay the Development Impact Fee as a condition of development.

Table 9
Fair Share Analysis

ID	Study Intersection	Estimated Construction Cost ¹	Peak Hour	Peak Hour Volume				Project % at Intersection ²	Project Fair Share Cost
				Existing	Horizon Year (2040) With Project	Project Trips	New Trips	Project % of New Trips	
1.	Dale Evans Parkway at Waalew Road	\$618,875	AM	751	1,373	26	622	4.2%	\$38,140
			PM	845	1,705	53	860	6.2%	

Notes:

1. Cost estimate based on values from the San Bernardino County Transportation Authority Preliminary Construction Cost Estimates For Congestion Management Program (2003) and has been factored by 2.48 based on the California Construction Cost Index between January 2003 and September 2024. Costs estimates are sensitive to the quantity and location of work specified for a given installation. These values represent the relative magnitude of the cost and should be verified through the bidding process.
2. Project share is based on the greater of the AM or PM percent contribution of project trips to new trips.

9. VEHICLES MILES TRAVELED (VMT) ASSESSMENT

This section provides an overview of the VMT background, requirements, and summarizes the proposed project, VMT project assessment.

BACKGROUND

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) [“OPR Technical Advisory”] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

VMT SCREENING CRITERIA

The project VMT impact has been assessed in accordance with the Town of Apple Valley Resolution No. 2021-08 [“VMT Resolution”] and the County of San Bernardino *Transportation Impact Study Guidelines* (July 2019) [“County TIA Guidelines”].

Whereas the Town’s VMT Resolution establishes significance thresholds for non-screened projects, the County TIA Guidelines include screening criteria for certain projects that may be presumed to cause a less than significant impact without conducting a detailed VMT study based on recommendations from the OPR Technical Advisory. To qualify for VMT screening, the project need only satisfy one of the following screening criteria:

- Projects located within a Transit Priority Area (TPA)²
- Projects located within a low VMT area³
- Project Type Screening⁴

² Projects located within one-half mile radius of a major transit stop or high-quality transit corridor. For which a major transit stop is defined as an existing rail transit station, ferry terminal with bus or rail service, or the intersection of two or more major bus routes with less than 15-minute headways during the peak commute hours (Pub. Resources Code, § 21064.3 and § 21155).

³ Site location can be verified with the web-based or map-based VMT Screening Tool. The SBCTA VMT Screening Tool was developed from the San Bernardino Transportation Analysis Model (SBTAM) travel forecasting model to measure VMT performance for individual jurisdictions and for individual traffic analysis zones (TAZs).

⁴ Projects consist of local servicing land uses or forecast to generate less than net new 110 daily vehicle trips (ADT). As specified by the OPR Technical Advisory, the term vehicle refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty trucks should only be included in a traffic impact analysis for modeling convenience and ease of calculation (e.g., where data provided combine auto and heavy freight VMT) (CEQA Guidelines, § 15064.3, subd. (a)). Therefore, heavy-duty truck trips should not contribute to a finding of significant traffic (VMT) impact.

PROJECT SCREENING ASSESSMENT

Exhibit A shows the SBCTA VMT Screening Tool results for the project site, which is located within TAZ 53953301. As shown in Exhibit A, the project TAZ currently generates approximately 12.6 VMT per worker, which is less than the Town-wide Future Buildout threshold (13.1 VMT per worker); therefore, the proposed project satisfies the screening criteria for projects located in a low VMT area and the project's VMT impact may be presumed to result in a less than significant impact. Appendix B contains the SBCTA VMT Screening Tool results for the project site.

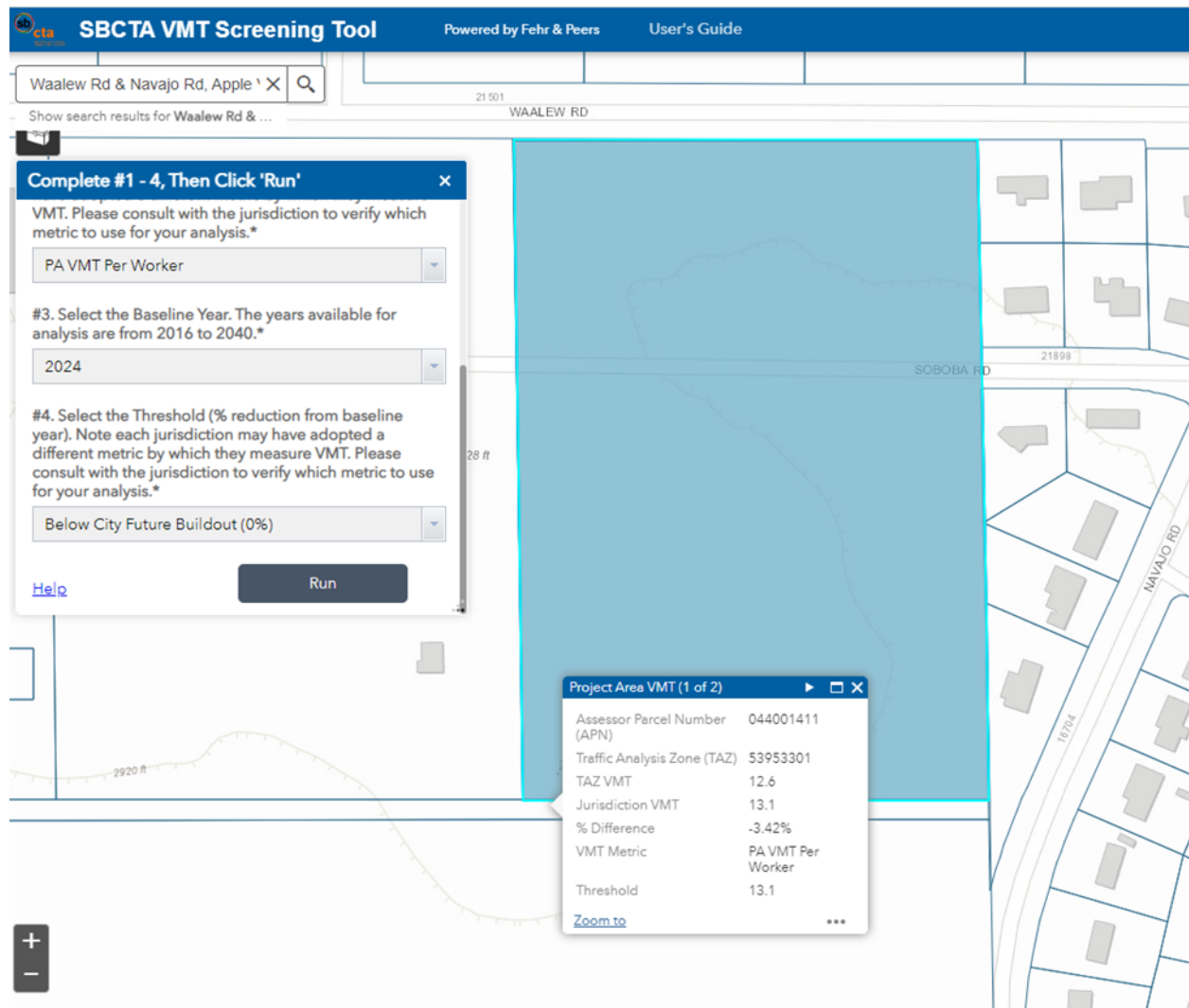


Exhibit A – SBCTA VMT Screening Tool Results

10. CONCLUSIONS

This section summarizes the proposed project, operational findings, and identifies recommendations (if any) as specified in previous sections of this study. Figure 41 summarizes the recommended improvements.

PROJECT TRIP GENERATION

The proposed project is forecast to generate approximately 666 daily vehicle trips, including 33 vehicle trips during the AM peak hour and 43 vehicle trips during the PM peak hour, which equates to approximately 1,240 daily PCE trips, including 60 PCE trips during the AM peak hour and 75 PCE trips during the PM peak hour.

LEVEL OF SERVICE ANALYSIS

The study intersections currently operate within acceptable Levels of Service (D or better) during the peak hours for the Existing conditions.

The study intersections are forecast to continue operating within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2026) conditions.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Build-out Year (2040) conditions, except for the following intersections that are forecast to operate at an unacceptable Levels of Service F during the peak hours:

- | | |
|--|-----------------|
| 1. Dale Evans Parkway (south) (NS) at Waalew Road (EW) | LOS F - PM |
| 2. Dale Evans Parkway (north) (NS) at Waalew Road (EW) | LOS F - AM & PM |

SUMMARY OF IMPROVEMENTS

The roadway frontage and site access improvements to be constructed in conjunction with the proposed project are outlined in the Site Access & On-Site Circulation (see Section 7).

The *Dale Evans Parkway at Waalew Road Realignment* project includes realigning Dale Evans Parkway on the north leg to align with Dale Evans Parkway on the south leg, installing traffic signals and improving pedestrian crossing. This project is funded and has a preliminary schedule for construction with completion in 2027.

To maintain an acceptable Level of Service at the study intersections the following improvements, associated with the *Dale Evans Parkway at Waalew Road Realignment* project, are shown for Build-out Year (2040) conditions.

1. Dale Evans Parkway (NS) at Waalew Road (EW)
 - Install Traffic Signal

As the improvements are identified to address cumulative Level of Service deficiencies, a project fair share cost estimate is provided based on the volume of project traffic for Year (2040) conditions. The study area intersections operate at acceptable Levels of Service with the listed improvements.

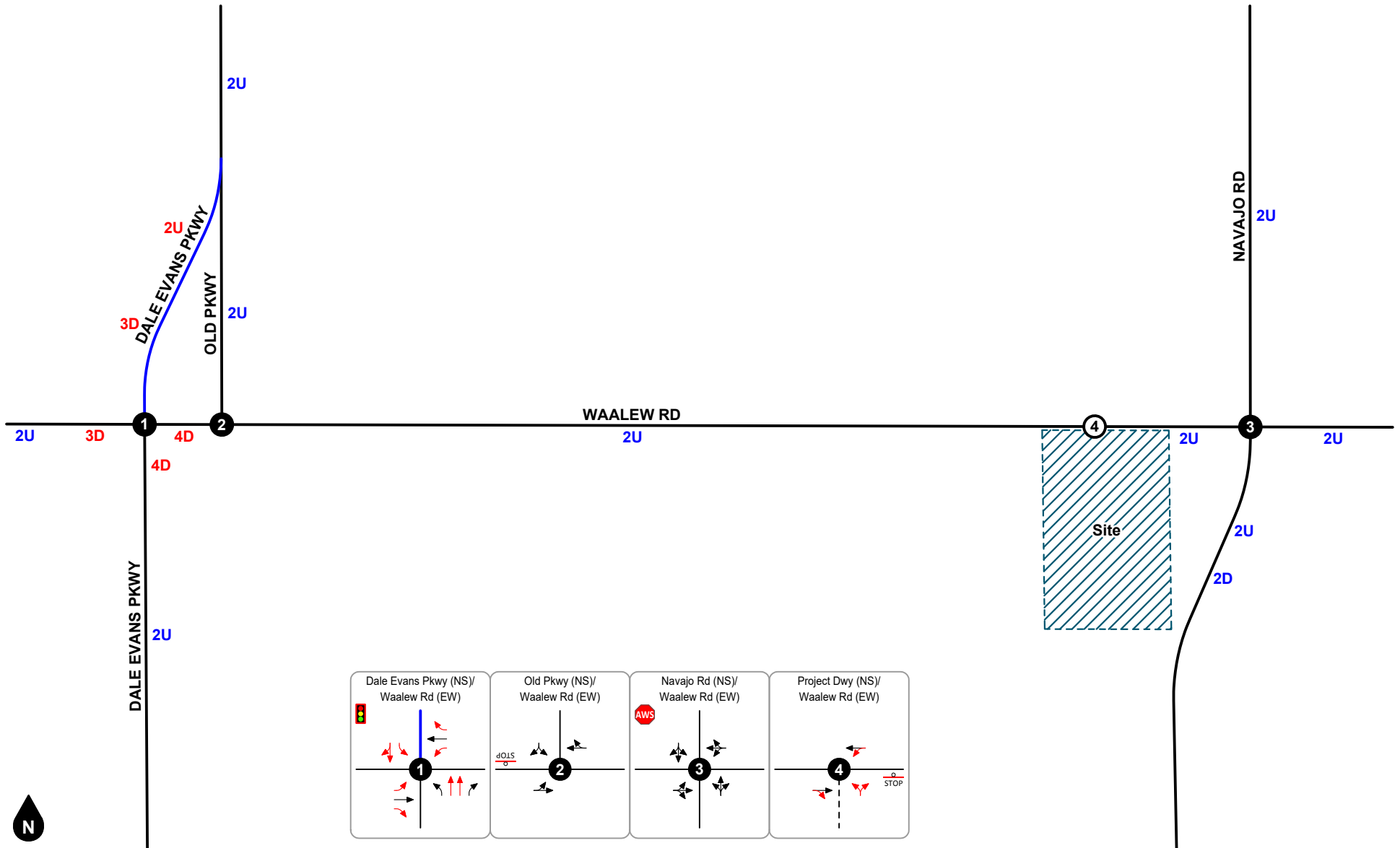
FAIR SHARE ANALYSIS

A fair share analysis was prepared to identify the share of project trips contributed to substantially impacted locations for which improvements are identified that may not be currently included in the Town's Development Impact Fee program. To the extent that any of the identified improvements are not included in the Town's Development Impact Fee program, the project should contribute towards those improvements on

a fair share basis. The project fair share is based on the proportion of project peak hour trips contributed to the improvement location relative to the total new peak hour traffic volume (see Section 8).

VEHICLE MILES TRAVELED ANALYSIS

Based on the VMT Screening Tool results for the project site, the proposed project satisfies the screening criteria for projects located in a low VMT area and the project's VMT impact may be presumed to result in a less than significant impact. The SBCTA VMT Screening Tool results for the project site are provided in Section 9.



- Legend**
- All Way Stop
 - Stop Sign
 - #Lane Divided Roadway
 - #Lane Undivided Roadway
 - Existing Lane
 - Recommendations
 - Project Driveway
 - Dale Evans Waalew Realignment (See Appendix F)

Figure 41
Recommended Lane Geometry and Intersection Traffic Controls

APPENDICES

Appendix A Glossary

Appendix B Scoping Agreement

Appendix C Traffic Count Data

Appendix D Intersection Level of Service Worksheets

Appendix E Travel Demand Post Processing Worksheets

Appendix F Roadway Exhibit Dale Evans Parkway and Waalew Road

Appendix G Gate Staking Worksheet

APPENDIX A

GLOSSARY

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
GFA	Gross Floor Area
LOS	Level of Service
PCE	Passenger Car Equivalent
SF	Square Foot
SP	Service Population
TSF	Thousand Square Feet
V/C	Volume to Capacity Ratio
VMT	Vehicle Miles Traveled

TERMS

ACTUATED SIGNAL CONTROL: A type of traffic signal control in which display of each phase depends on whether the corresponding phase detector has registered a service call or the phase is on recall.

ACTUATION: Detection of a roadway user that is forwarded to the signal controller.

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period is divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CALL: An indication within a signal controller that a particular phase is waiting for service, either through actuation from a roadway user or phase recall.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass through a roadway facility during a specified period.

CHANNELIZATION: The separation of conflicting traffic movements by use of pavement markings, raised curbs, or other suitable means to facilitate free flow movement.

CLEARANCE INTERVAL: Equal to the yellow plus all-red time, if any, when a traffic signal changes between phases (i.e., the amount of time between the end of a green light from one movement to the beginning of a green light for the next).

COORDINATED SIGNAL CONTROL: A type of traffic signal control in which non-coordinated phases associated with minor movements are constrained such that the coordinated phases are served at a specific time during the signal cycle, thus maintaining the efficient progression of traffic flow along the major roadway.

CONTROL DELAY: The portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign). It includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay.

CORDON: An imaginary boundary line around or across a study area across which vehicles, persons, or other information can be collected for survey and analytical purposes.

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic traveling at a given speed to radically alter their speed or trajectory.

CYCLE: A complete sequence of signal indications for all phases. Also known as a signal cycle.

CYCLE LENGTH: The total time for a traffic signal to complete one full cycle.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The total additional travel time experienced by a roadway user (driver, passenger, bicyclist, or pedestrian) beyond that required to travel at a desired speed.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device used to count or determine the presence of a roadway user.

DESIGN SPEED: A speed used for purposes of designing horizontal and vertical alignments of a highway.

DIRECTIONAL SPLIT: The percent of two-way traffic traveling in a specified direction.

DIVERSION: The rerouting of traffic from a normal path of travel between two points, such as to avoid congestion or perform a secondary trip.

FREE FLOW: Traffic flow that is unaffected by a traffic control and/or or upstream or downstream conditions.

GAP: Time or distance between two vehicles measured from rear bumper of the front vehicle to front bumper of the second vehicle.

GAP ACCEPTANCE: The method by which a driver accepts an available gap in traffic to enter or cross the road.

HEADWAY: Time or distance between two successive vehicles measured from same point on both vehicles (i.e., front bumper to front bumper). Also known as gap.

LEVEL OF SERVICE: A grading scale of quantitative performance measures representing the quality of service of a transportation facility or service from an average traveler's perspective.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MULTI-MODAL: More than one mode, such as automobile, transit, bicycle, and pedestrian.

OFFSET: The time interval between the beginning of a traffic signal cycle at one intersection and the beginning of signal cycle an adjacent intersection.

PLATOON: A set of vehicles traveling at similar speed and moving as a general group with clear separation between other vehicles ahead and behind.

PASSENGER CAR EQUIVALENT: A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEDESTRIAN CLEARANCE INTERVAL: Also known as the “Flashing Don’t Walk” interval, it signals the end of pedestrian entry into the crosswalk following the “Walk” indication and provides time for pedestrians who have already entered the crosswalk to finishing crossing.

PEAK HOUR: The hour within a day in which the maximum volume occurs.

PEAK HOUR FACTOR: The peak hour volume divided by the four times the peak 15-minute flow rate.

PHASE: In traffic signals, the green, yellow, and red clearance intervals assigned to a specified traffic movement.

PRETIMED SIGNAL: A traffic signal operation in which the cycle length, phasing sequence, and phasing times are predetermined and fixed, regardless of actual demand for any given traffic movement. Also known as a fixed time signal.

PROGRESSION: The coordinated movement of vehicles through signalized intersections along a corridor.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

RECALL: A signal phasing operation in which a specified phase places a call to the signal controller each time a conflicting phase is served, thus ensuring the specified phase will be serviced again.

SEMI-ACTUATED CONTROL: A type of traffic signal control in which only the minor movements are provided detection.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queuing to occur.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible, including reaction and response time.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors. Also known as a demand responsive signal.

TRIP OR TRIP END: The one-directional movement of a person or vehicle. Every trip has an origin and a destination at its respective ends (i.e., trip ends). In terms of site trip generation, the same vehicle entering and exiting a site generates two trips: one inbound trip and one outbound trip.

TRIP GENERATION RATE: The rate at which a land use generates trips per the specified land use variable, such per dwelling unit or per thousand square feet.

TURNING RADIUS: The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheelbase as well as the steering mechanism of the vehicle.

VEHICLE MILES TRAVELED: A measure of the amount and distance of automobile travel essentially calculated as the sum of each trip times the trip length.

APPENDIX B

SCOPING AGREEMENT

Subject: FW: Waalew Road, Apple Valley Truck Facility Scoping Agreement DP 2024-010
Truck Facility

From: Richard Pedersen
Sent: Friday, September 20, 2024 2:35 PM
To: Perrie Ilercil
Cc: Ed Bonadiman; Amanda Malone; Cheryl Tubbs
Subject: Re: Waalew Road, Apple Valley Truck Facility Scoping Agreement DP 2024-010 Truck Facility

Hi Perrie,

The Town does not have Traffic Impact Analysis Guidelines to be used in a Traffic study for LOS. Currently, the Town is working on updating our circulation element which will include guidelines for VMT analysis. These guidelines should be available by the end of the year.

The Town's Traffic Impact fee program addresses the Town's regional street network needs and the traffic impact fees collected from each project is based on traffic generation rates.

I am satisfied that the scoping agreement, with the proposed study intersections, addresses the Town's concerns.

Thanks,

Richard Pedersen
Town Engineer

On Sep 18, 2024, at 2:17 PM, Perrie Ilercil wrote:

Hi Richard,
Does the Town have its own Traffic Impact Analysis Guidelines which specifies parameters to be used in a Traffic Study for LOS and/or VMT analysis?
The County's guidelines were specified on the scoping agreement as it appears that the Town does not have its own TIA guidelines.
If the Town has its own document, please provide a weblink to document or a copy of the document.

Additionally, please provide other development information (i.e. land-use, size and location), so that other development traffic can be included in the study.
Thank you for your assistance.

Sincerely,
Perrie Ilercil, PE (AZ)
Senior Engineer
GANDDINI GROUP, INC

From: Ed Bonadiman
Sent: Wednesday, September 18, 2024 1:01 PM
To: Cheryl Tubbs; Amanda Malone; Kellie Worsham
Cc: Trisha Daluro; Frank Amendola; Perrie Ilercil
Subject: RE: Waalew Road, Apple Valley Truck Facility Scoping Agreement DP 2024-010 Truck Facility

Hi Amanda,

See attached MOU for DP 2024-010. Please forward to the appropriate department for review.

Thanks!

Ed

Edward J. Bonadiman, M.B.A., P.L.S.
President
Joseph E. Bonadiman & Associates, Inc.
234 North Arrowhead Avenue
San Bernardino, CA 92408

From: Perrie Ilercil
Sent: Wednesday, September 18, 2024 12:14 PM
To: Cheryl Tubbs
Cc: Giancarlo Ganddini
Subject: Apple Valley Truck Facility Scoping Agreement

Hi Cheryl,
See the attached Scoping Agreement for the Apple Valley Truck Facility project for your review.

Let me know if you or Ed have any comments and if you want me to submit this directly to the Town.

Sincerely,

Perrie Ilercil, PE (AZ)
Senior Engineer

<image003.jpg> **GANDDINI GROUP, INC.**
555 Parkcenter Drive, Suite 225
Santa Ana, CA 92705
o. 714 795 3100 x 103



MEMORANDUM OF UNDERSTANDING

TO: Ms. Nicole Montano, Planning | TOWN OF APPLE VALLEY

FROM: Perrie Ilercil, Senior Engineer | GANDDINI GROUP, INC.

DATE: September 17, 2024

SUBJECT: Apple Valley Truck and Trailer Facility Project (DP 2024-010)
Scoping Agreement for Traffic Impact Study
GGI Project No. 19763

The purpose of this memorandum is to supplement the City's Scoping Agreement for Traffic Impact Study form with more detailed project description and trip generation information for the Apple Valley Truck and Trailer Facility project for review/concurrence by the Town of Apple Valley.

PROJECT DESCRIPTION

The 14.81-acre project site (APN: 0440-014-11) is located on the southside of Waalew Road between Ramona Street and Navajo Road in the Town of Apple Valley, California. The project site is currently vacant and zoned Planned Industrial (I-P). Figure 1 shows the project location map.

The proposed project involves the development of truck and trailer parking lot with 426 truck/trailer parking spaces (12' by 55') and three standard parking spaces (9' x 19'). Vehicle access for the project site is proposed via gated access to Waalew Road. Figure 2 illustrates the project site plan.

TRIP GENERATION

Truck-Trailer Parking Facility

Since the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) does not include trip generation data for truck trailer parking facilities, trip generation rates for the proposed project were obtained vehicle counts conducted at comparable facilities. The trip generation analysis derived trip generation rates from counts of five existing truck trailer parking facilities. Based on the observed trip counts, trip generation rates for the following vehicle classifications were calculated per acre. Trip count worksheets and trip generation calculations for a truck-trailer parking lot are provided in Attachment A.

Truck Trips

The project trip generation was also calculated in terms of Passenger Car Equivalent (PCE) trips. Truck trips were converted to PCE trips based on the PCE factors as recommended in the County of San Bernardino Congestion Management Program: 1.5 for 2-axle light-duty trucks, 2.0 for 3-axle medium-duty trucks, and 3.0 for 4+-axle heavy-duty trucks.

Project Trips

Table 1 shows the proposed project trip generation forecast is based on average rates developed from trip count surveys of similar facilities. As shown in Table 1, the project is estimated to generate approximately 666 daily vehicle trips, including 33 vehicle trips during the AM peak hour and 43 vehicle trips during the PM peak hour, which equates to approximately 1,240 daily PCE trips, including 60 PCE trips during the AM peak hour and 75 PCE trips during the PM peak hour.

PROJECT TRIP DISTRIBUTIONS

Figures 3 and 4 illustrate the forecast directional distribution patterns of the project generated trips for both cars and trucks. The project trip distribution patterns are developed from engineering judgement based on review of existing volume data, surrounding land uses, and the local and regional roadway facilities in the project vicinity.

STUDY AREA

Based on the project trip generation and distribution patterns, the study area includes intersections that the project contributes 50 or more trips and consists of the following study intersections:

Study Intersections

1. Dale Evans Parkway (south) (NS) at Waalew Road (EW)¹
2. Dale Evans Parkway (north) (NS) at Waalew Road (EW)
3. Navajo Road (NS) at Waalew Road (EW)
4. Project Driveway (NS) at Waalew Road (EW)

The San Bernardino County Transportation Authority *Recommended Traffic Impact Analysis Guidelines* (February 2020) states that projects forecast to generate the Congestion Management Program (CMP) threshold of 250 two-way peak hour trips and contribute 50 or more peak hour trips to a State highway facility are required to prepare a study for California Department of Transportation (Caltrans) review, projects generating 100 to 250 peak hour trips and contribute 50 or more peak hour trips to a State highway facility are required to consult with Caltrans to determine the need to prepare a study for Caltrans review. Additionally, CMP analysis is required if the project is expected to contribute 100 or more peak hour two-way trips to a freeway facility or 50 or more trips to a CMP facility within another jurisdiction.

As shown on Figure 5, the project is not forecast to contribute 100 or more peak hour two-way trips to a state highway facility or 50 or more trips on the CMP system; therefore, no highway mainline, or additional CMP analysis is required.

ANALYSIS SCENARIOS

The traffic study shall evaluate the following analysis scenarios for typical weekday AM and PM peak hour conditions:

1. Existing Conditions
2. Existing Plus Project
3. Opening Year (2026) Without Project

¹ (NS) = north-south roadway; (EW) = east-west roadway.

4. Opening Year (2026) With Project
5. Horizon Year (2040) Without Project
6. Horizon Year (2040) With Project

TRAFFIC COUNTS

New intersection turning movement counts will be collected at the study intersections during the typical weekday AM and PM peak hours (7:00 AM – 9:00 AM and 4:00 – 6:00 PM). The peak hour factor will be determined from the counts for study area intersections.

FORECASTING METHODOLOGY

Ambient Growth Rate

To account for area-wide ambient growth, the Opening Year (2026) will include a 2.0% annual growth for 2 years (total growth factor = 1.04) over the 2024 base volumes.

Other Cumulative Projects

A list of pending and approved cumulative development projects will be obtained from the Town of Apple Valley. This list will be narrowed down to include projects within a 1.5-mile radius of the project site.

Trip forecasts for other development projects within the project study area will be determined based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) and will be added to existing roadway volumes for the applicable analysis scenarios.

Regional Travel Demand Model Growth

Year 2040 AM and PM peak hour intersection turning movement volumes were determined using the San Bernardino County Transportation Analysis Model (SBTAM) Year 2040 travel demand model plots and forecasting procedures outlined in the National Cooperative Highway Research Program (NCHRP) Report 255. The forecast turning movements are developed using a spreadsheet program developed by the Federal Highway Administration (FHWA) and consistent with traffic volume forecasting procedures outlined in NCHRP Report. The resulting trips are reviewed for reasonableness and adjusted as necessary to ensure growth over near-term forecasts. The end results of the post-processing procedures are future intersection turning movement volumes suitable for analysis.

INTERSECTION ANALYSIS METHODOLOGY

In accordance with the Town of Apple Valley standard procedures, and the County of San Bernardino *Transportation Impact Study Guidelines* (July 2019) ["County TIA Guidelines"], intersections shall be analyzed using the intersection delay methodology based on procedures contained in the Transportation Research Board *Highway Capacity Manual* (HCM). Default values not specifically identified in the County TIA Guidelines will be based *Highway Capacity Manual* recommended values. Intersection delay and Level of Service (LOS) analysis shall be performed using the Vistro software.

PERFORMANCE STANDARDS

The Town of Apple Valley General Plan Circulation Element Program 1.A.4 has established LOS (D or better) as acceptable level of service for all intersections during the morning and evening peak hours.

OPERATIONAL THRESHOLDS

In accordance with County TIA Guidelines, intersection deficiencies would occur under the following conditions:

- If a project causes intersection level of service to degrade from LOS (D or better) to LOS (E or F).
OR
- If a project worsens an already deficient signalized intersection operating at LOS (E or F) by increasing delay by 5.0 seconds or more.
OR
- If a project worsens an already deficient unsignalized intersection operating at LOS (E or F) by increasing delay by 5.0 seconds or more, and the intersection meets the peak hour traffic signal warrant after the addition of project traffic.

Deficient intersections require improvement to satisfactory LOS (D or better) for intersections operating at an acceptable LOS prior to the addition of the project or to pre-project delay for intersections currently operating at an unacceptable LOS.

Where improvements are identified to address cumulative Level of Service deficiencies, a project fair share cost estimate is provided based on the volume of project traffic using the impacted facility divided by the total “new” traffic (i.e., ambient growth and other developments).

SITE ACCESS & ON-SITE CIRCULATION

The traffic study will review site access considerations such as intersection traffic controls and lane configurations and if necessary, recommend improvements. Additionally, the traffic study will evaluate the project site ingress/egress regarding gate stacking analysis for the applicable project driveways, and truck turning templates obtained from the architect or civil engineer will be included in the appendix.

VEHICLE MILES TRAVELED (VMT) SCREENING ASSESSMENT METHODOLOGY

The project VMT shall be assessed and documented in accordance with the Town of Apple Valley 2021-08 *Thresholds of Significance for Vehicle Miles Traveled (VMT) Under the California Environmental Quality Act* (May 2021) [“Town VMT Guidelines”] and the County of San Bernardino *Transportation Impact Study Guidelines* (July 2019) [“County TIA Guidelines”].

Whereas the Town VMT Guideline provides the threshold that would result in a significant project-generated VMT impact if the project VMT per service population exceeds the Town of Apple Valley General Plan Buildout VMT per service population. The County TIA Guideline provides a framework for “screening thresholds” for certain projects that are expected to cause a less than significant impact without conducting a detailed VMT study.

Based on the preliminary review, the proposed project satisfies the screening criteria for projects within a low VMT area; with a VMT per worker which is less than Town-wide Future Buildout threshold VMT per worker; therefore, the proposed project may be presumed to result in a less than significant VMT impact and additional VMT modeling/mitigation is not required. Attachment B contains the SBTAM Screening Tool results for the project site.

TOWN OF APPLE VALLEY
Apple Valley Truck and Trailer Facility
September 17, 2024

CONCLUSION

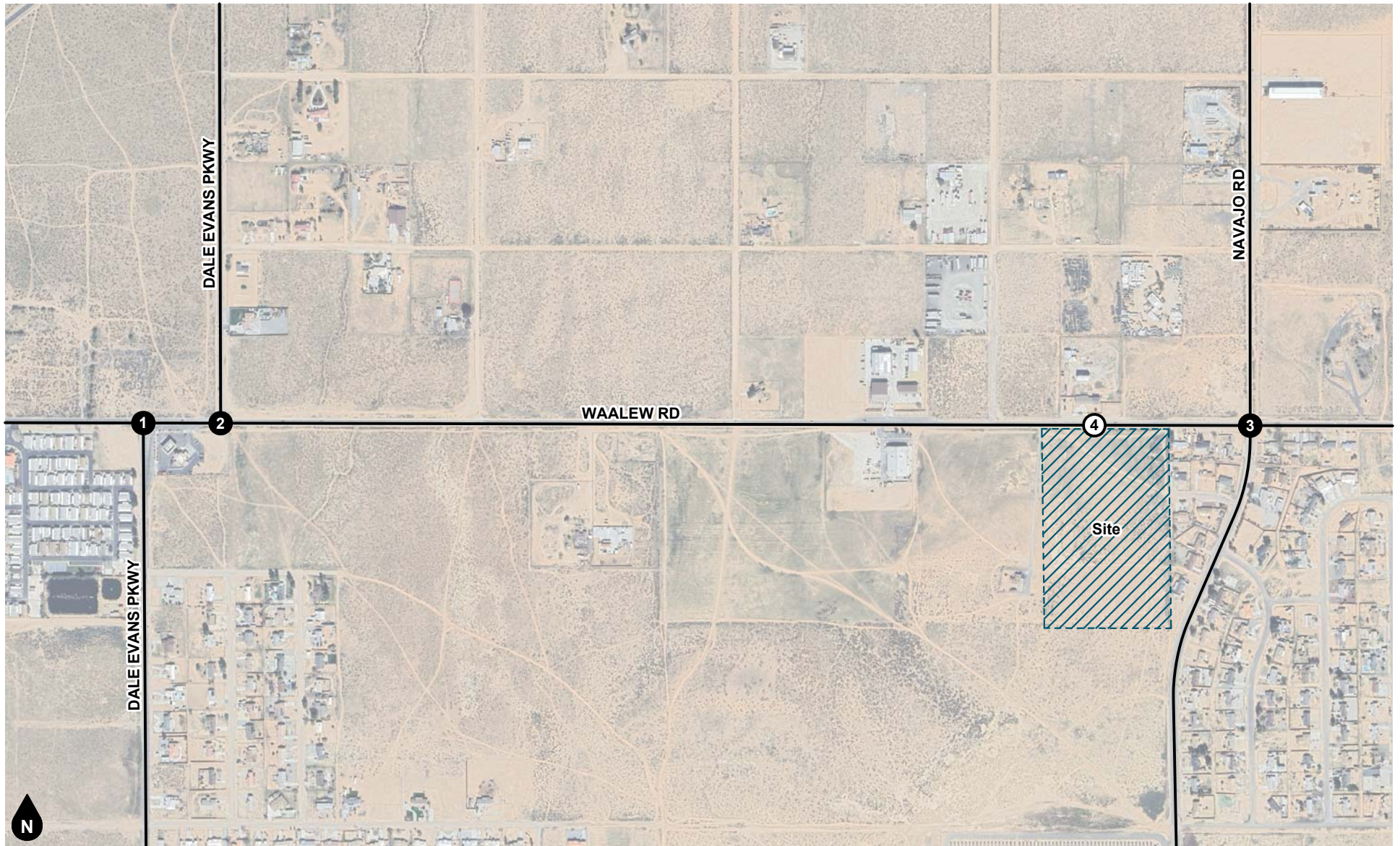
We appreciate the opportunity to provide this memorandum of understanding for your review. Should you have any questions or comments regarding the proposed scope, please contact Perrie Ilercil at (714) 795-3100 ext. 103 or perrie@ganddini.com.

Table 1
Project Trip Generation

Vehicle Type	Quantity ¹	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Trip Generation Rates²	per AC							
Passenger Cars		0.486	0.313	0.799	0.509	0.733	1.243	17.272
2-Axle Trucks		0.136	0.124	0.260	0.260	0.000	0.260	3.947
3-Axle Trucks		0.129	0.454	0.582	0.395	0.275	0.670	10.749
4+ Axle Trucks		0.225	0.309	0.534	0.397	0.292	0.689	13.011
<i>Total</i>		0.976	1.200	2.176	1.561	1.300	2.861	44.979
Vehicle Trips Generated	14.81 AC							
Passenger Cars		7	5	12	8	11	19	256
2-Axle Trucks		2	2	4	4	0	4	58
3-Axle Trucks		2	7	9	6	4	10	159
4+ Axle Trucks		3	5	8	6	4	10	193
<i>Total</i>		14	19	33	24	19	43	666
PCE Trips Generated	PCE Factors³							
Passenger Cars	1.0 PCE	7	5	12	8	11	19	256
2-Axle Trucks	1.5 PCE	3	3	6	6	0	6	87
3-Axle Trucks	2.0 PCE	4	14	18	12	8	20	318
4+ Axle Trucks	3.0 PCE	9	15	24	18	12	30	579
<i>Total</i>		23	37	60	44	31	75	1,240

Notes:

1. AC = Acre(s)
2. Source: Trip generation surveys conducted at five existing trailer storage facilities in Southern California; see Attachment A.
3. PCE = Passenger Car Equivalent.

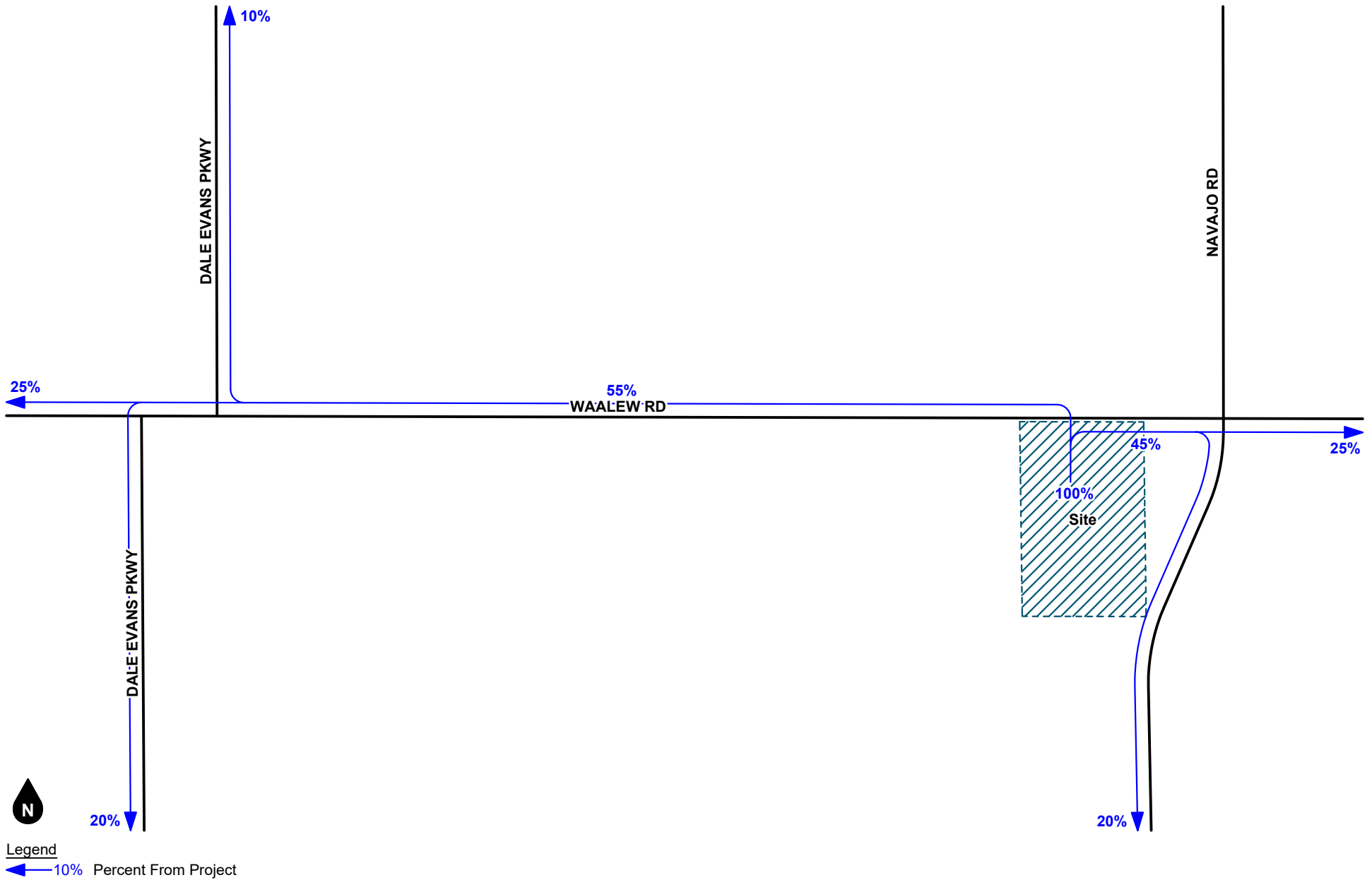


Legend

- # Study Intersection
- # Project Driveway

Figure 1
Project Location Map

Figure 2 Site Plan



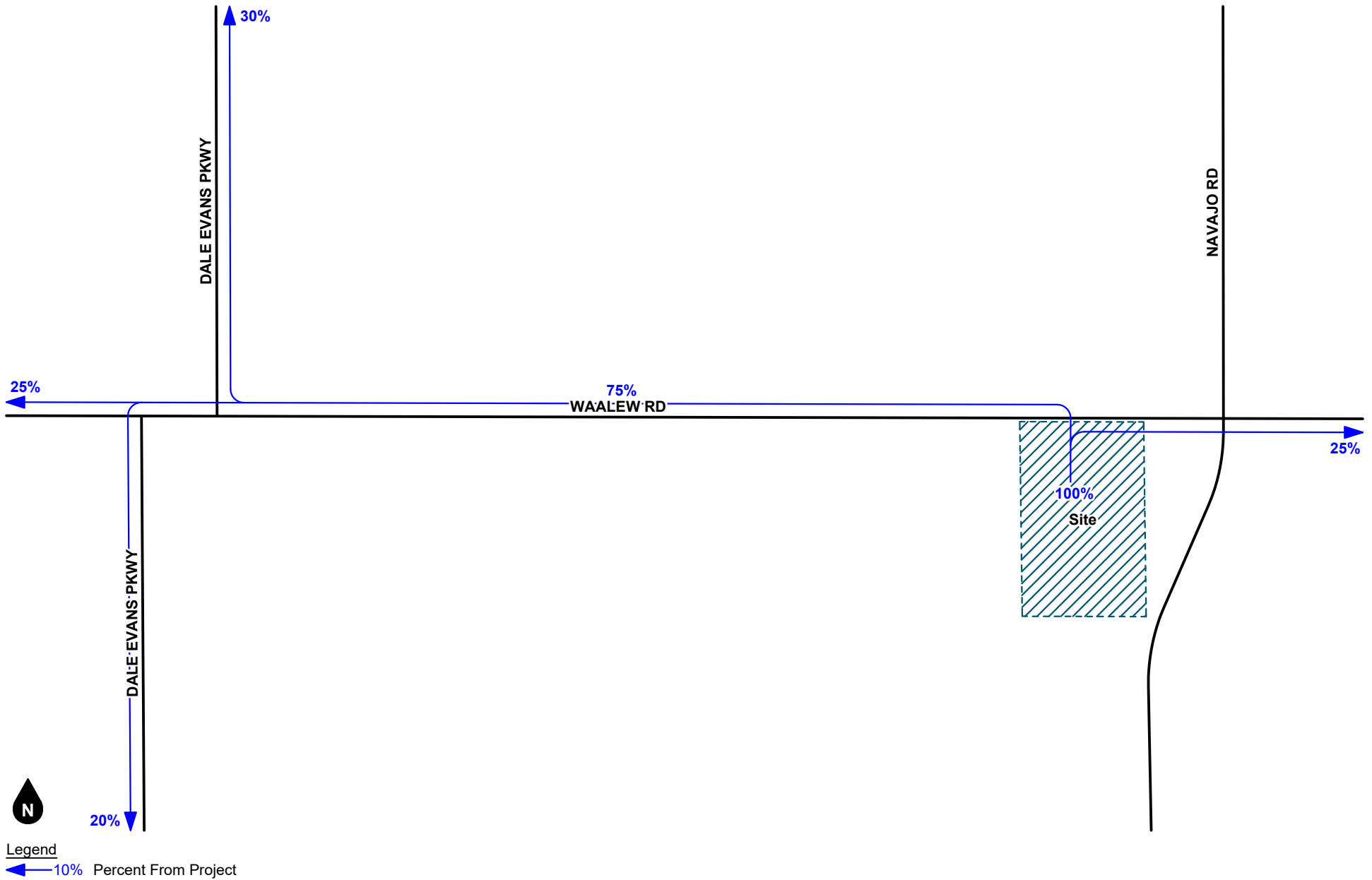


Figure 4
Project Trip Distribution - Trucks (Outbound)

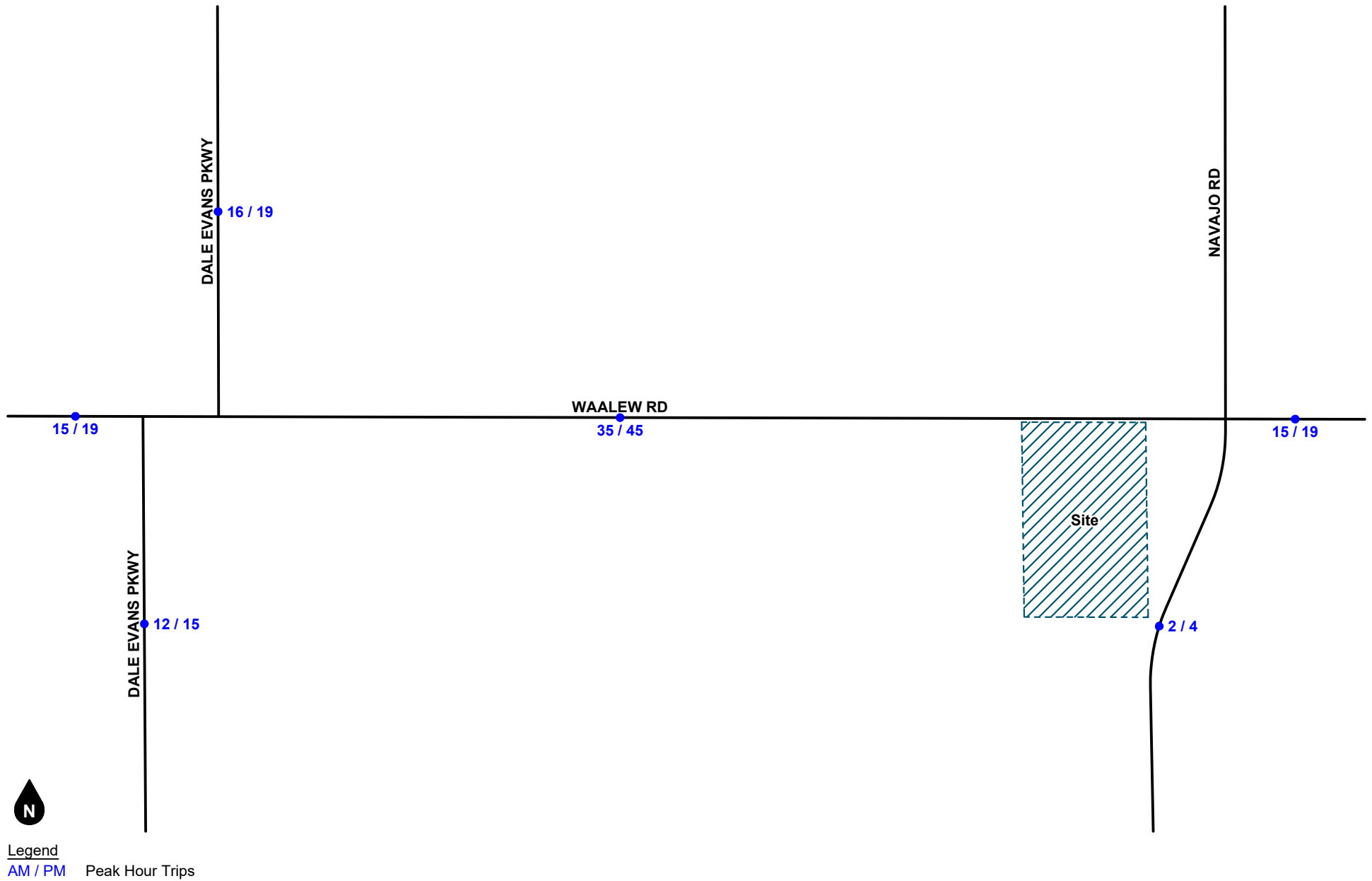


Figure 5
Project Peak Hour Trip Assignment

ATTACHMENT A

**TRIP GENERATION DATA
FOR TRUCK TRAILER PARKING FACILITIES**

Table A1
Summary of Trip Generation Surveys Conducted at Other Outdoor Trailer Storage Facilities

Vehicle Type	Quantity ¹	Observed Trip Generation ²						
		AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Survey Site 1 (1691 Auto Center) ^[a]	12.74 AC							
Trips:								
Passenger Car		4	1	5	5	12	17	185
2-Axle Trucks		-	-	-	-	-	-	-
3-Axle Trucks		0	5	5	11	3	14	172
4+ Axle Trucks		3	3	6	2	0	2	146
Total		7	9	16	18	15	33	503
Rates:	per AC							
Passenger Car		0.314	0.078	0.392	0.392	0.942	1.334	14.521
2-Axle Trucks		-	-	-	-	-	-	-
3-Axle Trucks		0.000	0.392	0.392	0.863	0.235	1.098	13.501
4+ Axle Trucks		0.235	0.235	0.470	0.157	0.000	0.157	11.460
Total		0.549	0.705	1.254	1.412	1.177	2.589	39.482
Survey Site 2 (5087 Patterson Ave) ^[b]	4.50 AC							
Trips:								
Passenger Car		0	2	2	1	1	2	38
2-Axle Trucks		0	0	0	3	0	3	35
3-Axle Trucks		1	5	6	1	0	1	38
4+ Axle Trucks		1	0	1	0	3	3	57
Total		2	7	9	5	4	9	168
Rates:	per AC							
Passenger Car		0.000	0.444	0.444	0.222	0.222	0.444	8.444
2-Axle Trucks		0.000	0.000	0.000	0.667	0.000	0.667	7.778
3-Axle Trucks		0.222	1.111	1.333	0.222	0.000	0.222	8.444
4+ Axle Trucks		0.222	0.000	0.222	0.000	0.667	0.667	12.667
Total		0.444	1.555	1.999	1.111	0.889	2.000	37.333
Survey Site 3 (1935 5th St) ^[c]	5.79 AC							
Trips:								
Passenger Car		1	1	2	4	3	7	99
2-Axle Trucks		1	0	1	0	0	0	4
3-Axle Trucks		1	3	4	3	3	6	85
4+ Axle Trucks		1	4	5	7	1	8	115
Total		4	8	12	14	7	21	303
Rates:	per AC							
Passenger Car		0.173	0.173	0.346	0.691	0.518	1.209	17.098
2-Axle Trucks		0.173	0.000	0.173	0.000	0.000	0.000	0.691
3-Axle Trucks		0.173	0.518	0.691	0.518	0.518	1.036	14.680
4+ Axle Trucks		0.173	0.691	0.864	1.209	0.173	1.382	19.862
Total		0.692	1.382	2.074	2.418	1.209	3.627	52.331

Vehicle Type	Quantity ¹	Observed Trip Generation ²						
		AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Survey Site 4 (11215 Riverside Dr) ^[d]	8.06 AC							
Trips:								
Passenger Car		12	7	19	10	16	26	353
2-Axle Trucks		3	4	7	3	0	3	59
3-Axle Trucks		2	2	4	3	5	8	105
4+ Axle Trucks		4	5	9	5	5	10	135
Total		21	18	39	21	26	47	652
Rates:	per AC							
Passenger Car		1.489	0.868	2.357	1.241	1.985	3.226	43.797
2-Axle Trucks		0.372	0.496	0.868	0.372	0.000	0.372	7.320
3-Axle Trucks		0.248	0.248	0.496	0.372	0.620	0.992	13.027
4+ Axle Trucks		0.496	0.620	1.116	0.620	0.620	1.240	16.749
Total		2.605	2.232	4.837	2.605	3.225	5.830	80.893
Survey Site 5 (14769 San Bernardino Ave) ^[e]	4.40 AC							
Trips:								
Passenger Car		2	0	2	0	0	0	11
2-Axle Trucks		0	0	0	0	0	0	0
3-Axle Trucks		0	0	0	0	0	0	18
4+ Axle Trucks		0	0	0	0	0	0	19
Total		2	0	2	0	0	0	48
Rates:	per AC							
Passenger Car		0.455	0.000	0.455	0.000	0.000	0.000	2.500
2-Axle Trucks		0.000	0.000	0.000	0.000	0.000	0.000	0.000
3-Axle Trucks		0.000	0.000	0.000	0.000	0.000	0.000	4.091
4+ Axle Trucks		0.000	0.000	0.000	0.000	0.000	0.000	4.318
Total		0.455	0.000	0.455	0.000	0.000	0.000	10.909
AVERAGE RATES	per AC							
Passenger Cars		0.486	0.313	0.799	0.509	0.733	1.243	17.272
2-Axle Trucks		0.136	0.124	0.260	0.260	0.000	0.260	3.947
3-Axle Trucks		0.129	0.454	0.582	0.395	0.275	0.670	10.749
4+ Axle Trucks		0.225	0.309	0.534	0.397	0.292	0.689	13.011
Total		0.976	1.200	2.176	1.561	1.300	2.861	44.979

Notes:

1. AC = Acre(s)
2. Source: Trip generation surveys conducted at the following outdoor trailer storage facilities:
 - [a] 1691 South Auto Center Road, San Bernardino, CA (November 30, 2016);
 - [b] 5087 Patterson Avenue, Perris, CA (January 23, 2019);
 - [c] 1935 5th Street, San Bernardino, CA (February 8, 2022);
 - [d] 11215 Riverside Drive, Jurupa Valley, CA (March 30, 2021);
 - [e] 14769 San Bernardino Avenue, Fontana, CA (March 17, 2020).

ATTACHMENT B

LOW VMT SCREENING TOOL RESULTS

APPENDIX C

TRAFFIC COUNT DATA

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

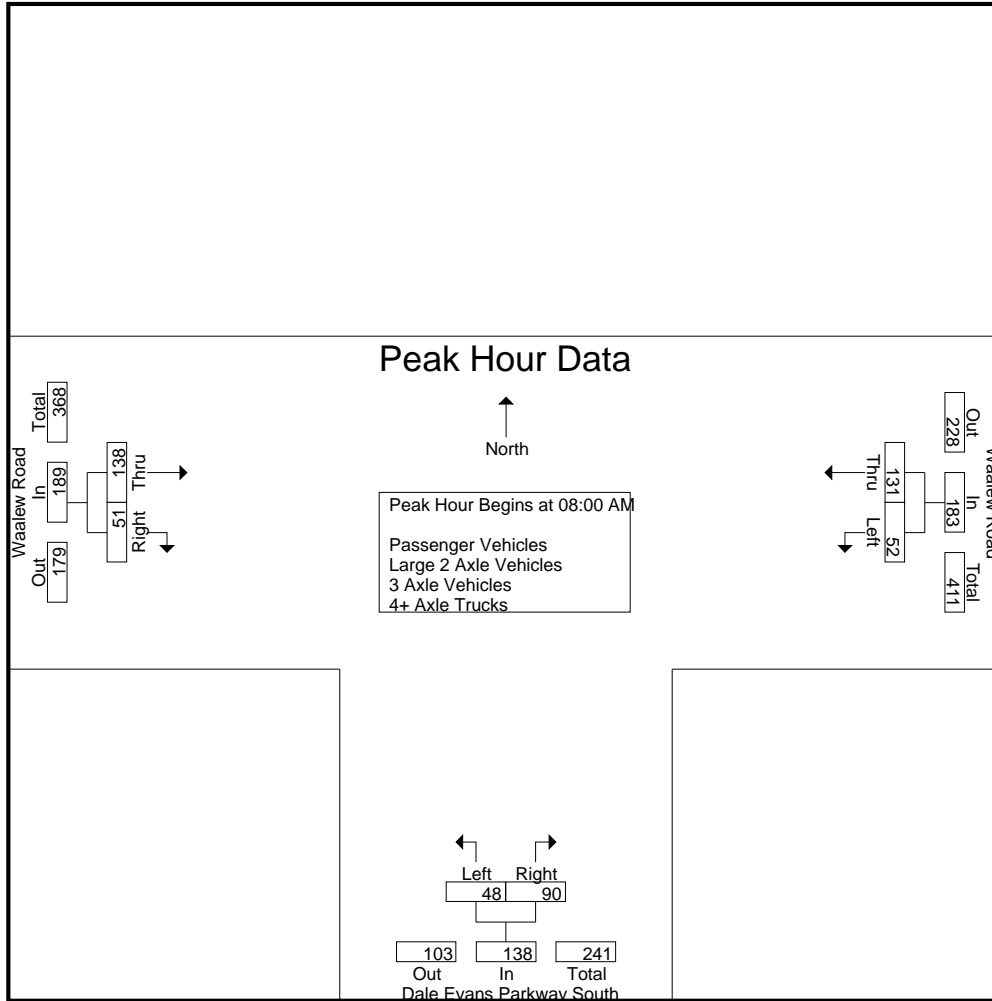
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	6	40	46	4	18	22	21	5	26	94
07:15 AM	14	45	59	7	10	17	15	7	22	98
07:30 AM	6	51	57	5	20	25	31	6	37	119
07:45 AM	18	53	71	13	24	37	22	15	37	145
Total	44	189	233	29	72	101	89	33	122	456
08:00 AM	7	33	40	14	25	39	24	19	43	122
08:15 AM	12	38	50	8	15	23	30	10	40	113
08:30 AM	14	26	40	10	25	35	32	9	41	116
08:45 AM	19	34	53	16	25	41	52	13	65	159
Total	52	131	183	48	90	138	138	51	189	510
Grand Total	96	320	416	77	162	239	227	84	311	966
Apprch %	23.1	76.9		32.2	67.8		73	27		
Total %	9.9	33.1	43.1	8	16.8	24.7	23.5	8.7	32.2	
Passenger Vehicles	88	315	403	75	158	233	213	81	294	930
% Passenger Vehicles	91.7	98.4	96.9	97.4	97.5	97.5	93.8	96.4	94.5	96.3
Large 2 Axle Vehicles	6	3	9	2	4	6	10	3	13	28
% Large 2 Axle Vehicles	6.2	0.9	2.2	2.6	2.5	2.5	4.4	3.6	4.2	2.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	2	2	4	0	0	0	4	0	4	8
% 4+ Axle Trucks	2.1	0.6	1	0	0	0	1.8	0	1.3	0.8

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	7	33	40	14	25	39	24	19	43	122
08:15 AM	12	38	50	8	15	23	30	10	40	113
08:30 AM	14	26	40	10	25	35	32	9	41	116
08:45 AM	19	34	53	16	25	41	52	13	65	159
Total Volume	52	131	183	48	90	138	138	51	189	510
% App. Total	28.4	71.6		34.8	65.2		73	27		
PHF	.684	.862	.863	.750	.900	.841	.663	.671	.727	.802

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			08:00 AM		
+0 mins.	6	40	46	14	25	39	24	19	43
+15 mins.	14	45	59	8	15	23	30	10	40
+30 mins.	6	51	57	10	25	35	32	9	41
+45 mins.	18	53	71	16	25	41	52	13	65
Total Volume	44	189	233	48	90	138	138	51	189
% App. Total	18.9	81.1		34.8	65.2		73	27	
PHF	.611	.892	.820	.750	.900	.841	.663	.671	.727

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
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Page No : 1

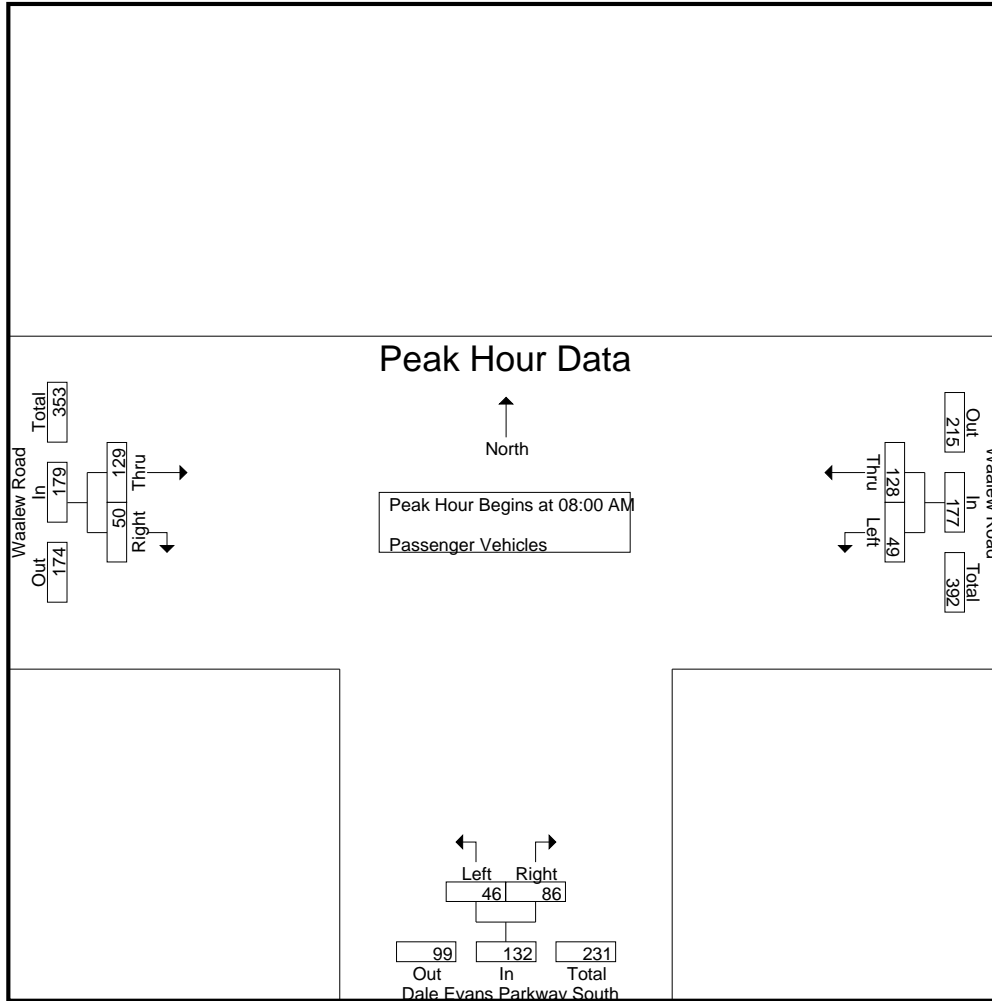
Groups Printed- Passenger Vehicles

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	6	40	46	4	18	22	18	5	23	91
07:15 AM	13	45	58	7	10	17	15	7	22	97
07:30 AM	5	49	54	5	20	25	30	6	36	115
07:45 AM	15	53	68	13	24	37	21	13	34	139
Total	39	187	226	29	72	101	84	31	115	442
08:00 AM	7	32	39	13	24	37	22	19	41	117
08:15 AM	11	38	49	8	14	22	28	10	38	109
08:30 AM	13	26	39	10	23	33	30	8	38	110
08:45 AM	18	32	50	15	25	40	49	13	62	152
Total	49	128	177	46	86	132	129	50	179	488
Grand Total	88	315	403	75	158	233	213	81	294	930
Apprch %	21.8	78.2		32.2	67.8		72.4	27.6		
Total %	9.5	33.9	43.3	8.1	17	25.1	22.9	8.7	31.6	

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	7	32	39	13	24	37	22	19	41	117
08:15 AM	11	38	49	8	14	22	28	10	38	109
08:30 AM	13	26	39	10	23	33	30	8	38	110
08:45 AM	18	32	50	15	25	40	49	13	62	152
Total Volume	49	128	177	46	86	132	129	50	179	488
% App. Total	27.7	72.3		34.8	65.2		72.1	27.9		
PHF	.681	.842	.885	.767	.860	.825	.658	.658	.722	.803

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 2



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	7	32	39	13	24	37	22	19	41
+15 mins.	11	38	49	8	14	22	28	10	38
+30 mins.	13	26	39	10	23	33	30	8	38
+45 mins.	18	32	50	15	25	40	49	13	62
Total Volume	49	128	177	46	86	132	129	50	179
% App. Total	27.7	72.3		34.8	65.2		72.1	27.9	
PHF	.681	.842	.885	.767	.860	.825	.658	.658	.722

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

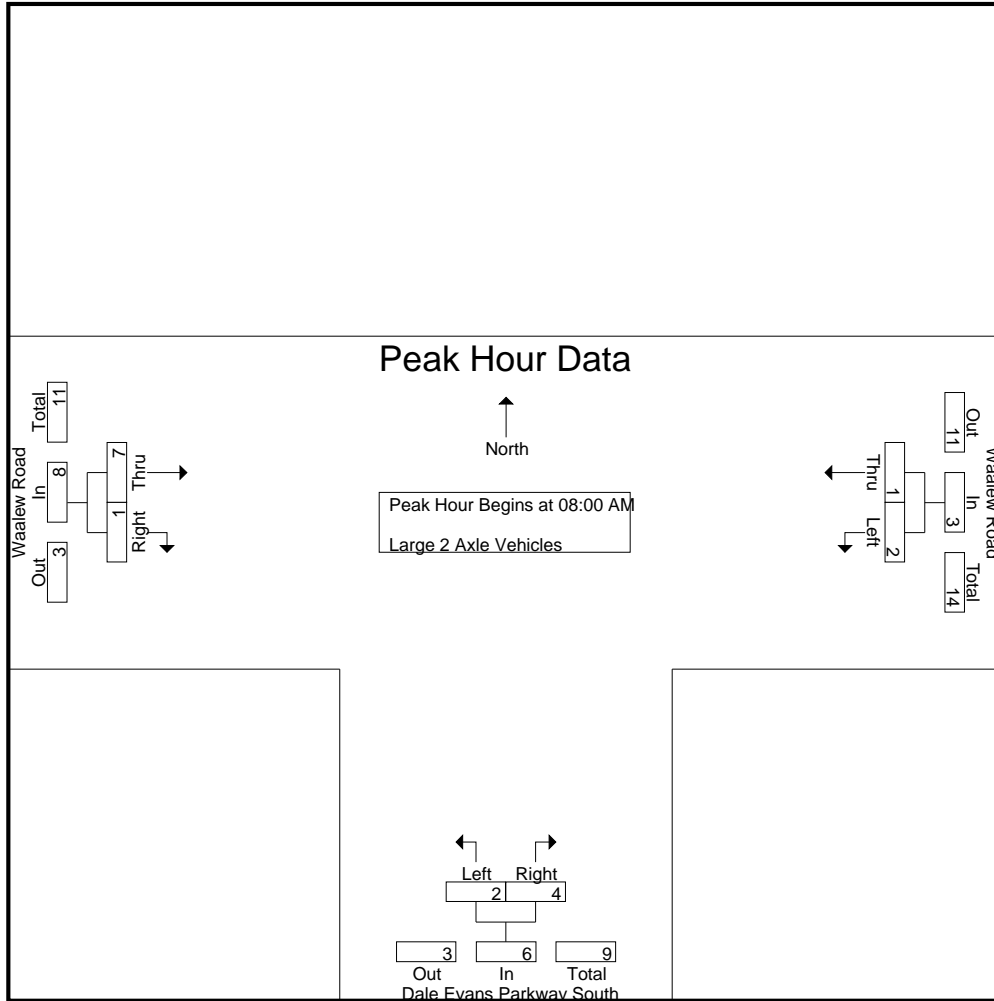
Groups Printed- Large 2 Axle Vehicles

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	2	3	0	0	0	1	0	1	4
07:45 AM	3	0	3	0	0	0	1	2	3	6
Total	4	2	6	0	0	0	3	2	5	11
08:00 AM	0	0	0	1	1	2	1	0	1	3
08:15 AM	1	0	1	0	1	1	1	0	1	3
08:30 AM	0	0	0	0	2	2	2	1	3	5
08:45 AM	1	1	2	1	0	1	3	0	3	6
Total	2	1	3	2	4	6	7	1	8	17
Grand Total	6	3	9	2	4	6	10	3	13	28
Apprch %	66.7	33.3		33.3	66.7		76.9	23.1		
Total %	21.4	10.7	32.1	7.1	14.3	21.4	35.7	10.7	46.4	

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	0	0	1	1	2	1	0	1	3
08:15 AM	1	0	1	0	1	1	1	0	1	3
08:30 AM	0	0	0	0	2	2	2	1	3	5
08:45 AM	1	1	2	1	0	1	3	0	3	6
Total Volume	2	1	3	2	4	6	7	1	8	17
% App. Total	66.7	33.3		33.3	66.7		87.5	12.5		
PHF	.500	.250	.375	.500	.500	.750	.583	.250	.667	.708

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 2



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	0	0	1	1	2	1	0	1
+15 mins.	1	0	1	0	1	1	1	0	1
+30 mins.	0	0	0	0	2	2	2	1	3
+45 mins.	1	1	2	1	0	1	3	0	3
Total Volume	2	1	3	2	4	6	7	1	8
% App. Total	66.7	33.3		33.3	66.7		87.5	12.5	
PHF	.500	.250	.375	.500	.500	.750	.583	.250	.667

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

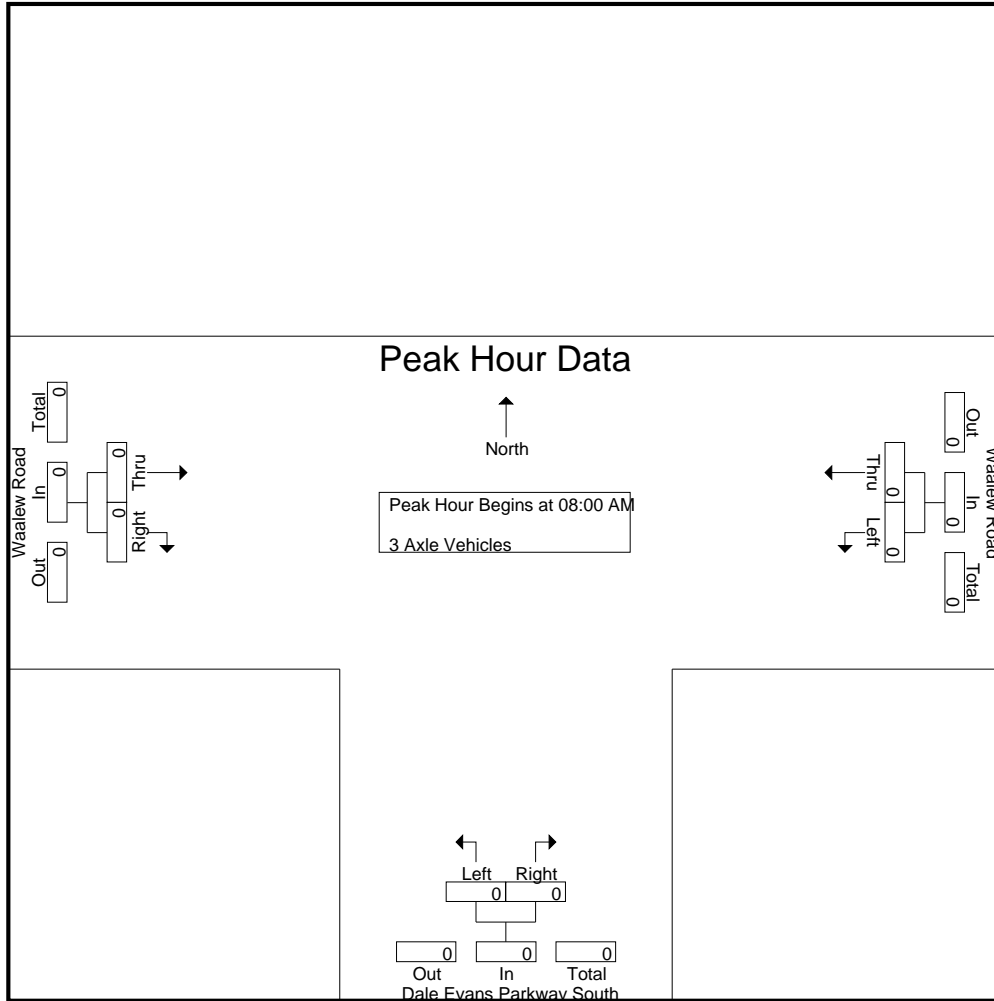
Groups Printed- 3 Axle Vehicles

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Apple Valley
 N/S: Dale Evans Parkway South
 E/W: Waalew Road
 Weather: Clear

File Name : 01_APV_DEP S_Waa AM
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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
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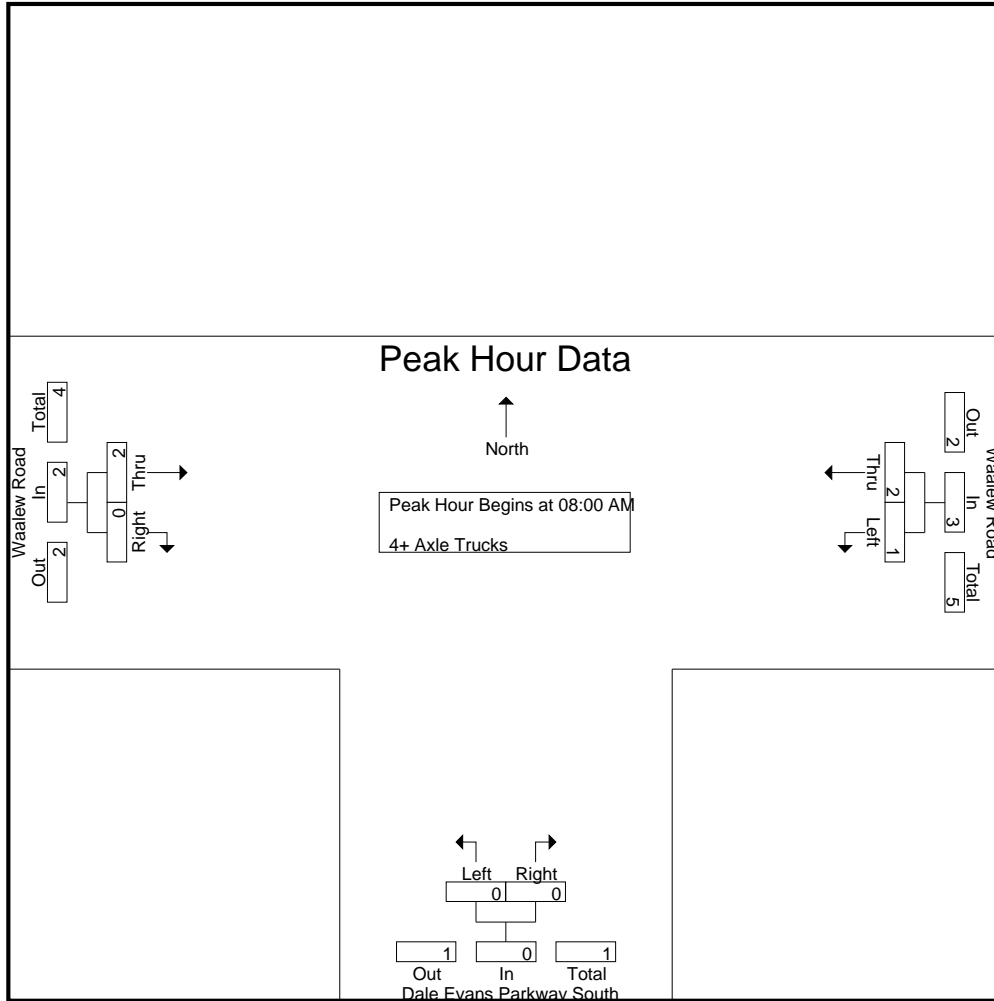
Groups Printed- 4+ Axle Trucks

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	2	0	2	2
07:15 AM	1	0	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	2	0	2	3
08:00 AM	0	1	1	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	0	1	0	1	1
08:30 AM	1	0	1	0	0	0	0	0	0	1
08:45 AM	0	1	1	0	0	0	0	0	0	1
Total	1	2	3	0	0	0	2	0	2	5
Grand Total	2	2	4	0	0	0	4	0	4	8
Apprch %	50	50		0	0		100	0		
Total %	25	25	50	0	0	0	50	0	50	

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	1	1	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	0	1	0	1	1
08:30 AM	1	0	1	0	0	0	0	0	0	1
08:45 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	1	2	3	0	0	0	2	0	2	5
% App. Total	33.3	66.7		0	0		100	0		
PHF	.250	.500	.750	.000	.000	.000	.500	.000	.500	.625

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa AM
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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	1	1	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	1	2	3	0	0	0	2	0	2
% App. Total	33.3	66.7		0	0		100	0	
PHF	.250	.500	.750	.000	.000	.000	.500	.000	.500

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa PM
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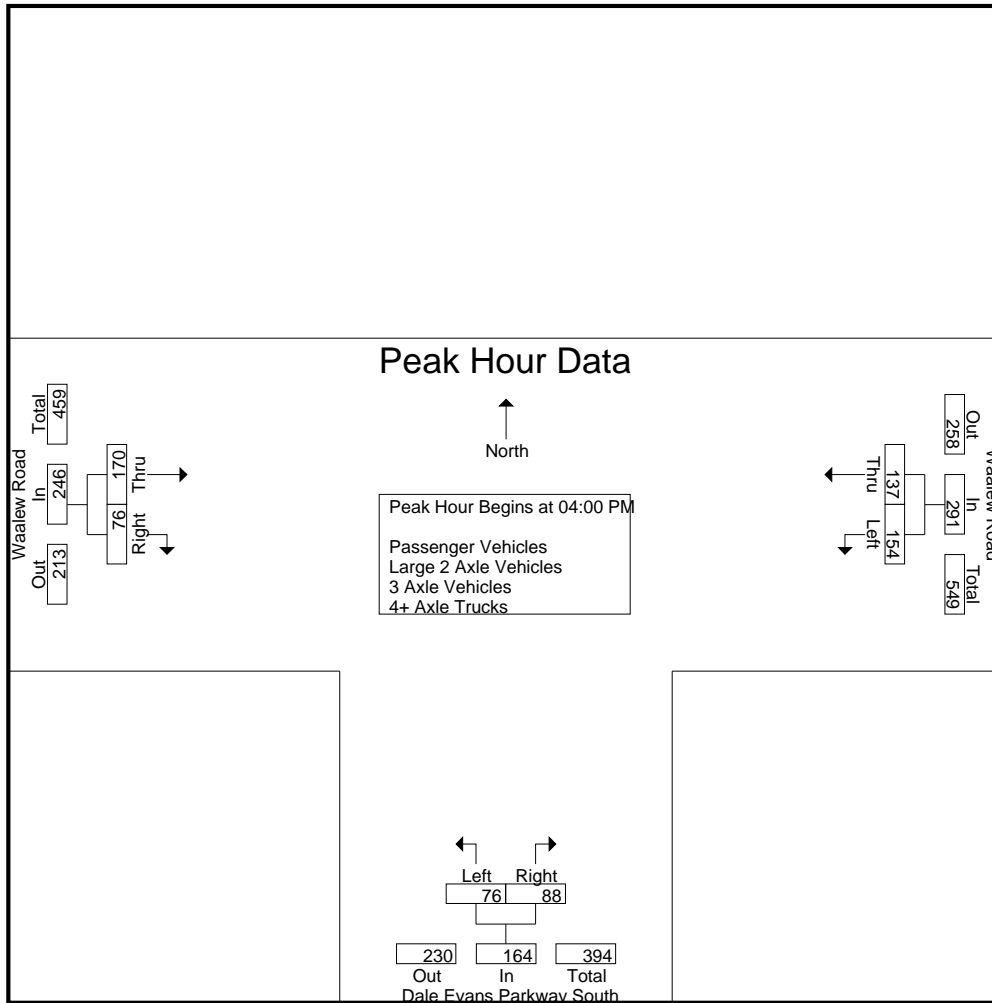
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	46	41	87	25	27	52	43	15	58	197
04:15 PM	29	26	55	21	17	38	39	9	48	141
04:30 PM	42	40	82	11	20	31	44	25	69	182
04:45 PM	37	30	67	19	24	43	44	27	71	181
Total	154	137	291	76	88	164	170	76	246	701
05:00 PM	47	35	82	20	18	38	36	14	50	170
05:15 PM	32	23	55	24	14	38	39	21	60	153
05:30 PM	44	15	59	12	12	24	47	17	64	147
05:45 PM	27	24	51	18	18	36	32	20	52	139
Total	150	97	247	74	62	136	154	72	226	609
Grand Total	304	234	538	150	150	300	324	148	472	1310
Apprch %	56.5	43.5		50	50		68.6	31.4		
Total %	23.2	17.9	41.1	11.5	11.5	22.9	24.7	11.3	36	
Passenger Vehicles	296	231	527	147	146	293	314	147	461	1281
% Passenger Vehicles	97.4	98.7	98	98	97.3	97.7	96.9	99.3	97.7	97.8
Large 2 Axle Vehicles	7	1	8	0	4	4	8	1	9	21
% Large 2 Axle Vehicles	2.3	0.4	1.5	0	2.7	1.3	2.5	0.7	1.9	1.6
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	1	2	3	3	0	3	2	0	2	8
% 4+ Axle Trucks	0.3	0.9	0.6	2	0	1	0.6	0	0.4	0.6

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	46	41	87	25	27	52	43	15	58	197
04:15 PM	29	26	55	21	17	38	39	9	48	141
04:30 PM	42	40	82	11	20	31	44	25	69	182
04:45 PM	37	30	67	19	24	43	44	27	71	181
Total Volume	154	137	291	76	88	164	170	76	246	701
% App. Total	52.9	47.1		46.3	53.7		69.1	30.9		
PHF	.837	.835	.836	.760	.815	.788	.966	.704	.866	.890

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:30 PM		
+0 mins.	46	41	87	25	27	52	44	25	69
+15 mins.	29	26	55	21	17	38	44	27	71
+30 mins.	42	40	82	11	20	31	36	14	50
+45 mins.	37	30	67	19	24	43	39	21	60
Total Volume	154	137	291	76	88	164	163	87	250
% App. Total	52.9	47.1		46.3	53.7		65.2	34.8	
PHF	.837	.835	.836	.760	.815	.788	.926	.806	.880

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa PM
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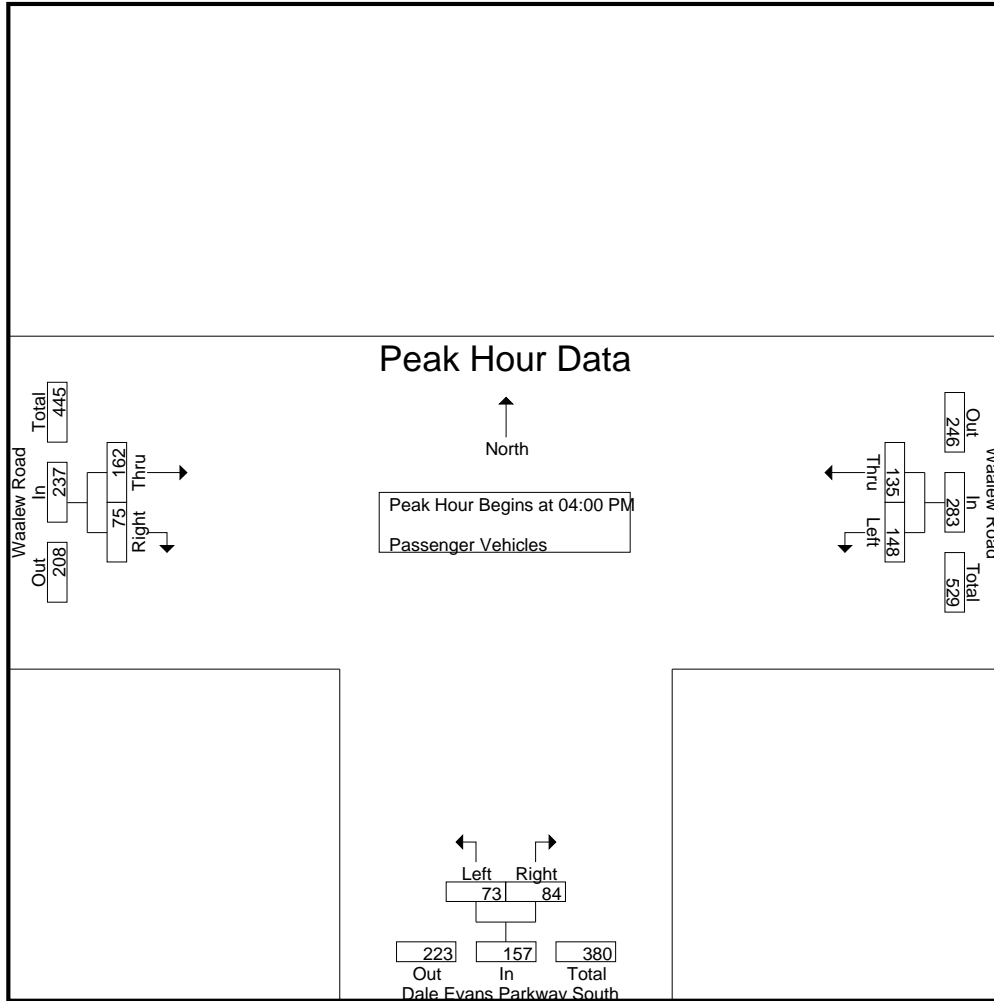
Groups Printed- Passenger Vehicles

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	42	41	83	24	24	48	39	15	54	185
04:15 PM	28	26	54	20	17	37	38	8	46	137
04:30 PM	41	38	79	10	20	30	43	25	68	177
04:45 PM	37	30	67	19	23	42	42	27	69	178
Total	148	135	283	73	84	157	162	75	237	677
05:00 PM	46	35	81	20	18	38	35	14	49	168
05:15 PM	31	23	54	24	14	38	39	21	60	152
05:30 PM	44	14	58	12	12	24	46	17	63	145
05:45 PM	27	24	51	18	18	36	32	20	52	139
Total	148	96	244	74	62	136	152	72	224	604
Grand Total	296	231	527	147	146	293	314	147	461	1281
Apprch %	56.2	43.8		50.2	49.8		68.1	31.9		
Total %	23.1	18	41.1	11.5	11.4	22.9	24.5	11.5	36	

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	42	41	83	24	24	48	39	15	54	185
04:15 PM	28	26	54	20	17	37	38	8	46	137
04:30 PM	41	38	79	10	20	30	43	25	68	177
04:45 PM	37	30	67	19	23	42	42	27	69	178
Total Volume	148	135	283	73	84	157	162	75	237	677
% App. Total	52.3	47.7		46.5	53.5		68.4	31.6		
PHF	.881	.823	.852	.760	.875	.818	.942	.694	.859	.915

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa PM
Site Code : 22524830
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	42	41	83	24	24	48	39	15	54
+15 mins.	28	26	54	20	17	37	38	8	46
+30 mins.	41	38	79	10	20	30	43	25	68
+45 mins.	37	30	67	19	23	42	42	27	69
Total Volume	148	135	283	73	84	157	162	75	237
% App. Total	52.3	47.7		46.5	53.5		68.4	31.6	
PHF	.881	.823	.852	.760	.875	.818	.942	.694	.859

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa PM
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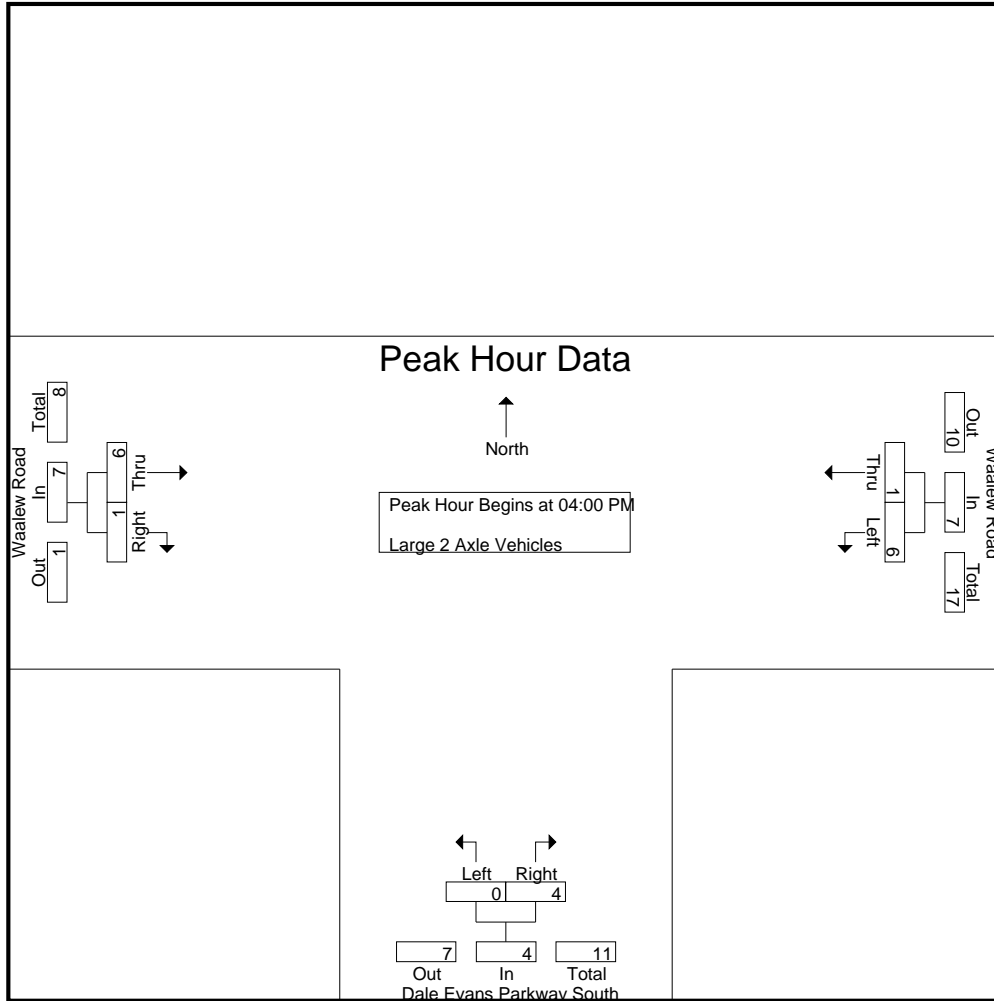
Groups Printed- Large 2 Axle Vehicles

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	4	0	4	0	3	3	4	0	4	11
04:15 PM	1	0	1	0	0	0	0	1	1	2
04:30 PM	1	1	2	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	1	1	2	0	2	3
Total	6	1	7	0	4	4	6	1	7	18
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	1	0	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	2	0	2	3
Grand Total	7	1	8	0	4	4	8	1	9	21
Apprch %	87.5	12.5		0	100		88.9	11.1		
Total %	33.3	4.8	38.1	0	19	19	38.1	4.8	42.9	

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	4	0	4	0	3	3	4	0	4	11
04:15 PM	1	0	1	0	0	0	0	1	1	2
04:30 PM	1	1	2	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	1	1	2	0	2	3
Total Volume	6	1	7	0	4	4	6	1	7	18
% App. Total	85.7	14.3		0	100		85.7	14.3		
PHF	.375	.250	.438	.000	.333	.333	.375	.250	.438	.409

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	4	0	4	0	3	3	4	0	4
+15 mins.	1	0	1	0	0	0	0	1	1
+30 mins.	1	1	2	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	2	0	2
Total Volume	6	1	7	0	4	4	6	1	7
% App. Total	85.7	14.3		0	100		85.7	14.3	
PHF	.375	.250	.438	.000	.333	.333	.375	.250	.438

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

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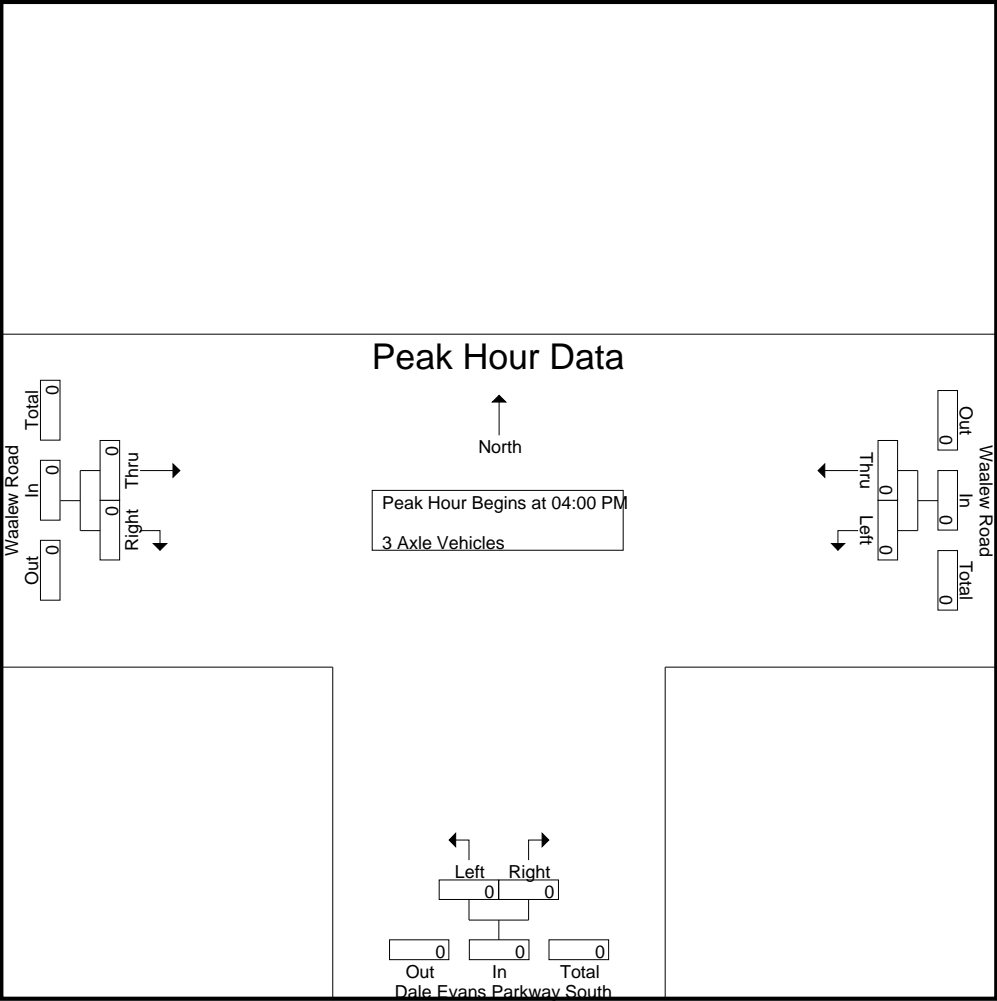
Groups Printed- 3 Axle Vehicles

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Apple Valley
 N/S: Dale Evans Parkway South
 E/W: Waalew Road
 Weather: Clear

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

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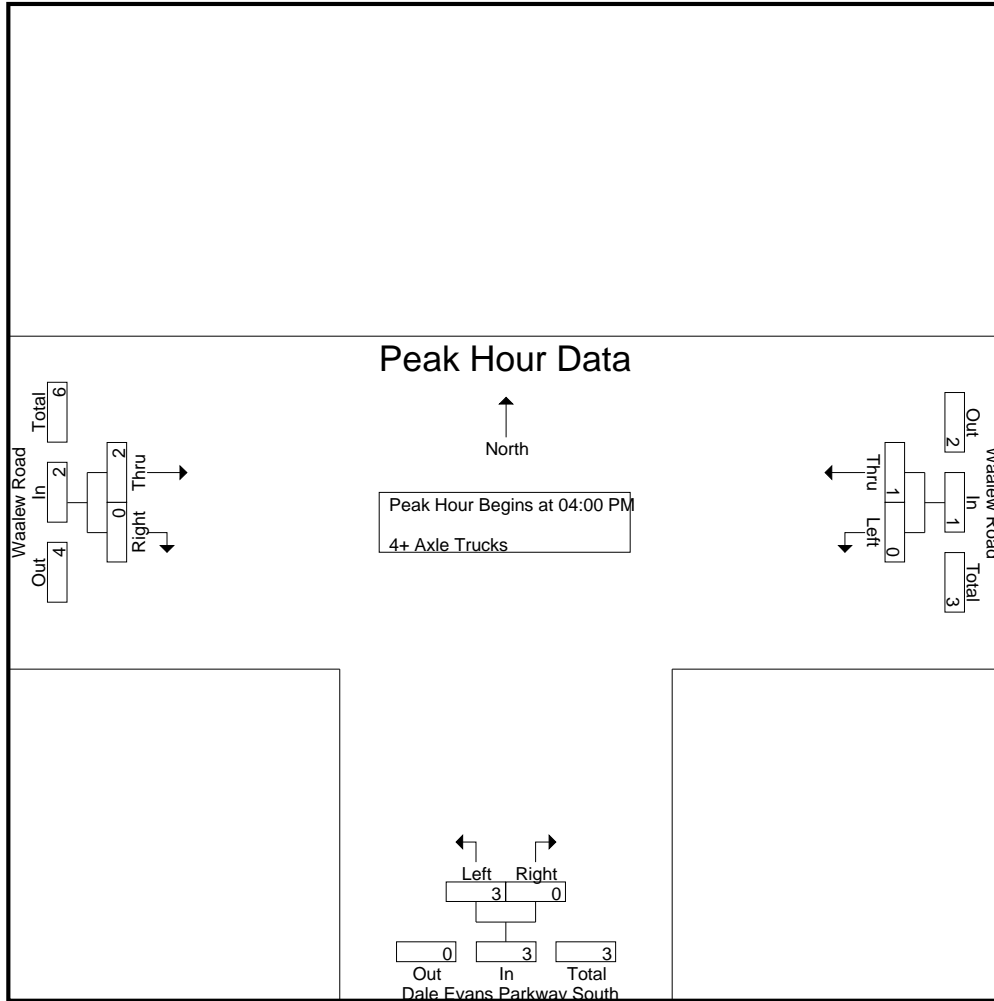
Groups Printed- 4+ Axle Trucks

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	1	0	1	0	0	0	1
04:15 PM	0	0	0	1	0	1	1	0	1	2
04:30 PM	0	1	1	1	0	1	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	3	0	3	2	0	2	6
05:00 PM	1	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	1	2	0	0	0	0	0	0	2
Grand Total	1	2	3	3	0	3	2	0	2	8
Apprch %	33.3	66.7		100	0		100	0		
Total %	12.5	25	37.5	37.5	0	37.5	25	0	25	

	Waalew Road Westbound			Dale Evans Parkway South Northbound			Waalew Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	1	0	1	0	0	0	1
04:15 PM	0	0	0	1	0	1	1	0	1	2
04:30 PM	0	1	1	1	0	1	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	3	0	3	2	0	2	6
% App. Total	0	100		100	0		100	0		
PHF	.000	.250	.250	.750	.000	.750	.500	.000	.500	.500

City of Apple Valley
N/S: Dale Evans Parkway South
E/W: Waalew Road
Weather: Clear

File Name : 01_APV_DEP S_Waa PM
Site Code : 22524830
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	1	0	1	1	0	1
+30 mins.	0	1	1	1	0	1	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	3	0	3	2	0	2
% App. Total	0	100		100	0		100	0	
PHF	.000	.250	.250	.750	.000	.750	.500	.000	.500

Location: Apple Valley
 N/S: Dale Evans Pkwy South
 E/W: Waalew Road



Date: 3/6/2024
 Day: Wednesday

PEDESTRIANS

	North Leg Dead End	East Leg Waalew Road	South Leg Dale Evans Pkwy South	West Leg Waalew Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Dead End	East Leg Waalew Road	South Leg Dale Evans Pkwy South	West Leg Waalew Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Apple Valley
 N/S: Dale Evans Pkwy South
 E/W: Waalew Road



Date: 3/6/2024
 Day: Wednesday

BICYCLES

		Southbound Dead End			Westbound Waalew Road			Northbound Dale Evans Pkwy South			Eastbound Waalew Road			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	1	0	0	0	0	0	0	0	0	1

		Southbound Dead End			Westbound Waalew Road			Northbound Dale Evans Pkwy South			Eastbound Waalew Road			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa AM
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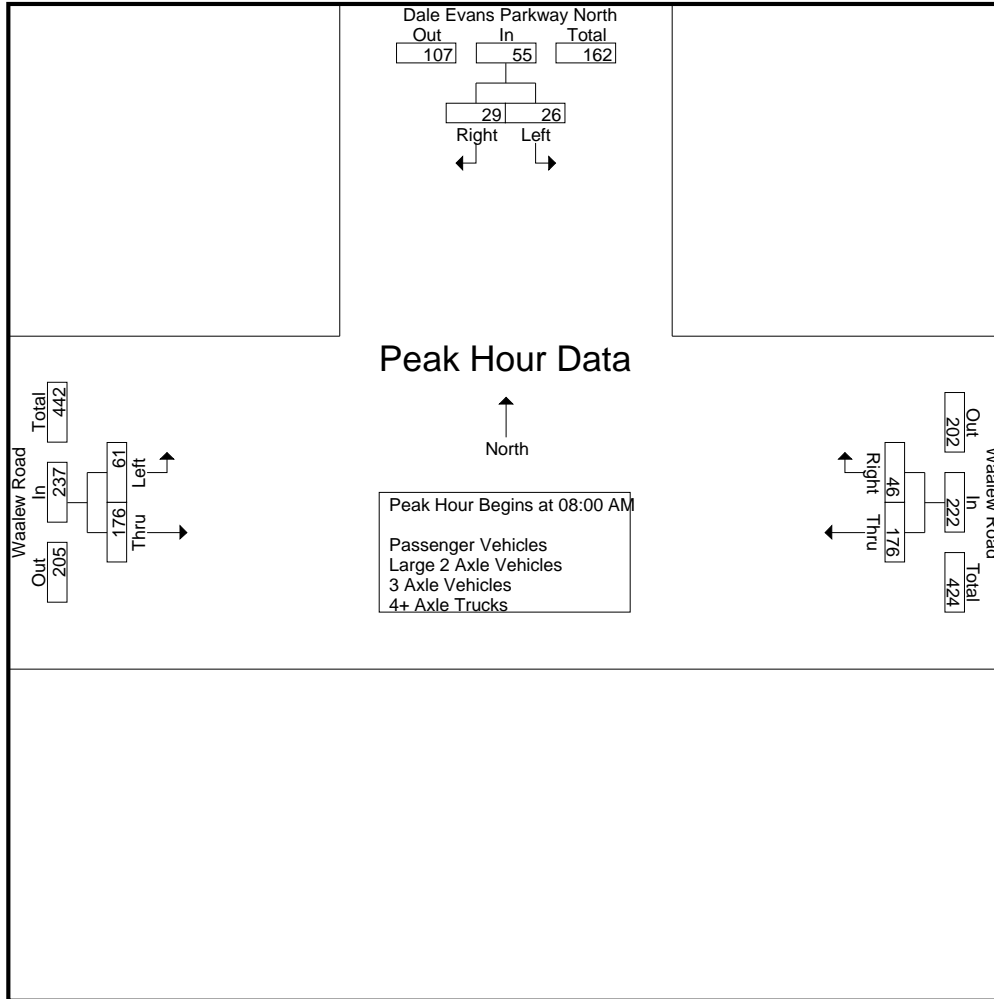
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	4	4	8	46	8	54	19	22	41	103
07:15 AM	4	7	11	58	6	64	16	16	32	107
07:30 AM	4	6	10	56	19	75	22	28	50	135
07:45 AM	10	10	20	58	19	77	21	28	49	146
Total	22	27	49	218	52	270	78	94	172	491
08:00 AM	9	6	15	37	10	47	24	24	48	110
08:15 AM	5	4	9	44	9	53	12	36	48	110
08:30 AM	6	8	14	38	12	50	13	44	57	121
08:45 AM	6	11	17	57	15	72	12	72	84	173
Total	26	29	55	176	46	222	61	176	237	514
Grand Total	48	56	104	394	98	492	139	270	409	1005
Apprch %	46.2	53.8		80.1	19.9		34	66		
Total %	4.8	5.6	10.3	39.2	9.8	49	13.8	26.9	40.7	
Passenger Vehicles	45	49	94	385	90	475	132	254	386	955
% Passenger Vehicles	93.8	87.5	90.4	97.7	91.8	96.5	95	94.1	94.4	95
Large 2 Axle Vehicles	3	5	8	7	7	14	6	11	17	39
% Large 2 Axle Vehicles	6.2	8.9	7.7	1.8	7.1	2.8	4.3	4.1	4.2	3.9
3 Axle Vehicles	0	0	0	0	0	0	1	0	1	1
% 3 Axle Vehicles	0	0	0	0	0	0	0.7	0	0.2	0.1
4+ Axle Trucks	0	2	2	2	1	3	0	5	5	10
% 4+ Axle Trucks	0	3.6	1.9	0.5	1	0.6	0	1.9	1.2	1

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	9	6	15	37	10	47	24	24	48	110
08:15 AM	5	4	9	44	9	53	12	36	48	110
08:30 AM	6	8	14	38	12	50	13	44	57	121
08:45 AM	6	11	17	57	15	72	12	72	84	173
Total Volume	26	29	55	176	46	222	61	176	237	514
% App. Total	47.3	52.7		79.3	20.7		25.7	74.3		
PHF	.722	.659	.809	.772	.767	.771	.635	.611	.705	.743

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM			07:00 AM			08:00 AM		
+0 mins.	10	10	20	46	8	54	24	48	48
+15 mins.	9	6	15	58	6	64	12	36	48
+30 mins.	5	4	9	56	19	75	13	44	57
+45 mins.	6	8	14	58	19	77	12	72	84
Total Volume	30	28	58	218	52	270	61	176	237
% App. Total	51.7	48.3		80.7	19.3		25.7	74.3	
PHF	.750	.700	.725	.940	.684	.877	.635	.611	.705

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa AM
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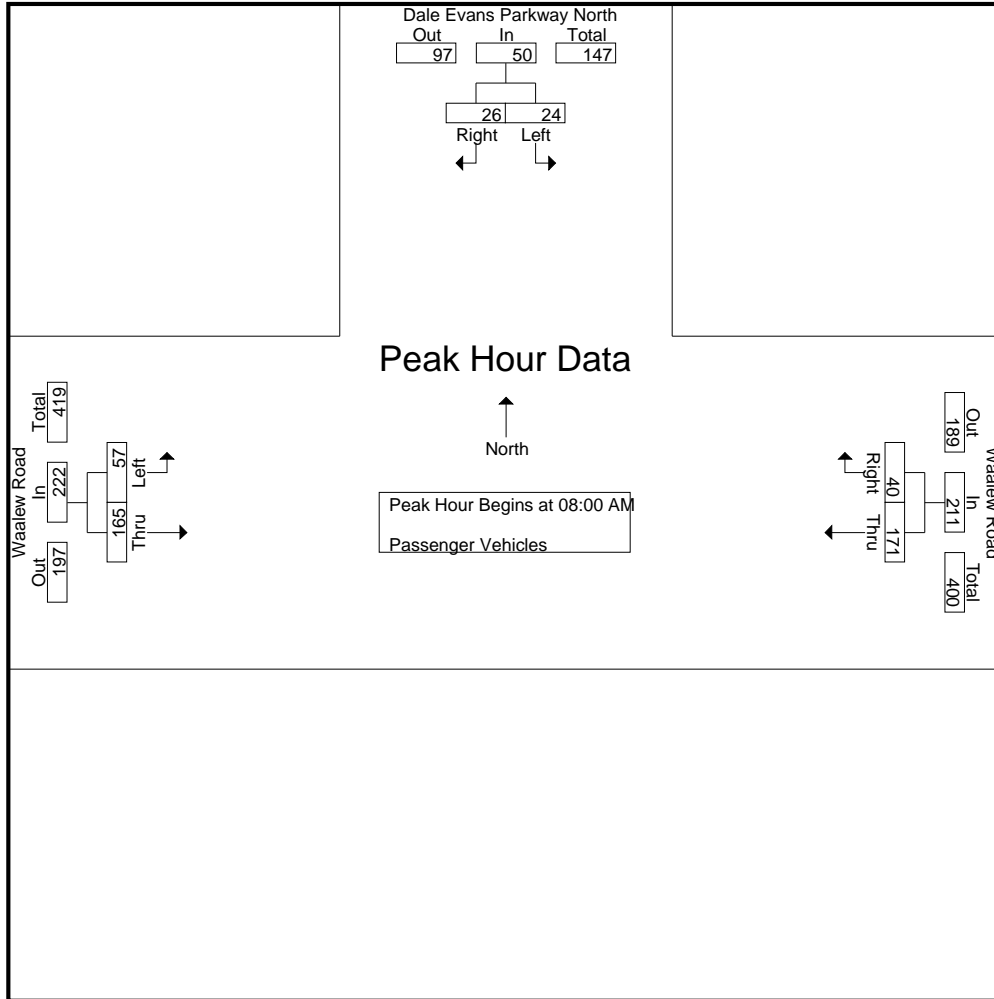
Groups Printed- Passenger Vehicles

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	4	4	8	46	8	54	18	20	38	100
07:15 AM	4	6	10	58	4	62	16	15	31	103
07:30 AM	4	5	9	54	19	73	22	27	49	131
07:45 AM	9	8	17	56	19	75	19	27	46	138
Total	21	23	44	214	50	264	75	89	164	472
08:00 AM	8	6	14	36	8	44	22	23	45	103
08:15 AM	5	4	9	43	8	51	12	33	45	105
08:30 AM	5	6	11	37	11	48	12	40	52	111
08:45 AM	6	10	16	55	13	68	11	69	80	164
Total	24	26	50	171	40	211	57	165	222	483
Grand Total	45	49	94	385	90	475	132	254	386	955
Apprch %	47.9	52.1		81.1	18.9		34.2	65.8		
Total %	4.7	5.1	9.8	40.3	9.4	49.7	13.8	26.6	40.4	

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	8	6	14	36	8	44	22	23	45	103
08:15 AM	5	4	9	43	8	51	12	33	45	105
08:30 AM	5	6	11	37	11	48	12	40	52	111
08:45 AM	6	10	16	55	13	68	11	69	80	164
Total Volume	24	26	50	171	40	211	57	165	222	483
% App. Total	48	52		81	19		25.7	74.3		
PHF	.750	.650	.781	.777	.769	.776	.648	.598	.694	.736

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	8	6	14	36	8	44	22	23	45
+15 mins.	5	4	9	43	8	51	12	33	45
+30 mins.	5	6	11	37	11	48	12	40	52
+45 mins.	6	10	16	55	13	68	11	69	80
Total Volume	24	26	50	171	40	211	57	165	222
% App. Total	48	52		81	19		25.7	74.3	
PHF	.750	.650	.781	.777	.769	.776	.648	.598	.694

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

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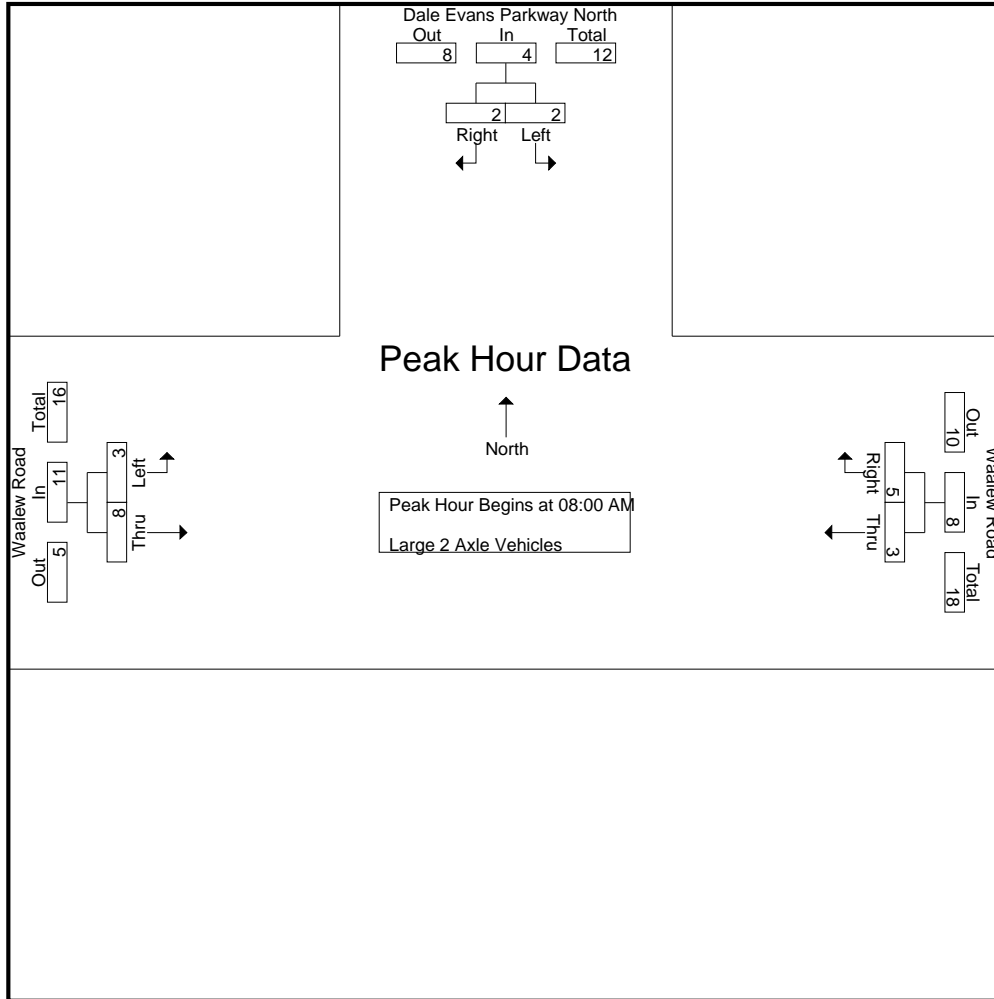
Groups Printed- Large 2 Axle Vehicles

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	2	2	0	1	1	3
07:30 AM	0	1	1	2	0	2	0	1	1	4
07:45 AM	1	2	3	2	0	2	2	1	3	8
Total	1	3	4	4	2	6	3	3	6	16
08:00 AM	1	0	1	0	2	2	2	0	2	5
08:15 AM	0	0	0	1	1	2	0	2	2	4
08:30 AM	1	1	2	1	0	1	0	3	3	6
08:45 AM	0	1	1	1	2	3	1	3	4	8
Total	2	2	4	3	5	8	3	8	11	23
Grand Total	3	5	8	7	7	14	6	11	17	39
Apprch %	37.5	62.5		50	50		35.3	64.7		
Total %	7.7	12.8	20.5	17.9	17.9	35.9	15.4	28.2	43.6	

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	1	0	1	0	2	2	2	0	2	5
08:15 AM	0	0	0	1	1	2	0	2	2	4
08:30 AM	1	1	2	1	0	1	0	3	3	6
08:45 AM	0	1	1	1	2	3	1	3	4	8
Total Volume	2	2	4	3	5	8	3	8	11	23
% App. Total	50	50		37.5	62.5		27.3	72.7		
PHF	.500	.500	.500	.750	.625	.667	.375	.667	.688	.719

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa AM
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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	1	0	1	0	2	2	2	0	2
+15 mins.	0	0	0	1	1	2	0	2	2
+30 mins.	1	1	2	1	0	1	0	3	3
+45 mins.	0	1	1	1	2	3	1	3	4
Total Volume	2	2	4	3	5	8	3	8	11
% App. Total	50	50		37.5	62.5		27.3	72.7	
PHF	.500	.500	.500	.750	.625	.667	.375	.667	.688

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa AM
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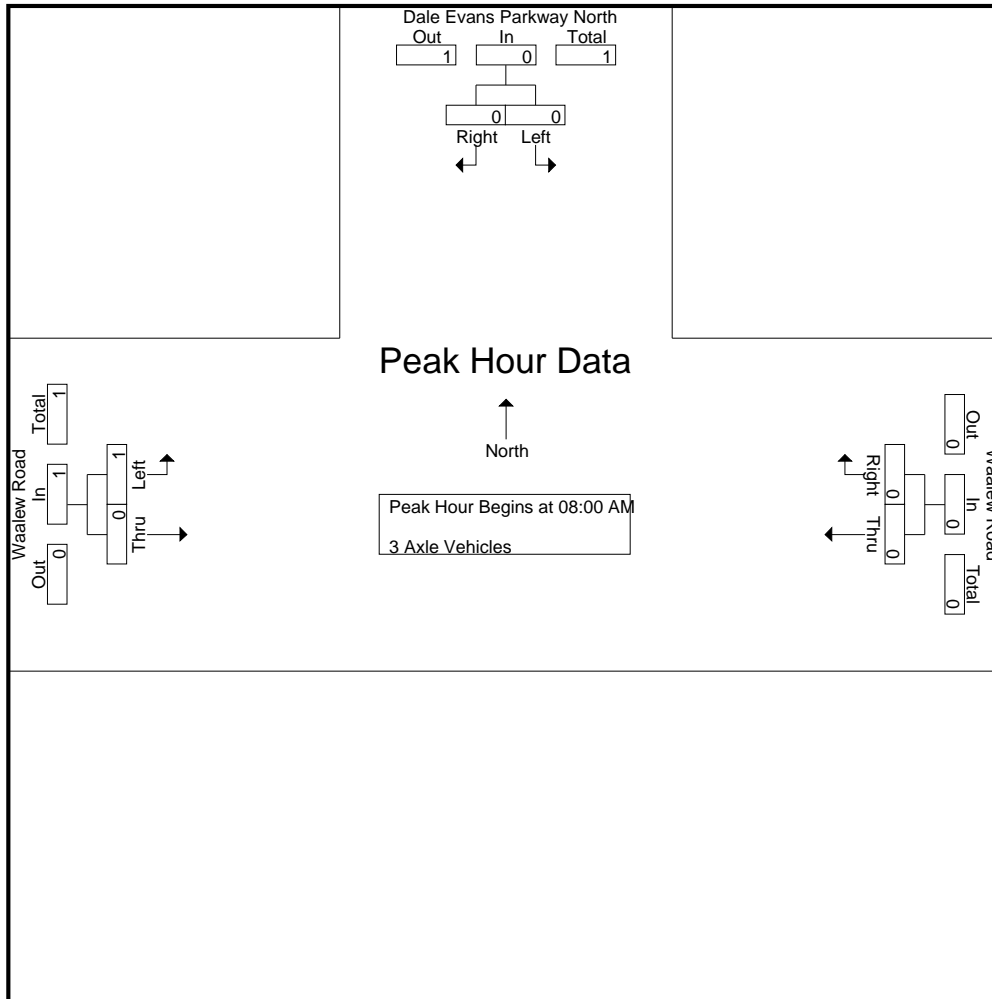
Groups Printed- 3 Axle Vehicles

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0		0	0		100	0		
Total %	0	0	0	0	0	0	100	0	100	

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0		0	0		100	0	
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

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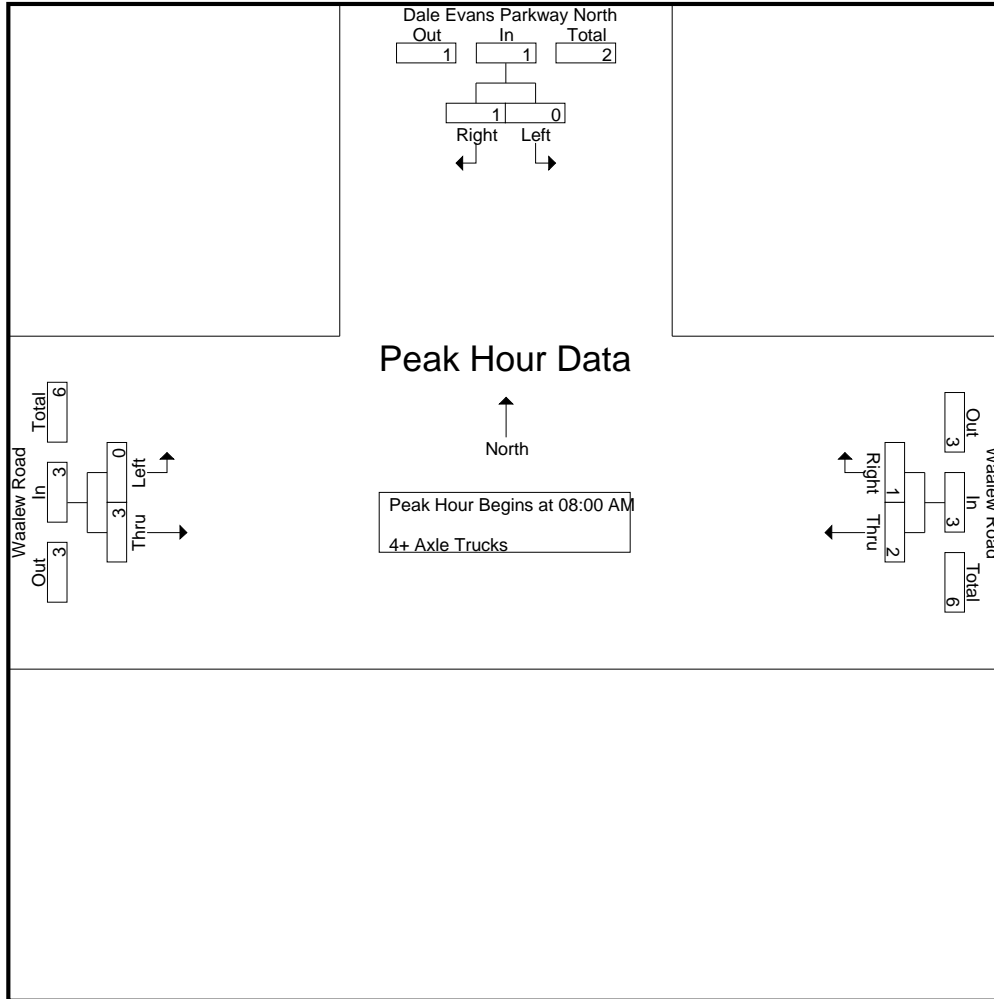
Groups Printed- 4+ Axle Trucks

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	2	2	2
07:15 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	0	2	2	3
08:00 AM	0	0	0	1	0	1	0	1	1	2
08:15 AM	0	0	0	0	0	0	0	1	1	1
08:30 AM	0	1	1	0	1	1	0	1	1	3
08:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	1	1	2	1	3	0	3	3	7
Grand Total	0	2	2	2	1	3	0	5	5	10
Apprch %	0	100		66.7	33.3		0	100		
Total %	0	20	20	20	10	30	0	50	50	

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	0	0	1	0	1	0	1	1	2
08:15 AM	0	0	0	0	0	0	0	1	1	1
08:30 AM	0	1	1	0	1	1	0	1	1	3
08:45 AM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	1	1	2	1	3	0	3	3	7
% App. Total	0	100		66.7	33.3		0	100		
PHF	.000	.250	.250	.500	.250	.750	.000	.750	.750	.583

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	0	0	1	0	1	0	1	1
+15 mins.	0	0	0	0	0	0	0	1	1
+30 mins.	0	1	1	0	1	1	0	1	1
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	1	1	2	1	3	0	3	3
% App. Total	0	100		66.7	33.3		0	100	
PHF	.000	.250	.250	.500	.250	.750	.000	.750	.750

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa PM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

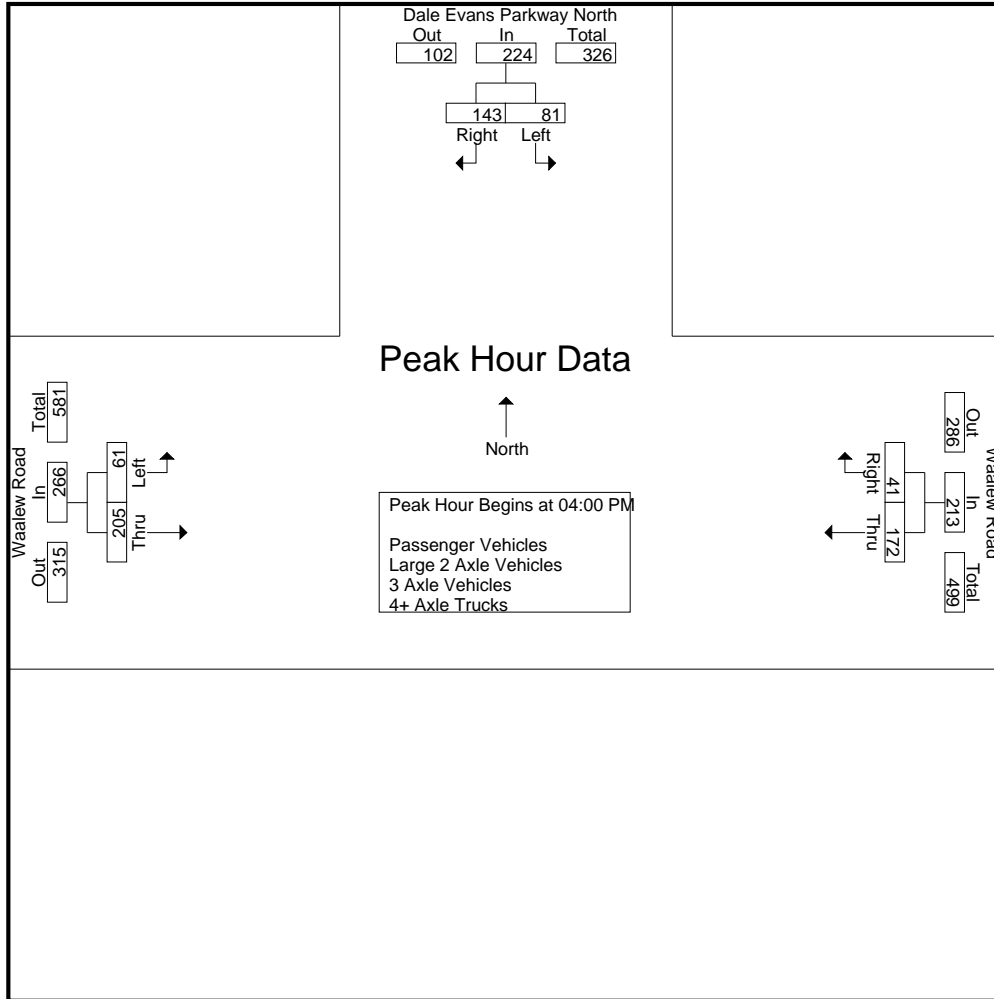
	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	20	41	61	48	9	57	15	56	71	189
04:15 PM	21	23	44	34	17	51	14	43	57	152
04:30 PM	19	48	67	44	4	48	15	48	63	178
04:45 PM	21	31	52	46	11	57	17	58	75	184
Total	81	143	224	172	41	213	61	205	266	703
05:00 PM	19	40	59	49	2	51	13	42	55	165
05:15 PM	13	29	42	33	5	38	11	45	56	136
05:30 PM	11	39	50	26	8	34	8	52	60	144
05:45 PM	19	17	36	39	9	48	14	44	58	142
Total	62	125	187	147	24	171	46	183	229	587
Grand Total	143	268	411	319	65	384	107	388	495	1290
Apprch %	34.8	65.2		83.1	16.9		21.6	78.4		
Total %	11.1	20.8	31.9	24.7	5	29.8	8.3	30.1	38.4	
Passenger Vehicles	136	264	400	313	64	377	102	374	476	1253
% Passenger Vehicles	95.1	98.5	97.3	98.1	98.5	98.2	95.3	96.4	96.2	97.1
Large 2 Axle Vehicles	6	3	9	4	1	5	4	12	16	30
% Large 2 Axle Vehicles	4.2	1.1	2.2	1.3	1.5	1.3	3.7	3.1	3.2	2.3
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	1	1	2	2	0	2	1	2	3	7
% 4+ Axle Trucks	0.7	0.4	0.5	0.6	0	0.5	0.9	0.5	0.6	0.5

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	20	41	61	48	9	57	15	56	71	189
04:15 PM	21	23	44	34	17	51	14	43	57	152
04:30 PM	19	48	67	44	4	48	15	48	63	178
04:45 PM	21	31	52	46	11	57	17	58	75	184
Total Volume	81	143	224	172	41	213	61	205	266	703
% App. Total	36.2	63.8		80.8	19.2		22.9	77.1		
PHF	.964	.745	.836	.896	.603	.934	.897	.884	.887	.930

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa PM
Site Code : 22524830
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	20	41	61	48	9	57	15	56	71
+15 mins.	21	23	44	34	17	51	14	43	57
+30 mins.	19	48	67	44	4	48	15	48	63
+45 mins.	21	31	52	46	11	57	17	58	75
Total Volume	81	143	224	172	41	213	61	205	266
% App. Total	36.2	63.8		80.8	19.2		22.9	77.1	
PHF	.964	.745	.836	.896	.603	.934	.897	.884	.887

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

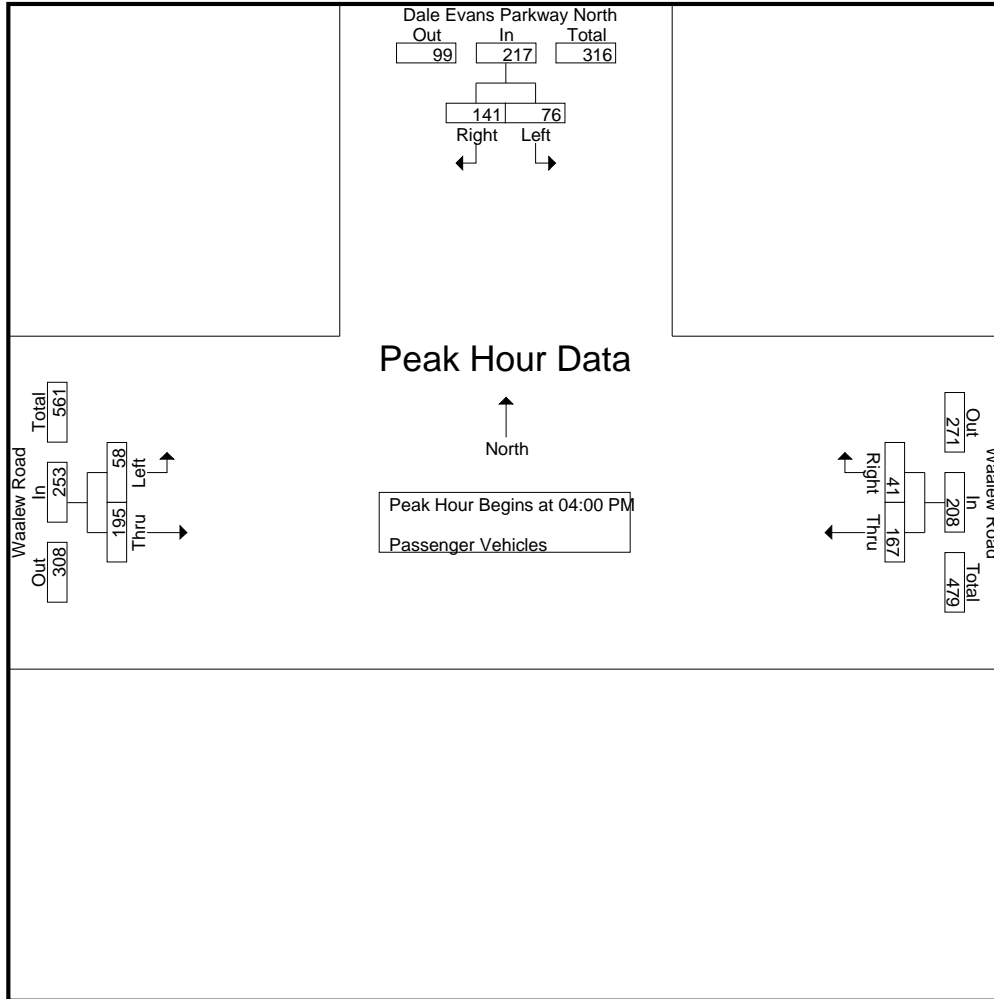
Groups Printed- Passenger Vehicles

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	19	40	59	45	9	54	14	50	64	177
04:15 PM	17	23	40	34	17	51	14	41	55	146
04:30 PM	19	47	66	42	4	46	14	48	62	174
04:45 PM	21	31	52	46	11	57	16	56	72	181
Total	76	141	217	167	41	208	58	195	253	678
05:00 PM	19	39	58	49	2	51	12	42	54	163
05:15 PM	12	28	40	33	5	38	11	45	56	134
05:30 PM	10	39	49	25	8	33	8	50	58	140
05:45 PM	19	17	36	39	8	47	13	42	55	138
Total	60	123	183	146	23	169	44	179	223	575
Grand Total	136	264	400	313	64	377	102	374	476	1253
Apprch %	34	66		83	17		21.4	78.6		
Total %	10.9	21.1	31.9	25	5.1	30.1	8.1	29.8	38	

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	19	40	59	45	9	54	14	50	64	177
04:15 PM	17	23	40	34	17	51	14	41	55	146
04:30 PM	19	47	66	42	4	46	14	48	62	174
04:45 PM	21	31	52	46	11	57	16	56	72	181
Total Volume	76	141	217	167	41	208	58	195	253	678
% App. Total	35	65		80.3	19.7		22.9	77.1		
PHF	.905	.750	.822	.908	.603	.912	.906	.871	.878	.936

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	19	40	59	45	9	54	14	50	64
+15 mins.	17	23	40	34	17	51	14	41	55
+30 mins.	19	47	66	42	4	46	14	48	62
+45 mins.	21	31	52	46	11	57	16	56	72
Total Volume	76	141	217	167	41	208	58	195	253
% App. Total	35	65		80.3	19.7		22.9	77.1	
PHF	.905	.750	.822	.908	.603	.912	.906	.871	.878

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
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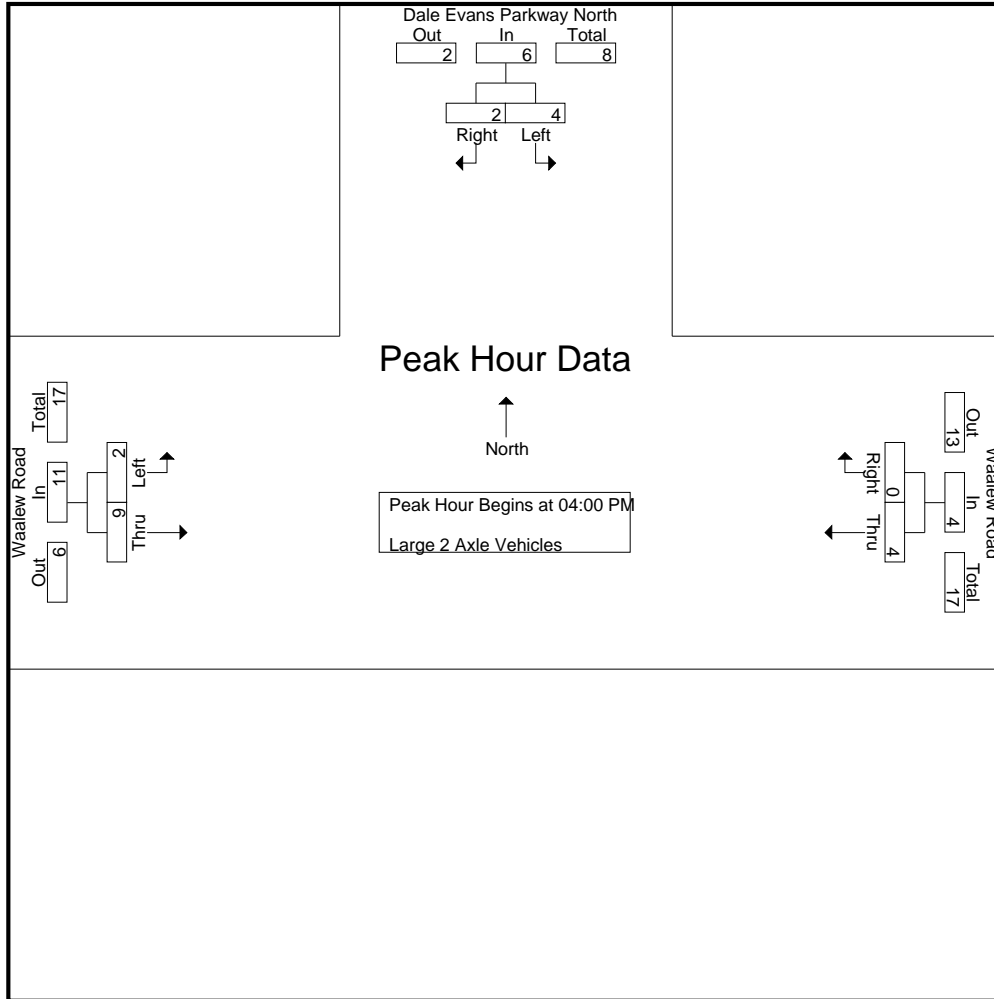
Groups Printed- Large 2 Axle Vehicles

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	1	1	2	3	0	3	1	6	7	12
04:15 PM	3	0	3	0	0	0	0	1	1	4
04:30 PM	0	1	1	1	0	1	0	0	0	2
04:45 PM	0	0	0	0	0	0	1	2	3	3
Total	4	2	6	4	0	4	2	9	11	21
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	1	1	2	0	0	0	0	0	0	2
05:30 PM	1	0	1	0	0	0	0	2	2	3
05:45 PM	0	0	0	0	1	1	1	1	2	3
Total	2	1	3	0	1	1	2	3	5	9
Grand Total	6	3	9	4	1	5	4	12	16	30
Apprch %	66.7	33.3		80	20		25	75		
Total %	20	10	30	13.3	3.3	16.7	13.3	40	53.3	

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	1	2	3	0	3	1	6	7	12
04:15 PM	3	0	3	0	0	0	0	1	1	4
04:30 PM	0	1	1	1	0	1	0	0	0	2
04:45 PM	0	0	0	0	0	0	1	2	3	3
Total Volume	4	2	6	4	0	4	2	9	11	21
% App. Total	66.7	33.3		100	0		18.2	81.8		
PHF	.333	.500	.500	.333	.000	.333	.500	.375	.393	.438

City of Apple Valley
 N/S: Dale Evans Parkway North
 E/W: Waalew Road
 Weather: Clear

File Name : 02_APV_DEP N_Waa PM
 Site Code : 22524830
 Start Date : 9/24/2024
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	1	1	2	3	0	3	1	6	7
+15 mins.	3	0	3	0	0	0	0	1	1
+30 mins.	0	1	1	1	0	1	0	0	0
+45 mins.	0	0	0	0	0	0	1	2	3
Total Volume	4	2	6	4	0	4	2	9	11
% App. Total	66.7	33.3		100	0		18.2	81.8	
PHF	.333	.500	.500	.333	.000	.333	.500	.375	.393

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

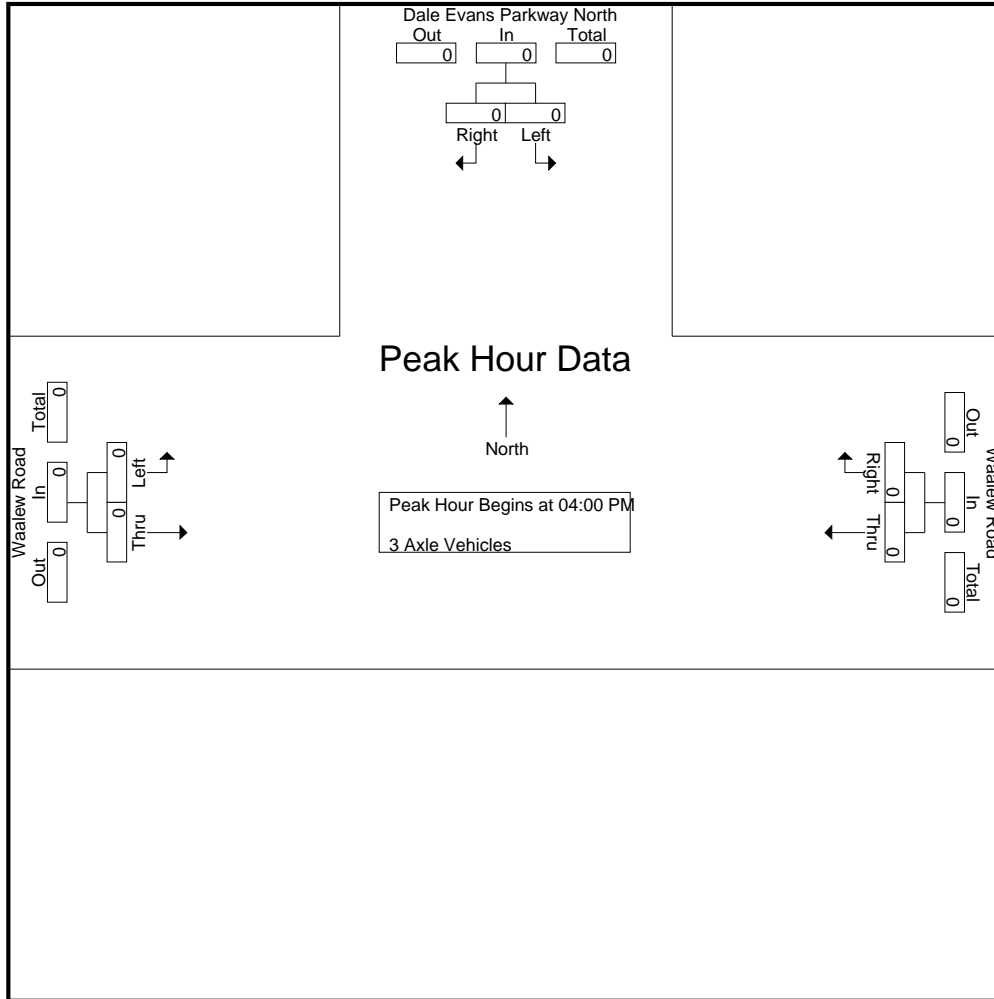
Groups Printed- 3 Axle Vehicles

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Apple Valley
 N/S: Dale Evans Parkway North
 E/W: Waalew Road
 Weather: Clear

File Name : 02_APV_DEP N_Waa PM
 Site Code : 22524830
 Start Date : 9/24/2024
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

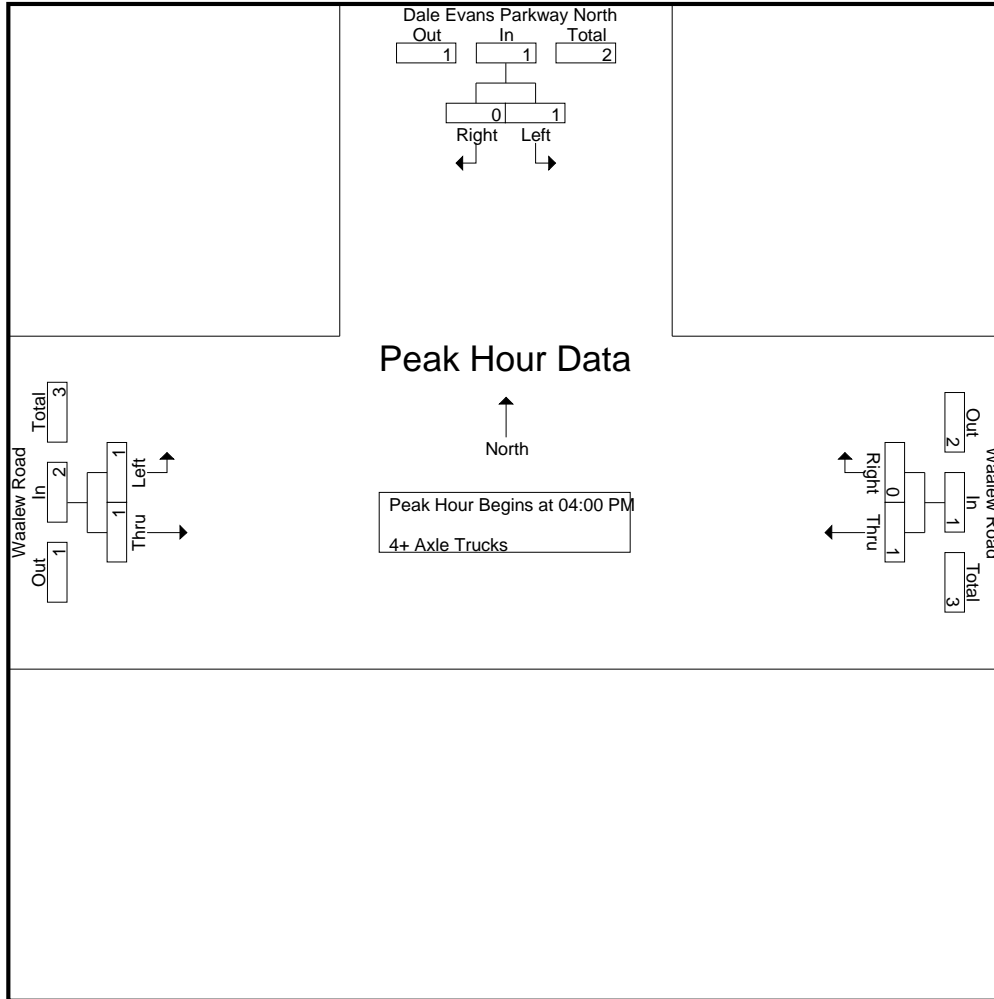
Groups Printed- 4+ Axle Trucks

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	1	0	0	0	0	1	1	2
04:30 PM	0	0	0	1	0	1	1	0	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	1	0	1	1	1	2	4
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	1	0	1	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	1	1	1
Total	0	1	1	1	0	1	0	1	1	3
Grand Total	1	1	2	2	0	2	1	2	3	7
Apprch %	50	50		100	0		33.3	66.7		
Total %	14.3	14.3	28.6	28.6	0	28.6	14.3	28.6	42.9	

	Dale Evans Parkway North Southbound			Waalew Road Westbound			Waalew Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	1	0	0	0	0	1	1	2
04:30 PM	0	0	0	1	0	1	1	0	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	1	0	1	1	1	2	4
% App. Total	100	0		100	0		50	50		
PHF	.250	.000	.250	.250	.000	.250	.250	.250	.500	.500

City of Apple Valley
N/S: Dale Evans Parkway North
E/W: Waalew Road
Weather: Clear

File Name : 02_APV_DEP N_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	1	0	0	0	0	1	1
+30 mins.	0	0	0	1	0	1	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	1	0	1	1	1	2
% App. Total	100	0		100	0		50	50	
PHF	.250	.000	.250	.250	.000	.250	.250	.250	.500

Location: Apple Valley
 N/S: Dale Evans Pkwy North
 E/W: Waalew Road



Date: 3/6/2024
 Day: Wednesday

PEDESTRIANS

		North Leg Dale Evans Pkwy North	East Leg Waalew Road	South Leg Dead End	West Leg Waalew Road	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	1	0	0	0	1
	8:45 AM	0	0	0	0	0
	TOTAL VOLUMES:	1	0	0	0	1

		North Leg Dale Evans Pkwy North	East Leg Waalew Road	South Leg Dead End	West Leg Waalew Road	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	2	0	0	4	6
	5:30 PM	2	0	0	0	2
	5:45 PM	0	0	0	0	0
	TOTAL VOLUMES:	4	0	0	4	8

Location: Apple Valley
 N/S: Dale Evans Pkwy North
 E/W: Waalew Road



Date: 3/6/2024
 Day: Wednesday

BICYCLES

		Southbound Dale Evans Pkwy North			Westbound Waalew Road			Northbound Dead End			Eastbound Waalew Road			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

		Southbound Dale Evans Pkwy North			Westbound Waalew Road			Northbound Dead End			Eastbound Waalew Road			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

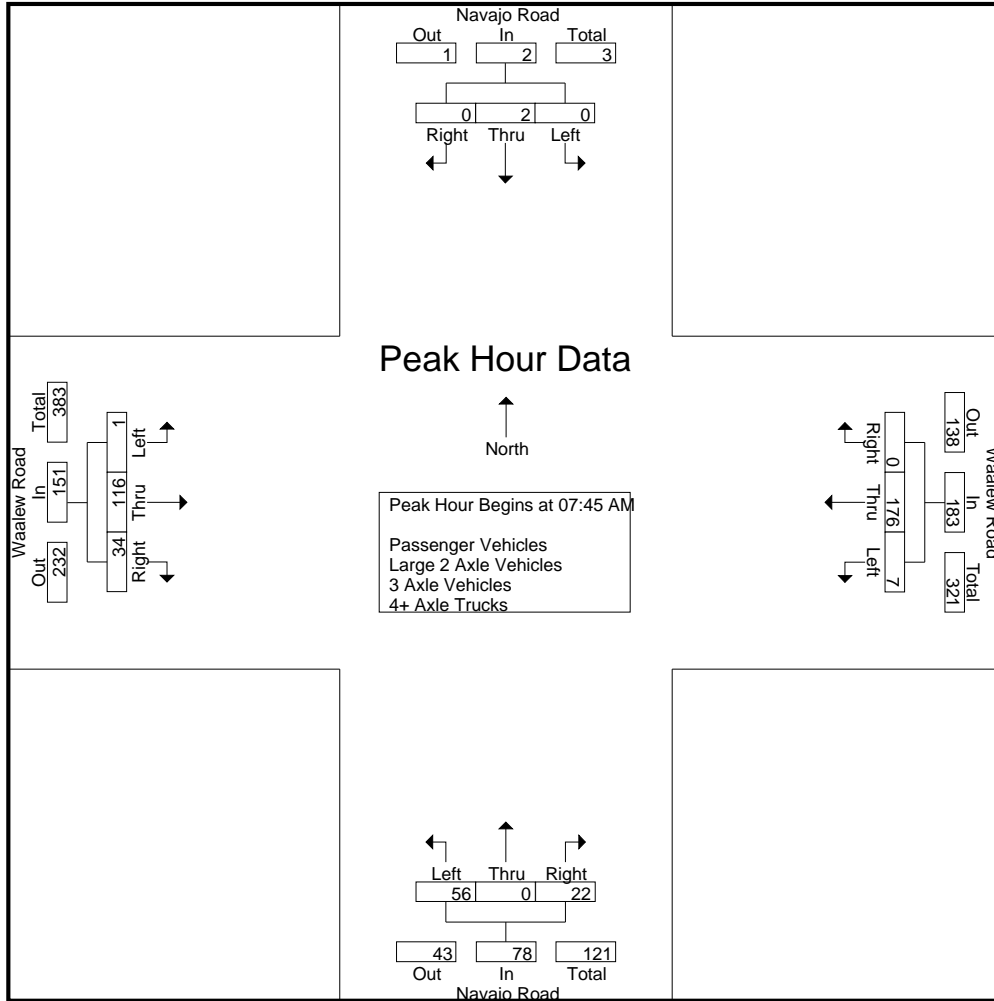
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	4	40	0	44	20	1	1	22	1	11	8	20	86
07:15 AM	0	0	0	0	3	38	0	41	17	0	0	17	0	17	11	28	86
07:30 AM	0	0	0	0	0	55	0	55	20	2	2	24	1	21	7	29	108
07:45 AM	0	0	0	0	1	63	0	64	20	0	3	23	1	24	8	33	120
Total	0	0	0	0	8	196	0	204	77	3	6	86	3	73	34	110	400
08:00 AM	0	0	0	0	2	43	0	45	10	0	3	13	0	22	13	35	93
08:15 AM	0	1	0	1	2	33	0	35	12	0	6	18	0	26	7	33	87
08:30 AM	0	1	0	1	2	37	0	39	14	0	10	24	0	44	6	50	114
08:45 AM	0	0	0	0	8	50	0	58	5	0	6	11	0	43	6	49	118
Total	0	2	0	2	14	163	0	177	41	0	25	66	0	135	32	167	412
Grand Total	0	2	0	2	22	359	0	381	118	3	31	152	3	208	66	277	812
Apprch %	0	100	0		5.8	94.2	0		77.6	2	20.4		1.1	75.1	23.8		
Total %	0	0.2	0	0.2	2.7	44.2	0	46.9	14.5	0.4	3.8	18.7	0.4	25.6	8.1	34.1	
Passenger Vehicles	0	2	0	2	22	354	0	376	112	2	30	144	2	197	60	259	781
% Passenger Vehicles	0	100	0	100	100	98.6	0	98.7	94.9	66.7	96.8	94.7	66.7	94.7	90.9	93.5	96.2
Large 2 Axle Vehicles	0	0	0	0	0	5	0	5	5	1	1	7	1	9	5	15	27
% Large 2 Axle Vehicles	0	0	0	0	0	1.4	0	1.3	4.2	33.3	3.2	4.6	33.3	4.3	7.6	5.4	3.3
3 Axle Vehicles	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0.8	0	0	0.7	0	0.5	0	0.4	0.2
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.5	0.7	0.2

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	1	63	0	64	20	0	3	23	1	24	8	33	120
08:00 AM	0	0	0	0	2	43	0	45	10	0	3	13	0	22	13	35	93
08:15 AM	0	1	0	1	2	33	0	35	12	0	6	18	0	26	7	33	87
08:30 AM	0	1	0	1	2	37	0	39	14	0	10	24	0	44	6	50	114
Total Volume	0	2	0	2	7	176	0	183	56	0	22	78	1	116	34	151	414
% App. Total	0	100	0		3.8	96.2	0		71.8	0	28.2		0.7	76.8	22.5		
PHF	.000	.500	.000	.500	.875	.698	.000	.715	.700	.000	.550	.813	.250	.659	.654	.755	.863

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:15 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	0	0	3	38	0	41	20	1	1	22	0	22	13	35
+15 mins.	0	0	0	0	0	55	0	55	17	0	0	17	0	26	7	33
+30 mins.	0	1	0	1	1	63	0	64	20	2	2	24	0	44	6	50
+45 mins.	0	1	0	1	2	43	0	45	20	0	3	23	0	43	6	49
Total Volume	0	2	0	2	6	199	0	205	77	3	6	86	0	135	32	167
% App. Total	0	100	0		2.9	97.1	0		89.5	3.5	7		0	80.8	19.2	
PHF	.000	.500	.000	.500	.500	.790	.000	.801	.963	.375	.500	.896	.000	.767	.615	.835

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa AM
Site Code : 22524830
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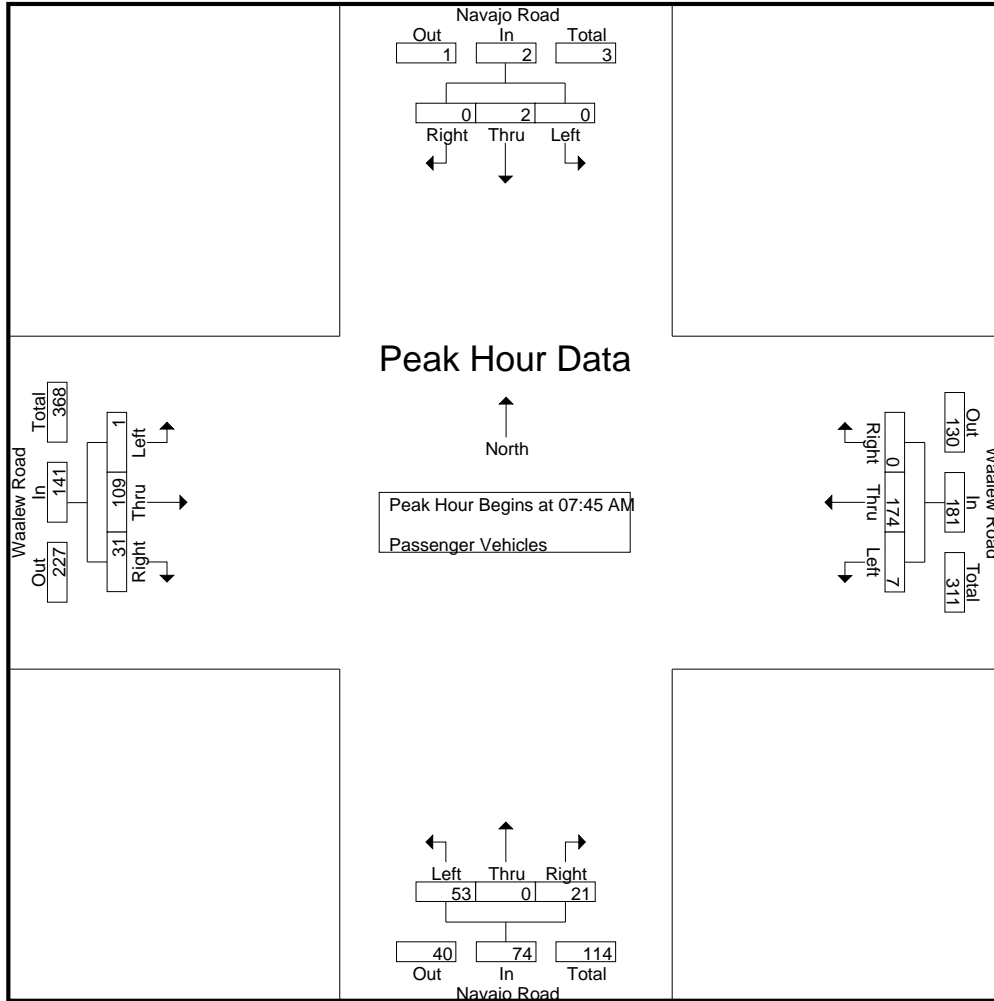
Groups Printed- Passenger Vehicles

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	4	40	0	44	19	0	1	20	1	11	8	20	84
07:15 AM	0	0	0	0	3	36	0	39	16	0	0	16	0	15	11	26	81
07:30 AM	0	0	0	0	0	55	0	55	20	2	2	24	0	21	7	28	107
07:45 AM	0	0	0	0	1	62	0	63	17	0	3	20	1	21	7	29	112
Total	0	0	0	0	8	193	0	201	72	2	6	80	2	68	33	103	384
08:00 AM	0	0	0	0	2	43	0	45	10	0	3	13	0	22	12	34	92
08:15 AM	0	1	0	1	2	32	0	34	12	0	6	18	0	26	7	33	86
08:30 AM	0	1	0	1	2	37	0	39	14	0	9	23	0	40	5	45	108
08:45 AM	0	0	0	0	8	49	0	57	4	0	6	10	0	41	3	44	111
Total	0	2	0	2	14	161	0	175	40	0	24	64	0	129	27	156	397
Grand Total	0	2	0	2	22	354	0	376	112	2	30	144	2	197	60	259	781
Apprch %	0	100	0		5.9	94.1	0		77.8	1.4	20.8		0.8	76.1	23.2		
Total %	0	0.3	0	0.3	2.8	45.3	0	48.1	14.3	0.3	3.8	18.4	0.3	25.2	7.7	33.2	

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	1	62	0	63	17	0	3	20	1	21	7	29	112
08:00 AM	0	0	0	0	2	43	0	45	10	0	3	13	0	22	12	34	92
08:15 AM	0	1	0	1	2	32	0	34	12	0	6	18	0	26	7	33	86
08:30 AM	0	1	0	1	2	37	0	39	14	0	9	23	0	40	5	45	108
Total Volume	0	2	0	2	7	174	0	181	53	0	21	74	1	109	31	141	398
% App. Total	0	100	0		3.9	96.1	0		71.6	0	28.4		0.7	77.3	22		
PHF	.000	.500	.000	.500	.875	.702	.000	.718	.779	.000	.583	.804	.250	.681	.646	.783	.888

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	1	62	0	63	17	0	3	20	1	21	7	29
+15 mins.	0	0	0	0	2	43	0	45	10	0	3	13	0	22	12	34
+30 mins.	0	1	0	1	2	32	0	34	12	0	6	18	0	26	7	33
+45 mins.	0	1	0	1	2	37	0	39	14	0	9	23	0	40	5	45
Total Volume	0	2	0	2	7	174	0	181	53	0	21	74	1	109	31	141
% App. Total	0	100	0		3.9	96.1	0		71.6	0	28.4		0.7	77.3	22	
PHF	.000	.500	.000	.500	.875	.702	.000	.718	.779	.000	.583	.804	.250	.681	.646	.783

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa AM
Site Code : 22524830
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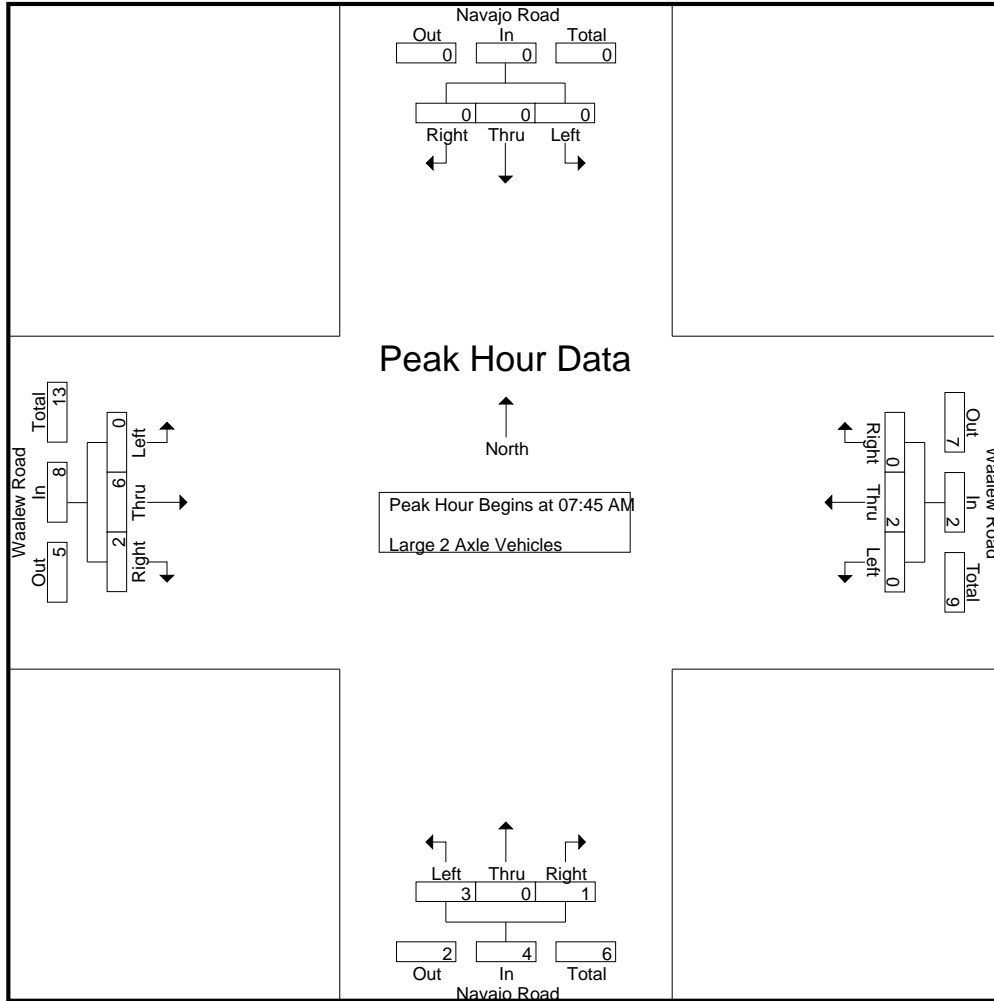
Groups Printed- Large 2 Axle Vehicles

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
07:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	1	0	1	3	0	0	3	0	2	1	3	7
Total	0	0	0	0	0	3	0	3	4	1	0	5	1	3	1	5	13
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	4	0	4	5
08:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	2	3	5	7
Total	0	0	0	0	0	2	0	2	1	0	1	2	0	6	4	10	14
Grand Total	0	0	0	0	0	5	0	5	5	1	1	7	1	9	5	15	27
Apprch %	0	0	0		0	100	0		71.4	14.3	14.3		6.7	60	33.3		
Total %	0	0	0	0	0	18.5	0	18.5	18.5	3.7	3.7	25.9	3.7	33.3	18.5	55.6	

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	1	0	1	3	0	0	3	0	2	1	3	7
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	4	0	4	5
Total Volume	0	0	0	0	0	2	0	2	3	0	1	4	0	6	2	8	14
% App. Total	0	0	0		0	100	0		75	0	25		0	75	25		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.250	.000	.250	.333	.000	.375	.500	.500	.500

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa AM
Site Code : 22524830
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	1	0	1	3	0	0	3	0	2	1	3
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	4	0	4
Total Volume	0	0	0	0	0	2	0	2	3	0	1	4	0	6	2	8
% App. Total	0	0	0	0	0	100	0	0	75	0	25	0	0	75	25	0
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.250	.000	.250	.333	.000	.375	.500	.500

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

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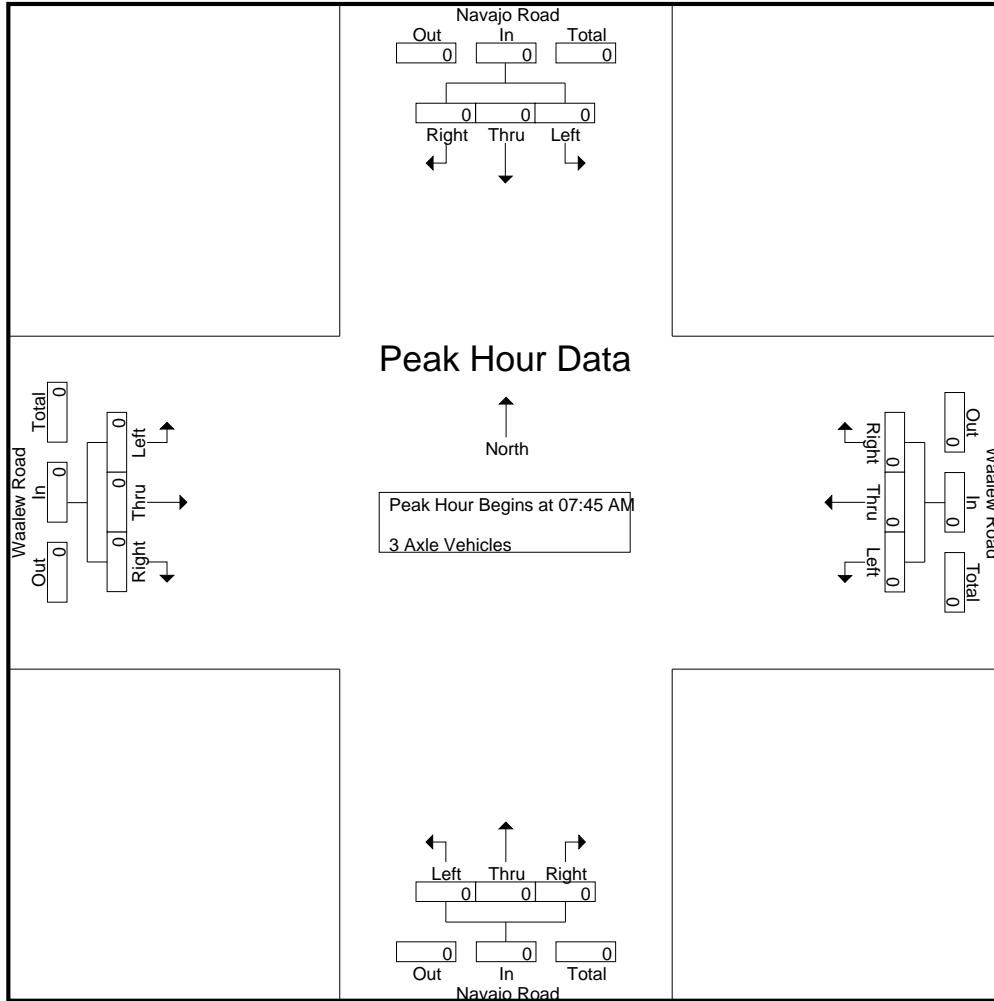
Groups Printed- 3 Axle Vehicles

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
Apprch %	0	0	0		0	0	0		100	0	0		0	100	0		
Total %	0	0	0	0	0	0	0	0	50	0	0	50	0	50	0	50	

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

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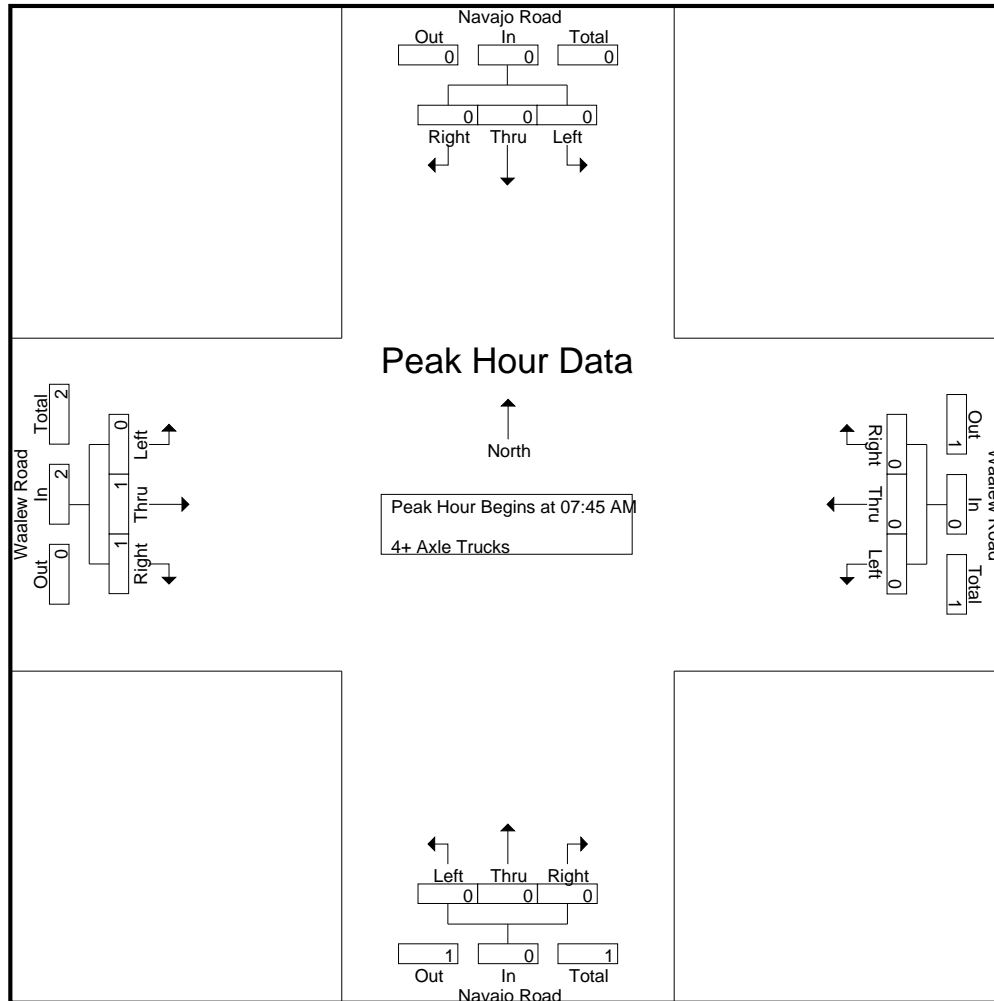
Groups Printed- 4+ Axle Trucks

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
Apprch %	0	0	0		0	0	0		0	0	0		0	50	50		
Total %	0	0	0		0	0	0		0	0	0		0	50	50	100	

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
% App. Total	0	0	0		0	0	0		0	0	0		0	50	50		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500	.500

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa AM
Site Code : 22524830
Start Date : 9/24/2024
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa PM
Site Code : 22524830
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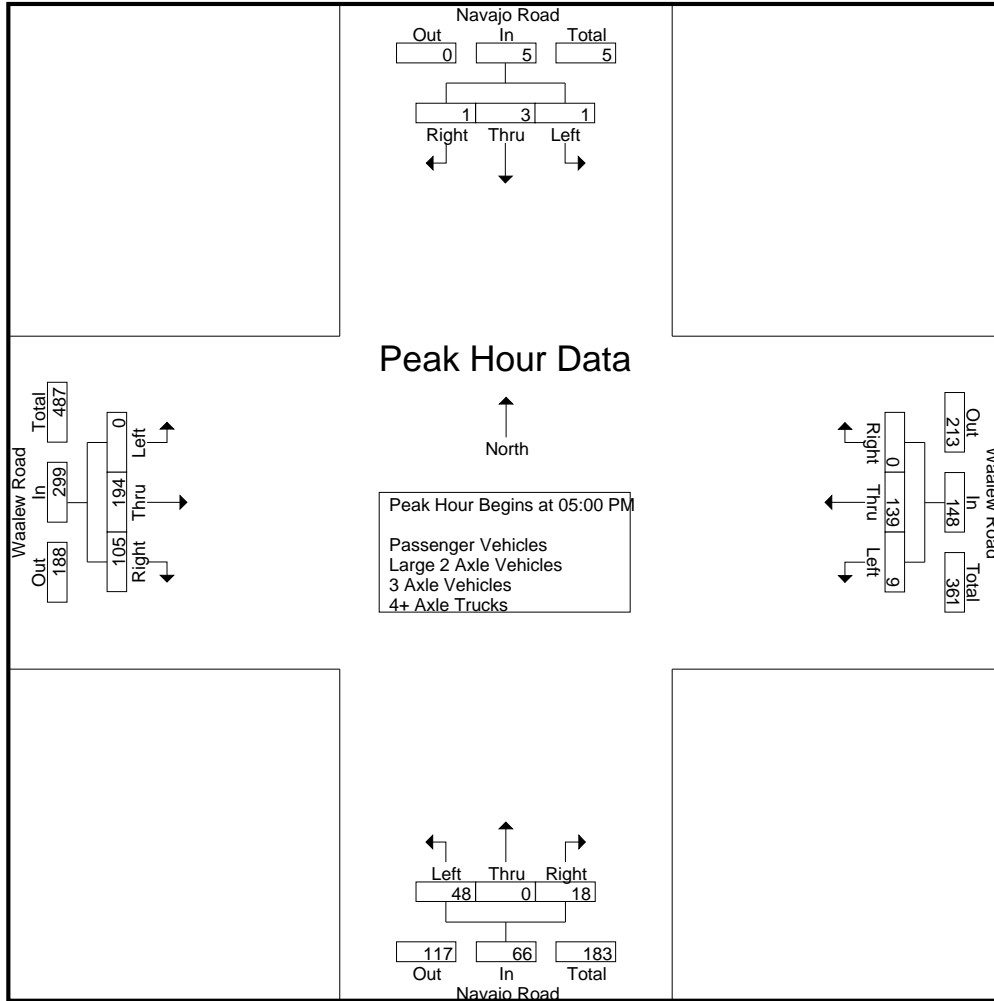
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	8	2	4	14	0	22	9	31	2	3	2	7	2	20	1	23	75
04:15 PM	0	0	2	2	2	30	0	32	17	0	3	20	1	43	16	60	114
04:30 PM	0	1	2	3	1	30	0	31	11	0	2	13	1	45	28	74	121
04:45 PM	0	1	1	2	0	18	0	18	9	0	5	14	1	35	35	71	105
Total	8	4	9	21	3	100	9	112	39	3	12	54	5	143	80	228	415
05:00 PM	0	1	0	1	1	40	0	41	7	0	3	10	0	66	29	95	147
05:15 PM	1	0	0	1	2	38	0	40	16	0	5	21	0	36	23	59	121
05:30 PM	0	1	0	1	1	30	0	31	16	0	5	21	0	59	31	90	143
05:45 PM	0	1	1	2	5	31	0	36	9	0	5	14	0	33	22	55	107
Total	1	3	1	5	9	139	0	148	48	0	18	66	0	194	105	299	518
Grand Total	9	7	10	26	12	239	9	260	87	3	30	120	5	337	185	527	933
Apprch %	34.6	26.9	38.5		4.6	91.9	3.5		72.5	2.5	25		0.9	63.9	35.1		
Total %	1	0.8	1.1	2.8	1.3	25.6	1	27.9	9.3	0.3	3.2	12.9	0.5	36.1	19.8	56.5	
Passenger Vehicles	9	7	9	25	12	236	9	257	82	1	29	112	5	329	182	516	910
% Passenger Vehicles	100	100	90	96.2	100	98.7	100	98.8	94.3	33.3	96.7	93.3	100	97.6	98.4	97.9	97.5
Large 2 Axle Vehicles	0	0	1	1	0	3	0	3	4	2	0	6	0	8	2	10	20
% Large 2 Axle Vehicles	0	0	10	3.8	0	1.3	0	1.2	4.6	66.7	0	5	0	2.4	1.1	1.9	2.1
3 Axle Vehicles	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	1.1	0	0	0.8	0	0	0.5	0.2	0.2
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	3.3	0.8	0	0	0	0	0.1

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	1	0	1	1	40	0	41	7	0	3	10	0	66	29	95	147
05:15 PM	1	0	0	1	2	38	0	40	16	0	5	21	0	36	23	59	121
05:30 PM	0	1	0	1	1	30	0	31	16	0	5	21	0	59	31	90	143
05:45 PM	0	1	1	2	5	31	0	36	9	0	5	14	0	33	22	55	107
Total Volume	1	3	1	5	9	139	0	148	48	0	18	66	0	194	105	299	518
% App. Total	20	60	20		6.1	93.9	0		72.7	0	27.3		0	64.9	35.1		
PHF	.250	.750	.250	.625	.450	.869	.000	.902	.750	.000	.900	.786	.000	.735	.847	.787	.881

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:45 PM				04:45 PM			
+0 mins.	8	2	4	14	1	40	0	41	9	0	5	14	1	35	35	71
+15 mins.	0	0	2	2	2	38	0	40	7	0	3	10	0	66	29	95
+30 mins.	0	1	2	3	1	30	0	31	16	0	5	21	0	36	23	59
+45 mins.	0	1	1	2	5	31	0	36	16	0	5	21	0	59	31	90
Total Volume	8	4	9	21	9	139	0	148	48	0	18	66	1	196	118	315
% App. Total	38.1	19	42.9		6.1	93.9	0		72.7	0	27.3		0.3	62.2	37.5	
PHF	.250	.500	.563	.375	.450	.869	.000	.902	.750	.000	.900	.786	.250	.742	.843	.829

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

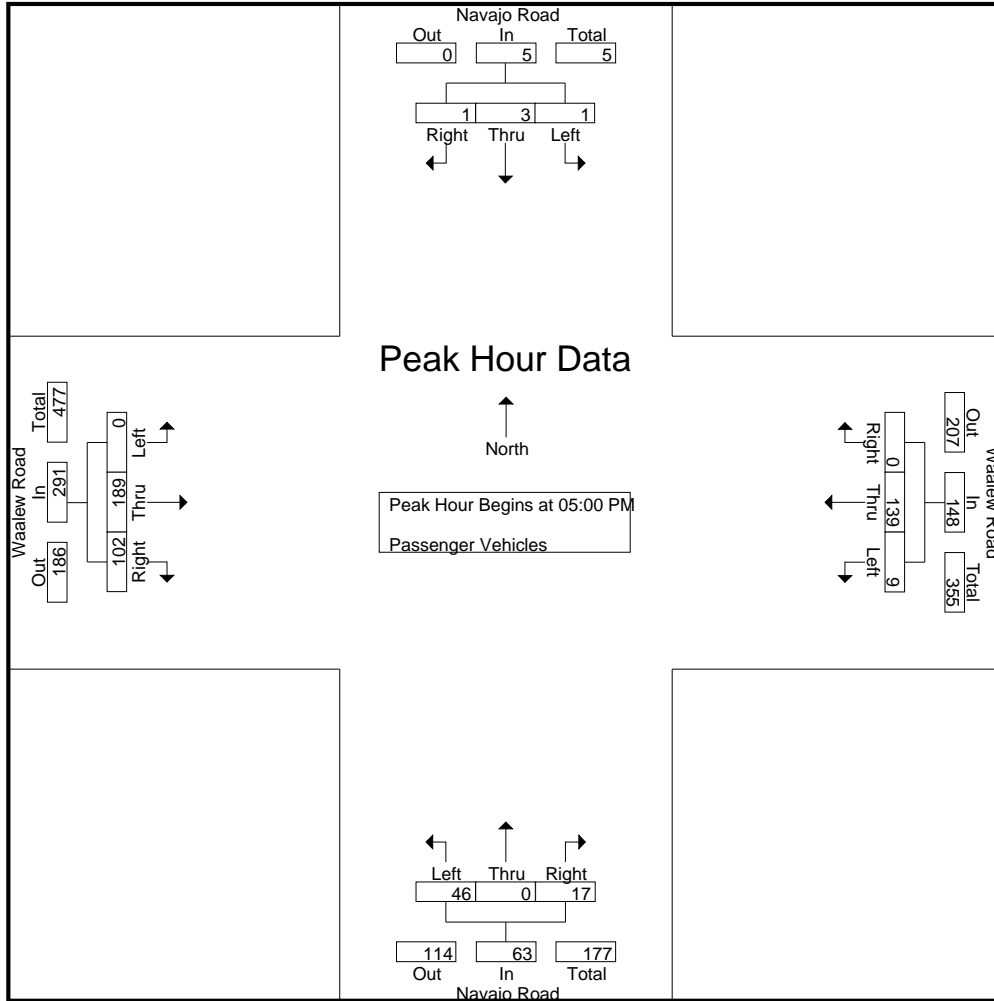
Groups Printed- Passenger Vehicles

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	8	2	3	13	0	21	9	30	1	1	2	4	2	18	1	21	68
04:15 PM	0	0	2	2	2	29	0	31	17	0	3	20	1	43	16	60	113
04:30 PM	0	1	2	3	1	29	0	30	10	0	2	12	1	44	28	73	118
04:45 PM	0	1	1	2	0	18	0	18	8	0	5	13	1	35	35	71	104
Total	8	4	8	20	3	97	9	109	36	1	12	49	5	140	80	225	403
05:00 PM	0	1	0	1	1	40	0	41	7	0	2	9	0	65	28	93	144
05:15 PM	1	0	0	1	2	38	0	40	16	0	5	21	0	36	23	59	121
05:30 PM	0	1	0	1	1	30	0	31	14	0	5	19	0	56	31	87	138
05:45 PM	0	1	1	2	5	31	0	36	9	0	5	14	0	32	20	52	104
Total	1	3	1	5	9	139	0	148	46	0	17	63	0	189	102	291	507
Grand Total	9	7	9	25	12	236	9	257	82	1	29	112	5	329	182	516	910
Apprch %	36	28	36		4.7	91.8	3.5		73.2	0.9	25.9		1	63.8	35.3		
Total %	1	0.8	1	2.7	1.3	25.9	1	28.2	9	0.1	3.2	12.3	0.5	36.2	20	56.7	

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	1	0	1	1	40	0	41	7	0	2	9	0	65	28	93	144
05:15 PM	1	0	0	1	2	38	0	40	16	0	5	21	0	36	23	59	121
05:30 PM	0	1	0	1	1	30	0	31	14	0	5	19	0	56	31	87	138
05:45 PM	0	1	1	2	5	31	0	36	9	0	5	14	0	32	20	52	104
Total Volume	1	3	1	5	9	139	0	148	46	0	17	63	0	189	102	291	507
% App. Total	20	60	20		6.1	93.9	0		73	0	27		0	64.9	35.1		
PHF	.250	.750	.250	.625	.450	.869	.000	.902	.719	.000	.850	.750	.000	.727	.823	.782	.880

City of Apple Valley
N/S: Navajo Road
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Weather: Clear

File Name : 03_APV_Nav_Waa PM
Site Code : 22524830
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	1	0	1	1	40	0	41	7	0	2	9	0	65	28	93
+15 mins.	1	0	0	1	2	38	0	40	16	0	5	21	0	36	23	59
+30 mins.	0	1	0	1	1	30	0	31	14	0	5	19	0	56	31	87
+45 mins.	0	1	1	2	5	31	0	36	9	0	5	14	0	32	20	52
Total Volume	1	3	1	5	9	139	0	148	46	0	17	63	0	189	102	291
% App. Total	20	60	20		6.1	93.9	0		73	0	27		0	64.9	35.1	
PHF	.250	.750	.250	.625	.450	.869	.000	.902	.719	.000	.850	.750	.000	.727	.823	.782

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 1

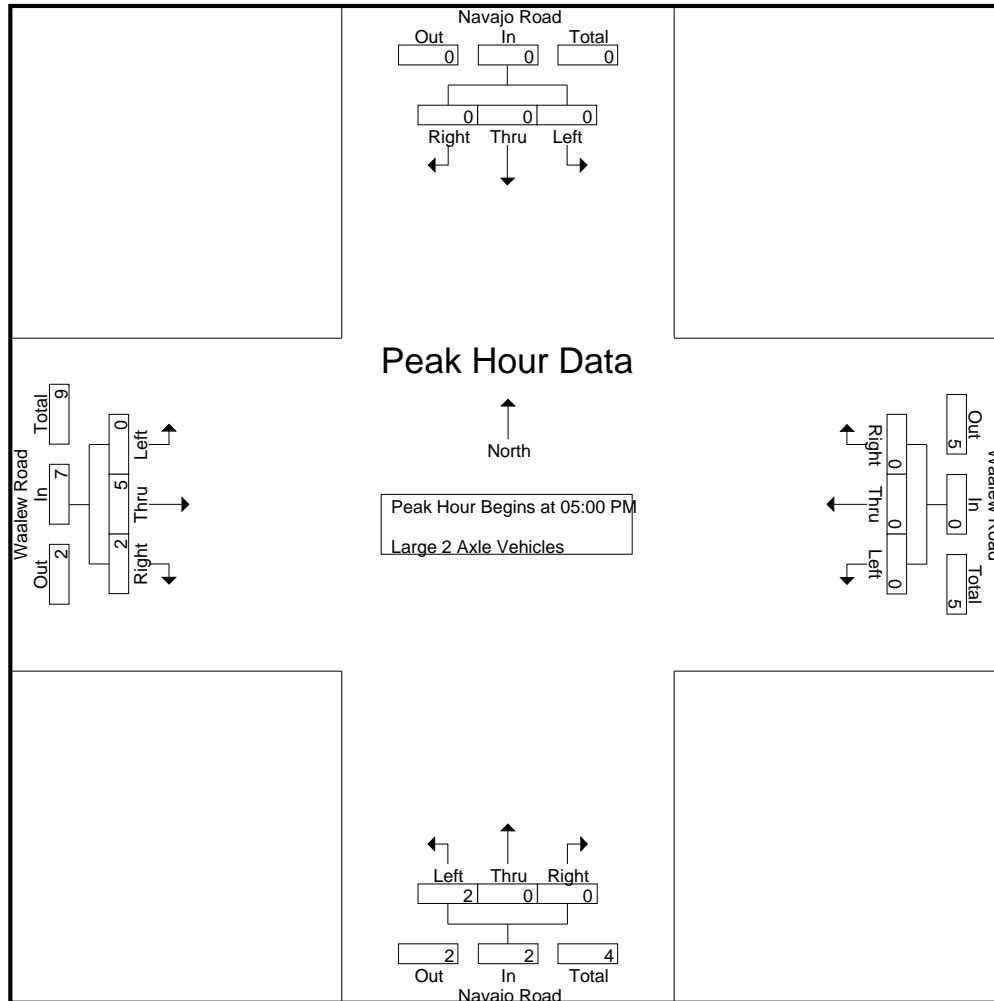
Groups Printed- Large 2 Axle Vehicles

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	1	1	0	1	0	1	1	2	0	3	0	2	0	2	7
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	1	1	0	3	0	3	2	2	0	4	0	3	0	3	11
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	3	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3
Total	0	0	0	0	0	0	0	0	2	0	0	2	0	5	2	7	9
Grand Total	0	0	1	1	0	3	0	3	4	2	0	6	0	8	2	10	20
Apprch %	0	0	100		0	100	0		66.7	33.3	0		0	80	20		
Total %	0	0	5	5	0	15	0	15	20	10	0	30	0	40	10	50	

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	3	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	0	5	2	7	9
% App. Total	0	0	0		0	0	0		100	0	0		0	71.4	28.6		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.417	.250	.583	.450

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	3
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	0	5	2	7
% App. Total	0	0	0	0	0	0	0	0	100	0	0	0	0	71.4	28.6	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.417	.250	.583

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
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File Name : 03_APV_Nav_Waa PM
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Start Date : 9/24/2024
Page No : 1

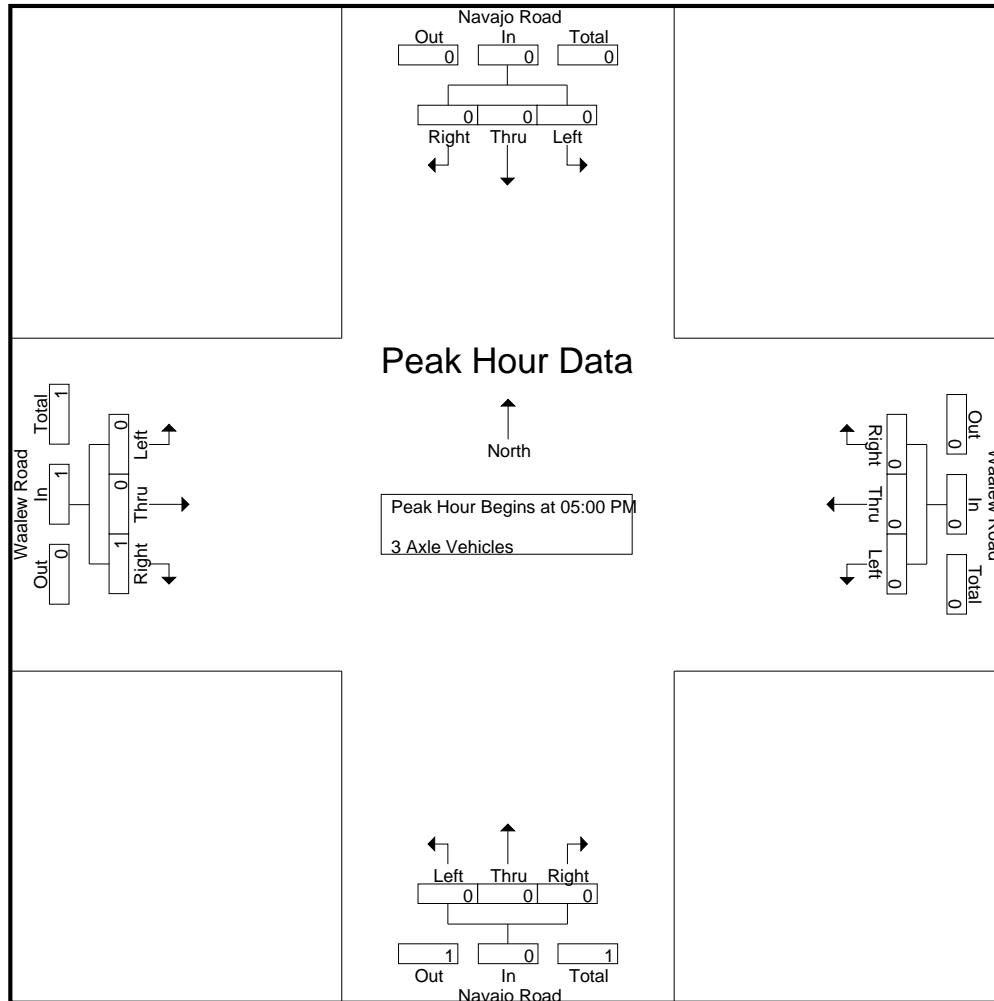
Groups Printed- 3 Axle Vehicles

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Grand Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
Apprch %	0	0	0		0	0	0		100	0	0		0	0	100		
Total %	0	0	0	0	0	0	0	0	50	0	0	50	0	0	50	50	

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
Weather: Clear

File Name : 03_APV_Nav_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250

City of Apple Valley
N/S: Navajo Road
E/W: Waalew Road
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File Name : 03_APV_Nav_Waa PM
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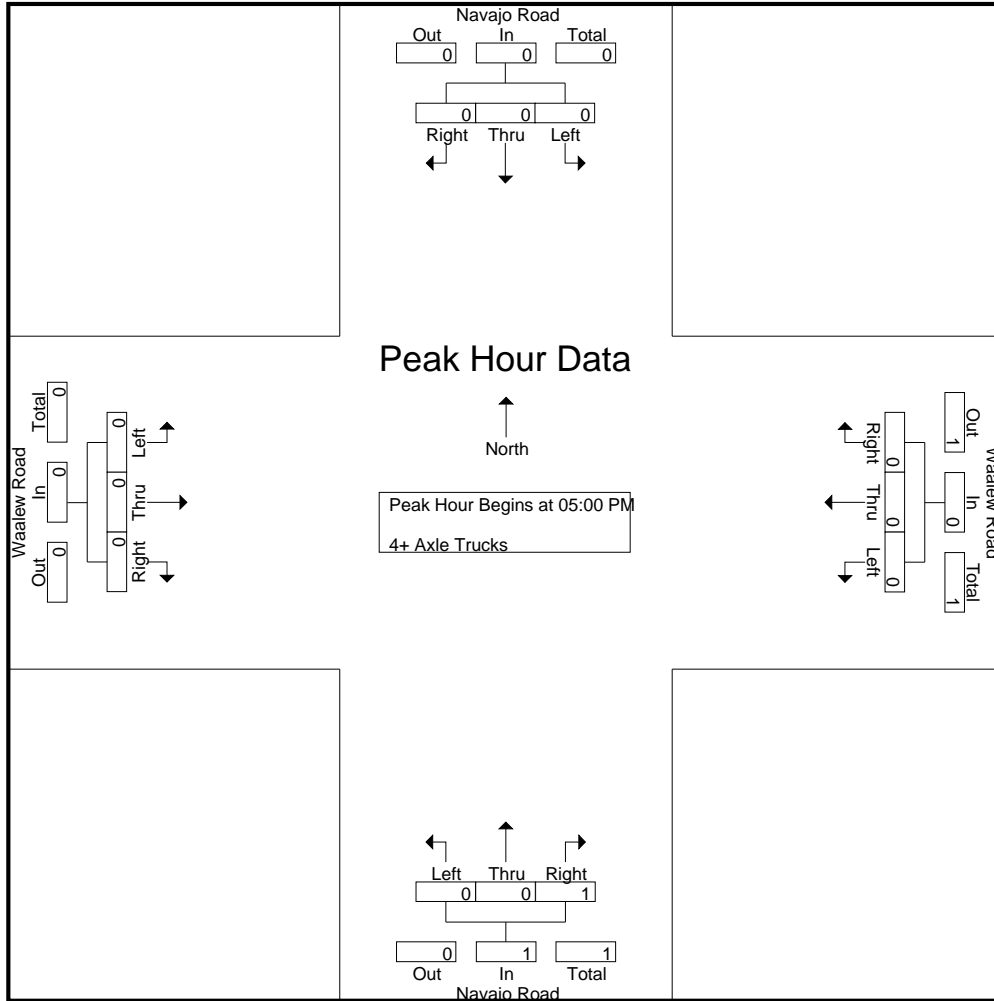
Groups Printed- 4+ Axle Trucks

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Apprch %	0	0	0		0	0	0		0	0	100		0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	

	Navajo Road Southbound				Waalew Road Westbound				Navajo Road Northbound				Waalew Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250

City of Apple Valley
N/S: Navajo Road
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File Name : 03_APV_Nav_Waa PM
Site Code : 22524830
Start Date : 9/24/2024
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000

Location: Apple Valley
 N/S: Navajo Road
 E/W: Waalew Road



Date: 3/6/2024
 Day: Wednesday

PEDESTRIANS

		North Leg Navajo Road	East Leg Waalew Road	South Leg Navajo Road	West Leg Waalew Road		
		Pedestrians	Pedestrians	Pedestrians	Pedestrians		
	7:00 AM	0	0	0	0		0
	7:15 AM	0	0	0	0		0
	7:30 AM	0	0	0	0		0
	7:45 AM	0	0	0	0		0
	8:00 AM	0	0	0	0		0
	8:15 AM	0	0	0	0		0
	8:30 AM	0	0	0	0		0
	8:45 AM	0	0	0	0		0
	TOTAL VOLUMES:	0	0	0	0		0

		North Leg Navajo Road	East Leg Waalew Road	South Leg Navajo Road	West Leg Waalew Road		
		Pedestrians	Pedestrians	Pedestrians	Pedestrians		
	4:00 PM	0	0	0	0		0
	4:15 PM	0	0	0	0		0
	4:30 PM	0	0	0	0		0
	4:45 PM	0	0	0	0		0
	5:00 PM	0	0	0	0		0
	5:15 PM	0	0	0	0		0
	5:30 PM	0	0	0	0		0
	5:45 PM	0	0	0	0		0
	TOTAL VOLUMES:	0	0	0	0		0

Location: Apple Valley
 N/S: Navajo Road
 E/W: Waalew Road



Date: 3/6/2024
 Day: Wednesday

BICYCLES

		Southbound Navajo Road			Westbound Waalew Road			Northbound Navajo Road			Eastbound Waalew Road			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

		Southbound Navajo Road			Westbound Waalew Road			Northbound Navajo Road			Eastbound Waalew Road			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX D

INTERSECTION LEVEL OF SERVICE WORKSHEETS




EXISTING

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.125

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	49	92	146	52	55	136
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	92	146	52	55	136
Peak Hour Factor	0.8020	0.8020	0.8020	0.8020	0.8020	0.8020
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	29	46	16	17	42
Total Analysis Volume [veh/h]	61	115	182	65	69	170
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.14	0.00	0.00	0.05	0.00
d_M, Delay for Movement [s/veh]	13.42	10.03	0.00	0.00	7.79	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.42	0.48	0.00	0.00	0.12	0.12
95th-Percentile Queue Length [ft/ln]	10.62	11.99	0.00	0.00	2.99	2.99
d_A, Approach Delay [s/veh]	11.20		0.00		2.25	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	3.79					
Intersection LOS	B					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.096

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	27	32	64	186	182	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	32	64	186	182	51
Peak Hour Factor	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	11	22	63	61	17
Total Analysis Volume [veh/h]	36	43	86	250	245	69
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.06	0.07	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.83	10.95	7.96	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.53	0.53	0.15	0.15	0.00	0.00
95th-Percentile Queue Length [ft/ln]	13.33	13.33	3.76	3.76	0.00	0.00
d_A, Approach Delay [s/veh]	13.18		2.04		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.37					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.257

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	58	0	23	0	2	0	1	121	37	7	177	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	0	23	0	2	0	1	121	37	7	177	0
Peak Hour Factor	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	0	7	0	1	0	0	35	11	2	51	0
Total Analysis Volume [veh/h]	67	0	27	0	2	0	1	140	43	8	205	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	758	733	851	829
Degree of Utilization, x	0.12	0.00	0.22	0.26

Movement, Approach, & Intersection Results




95th-Percentile Queue Length [veh]	0.42	0.01	0.82	1.02
95th-Percentile Queue Length [ft]	10.56	0.21	20.49	25.58
Approach Delay [s/veh]	8.42	7.92	8.39	8.84
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.59			
Intersection LOS	A			

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.255

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	76	88	170	76	154	137
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	88	170	76	154	137
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	25	48	21	43	38
Total Analysis Volume [veh/h]	85	99	191	85	173	154
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.25	0.12	0.00	0.00	0.13	0.00
d_M, Delay for Movement [s/veh]	19.44	10.06	0.00	0.00	7.98	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.99	0.42	0.00	0.00	0.32	0.32
95th-Percentile Queue Length [ft/ln]	24.85	10.39	0.00	0.00	7.96	7.96
d_A, Approach Delay [s/veh]	14.39		0.00		4.22	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	5.12					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.201

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	85	144	64	212	176	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	85	144	64	212	176	41
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	39	17	57	47	11
Total Analysis Volume [veh/h]	91	155	69	228	189	44
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.20	0.19	0.05	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.45	12.83	7.75	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.82	1.82	0.12	0.12	0.00	0.00
95th-Percentile Queue Length [ft/ln]	45.54	45.54	2.99	2.99	0.00	0.00
d_A, Approach Delay [s/veh]	14.17		1.80		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	5.18					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.392

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	49	0	20	1	3	1	0	197	107	9	139	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	0	20	1	3	1	0	197	107	9	139	0
Peak Hour Factor	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	0	6	0	1	0	0	56	30	3	39	0
Total Analysis Volume [veh/h]	56	0	23	1	3	1	0	224	121	10	158	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	723	713	879	804
Degree of Utilization, x	0.11	0.01	0.39	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.37	0.02	1.88	0.78
95th-Percentile Queue Length [ft]	9.16	0.53	47.11	19.62
Approach Delay [s/veh]	8.59	8.09	9.71	8.66
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.25			
Intersection LOS	A			




EXISTING PLUS PROJECT

AM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.132

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	49	92	146	52	55	136
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	6	0	7	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	96	152	52	62	145
Peak Hour Factor	0.8020	0.8020	0.8020	0.8020	0.8020	0.8020
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	30	47	16	19	45
Total Analysis Volume [veh/h]	61	120	190	65	77	181
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.15	0.00	0.00	0.06	0.00
d_M, Delay for Movement [s/veh]	13.96	10.13	0.00	0.00	7.81	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.45	0.51	0.00	0.00	0.13	0.13
95th-Percentile Queue Length [ft/ln]	11.29	12.75	0.00	0.00	3.35	3.35
d_A, Approach Delay [s/veh]	11.42		0.00		2.33	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	3.85					
Intersection LOS	B					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	16.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.124

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	27	32	64	186	182	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	10	16	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	32	64	196	198	62
Peak Hour Factor	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	11	22	66	67	21
Total Analysis Volume [veh/h]	44	43	86	264	266	83
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.06	0.07	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.87	11.57	8.05	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.66	0.66	0.15	0.15	0.00	0.00
95th-Percentile Queue Length [ft/ln]	16.55	16.55	3.76	3.76	0.00	0.00
d_A, Approach Delay [s/veh]	14.25		1.98		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.46					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.266

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	58	0	23	0	2	0	1	121	37	7	177	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	0	0	9	1	0	6	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	0	23	0	2	0	1	130	38	7	183	0
Peak Hour Factor	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	0	7	0	1	0	0	38	11	2	53	0
Total Analysis Volume [veh/h]	68	0	27	0	2	0	1	151	44	8	212	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	751	726	848	826
Degree of Utilization, x	0.13	0.00	0.23	0.27




Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.43	0.01	0.89	1.07
95th-Percentile Queue Length [ft]	10.81	0.21	22.33	26.86
Approach Delay [s/veh]	8.49	7.97	8.52	8.94
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.69			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

Intersection Setup

Name	Project Dwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	0	0	213	0	0	235
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	10	0	16	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	10	213	16	7	235
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	3	58	4	2	64
Total Analysis Volume [veh/h]	29	11	232	17	8	255
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results




V/C, Movement V/C Ratio	0.06	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	12.36	9.94	0.00	0.00	7.72	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	5.56	5.56	0.00	0.00	0.33	0.33
d_A, Approach Delay [s/veh]	11.69		0.00		0.23	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.96					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	20.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.270

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	76	88	170	76	154	137
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	11	0	6	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	97	181	76	160	145
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	27	51	21	45	41
Total Analysis Volume [veh/h]	85	109	203	85	180	163
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.27	0.14	0.00	0.00	0.14	0.00
d_M, Delay for Movement [s/veh]	20.59	10.22	0.00	0.00	8.02	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.07	0.47	0.00	0.00	0.33	0.33
95th-Percentile Queue Length [ft/ln]	26.71	11.80	0.00	0.00	8.32	8.32
d_A, Approach Delay [s/veh]	14.77		0.00		4.21	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	5.22					
Intersection LOS	C					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	17.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.242

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	85	144	64	212	176	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	0	20	14	7
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	97	144	64	232	190	48
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	39	17	62	51	13
Total Analysis Volume [veh/h]	104	155	69	249	204	52
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.24	0.19	0.05	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.90	13.93	7.81	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.18	2.18	0.12	0.12	0.00	0.00
95th-Percentile Queue Length [ft/ln]	54.43	54.43	2.99	2.99	0.00	0.00
d_A, Approach Delay [s/veh]	15.53		1.69		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	5.47					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.408

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	49	0	20	1	3	1	0	197	107	9	139	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	0	8	2	0	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	0	20	1	3	1	0	205	109	9	150	0
Peak Hour Factor	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	0	6	0	1	0	0	58	31	3	43	0
Total Analysis Volume [veh/h]	58	0	23	1	3	1	0	233	124	10	170	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	714	704	874	800
Degree of Utilization, x	0.11	0.01	0.41	0.22




Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.38	0.02	2.01	0.86
95th-Percentile Queue Length [ft]	9.55	0.54	50.23	21.53
Approach Delay [s/veh]	8.69	8.15	9.93	8.80
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.43			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.051

Intersection Setup

Name	Project Dwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	0	0	304	0	0	217
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	10	0	32	13	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	10	304	32	13	217
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	3	83	9	4	59
Total Analysis Volume [veh/h]	23	11	330	35	14	236
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	13.43	10.64	0.00	0.00	8.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.21	0.21	0.00	0.00	0.02	0.02
95th-Percentile Queue Length [ft/ln]	5.31	5.31	0.00	0.00	0.59	0.59
d_A, Approach Delay [s/veh]	12.53		0.00		0.45	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	B					




OPENING YEAR (2026) WITHOUT PROJECT

AM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.165

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	49	92	146	52	55	136
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	27	23	17	8	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	123	175	71	65	147
Peak Hour Factor	0.8020	0.8020	0.8020	0.8020	0.8020	0.8020
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	38	55	22	20	46
Total Analysis Volume [veh/h]	71	153	218	89	81	183
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.20	0.00	0.00	0.06	0.00
d_M, Delay for Movement [s/veh]	15.03	10.73	0.00	0.00	7.94	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.59	0.72	0.00	0.00	0.14	0.14
95th-Percentile Queue Length [ft/ln]	14.66	18.11	0.00	0.00	3.53	3.53
d_A, Approach Delay [s/veh]	12.09		0.00		2.44	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.22					
Intersection LOS	C					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	18.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.126

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	27	32	64	186	182	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	19	31	10	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	38	86	224	199	53
Peak Hour Factor	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	13	29	75	67	18
Total Analysis Volume [veh/h]	38	51	116	301	268	71
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.07	0.09	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.85	11.76	8.06	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.72	0.72	0.21	0.21	0.00	0.00
95th-Percentile Queue Length [ft/ln]	17.88	17.88	5.16	5.16	0.00	0.00
d_A, Approach Delay [s/veh]	14.79		2.24		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.66					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.285

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	58	0	23	0	2	0	1	121	37	7	177	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	31	0	0	10	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	0	24	0	2	0	1	157	38	7	194	0
Peak Hour Factor	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	0	7	0	1	0	0	45	11	2	56	0
Total Analysis Volume [veh/h]	70	0	28	0	2	0	1	182	44	8	225	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	736	709	838	817
Degree of Utilization, x	0.13	0.00	0.27	0.29

Movement, Approach, & Intersection Results




95th-Percentile Queue Length [veh]	0.46	0.01	1.10	1.18
95th-Percentile Queue Length [ft]	11.47	0.21	27.48	29.46
Approach Delay [s/veh]	8.65	8.09	8.89	9.16
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.95			
Intersection LOS	A			

PM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	27.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.407

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	76	88	170	76	154	137
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	11	13	11	22	24
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	103	190	90	182	166
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	29	53	25	51	47
Total Analysis Volume [veh/h]	110	116	213	101	204	187
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.41	0.15	0.00	0.00	0.16	0.00
d_M, Delay for Movement [s/veh]	27.20	10.42	0.00	0.00	8.12	0.00
Movement LOS	D	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.88	0.52	0.00	0.00	0.38	0.38
95th-Percentile Queue Length [ft/ln]	47.12	13.02	0.00	0.00	9.57	9.57
d_A, Approach Delay [s/veh]	18.59		0.00		4.24	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	6.29					
Intersection LOS	D					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	19.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.240

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	85	144	64	212	176	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	20	10	14	27	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	88	170	77	234	210	43
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	46	21	63	56	12
Total Analysis Volume [veh/h]	95	183	83	252	226	46
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.24	0.23	0.06	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	19.40	14.83	7.86	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.51	2.51	0.14	0.14	0.00	0.00
95th-Percentile Queue Length [ft/ln]	62.64	62.64	3.62	3.62	0.00	0.00
d_A, Approach Delay [s/veh]	16.39		1.95		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	5.89					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.433

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	49	0	20	1	3	1	0	197	107	9	139	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	14	0	0	27	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	0	21	1	3	1	0	219	111	9	172	0
Peak Hour Factor	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	0	6	0	1	0	0	62	31	3	49	0
Total Analysis Volume [veh/h]	58	0	24	1	3	1	0	249	126	10	195	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	702	690	865	795
Degree of Utilization, x	0.12	0.01	0.43	0.26

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.40	0.02	2.22	1.03
95th-Percentile Queue Length [ft]	9.88	0.55	55.38	25.70
Approach Delay [s/veh]	8.81	8.26	10.31	9.09
Approach LOS	A	A	B	A
Intersection Delay [s/veh]	9.73			
Intersection LOS	A			




OPENING YEAR (2026) WITH PROJECT

AM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.176

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	49	92	146	52	55	136
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	31	29	17	15	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	127	181	71	72	156
Peak Hour Factor	0.8020	0.8020	0.8020	0.8020	0.8020	0.8020
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	40	56	22	22	49
Total Analysis Volume [veh/h]	71	158	226	89	90	195
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.20	0.00	0.00	0.07	0.00
d_M, Delay for Movement [s/veh]	15.79	10.85	0.00	0.00	7.97	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.63	0.76	0.00	0.00	0.16	0.16
95th-Percentile Queue Length [ft/ln]	15.74	19.08	0.00	0.00	3.94	3.94
d_A, Approach Delay [s/veh]	12.38		0.00		2.52	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.29					
Intersection LOS	C					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	20.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.163

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	27	32	64	186	182	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	5	19	41	26	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	38	86	234	215	64
Peak Hour Factor	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	13	29	79	72	22
Total Analysis Volume [veh/h]	46	51	116	315	289	86
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.16	0.07	0.10	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	20.36	12.67	8.15	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.90	0.90	0.21	0.21	0.00	0.00
95th-Percentile Queue Length [ft/ln]	22.41	22.41	5.16	5.16	0.00	0.00
d_A, Approach Delay [s/veh]	16.32		2.19		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	2.80					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.295

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	58	0	23	0	2	0	1	121	37	7	177	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	0	0	40	1	0	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	0	24	0	2	0	1	166	39	7	200	0
Peak Hour Factor	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	0	7	0	1	0	0	48	11	2	58	0
Total Analysis Volume [veh/h]	71	0	28	0	2	0	1	192	45	8	232	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	729	703	835	814
Degree of Utilization, x	0.14	0.00	0.29	0.29




Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.47	0.01	1.18	1.23
95th-Percentile Queue Length [ft]	11.72	0.21	29.46	30.85
Approach Delay [s/veh]	8.72	8.14	9.03	9.27
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.07			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.061

Intersection Setup

Name	Project Dwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	0	0	213	0	0	235
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	10	31	16	7	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	10	253	16	7	254
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	3	69	4	2	69
Total Analysis Volume [veh/h]	29	11	275	17	8	276
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results




V/C, Movement V/C Ratio	0.06	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	13.06	10.28	0.00	0.00	7.82	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.24	0.24	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	6.06	6.06	0.00	0.00	0.33	0.33
d_A, Approach Delay [s/veh]	12.29		0.00		0.22	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.90					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	29.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.433

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	76	88	170	76	154	137
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	20	24	11	28	32
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	112	201	90	188	174
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	31	56	25	53	49
Total Analysis Volume [veh/h]	110	126	226	101	211	196
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.43	0.16	0.00	0.00	0.17	0.00
d_M, Delay for Movement [s/veh]	29.55	10.61	0.00	0.00	8.16	0.00
Movement LOS	D	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.05	0.59	0.00	0.00	0.40	0.40
95th-Percentile Queue Length [ft/ln]	51.36	14.63	0.00	0.00	9.94	9.94
d_A, Approach Delay [s/veh]	19.44		0.00		4.23	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	6.50					
Intersection LOS	D					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	21.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.289

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	85	144	64	212	176	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	20	10	34	41	7
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	170	77	254	224	50
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	46	21	68	60	13
Total Analysis Volume [veh/h]	108	183	83	273	241	54
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.29	0.24	0.06	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	21.58	16.59	7.91	0.00	0.00	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	3.04	3.04	0.14	0.14	0.00	0.00
95th-Percentile Queue Length [ft/ln]	75.89	75.89	3.62	3.62	0.00	0.00
d_A, Approach Delay [s/veh]	18.45		1.85		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	6.40					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.449

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	49	0	20	1	3	1	0	197	107	9	139	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	0	22	2	0	38	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	0	21	1	3	1	0	227	113	9	183	0
Peak Hour Factor	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	0	6	0	1	0	0	64	32	3	52	0
Total Analysis Volume [veh/h]	60	0	24	1	3	1	0	258	128	10	208	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	693	681	860	791
Degree of Utilization, x	0.12	0.01	0.45	0.28




Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.41	0.02	2.35	1.12
95th-Percentile Queue Length [ft]	10.29	0.55	58.80	28.08
Approach Delay [s/veh]	8.91	8.33	10.56	9.27
Approach LOS	A	A	B	A
Intersection Delay [s/veh]	9.94			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

Intersection Setup

Name	Project Dwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	0	0	304	0	0	217
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	10	14	32	13	27
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	10	330	32	13	253
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	3	90	9	4	69
Total Analysis Volume [veh/h]	23	11	359	35	14	275
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.28	10.93	0.00	0.00	8.08	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.23	0.23	0.00	0.00	0.02	0.02
95th-Percentile Queue Length [ft/ln]	5.78	5.78	0.00	0.00	0.59	0.59
d_A, Approach Delay [s/veh]	13.20		0.00		0.39	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.78					
Intersection LOS	B					




YEAR 2040 WITHOUT PROJECT

AM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	26.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.407

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	90	323	187	114	146	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	323	187	114	146	150
Peak Hour Factor	0.8020	0.8020	0.8020	0.8020	0.8020	0.8020
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	101	58	36	46	47
Total Analysis Volume [veh/h]	112	403	233	142	182	187
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.41	0.54	0.00	0.00	0.15	0.00
d_M, Delay for Movement [s/veh]	26.81	15.51	0.00	0.00	8.24	0.00
Movement LOS	D	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.89	3.32	0.00	0.00	0.34	0.34
95th-Percentile Queue Length [ft/ln]	47.18	83.02	0.00	0.00	8.42	8.42
d_A, Approach Delay [s/veh]	17.97		0.00		4.06	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	8.54					
Intersection LOS	D					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	1,298.1
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.247

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	89	138	385	235	200	205
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	89	138	385	235	200	205
Peak Hour Factor	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	46	130	79	67	69
Total Analysis Volume [veh/h]	120	186	518	316	269	276
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	3.25	0.29	0.50	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	1298.06	1206.19	10.06	0.00	0.00	0.00
Movement LOS	F	F	B	A	A	A
95th-Percentile Queue Length [veh/ln]	31.11	31.11	1.79	1.79	0.00	0.00
95th-Percentile Queue Length [ft/ln]	777.87	777.87	44.70	44.70	0.00	0.00
d_A, Approach Delay [s/veh]	1242.22		6.25		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	228.68					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.401

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	64	0	26	0	2	0	1	165	47	13	266	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	0	26	0	2	0	1	165	47	13	266	0
Peak Hour Factor	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	0	8	0	1	0	0	48	14	4	77	0
Total Analysis Volume [veh/h]	74	0	30	0	2	0	1	191	54	15	308	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	700	672	816	806
Degree of Utilization, x	0.15	0.00	0.30	0.40

Movement, Approach, & Intersection Results




95th-Percentile Queue Length [veh]	0.52	0.01	1.27	1.94
95th-Percentile Queue Length [ft]	13.01	0.22	31.83	48.61
Approach Delay [s/veh]	9.04	8.37	9.31	10.42
Approach LOS	A	A	A	B
Intersection Delay [s/veh]	9.80			
Intersection LOS	A			

PM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	333.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.466

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	129	229	195	103	397	168
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	229	195	103	397	168
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	64	55	29	112	47
Total Analysis Volume [veh/h]	145	257	219	116	446	189
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.47	0.34	0.00	0.00	0.36	0.00
d_M, Delay for Movement [s/veh]	333.55	12.05	0.00	0.00	8.81	0.00
Movement LOS	F	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	10.80	1.48	0.00	0.00	1.18	1.18
95th-Percentile Queue Length [ft/ln]	270.00	36.96	0.00	0.00	29.40	29.40
d_A, Approach Delay [s/veh]	128.01		0.00		6.19	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	40.37					
Intersection LOS	F					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	447.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.249

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	182	430	268	236	212	172
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	182	430	268	236	212	172
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	116	72	63	57	46
Total Analysis Volume [veh/h]	196	462	288	254	228	185
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.25	0.64	0.25	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	447.53	429.56	8.49	0.00	0.00	0.00
Movement LOS	F	F	A	A	A	A
95th-Percentile Queue Length [veh/ln]	44.22	44.22	0.57	0.57	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1105.51	1105.51	14.24	14.24	0.00	0.00
d_A, Approach Delay [s/veh]	434.91		4.51		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	178.93					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.459

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	56	0	23	2	6	2	0	221	118	15	232	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	0	23	2	6	2	0	221	118	15	232	0
Peak Hour Factor	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	0	7	1	2	1	0	63	33	4	66	0
Total Analysis Volume [veh/h]	64	0	26	2	7	2	0	251	134	17	263	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	673	658	838	782
Degree of Utilization, x	0.13	0.02	0.46	0.36

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.46	0.05	2.44	1.63
95th-Percentile Queue Length [ft]	11.52	1.27	61.07	40.81
Approach Delay [s/veh]	9.18	8.56	10.89	10.16
Approach LOS	A	A	B	B
Intersection Delay [s/veh]	10.39			
Intersection LOS	B			




YEAR 2040 WITH PROJECT

AM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	29.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.434

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	90	323	187	114	146	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	6	0	7	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	327	193	114	153	159
Peak Hour Factor	0.8020	0.8020	0.8020	0.8020	0.8020	0.8020
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	102	60	36	48	50
Total Analysis Volume [veh/h]	112	408	241	142	191	198
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.43	0.56	0.00	0.00	0.16	0.00
d_M, Delay for Movement [s/veh]	29.24	15.90	0.00	0.00	8.27	0.00
Movement LOS	D	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.07	3.47	0.00	0.00	0.36	0.36
95th-Percentile Queue Length [ft/ln]	51.67	86.76	0.00	0.00	8.89	8.89
d_A, Approach Delay [s/veh]	18.77		0.00		4.06	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	8.78					
Intersection LOS	D					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	1,634.1
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.940

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	89	138	385	235	200	205
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	10	16	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	138	385	245	216	216
Peak Hour Factor	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	46	130	82	73	73
Total Analysis Volume [veh/h]	128	186	518	330	291	291
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	3.94	0.30	0.52	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	1634.08	1529.03	10.28	0.00	0.00	0.00
Movement LOS	F	F	B	A	A	A
95th-Percentile Queue Length [veh/ln]	33.50	33.50	1.86	1.86	0.00	0.00
95th-Percentile Queue Length [ft/ln]	837.59	837.59	46.43	46.43	0.00	0.00
d_A, Approach Delay [s/veh]	1571.85		6.28		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	286.06					
Intersection LOS	F					

Intersection Level Of Service Report**Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)**

Control Type:	All-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.411

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	64	0	26	0	2	0	1	165	47	13	266	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	0	0	9	1	0	6	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	0	26	0	2	0	1	174	48	13	272	0
Peak Hour Factor	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630	0.8630
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	0	8	0	1	0	0	50	14	4	79	0
Total Analysis Volume [veh/h]	75	0	30	0	2	0	1	202	56	15	315	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	693	665	813	802
Degree of Utilization, x	0.15	0.00	0.32	0.41




Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.53	0.01	1.38	2.03
95th-Percentile Queue Length [ft]	13.30	0.23	34.42	50.68
Approach Delay [s/veh]	9.12	8.43	9.49	10.59
Approach LOS	A	A	A	B
Intersection Delay [s/veh]	9.95			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.063

Intersection Setup

Name	Project Dwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	0	0	266	0	0	267
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	10	0	16	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	10	266	16	7	267
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	3	72	4	2	73
Total Analysis Volume [veh/h]	29	11	289	17	8	290
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results




V/C, Movement V/C Ratio	0.06	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	13.39	10.41	0.00	0.00	7.85	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.25	0.25	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	6.28	6.28	0.00	0.00	0.33	0.33
d_A, Approach Delay [s/veh]	12.57		0.00		0.21	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.88					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	383.7
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.574

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	150.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	129	229	195	103	397	168
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	11	0	6	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	238	206	103	403	176
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	67	58	29	113	49
Total Analysis Volume [veh/h]	145	267	231	116	453	198
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0




Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.57	0.35	0.00	0.00	0.37	0.00
d_M, Delay for Movement [s/veh]	383.72	12.36	0.00	0.00	8.88	0.00
Movement LOS	F	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	11.38	1.60	0.00	0.00	1.21	1.21
95th-Percentile Queue Length [ft/ln]	284.61	39.99	0.00	0.00	30.30	30.30
d_A, Approach Delay [s/veh]	143.06		0.00		6.18	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	44.65					
Intersection LOS	F					

Intersection Level Of Service Report**Intersection 2: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	535.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.425

Intersection Setup

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Dale Evans Pkwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	182	430	268	236	212	172
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	0	20	14	7
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	194	430	268	256	226	179
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	52	116	72	69	61	48
Total Analysis Volume [veh/h]	209	462	288	275	243	192
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0





Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.43	0.65	0.25	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	535.28	515.82	8.55	0.00	0.00	0.00
Movement LOS	F	F	A	A	A	A
95th-Percentile Queue Length [veh/ln]	48.68	48.68	0.57	0.57	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1217.03	1217.03	14.24	14.24	0.00	0.00
d_A, Approach Delay [s/veh]	521.88		4.37		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	211.29					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 3: Navajo Rd (NS) at Waalew Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.476

Intersection Setup

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Navajo Rd			Navajo Rd			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	56	0	23	2	6	2	0	221	118	15	232	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	0	8	2	0	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	0	23	2	6	2	0	229	120	15	243	0
Peak Hour Factor	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	0	7	1	2	1	0	65	34	4	69	0
Total Analysis Volume [veh/h]	66	0	26	2	7	2	0	260	136	17	276	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	665	650	833	778
Degree of Utilization, x	0.14	0.02	0.48	0.38




Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.48	0.05	2.60	1.76
95th-Percentile Queue Length [ft]	11.97	1.29	64.92	44.07
Approach Delay [s/veh]	9.29	8.63	11.18	10.40
Approach LOS	A	A	B	B
Intersection Delay [s/veh]	10.64			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at Waalew Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

Intersection Setup

Name	Project Dwy		Waalew Rd		Waalew Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Waalew Rd		Waalew Rd	
Base Volume Input [veh/h]	0	0	333	0	0	256
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	10	0	32	13	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	10	333	32	13	256
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	3	90	9	4	70
Total Analysis Volume [veh/h]	23	11	362	35	14	278
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.36	10.96	0.00	0.00	8.09	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.23	0.23	0.00	0.00	0.02	0.02
95th-Percentile Queue Length [ft/ln]	5.83	5.83	0.00	0.00	0.59	0.59
d_A, Approach Delay [s/veh]	13.26		0.00		0.39	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.78					
Intersection LOS	B					





**YEAR 2040 WITHOUT PROJECT
WITH IMPROVEMENTS**

AM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Signalized	Delay (sec / veh):	29.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.435

Intersection Setup

Name	Dale Evans Pkwy			Dale Evans Pkwy			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Dale Evans Pkwy			Dale Evans Pkwy			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	90	194	129	89	90	49	112	75	114	99	101	205
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	194	129	89	90	49	112	75	114	99	101	205
Peak Hour Factor	0.8020	0.9500	0.8020	0.9500	0.9500	0.9500	0.9500	0.8020	0.8020	0.8020	0.8020	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	51	40	23	24	13	29	23	36	31	31	54
Total Analysis Volume [veh/h]	112	204	161	94	95	52	118	94	142	123	126	216
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	7	0	5	7	0	5	7	0	5	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	26	0	10	26	0	10	31	0	13	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	16	0	0	16	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	7	42	42	6	41	7	13	13	7	14	14
g / C, Green / Cycle	0.08	0.52	0.52	0.07	0.51	0.09	0.17	0.17	0.09	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.07	0.06	0.11	0.05	0.09	0.07	0.05	0.09	0.07	0.07	0.14
s, saturation flow rate [veh/h]	1714	3427	1530	1714	1694	1714	1800	1530	1714	1800	1530
c, Capacity [veh/h]	142	1789	798	120	863	149	302	256	155	309	262
d1, Uniform Delay [s]	36.06	9.74	10.23	36.63	10.55	35.88	29.29	30.60	35.68	29.56	32.01
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.42	0.13	0.57	10.42	0.43	9.21	0.58	1.87	8.72	0.87	6.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.11	0.20	0.78	0.17	0.79	0.31	0.55	0.79	0.41	0.82
d, Delay for Lane Group [s/veh]	45.48	9.87	10.80	47.05	10.98	45.09	29.87	32.46	44.40	30.43	38.40
Lane Group LOS	D	A	B	D	B	D	C	C	D	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.33	0.75	1.31	2.01	1.21	2.45	1.49	2.40	2.52	2.03	4.09
50th-Percentile Queue Length [ft/ln]	58.36	18.67	32.79	50.14	30.19	61.13	37.17	60.06	63.11	50.67	102.25
95th-Percentile Queue Length [veh/ln]	4.20	1.34	2.36	3.61	2.17	4.40	2.68	4.32	4.54	3.65	7.36
95th-Percentile Queue Length [ft/ln]	105.05	33.60	59.01	90.25	54.33	110.03	66.90	108.10	113.59	91.20	184.06

Movement, Approach, & Intersection Results

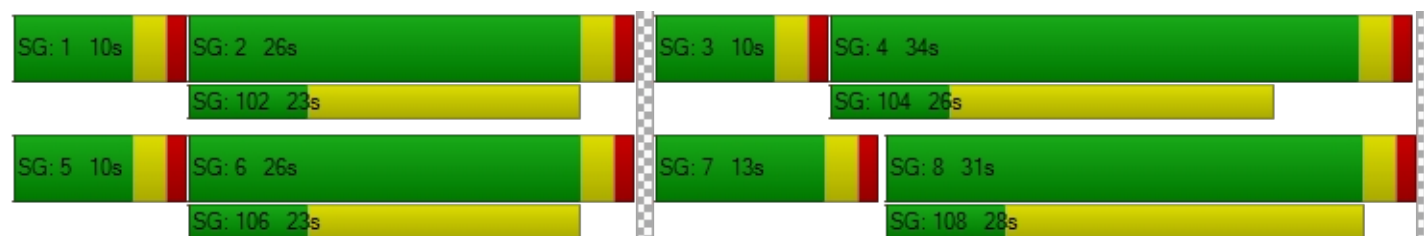
d_M, Delay for Movement [s/veh]	45.48	9.87	10.80	47.05	10.98	10.98	45.09	29.87	32.46	44.40	30.43	38.40
Movement LOS	D	A	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	18.54			25.05			35.98			37.83		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	29.42											
Intersection LOS	C											
Intersection V/C	0.435											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	29.78			29.78			29.78			29.78		
I_p,int, Pedestrian LOS Score for Intersection	2.592			2.473			2.412			2.488		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	575			575			700			775		
d_b, Bicycle Delay [s]	20.33			20.33			16.92			15.03		
I_b,int, Bicycle LOS Score for Intersection	1.953			1.957			2.144			2.327		
Bicycle LOS	A			A			B			B		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-







PM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Signalized	Delay (sec / veh):	32.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name	Dale Evans Pkwy			Dale Evans Pkwy			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Dale Evans Pkwy			Dale Evans Pkwy			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	129	160	69	182	275	155	108	87	103	122	90	172
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	160	69	182	275	155	108	87	103	122	90	172
Peak Hour Factor	0.8900	0.9500	0.8900	0.9500	0.9500	0.9500	0.9500	0.8900	0.8900	0.8900	0.8900	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	42	19	48	72	41	28	24	29	34	25	45
Total Analysis Volume [veh/h]	145	168	78	192	289	163	114	98	116	137	101	181
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	7	0	5	7	0	5	7	0	5	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	18	26	0	21	29	0	14	31	0	12	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	16	0	0	16	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	9	46	46	12	48	8	12	12	9	13	13
g / C, Green / Cycle	0.10	0.51	0.51	0.13	0.53	0.08	0.13	0.13	0.10	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.08	0.05	0.05	0.11	0.27	0.07	0.05	0.08	0.08	0.06	0.12
s, saturation flow rate [veh/h]	1714	3427	1530	1714	1692	1714	1800	1530	1714	1800	1530
c, Capacity [veh/h]	180	1727	771	230	902	145	235	200	169	260	221
d1, Uniform Delay [s]	39.46	11.66	11.69	38.08	13.41	40.49	36.05	36.88	39.82	34.94	37.41
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.26	0.11	0.26	7.82	1.99	9.16	1.18	2.67	8.94	0.94	7.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.10	0.10	0.84	0.50	0.79	0.42	0.58	0.81	0.39	0.82
d, Delay for Lane Group [s/veh]	47.72	11.78	11.95	45.90	15.40	49.65	37.23	39.55	48.76	35.89	44.65
Lane Group LOS	D	B	B	D	B	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.33	0.76	0.74	4.32	5.20	2.68	1.92	2.38	3.18	1.93	4.02
50th-Percentile Queue Length [ft/ln]	83.14	19.12	18.57	107.95	129.98	66.92	47.92	59.40	79.55	48.24	100.40
95th-Percentile Queue Length [veh/ln]	5.99	1.38	1.34	7.73	8.94	4.82	3.45	4.28	5.73	3.47	7.23
95th-Percentile Queue Length [ft/ln]	149.66	34.41	33.42	193.15	223.46	120.45	86.26	106.91	143.18	86.83	180.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.72	11.78	11.95	45.90	15.40	15.40	49.65	37.23	39.55	48.76	35.89	44.65
Movement LOS	D	B	B	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	25.14			24.49			42.37			43.88		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	32.48											
Intersection LOS	C											
Intersection V/C	0.619											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	34.71			34.71			34.71			34.71		
I_p,int, Pedestrian LOS Score for Intersection	2.633			2.625			2.460			2.482		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	511			577			622			577		
d_b, Bicycle Delay [s]	24.98			22.79			21.39			22.79		
I_b,int, Bicycle LOS Score for Intersection	1.882			2.622			2.101			2.251		
Bicycle LOS	A			B			B			B		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-







**YEAR 2040 WITH PROJECT
WITH IMPROVEMENTS**

AM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Signalized	Delay (sec / veh):	29.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.439

Intersection Setup

Name	Dale Evans Pkwy			Dale Evans Pkwy			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Dale Evans Pkwy			Dale Evans Pkwy			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	90	194	129	89	90	49	112	75	114	99	101	205
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	4	0	0	0	0	6	0	7	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	194	133	89	90	49	112	81	114	106	110	205
Peak Hour Factor	0.8020	0.9500	0.8020	0.9500	0.9500	0.9500	0.9500	0.8020	0.8020	0.8020	0.8020	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	51	41	23	24	13	29	25	36	33	34	54
Total Analysis Volume [veh/h]	112	204	166	94	95	52	118	101	142	132	137	216
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	7	0	5	7	0	5	7	0	5	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	10	26	0	10	26	0	10	31	0	13	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	16	0	0	16	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	7	42	42	6	41	7	13	13	8	14	14
g / C, Green / Cycle	0.08	0.52	0.52	0.07	0.51	0.09	0.16	0.16	0.10	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.07	0.06	0.11	0.05	0.09	0.07	0.06	0.09	0.08	0.08	0.14
s, saturation flow rate [veh/h]	1714	3427	1530	1714	1694	1714	1800	1530	1714	1800	1530
c, Capacity [veh/h]	142	1788	798	120	863	149	291	248	165	309	263
d1, Uniform Delay [s]	36.06	9.75	10.28	36.63	10.57	35.88	29.81	31.01	35.42	29.74	31.99
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.42	0.13	0.59	10.42	0.43	9.21	0.71	2.09	8.49	1.00	6.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.11	0.21	0.78	0.17	0.79	0.35	0.57	0.80	0.44	0.82
d, Delay for Lane Group [s/veh]	45.48	9.88	10.87	47.05	10.99	45.09	30.51	33.10	43.91	30.74	38.32
Lane Group LOS	D	A	B	D	B	D	C	C	D	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.33	0.75	1.36	2.01	1.21	2.45	1.62	2.43	2.69	2.22	4.09
50th-Percentile Queue Length [ft/ln]	58.36	18.68	33.97	50.14	30.21	61.13	40.55	60.81	67.24	55.54	102.13
95th-Percentile Queue Length [veh/ln]	4.20	1.35	2.45	3.61	2.18	4.40	2.92	4.38	4.84	4.00	7.35
95th-Percentile Queue Length [ft/ln]	105.05	33.63	61.15	90.25	54.38	110.03	72.99	109.46	121.03	99.97	183.83

Movement, Approach, & Intersection Results

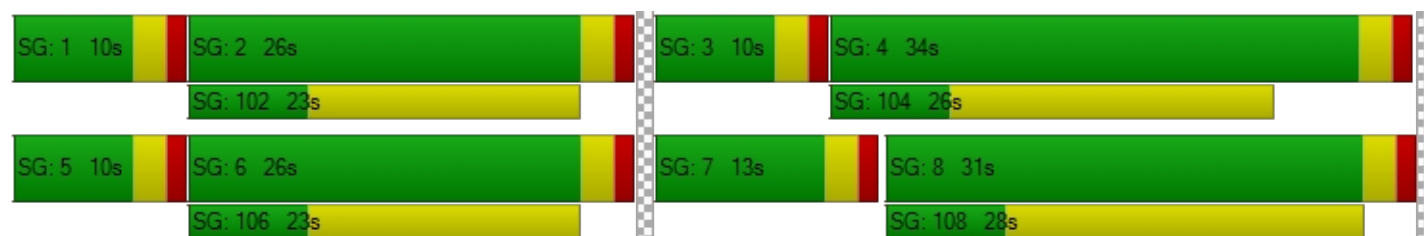
d_M, Delay for Movement [s/veh]	45.48	9.88	10.87	47.05	10.99	10.99	45.09	30.51	33.10	43.91	30.74	38.32
Movement LOS	D	A	B	D	B	B	D	C	C	D	C	D
d_A, Approach Delay [s/veh]	18.49			25.06			36.30			37.70		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	29.53											
Intersection LOS	C											
Intersection V/C	0.439											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	29.78			29.78			29.78			29.78		
I_p,int, Pedestrian LOS Score for Intersection	2.597			2.473			2.420			2.503		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	575			575			700			775		
d_b, Bicycle Delay [s]	20.33			20.33			16.92			15.03		
I_b,int, Bicycle LOS Score for Intersection	1.957			1.957			2.155			2.360		
Bicycle LOS	A			A			B			B		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-







PM PEAK HOUR

Intersection Level Of Service Report**Intersection 1: Dale Evans Pkwy (NS) at Waalew Rd (EW)**

Control Type:	Signalized	Delay (sec / veh):	32.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name	Dale Evans Pkwy			Dale Evans Pkwy			Waalew Rd			Waalew Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Dale Evans Pkwy			Dale Evans Pkwy			Waalew Rd			Waalew Rd		
Base Volume Input [veh/h]	129	160	69	182	275	155	108	87	103	122	90	172
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	9	12	0	0	0	11	0	6	8	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	129	160	78	194	275	155	108	98	103	128	98	179
Peak Hour Factor	0.8900	0.9500	0.8900	0.9500	0.9500	0.9500	0.9500	0.8900	0.8900	0.8900	0.8900	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	42	22	51	72	41	28	28	29	36	28	47
Total Analysis Volume [veh/h]	145	168	88	204	289	163	114	110	116	144	110	188
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	7	0	5	7	0	5	7	0	5	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	18	26	0	21	29	0	14	31	0	12	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	16	0	0	16	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
g_i, Effective Green Time [s]	9	44	44	13	48	8	12	12	9	13	13
g / C, Green / Cycle	0.10	0.49	0.49	0.14	0.53	0.08	0.13	0.13	0.10	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.08	0.05	0.06	0.12	0.27	0.07	0.06	0.08	0.08	0.06	0.12
s, saturation flow rate [veh/h]	1714	3427	1530	1714	1692	1714	1800	1530	1714	1800	1530
c, Capacity [veh/h]	180	1687	753	242	894	145	240	204	173	269	229
d1, Uniform Delay [s]	39.46	12.23	12.34	37.76	13.69	40.49	36.09	36.66	39.80	34.74	37.18
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.26	0.12	0.32	7.83	2.04	9.16	1.37	2.50	9.98	1.00	7.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.10	0.12	0.84	0.51	0.79	0.46	0.57	0.83	0.41	0.82
d, Delay for Lane Group [s/veh]	47.72	12.35	12.65	45.58	15.73	49.65	37.46	39.16	49.78	35.73	44.39
Lane Group LOS	D	B	B	D	B	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.33	0.79	0.87	4.57	5.28	2.68	2.16	2.36	3.39	2.10	4.16
50th-Percentile Queue Length [ft/ln]	83.14	19.79	21.84	114.37	132.06	66.92	54.10	59.04	84.64	52.46	104.01
95th-Percentile Queue Length [veh/ln]	5.99	1.43	1.57	8.08	9.05	4.82	3.89	4.25	6.09	3.78	7.49
95th-Percentile Queue Length [ft/ln]	149.66	35.63	39.32	202.07	226.29	120.45	97.37	106.28	152.34	94.42	187.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.72	12.35	12.65	45.58	15.73	15.73	49.65	37.46	39.16	49.78	35.73	44.39
Movement LOS	D	B	B	D	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	25.21			25.01			42.13			43.99		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	32.78											
Intersection LOS	C											
Intersection V/C	0.624											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	34.71			34.71			34.71			34.71		
I_p,int, Pedestrian LOS Score for Intersection	2.639			2.634			2.469			2.508		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	511			577			622			577		
d_b, Bicycle Delay [s]	24.98			22.79			21.39			22.79		
I_b,int, Bicycle LOS Score for Intersection	1.890			2.642			2.121			2.289		
Bicycle LOS	A			B			B			B		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX E

**TRAVEL DEMAND POST PROCESSING
WORKSHEETS**

AVERAGE DAILY TRAFFIC

ID	INTERSECTION	LEG	MODEL 2016 ADT	EXISTING 2024 ADT	MODEL 2040 ADT	FUTURE 2040 ADT ¹	OPENING 2026 ADT	ADJUSTED BUILDOUT ADT ²
1	Dale Evans Parkway (South) at: Waalew Road	North	-	0	-	-	-	-
		South	3,609	4,700	11,898	13,090	5,390	13,100
		East	6,849	6,500	13,014	14,320	7,010	14,300
		West	5,357	5,500	5,340	5,500	5,570	6,900
2	Dale Evans Parkway (North) at: Waalew Road	North	2,826	3,800	14,964	16,460	4,810	16,460
		South	-	-	-	-	-	-
		East	4,833	5,900	6,390	7,030	6,030	7,030
		West	6,849	6,900	13,014	14,320	7,410	14,320
3	Navajo Road at: Waalew Road	North	-	100	-	100	100	110
		South	152	2,200	328	2,320	2,230	2,320
		East	4,908	4,200	6,581	7,240	4,340	7,240
		West	4,833	5,700	6,390	7,030	5,830	7,030
4	Project Driveway at: Waalew Road	North	-	-	-	-	-	-
		South	-	-	-	-	-	-
		East	4,833	5,700	6,390	7,030	5,830	7,030
		West	4,833	5,700	6,390	7,030	5,830	7,030

Notes:

1. Future volumes adjusted for minimum 10% growth over existing average daily traffic volumes.
2. Future volumes adjusted for minimum 5% growth over opening year daily traffic volumes.

Dale Evans Parkway (South) (NS) / Waalew Road (EW) - #1											
MORNING PEAK HOUR						EVENING PEAK HOUR					
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):						EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					
2024						2024					
		0	0	0				0	0	0	
		<	v	>				<	v	>	
	0	^			^ 0			0	^		^ 0
	129	>			< 128			162	>		< 135
	50	v			v 49			75	v		v 148
			<	^	>				<	^	>
			46	0	86				73	0	84
EXISTING PEAK HOUR COUNT YEAR (AUTOS):						EXISTING PEAK HOUR COUNT YEAR (AUTOS):					
2024						2024					
			0	0					0	0	
			v	^					v	^	
	174	<	IN =	488	< 177			208	<	IN =	677 < 283
	179	>	OUT =	488	> 215			237	>	OUT =	677 > 246
			v	^					v	^	
			99	132					223	157	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):						EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):					
		0	0	0				0	0	0	
		<	v	>				<	v	>	
	0	^			^ 0			0	^		^ 0
	17	>			< 8			15	>		< 5
	2	v			v 6			2	v		v 9
PCE FACTORS BY AXLE:						PCE FACTORS BY AXLE:					
2:	1.5	3:	2.0	4+:	3.0	2:	1.5	3:	2	4+:	3.0
			<	^	>				<	^	>
			3	0	6				9	0	6
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):						TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):					
2024						2024					
		0	0	0				0	0	0	
		<	v	>				<	v	>	
	0	^			^ 0			0	^		^ 0
	146	>			< 136			177	>		< 140
	52	v			v 55			77	v		v 157
			<	^	>				<	^	>
			49	0	92				82	0	90
FUTURE PEAK PERIOD MODEL YEAR (AUTO):						FUTURE PEAK PERIOD MODEL YEAR (AUTO):					
2040						2040					
			0	0					0	0	
			v	^					v	^	
	409	<	IN =	2873	< 938			940	<	IN =	4616 < 2368
	624	>	OUT =	2873	> 1585			700	>	OUT =	4616 > 1636
			v	^					v	^	
			879	1311					2040	1548	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):						FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					
2040						2040					
		0	0					0	0		
		v	^					v	^		
	10	<	IN =	104	< 49			11	<	IN =	120 < 56
	10	>	OUT =	103	> 48			11	>	OUT =	120 > 57
			v	^					v	^	
			45	45					52	53	
FUTURE PEAK HOUR MODEL YEAR (PCES):						FUTURE PEAK HOUR MODEL YEAR (PCES):					
PHF FOR CARS: 0.38						PHF FOR CARS: 0.28					
PHF FOR TRUCKS: 0.333						PHF FOR TRUCKS: 0.25					
			0	0					0	0	
			v	^					v	^	
	159	<	IN =	1126	< 373			266	<	IN =	1322 < 677
	240	>	OUT =	1126	> 618			199	>	OUT =	1322 > 472
			v	^					v	^	
			349	513					584	447	
PRORATED GROWTH (PCES): 2024 TO 2040						PRORATED GROWTH (PCES): 2024 TO 2040					
16 YEARS						16 YEARS					
		0	0					0	0		
		v	^					v	^		
	10	<			< 40			50	<		< 270
	70	>			> 270			20	>		> 110
			v	^					v	^	
			150	230					270	210	
NEW PROJECTED VOLUMES (PCES): 2040						NEW PROJECTED VOLUMES (PCES): 2040					
		0	0					0	0		
		v	^					v	^		
	200	<			< 230			270	<		< 570
	270	>			> 510			270	>		> 380
			v	^					v	^	
			260	370					500	380	
ADT BY LEG:						ADT BY LEG:					
2040						2040					
			0						0		
			N						N		
	5,500	W	LEG	E	14,320			5,500	W	LEG	E 14,320
			S						S		
			13,090						13,090		

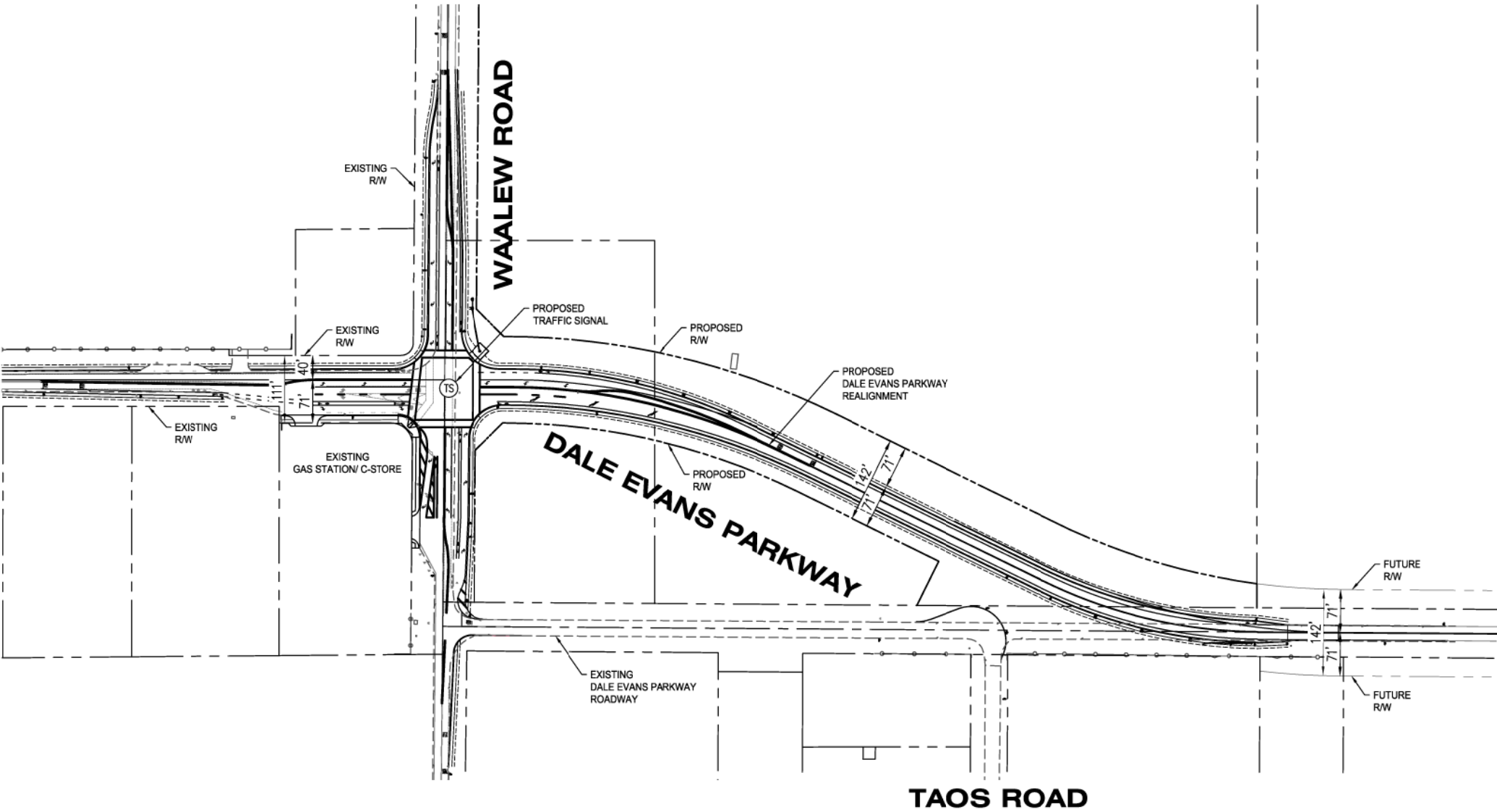
Dale Evans Parkway (North) (NS) / Waalew Road (EW) - #2											
MORNING PEAK HOUR						EVENING PEAK HOUR					
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):						EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					
2024						2024					
		26	0	24				141	0	76	
		<	v	>				<	v	>	
	57	^			^ 40		58	^			^ 41
	165	>			< 171		195	>			< 167
	0	v			v 0		0	v			v 0
		<	^	>				<	^	>	
		0	0	0				0	0	0	
EXISTING PEAK HOUR COUNT YEAR (AUTOS):						EXISTING PEAK HOUR COUNT YEAR (AUTOS):					
2024						2024					
			50	97					217	99	
			v	^					v	^	
	197	<	IN =	483	< 211		308	<	IN =	678	< 208
	222	>	OUT =	483	> 189		253	>	OUT =	678	> 271
			v	^					v	^	
			0	0					0	0	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):						EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):					
			6	0	3				3	0	9
			<	v	>				<	v	>
	7	^			^ 11		6	^			^ 0
	21	>			< 11		17	>			< 9
	0	v			v 0		0	v			v 0
PCE FACTORS BY AXLE:						PCE FACTORS BY AXLE:					
2:	1.5	3:	2.0	4+:	3.0	2:	1.5	3:	2	4+:	3.0
			<	^	>				<	^	>
			0	0	0				0	0	0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):						TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):					
2024						2024					
			32	0	27				144	0	85
			<	v	>				<	v	>
	64	^			^ 51		64	^			^ 41
	186	>			< 182		212	>			< 176
	0	v			v 0		0	v			v 0
		<	^	>				<	^	>	
		0	0	0				0	0	0	
FUTURE PEAK PERIOD MODEL YEAR (AUTO):						FUTURE PEAK PERIOD MODEL YEAR (AUTO):					
2040						2040					
			824	2187					2445	2020	
			v	^					v	^	
	938	<	IN =	3443	< 1034		2368	<	IN =	5113	< 1032
	1585	>	OUT =	3443	> 318		1636	>	OUT =	5113	> 725
			v	^					v	^	
			0	0					0	0	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):						FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					
2040						2040					
			52	79					61	95	
			v	^					v	^	
	49	<	IN =	139	< 39		56	<	IN =	164	< 46
	48	>	OUT =	140	> 12		57	>	OUT =	164	> 13
			v	^					v	^	
			0	0					0	0	
FUTURE PEAK HOUR MODEL YEAR (PCES):						FUTURE PEAK HOUR MODEL YEAR (PCES):					
PHF FOR CARS: 0.38						PHF FOR CARS: 0.28					
PHF FOR TRUCKS: 0.333						PHF FOR TRUCKS: 0.25					
			330	857					700	589	
			v	^					v	^	
	373	<	IN =	1355	< 406		677	<	IN =	1473	< 300
	618	>	OUT =	1355	> 125		472	>	OUT =	1473	> 206
			v	^					v	^	
			0	0					0	0	
PRORATED GROWTH (PCES): 2024 TO 2040						PRORATED GROWTH (PCES): 2024 TO 2040					
16 YEARS						16 YEARS					
			170	470					360	330	
			v	^					v	^	
	40	<			< 90		270	<			< 100
	270	>			> 10		110	>			> 20
			v	^					v	^	
			0	0					0	0	
NEW PROJECTED VOLUMES (PCES): 2040						NEW PROJECTED VOLUMES (PCES): 2040					
			230	590					590	440	
			v	^					v	^	
	250	<			< 320		590	<			< 320
	520	>			> 220		390	>			> 320
			v	^					v	^	
			0	0					0	0	
ADT BY LEG:						ADT BY LEG:					
2040						2040					
			16,460						16,460		
			N						N		
	14,320	W	LEG	E	7,030		14,320	W	LEG	E	7,030
			S						S		
			0						0		

Navajo Road (NS) / Waalew Road (EW) - #3											
MORNING PEAK HOUR						EVENING PEAK HOUR					
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):						EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					
2024						2024					
		0	2	0			1	3	1		
		<	v	>			<	v	>		
	1	^			^ 0		0	^			^ 0
	109	>			< 174		189	>			< 139
	31	v			v 7		102	v			v 9
		<	^	>			<	^	>		
		53	0	21			46	0	17		
EXISTING PEAK HOUR COUNT YEAR (AUTOS):						EXISTING PEAK HOUR COUNT YEAR (AUTOS):					
2024						2024					
			2	1				5	0		
			v	^				v	^		
	227	<	IN =	398	< 181		186	<	IN =	507	< 148
	141	>	OUT =	398	> 130		291	>	OUT =	507	> 207
			v	^				v	^		
			40	74				114	63		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):						EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):					
		0	0	0				0	0	0	
		<	v	>				<	v	>	
	0	^			^ 0		0	^			^ 0
	12	>			< 3		8	>			< 0
	6	v			v 0		5	v			v 0
PCE FACTORS BY AXLE:						PCE FACTORS BY AXLE:					
2:	1.5	3:	2.0	4+:	3.0	2:	1.5	3:	2	4+:	3.0
			5	0	2				3	0	3
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):						TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):					
2024						2024					
		0	2	0				1	3	1	
		<	v	>				<	v	>	
	1	^			^ 0		0	^			^ 0
	121	>			< 177		197	>			< 139
	37	v			v 7		107	v			v 9
		<	^	>				<	^	>	
		58	0	23				49	0	20	
FUTURE PEAK PERIOD MODEL YEAR (AUTO):						FUTURE PEAK PERIOD MODEL YEAR (AUTO):					
2040						2040					
			0	0				0	0		
			v	^				v	^		
	1034	<	IN =	1400	< 1048		1032	<	IN =	1837	< 1069
	318	>	OUT =	1400	> 341		725	>	OUT =	1837	> 741
			v	^				v	^		
			25	34				64	43		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):						FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					
2040						2040					
			0	0				0	0		
			v	^				v	^		
	39	<	IN =	51	< 39		46	<	IN =	59	< 46
	12	>	OUT =	51	> 12		13	>	OUT =	59	> 13
			v	^				v	^		
			0	0				0	0		
FUTURE PEAK HOUR MODEL YEAR (PCES):						FUTURE PEAK HOUR MODEL YEAR (PCES):					
PHF FOR CARS: 0.38						PHF FOR CARS: 0.28					
PHF FOR TRUCKS: 0.333						PHF FOR TRUCKS: 0.25					
			0	0				0	0		
			v	^				v	^		
	406	<	IN =	549	< 411		300	<	IN =	529	< 311
	125	>	OUT =	549	> 134		206	>	OUT =	529	> 211
			v	^				v	^		
			10	13				18	12		
PRORATED GROWTH (PCES): 2024 TO 2040						PRORATED GROWTH (PCES): 2024 TO 2040					
16 YEARS						16 YEARS					
			0	0				0	0		
			v	^				v	^		
	90	<			< 100		100	<			< 100
	10	>			> 10		20	>			> 10
			v	^				v	^		
			10	10				10	10		
NEW PROJECTED VOLUMES (PCES): 2040						NEW PROJECTED VOLUMES (PCES): 2040					
			0	0				10	0		
			v	^				v	^		
	330	<			< 280		290	<			< 250
	170	>			> 150		320	>			> 230
			v	^				v	^		
			60	90				130	80		
ADT BY LEG:						ADT BY LEG:					
2040						2040					
			100					100			
			N					N			
	7,030	W	LEG	E	7,240		7,030	W	LEG	E	7,240
			S					S			
			2,320					2,320			

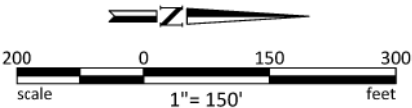
APPENDIX F

ROADWAY EXHIBIT

DALE EVANS PARKWAY AND WAALEW ROAD



TAOS ROAD



	14297 Cajon Avenue Suite 101 Victorville California 92392-2335 Phone: 760.524.9100	PROPOSED PROJECT EXHIBIT DALE EVANS PARKWAY AND WAALEW ROAD APPLE VALLEY, CALIFORNIA	DESIGNED
	DAVID EVANS AND ASSOCIATES INC.		DRAWN
			CHECKED
			DATE 6-18-2020
			SHEET 1 OF 1 SHEETS

Exhibit 3 - Proposed Project Exhibit

APPENDIX G

GATE STAKING WORKSHEET

Table Gate Stacking Analysis¹

PROJECT:	Apple Valley Truck and Trailer Facility	DATE: 2024-1010	
LOCATION:	Project Truck Access Gate	JN: 19763	
		AM Inbound	PM Inbound
	DEMAND RATE (q) (veh/hr)	14	24
	SERVICE RATE (Q) (veh/hr/channel) ²	110	110
	NO. OF SERVICE POSITIONS (N)	1	1
	NO. OF STORAGE LANES (N1)	1	1
	PROBABILITY OF NOT EXCEEDING (P) ³	0.05	0.05
		P'=95%	P'=95%
	UTILIZATION FACTOR (q/(N*Q))	0.13	0.22
LENGTH OF SERVICE VEHICLE (L) FEET	74.5	74.5	
TRAFFIC INTENSITY (q/Q)	0.127	0.218	
Q(M) VALUE ⁵	0.13	0.10	
NO. OF VEHICLES BEING SERVED (N)	1.00	1.00	
NO. OF VEHICLES IN QUEUE (M)	-0.55	-0.03	
M = ((LN(P) - LN(Q(M)))/LN(p)) - 1	~0	~0	
TOTAL NUMBER OF VEHICLES (N+M)	1.00	1.00	
	~1	~1	
NO. OF VEHICLES IN EACH LANE	1.00	1.00	
PER LANE ((N+M)/N1) ⁶	1	1	
LENGTH OF QUEUE (L) FEET	75	75	

Notes:

1. Source: *Transportation and Land Development* (Institute of Transportation Engineers, 1988).
2. Service rates obtained from *Entrance-Exit Design and Control for Major Parking Facilities* (Crommelin, 1972).
3. P' = confidence interval; probability that queue will not exceed the calculated value.
4. Vehicle length based on 65-foot California legal truck-trailer combination length of 74.5 feet.
5. Q(M) = interpolated table values based on number of service channels (N) and utilization factor (q/NQ) per Table 8-11 (p.231) of *Transportation And Land Development*.
6. Fractional vehicles are rounded up.



GANDDINI GROUP INC.

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