Appendix K

Thermal Ranch Specific Plan Traffic Analysis,

prepared by

Urban Crossroads, Inc., July 19, 2023

URBAN | CROSSROADS

THERMAL RANCH SPECIFIC PLAN

TRAFFIC ANALYSIS

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Reference Number	Agency	Date
14492-05 TA Report.docx	County of Riverside	July 31, 2023

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CMP	Congestion Management Program
CVAG	Coachella Valley Association of Governments
DIF	Development Impact Fee
EAP	Existing plus Ambient Growth plus Project
EAPC	Existing plus Ambient Growth plus Project plus Cumulative
EIR	Environmental Impact Report
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
NCHRP	National Cooperative Highway Research Program
PHF	Peak Hour Factor
Project	Thermal Ranch Specific Plan
RCTC	Riverside County Transportation Commission
RIVTAM	Riverside County Transportation Analysis Model
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
TA	Traffic Analysis
TUMF	Transportation Uniform Mitigation Fee
v/c	Volume to Capacity
vphgpl	Vehicles per Hour Green per Lane

1 INTRODUCTION

This report presents the results of the Traffic Analysis (TA) for Thermal Ranch Specific Plan (Project), which is located south of Avenue 62, east of Harrison Street, and west of Tyler Street in the Thermal area of the County of Riverside, as shown on Exhibit 1-1. The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and where necessary, identify improvements to achieve acceptable operations consistent with General Plan level of service goals and policies.

This traffic study has been prepared in accordance with the County of Riverside's Traffic Impact Analysis Guidelines and consultation with County staff during the traffic study scoping process. (1) The County approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

Because the Project is oriented around an equestrian center with show facilities, peak hour weekend (Saturday morning and Sunday evening) analysis is performed, in addition to typical weekday conditions.

1.1 PROJECT OVERVIEW

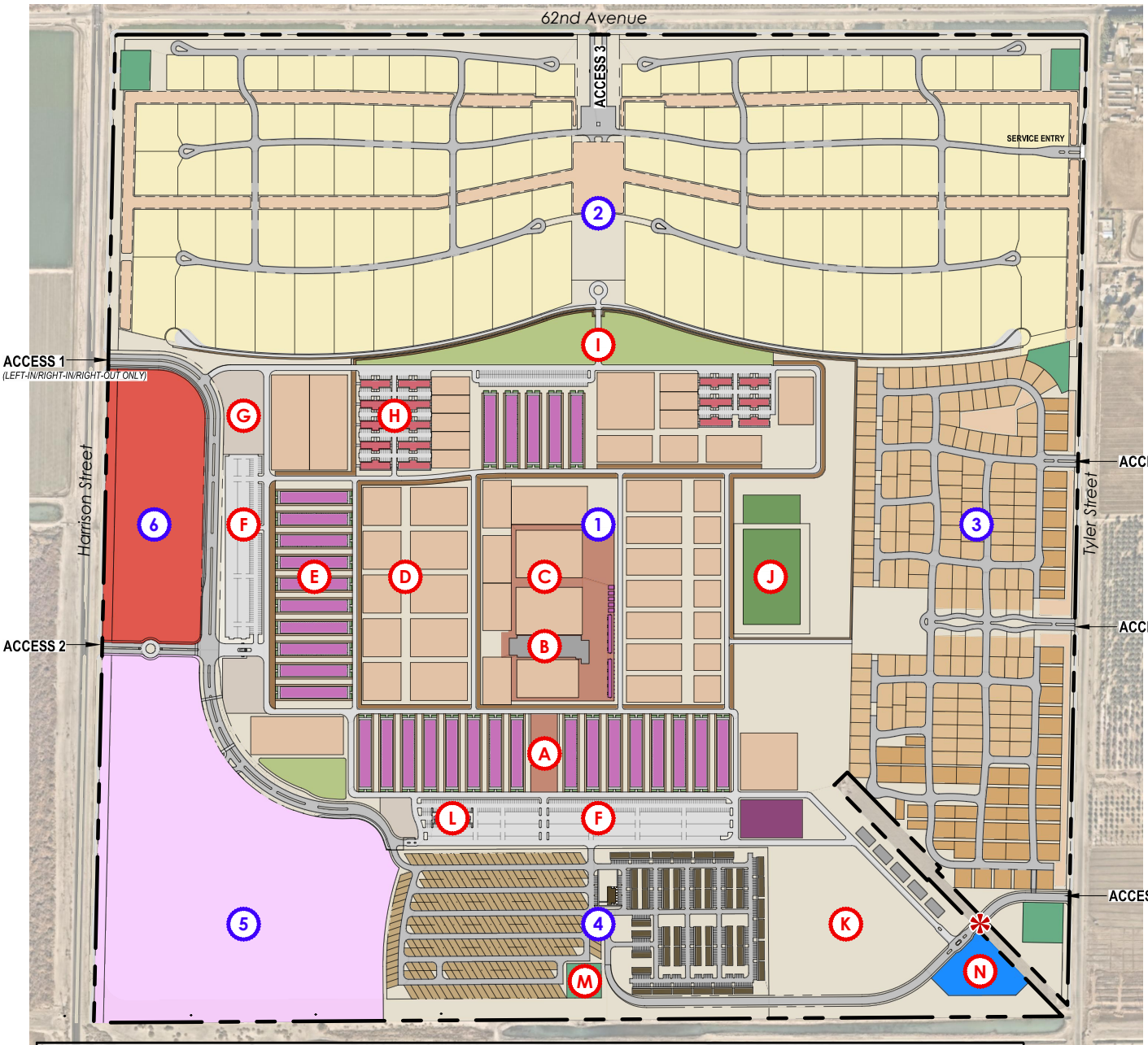
The Project consists of a mix of uses including and centered around a 223-acre equestrian center and related show facilities, including barns, stabling and related equestrian services. Other components of the Thermal Ranch Specific Plan provide a mix of residential neighborhoods including seasonal and year-round workforce housing and RV park facilities, single-family and multi-family lots, and resort condominiums.

Proposed commercial areas would include a commercial village adjacent to Harrison Street, resort commercial uses near a proposed hotel (150± keys), and supporting commercial uses within the equestrian center. A preliminary land use plan for the proposed Project is shown on Exhibit 1-1.

Exhibit 1-2 depicts the Project planning areas (PAs). It is anticipated that PAs 1 – 4 will be constructed as the initial / interim phase of the Project (2026), with PAs 5 and 6 then occurring upon buildout of the Project (2032). Vehicle access to each PA is oriented primarily to adjacent General Plan roadways (Avenue 62, Harrison Street, and Tyler Street). The proposed interior backbone streets are shown on Exhibit 1-3. PAs 2 through 6 are also connected to PA-1 via golf cart paths which also accommodate pedestrians and bicyclists.

It is the intent of the Project to improve Harrison Street, 62nd Avenue, and Tyler Street to their ultimate half-section widths adjacent to the site in conjunction with relevant Planning Area development (examined further in Sections 5 and 6). For Harrison Street, 3 northbound lanes should be included. For 62nd Avenue, 2 eastbound lanes should be included.

EXHIBIT 1-1: PRELIMINARY SITE PLAN



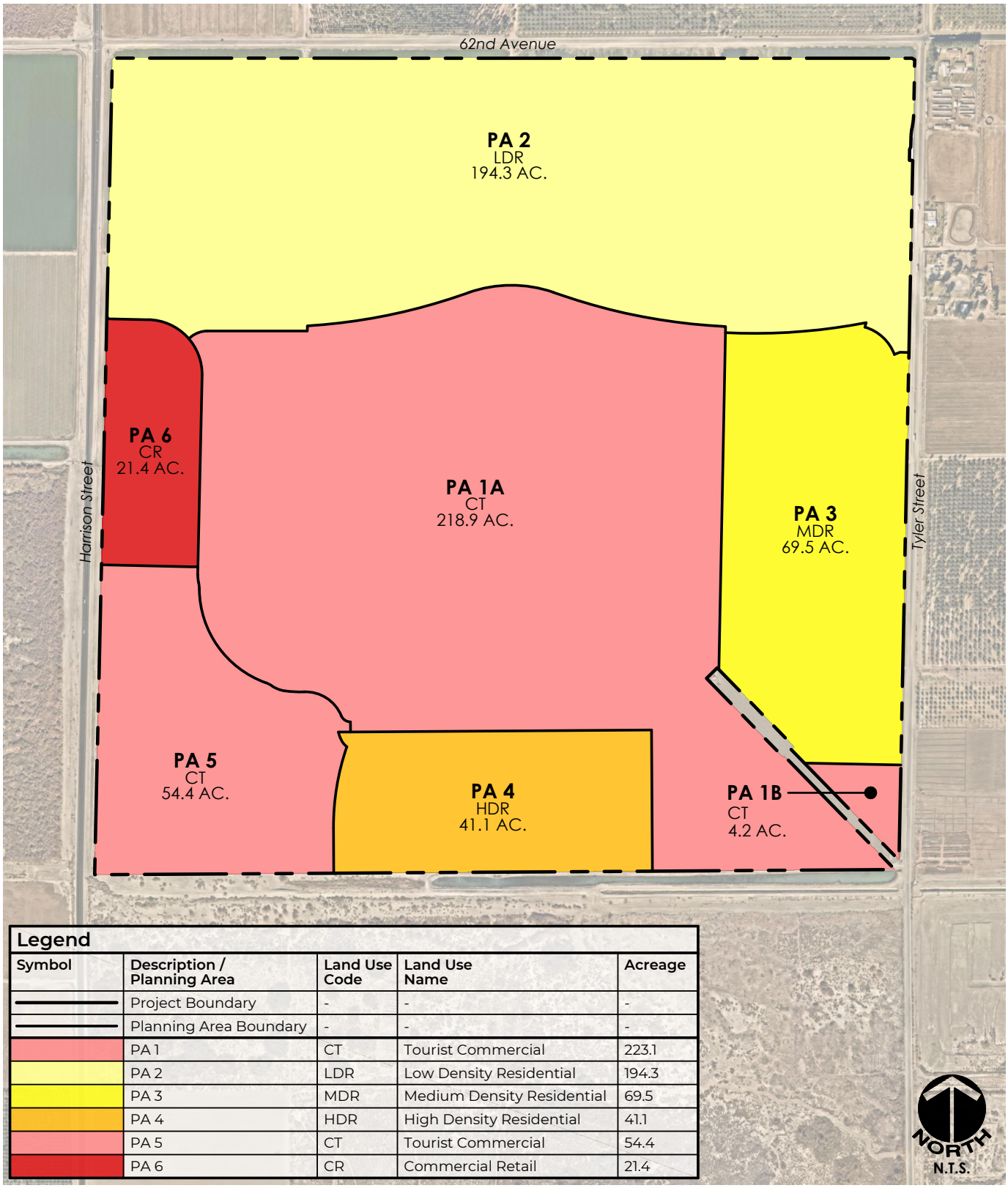
Legend					
— — —	Project Boundary	✻	Required Easement		
1	Horse Park	A	Grand Entry	H	Private Barns
2	Estate Lots	B	Gathering/Dining Commons	I	Pasture
3	Neighborhoods	C	Competition Rings	J	Grass Field
4	Horse Park Workforce Housing	D	Warmup/Jumper Rings	K	Back of House
5	Hotel/Resort	E	Common Barns	L	Office
6	Commercial	F	Parking	M	CVWD Well Site
		G	Staging Area	N	Potential Substation

Note: This exhibit illustrates one possible development scenario. Other site development concepts are allowed subject to the standards and guidelines of this Specific Plan.

Source: MSA Consulting, Inc.

Exhibit Date: February 16, 2023

EXHIBIT 1-2: PROJECT PLANNING AREAS



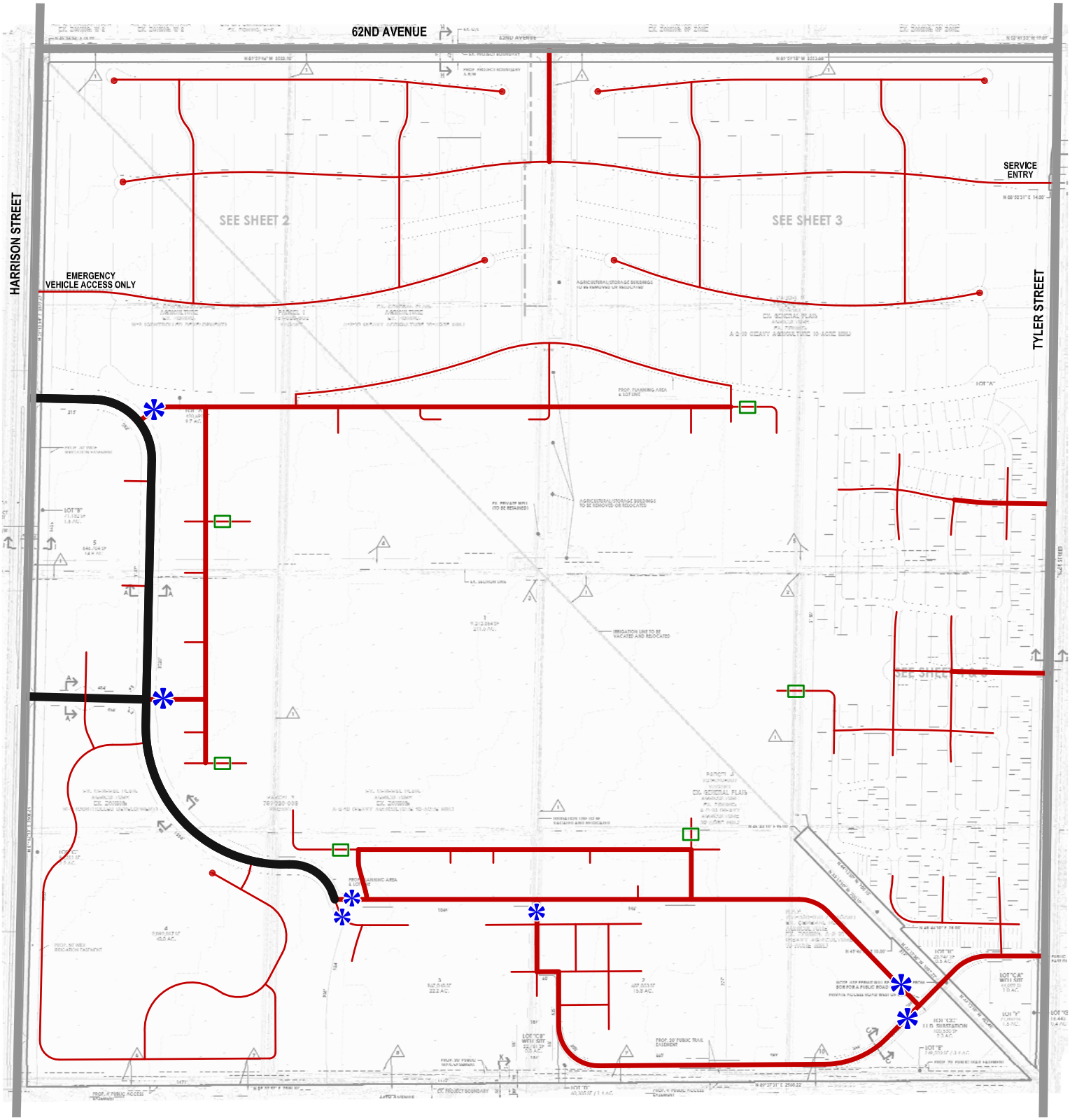
Legend

Symbol	Description / Planning Area	Land Use Code	Land Use Name	Acreage
	Project Boundary	-	-	-
	Planning Area Boundary	-	-	-
	PA 1	CT	Tourist Commercial	223.1
	PA 2	LDR	Low Density Residential	194.3
	PA 3	MDR	Medium Density Residential	69.5
	PA 4	HDR	High Density Residential	41.1
	PA 5	CT	Tourist Commercial	54.4
	PA 6	CR	Commercial Retail	21.4

Source: MSA Consulting, Inc.

Exhibit Date: February 16, 2023

EXHIBIT 1-3: PROPOSED INTERIOR BACKBONE STREETS



Only a limited portion of the designated right-of-way for 64th Avenue is located within the Project boundaries, as most of the right-of-way is located on property owned by CVWD and the Torres Martinez Tribe. While that limited portion located within the Project boundaries will be dedicated, no physical improvements are proposed in connection with Project buildout due to the lack of necessary right-of-way.

Given the unique vehicle trip generation characteristics of Planning Area 1, traffic count data was collected at the current Desert International Horse Show location on the southeast corner of Harrison Street at Airport Boulevard in Thermal, California. Trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) have been utilized to estimate the traffic characteristics of other project land uses. (2)

Planning Area 1 trip rates for the horse park are based on the relationship between the counted vehicle volume and the number of guests arriving onsite at the current Desert International Horse Show.

Buildout of the Project is anticipated to generate a total of 18,939 external vehicle trips per weekday with 1,000 AM peak hour trips and 1,393 PM peak hour trips on weekdays. On weekends, buildout of the Project is anticipated to generate a total of 21,523 Saturday external vehicle trips per day and 13,995 Sunday external vehicle trips per day, with 1,530 Saturday morning peak hour trips and 1,407 Sunday afternoon peak hour trips.

The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2023), Weekday
- Existing (2023), Weekend
- Existing Plus Ambient Plus Project Buildout (EAP 2032), Weekday
- Existing Plus Ambient Plus Project Buildout (EAP 2032), Weekend
- Existing Plus Ambient Plus Project Interim Phase Plus Cumulative (EAPC 2026), Weekday
- Existing Plus Ambient Plus Project Interim Phase Plus Cumulative (EAPC 2026), Weekend
- Existing Plus Ambient Plus Project Buildout Plus Cumulative (EAPC 2032), Weekday
- Existing Plus Ambient Plus Project Buildout Plus Cumulative (EAPC 2032), Weekend
- Horizon Year Without Project (2045), Weekday
- Horizon Year Without Project (2045), Weekend
- Horizon Year With Project (2045), Weekday
- Horizon Year With Project (2045), Weekend

1.2.1 EXISTING (2023) CONDITIONS, WEEKDAY AND WEEKEND

Information for Existing (2023) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. Weekday and weekend peak hour scenarios are included.

1.2.2 EAP CONDITIONS, WEEKDAY AND WEEKEND

The EAP conditions analysis determines the potential circulation system deficiencies based on a comparison of the EAP traffic conditions to Existing conditions. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project. To account for background traffic growth, an ambient growth factor from Existing (2023) conditions of 19.51% (2 percent per year, compounded over 9 years) is included for EAP traffic conditions. The factor applies to the Existing (2023) weekday or weekend peak hour volume for each respective forecast scenario. The assumed ambient growth factor is based on the requirements per the County of Riverside traffic study guidelines. Consistent with Riverside County traffic study guidelines, the EAP analysis is intended to identify "Opening Year" deficiencies associated with the development of the proposed Project based on the expected background growth within the study area.

1.2.3 EAPC (2026 AND 2032) CONDITIONS, WEEKDAY AND WEEKEND

The EAPC (2026 and 2032) traffic conditions analyses determine the potential near-term cumulative circulation system deficiencies. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project or cumulative projects. To account for background traffic growth, an ambient growth factor from Existing (2023) conditions of 6.12% (2 percent per year, compounded over 3 years) is included for EAPC (2026) traffic conditions. The factor applies to the Existing (2023) weekday or weekend peak hour volume for each respective forecast scenario. It is anticipated that PAs 1 – 4 will be constructed as the initial / interim phase of the Project (2026). For EAPC Project buildout (2032) traffic conditions to account for background traffic growth, an ambient growth factor from Existing (2023) conditions of 19.51% (2 percent per year, compounded over 9 years) is included.

Conservatively, this TA estimates the area ambient traffic growth and then adds traffic generated by other known or probable related projects and some of these related projects may not be implemented and operational within the 2026 Interim Year and 2032 Project Buildout time frame assumed for the Project. The resulting traffic growth utilized in this traffic study (ambient growth factor plus traffic generated by related projects) is considered a conservative analysis of background cumulative traffic deficiencies under 2026 or 2032 conditions, respectively.

1.2.4 HORIZON YEAR (2045) CONDITIONS, WEEKDAY AND WEEKEND

Traffic projections for Horizon Year (2045) conditions were derived from the Riverside County Transportation Analysis Model (RIVTAM) using accepted procedures for model forecast refinement and smoothing.

The Horizon Year conditions analysis has been utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the Coachella Valley Association of Governments (CVAG) Transportation Uniform Mitigation Fee (TUMF) program, can accommodate the long-range cumulative traffic at the target Level of Service (LOS) identified in the County of Riverside (lead agency) General Plan. (3) Each of these regional transportation fee programs are discussed in more detail in Section 8 *Local and Regional Funding Mechanisms*.

1.3 STUDY AREA

To ensure that this TA satisfies the County of Riverside's traffic study requirements, Urban Crossroads, Inc. prepared a Project traffic study scoping package for review by County of Riverside staff prior to the preparation of this report. This agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The agreement approved by the County is included in Appendix 1.1 of this TA.

The 32 study area intersections shown on Exhibit 1-4 and listed in Table 1-1 were selected for evaluation in this TA based on consultation with County of Riverside staff. At a minimum, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the County's traffic study guidelines. (1) The "50 peak hour trip" criteria represent a minimum number of trips at which a typical intersection would have the potential to be substantively affected by a given development proposal. The 50 peak hour trip criterion is a traffic engineering rule of thumb that is accepted and widely used within Riverside County for estimating a potential area of influence (i.e., study area). Exhibit 1-4: Study Area

The County of Riverside Congestion Management Program (CMP) became effective with the passage of Proposition 111 in 1990 and most recently updated in 2019 as part of the Riverside County Long Range Transportation Study. The RCTC adopted the 2019 CMP for the County of Riverside in December 2019. CMP locations within the study area are the following: 62nd Avenue between Monroe Street and SR-86, Airport Boulevard west of SR-86 to west of Harrison, and 66th Avenue between Pierce St. and SR-86.

1.4 INTERSECTION LOS FINDINGS

This section provides a summary by analysis scenario of intersections operating at an unacceptable LOS during weekday and weekend peak hours. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 3 *Area Conditions*, Section 5 *EAP Traffic Conditions*, Section 6 *EAPC (2026 and 2032) Conditions*, and Section 7 *Horizon Year (2045) Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented in Table 1-2.

1.4.1 EXISTING (2023) CONDITIONS

Study area intersections are currently operating at an acceptable LOS during the peak hours under Existing (2023) traffic conditions for weekday and weekend peak hours.

EXHIBIT 1-4: TRAFFIC ANALYSIS STUDY AREA

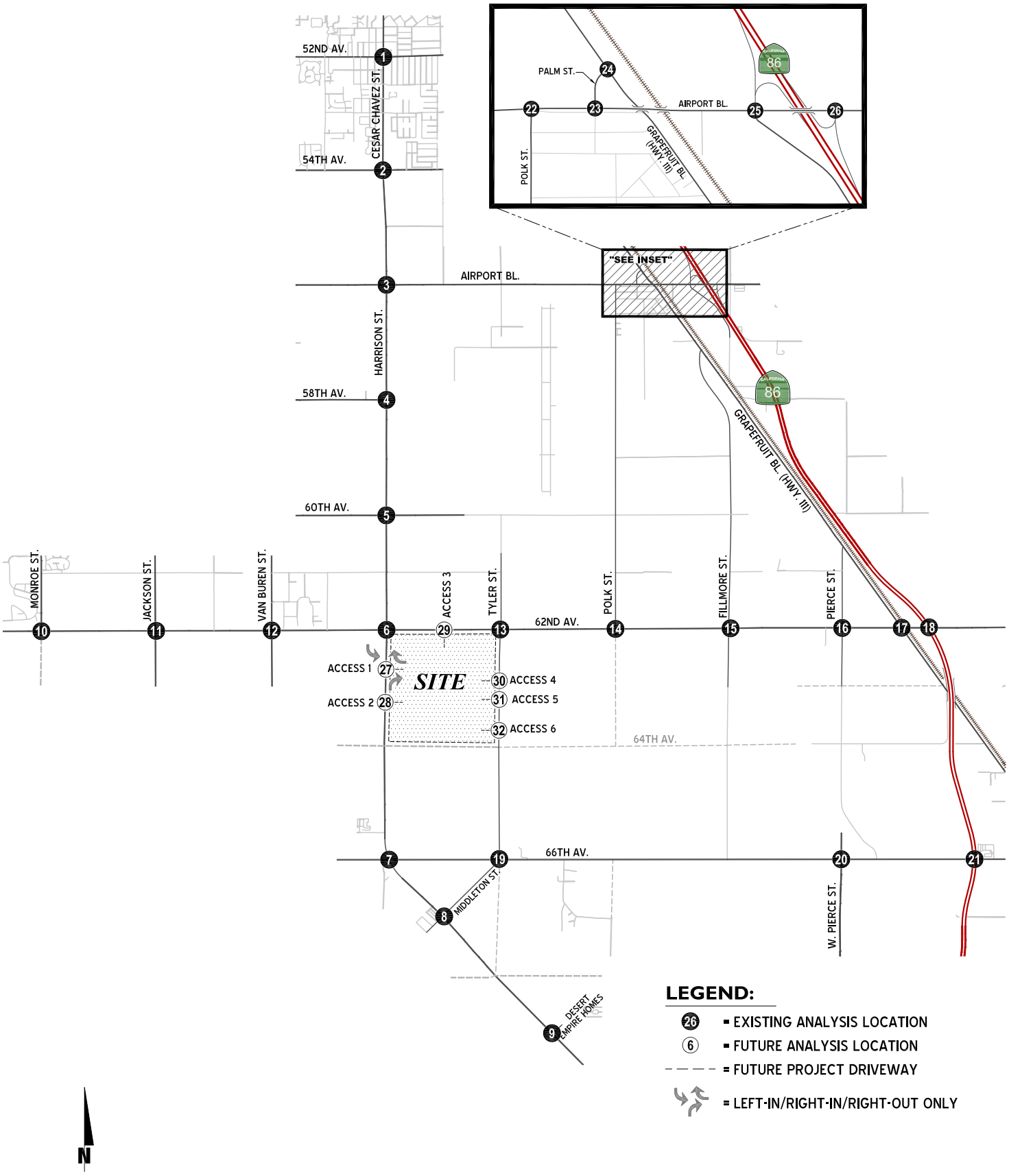


TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection	Jurisdiction
1	Cesar Chavez St. / 52nd Av.	County of Riverside, Coachella
2	Cesar Chavez St. / 54th Av.	County of Riverside
3	Harrison St. / Airport Bl.	County of Riverside
4	Harrison St. / 58th Av.	County of Riverside
5	Harrison St. / 60th Av.	County of Riverside
6	Harrison St. / 62nd Av.	County of Riverside
7	Harrison St. / 66th Av.	County of Riverside
8	Harrison St. / Middleton St.	County of Riverside
9	Harrison St. / Desert Empire Homes	County of Riverside
10	Monroe St. / 62nd Av.	County of Riverside
11	Jackson St. / 62nd Av.	County of Riverside
12	Van Buren St. / 62nd Av.	County of Riverside
13	Tyler St. / 62nd Av.	County of Riverside
14	Polk St. / 62nd Av.	County of Riverside
15	Fillmore St. / 62nd Av.	County of Riverside
16	Pierce St. / 62nd Av.	County of Riverside
17	Highway 111 / 62nd Av.	County of Riverside, Caltrans
18	SR-86 / 62nd Av.	County of Riverside, Caltrans
19	Tyler St. / 66th Av.	County of Riverside
20	W. Pierce St. / 66th Av.	County of Riverside
21	SR-86 / 66th Av.	County of Riverside, Caltrans
22	Polk St. / Airport Bl.	County of Riverside
23	Palm St. / Airport Bl.	County of Riverside
24	Highway 111 / Palm St.	County of Riverside, Caltrans
25	SR-86 SB Ramps / Airport Bl.	County of Riverside, Caltrans
26	SR-86 NB Ramps / Airport Bl.	County of Riverside, Caltrans
27	Harrison St. / Project Access 1	County of Riverside
28	Harrison St. / Project Access 2	County of Riverside
29	Project Access 3 / 62nd Av.	County of Riverside
30	Tyler St. / Project Access 4	County of Riverside
31	Tyler St. / Project Access 5	County of Riverside
32	Tyler St. / Project Access 6	County of Riverside

TABLE 1-2: LEVEL OF SERVICE (LOS) SUMMARY, PRIOR TO PROJECT IMPROVEMENTS AND OTHER RELATED CUMULATIVE IMPROVEMENTS

		Existing (2023)				EAP				EAPC								Horizon Year (2045)							
										Interim Year (2026)				Project Buildout (2032)				Without Project				With Project			
		Weekday		Weekend		Weekday		Weekend		Weekday		Weekend		Weekday		Weekend		Weekday		Weekend		Weekday		Weekend	
#	Intersection	AM	PM	Sat AM	Sun PM	AM	PM	Sat AM	Sun PM	AM	PM	Sat AM	Sun PM	AM	PM	Sat AM	Sun PM	AM	PM	Sat AM	Sun PM	AM	PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	F	F	A	A	F	F	A	F
2	Cesar Chavez St. / 54th Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	F	F	A	A	F	F	A	F
3	Harrison St. / Airport Bl.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	F	F	A	A	F	F	A	F
4	Harrison St. / 58th Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	E	A	A	F	F	A	A	F	F	E	F
5	Harrison St. / 60th Av.	A	A	A	A	A	A	A	A	A	A	A	A	F	F	E	E	F	F	F	A	F	F	F	F
6	Harrison St. / 62nd Av.	A	A	A	A	F	F	F	F	A	F	A	F	F	F	F	F	F	F	F	A	F	F	F	F
7	Harrison St. / 66th Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	F	A	A	A	F	A	A
8	Harrison St. / Middleton St.	A	A	A	A	A	A	A	A	A	A	A	A	A	F	A	A	F	F	F	A	F	F	F	F
9	Harrison St. / Desert Empire Homes	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	F	F	E	A	F	F	E	F
10	Monroe St. / 62nd Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	F	A	A	A	F	A	A
11	Jackson St. / 62nd Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	F	F	A	A	F	F	A	F
12	Van Buren St. / 62nd Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	F	F	A	A	F	F	A	F
13	Tyler St. / 62nd Av.	A	A	A	A	F	F	E	A	F	F	A	A	F	F	F	A	F	F	A	A	F	F	F	F
14	Polk St. / 62nd Av.	A	A	A	A	A	A	A	A	A	A	A	A	F	F	F	F	F	F	F	A	F	F	F	F
15	Fillmore St. / 62nd Av.	A	A	A	A	A	A	A	A	A	A	A	A	E	F	A	F	F	F	A	A	F	F	F	F
16	Pierce St. / 62nd Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	E	F	A	A	F	F	F	F
17	Highway 111 / 62nd Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	E	F	A	A	F	F	A	F
18	SR-86 / 62nd Av.	A	A	A	A	F	F	A	E	E	E	A	A	F	F	A	E	F	F	F	A	F	F	F	F
19	Tyler St. / 66th Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
20	W. Pierce St. / 66th Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	F	A	A	F	F	A	A	F	F	A	A
21	SR-86 / 66th Av.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	E	F	A	A	F	F	A	F
22	Polk St. / Airport Bl.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
23	Palm St. / Airport Bl.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
24	Highway 111 / Palm St.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
25	SR-86 SB Ramps / Airport Bl.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	E	F	A	A	F	F	E	F
26	SR-86 NB Ramps / Airport Bl.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
27	Harrison St. / Project Access 1	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A
28	Harrison St. / Project Access 2	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A
29	Project Access 3 / 62nd Av.	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A
30	Tyler St. / Project Access 4	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A
31	Tyler St. / Project Access 5	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A
32	Tyler St. / Project Access 6	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A

Legend:

● = A - D ● = E ● = F

F:\UXRjobs_14100-14500\14492\Excel\[14492 - Report.xlsx]1-2_LOS Summary

1.4.2 EAP CONDITIONS, WEEKDAY AND WEEKEND

The following study area intersections are anticipated to operate at an unacceptable LOS during peak hours with the addition of Project Buildout traffic for EAP conditions without improvements:

- #6 - Harrison St. / 62nd Av. – LOS F (Weekday & Weekend)
- #13 - Tyler St. / 62nd Av. – LOS F (Weekday) & LOS E (Saturday AM)
- #18 – SR-86 / 62nd Av. – LOS F (Weekday) & LOS E (Sunday PM)

1.4.3 EAPC (2026 AND 2032) CONDITIONS, WEEKDAY AND WEEKEND

The following study area intersections are anticipated to operate at an unacceptable LOS during peak hours with the addition of Project Buildout traffic for **EAPC (2026)** conditions without improvements:

- #6 - Harrison St. / 62nd Av. – LOS F (Weekday PM & Weekend PM)
- #13 - Tyler St. / 62nd Av. – LOS F (Weekday)
- #18 – SR-86 / 62nd Av. – LOS E (Weekday)

The following study area intersections are anticipated to operate at an unacceptable LOS during peak hours with the addition of Project (Project Buildout) traffic for **EAPC 2032** conditions without improvements:

- #4 - Harrison St. / 58th Av. – LOS E (Weekday PM)
- #5 - Harrison St. / 60th Av – LOS F (Weekday) & LOS E (Weekend)
- #6 - Harrison St. / 62nd Av. – LOS F (Weekday & Weekend)
- #8 - Harrison St. / Middleton St. – LOS F (Weekday PM)
- #13 - Tyler St. / 62nd Av. – LOS F (Weekday & Saturday AM)
- #14 - Polk St. / 62nd Av. – LOS F (Weekday & Weekend)
- #15 - Fillmore St. / 62nd Av. – LOS E (Weekday AM) & LOS F (Weekday PM & Sunday PM)
- #18 – SR-86 / 62nd Av. – LOS F (Weekday) & LOS E (Sunday PM)
- #20 - W. Pierce St. / 66th Av. – LOS F (Weekday PM)

1.4.4 HORIZON YEAR (2045), WEEKDAY AND WEEKEND

the following study area intersections are anticipated to operate at an unacceptable LOS under Horizon Year (2045) Without Project traffic conditions without improvements:

- Cesar Chavez St. / 52nd Av. (#1) – LOS F (Weekday)
- Cesar Chavez St. / 54th Av. (#2) – LOS F (Weekday)
- Harrison St. / Airport Bl. (#3) –LOS F (Weekday)
- Harrison St. / 58th Av. (#4) – LOS F (Weekend)
- Harrison St. / 60th Av. (#5) – LOS F (Weekday & Weekend Saturday AM)
- Harrison St. / 62nd Av. (#6) – LOS F (Weekday & Weekend Saturday AM)
- Harrison St. / 66th Av. (#7) – LOS F (Weekday PM)

- Harrison St. / Middleton St (#8) – LOS F (Weekday & Weekend Saturday AM)
- Harrison St. / Desert Empire Homes (#9) – LOS F (Weekday & Weekend Saturday AM)
- Monroe St. / 62nd Av. (#10) –LOS F (Weekday PM)
- Jackson St. / 62nd Av. (#11) – LOS F (Weekday)
- Van Buren St. / 62nd Av. (#12) – LOS F (Weekday)
- Tyler St. / 62nd Av. (#13) – LOS F (Weekday)
- Polk St. / 62nd Av. (#14) – LOS F (Weekday & Weekend Saturday AM)
- Fillmore St. / 62nd Av. (#15) – LOS F (Weekday)
- Pierce St. / 62nd Av (#16) – LOS E (Weekday AM) & LOS F (Weekday PM)
- Highway 111 / 62nd Av (#17) – LOS E (Weekday AM) & LOS F (Weekday PM)
- SR-86 / 62nd Av. (#18) – LOS F (Weekday & Weekend Saturday AM)
- W. Pierce St. / 66th Av. (#20) – LOS F (Weekday)
- SR-86 / 66th Av. (#21) – LOS E (Weekday AM) & LOS F (Weekend PM)
- SR-86 SB Ramps / Airport Bl. (#25) – LOS E (Weekday AM) & LOS F (Weekday PM)

For Horizon Year (2045) With Project traffic conditions without improvements, the following study area intersections are anticipated to operate at an unacceptable LOS:

- Cesar Chavez St. / 52nd Av. (#1) – LOS F (Weekday & Weekend PM)
- Cesar Chavez St. / 54th Av. (#2) – LOS F (Weekday & Weekend PM)
- Harrison St. / Airport Bl. (#3) – LOS F (Weekday & Weekend PM)
- Harrison St. / 58th Av. (#4) – LOS F (Weekday & Weekend PM)
- Harrison St. / 60th Av. (#5) – LOS F (Weekday & Weekend)
- Harrison St. / 62nd Av. (#6) – LOS F (Weekday & Weekend)
- Harrison St. / 66th Av. (#7) – LOS F (Weekday PM)
- Harrison St. / Middleton St (#8) – LOS F (Weekday & Weekend)
- Harrison St. / Desert Empire Homes (#9) – LOS E (Weekend AM) & LOS F (Weekday & Weekend PM)
- Monroe St. / 62nd Av. (#10) –LOS F (Weekday PM)
- Jackson St. / 62nd Av. (#11) – LOS F (Weekday) & LOS E (Weekend PM)
- Van Buren St. / 62nd Av. (#12) – LOS F (Weekday) & LOS E (Weekend PM)
- Tyler St. / 62nd Av. (#13) – LOS F (Weekday & Weekend)
- Polk St. / 62nd Av. (#14) – LOS F (Weekday & Weekend)
- Fillmore St. / 62nd Av. (#15) – LOS F (Weekday & Weekend)
- Pierce St. / 62nd Av (#16) – LOS F (Weekday & Weekend)
- Highway 111 / 62nd Av (#17) – LOS F (Weekday & Weekend PM)
- SR-86 / 62nd Av. (#18) – LOS F (Weekday & Weekend)
- W. Pierce St. / 66th Av. (#20) – LOS F (Weekday)
- SR-86 / 66th Av. (#21) – LOS F (Weekday & Weekend PM)
- SR-86 SB Ramps / Airport Bl. (#25) – LOS E (Weekend AM) & LOS F (Weekday & Weekend PM)

1.5 RECOMMENDATIONS

1.5.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

Harrison Street is a north-south oriented roadway located on the Project's westerly boundary. Harrison Street is classified as an Expressway (220-foot right-of-way) which accommodates up to four through travel lanes in each direction. Based on the Horizon Year 2045 analysis, four through lanes in each direction on Harrison Street are not needed. Long range traffic projections indicate that three travel lanes in each direction along Harrison Street will provide acceptable LOS in the Project area.

In order to facilitate traffic flow along Harrison Street and minimize traffic signal delay, Project Access 1 will have limited access and Project Access 2 will have full access with traffic signal control. Project Access 1 will have left turn out activity prohibited, while left turns in, right turns in and out will be allowed.

62nd Avenue is an east-west oriented roadway located on the Project's northerly boundary. 62nd Avenue is classified as an Expressway (220-foot right-of-way) which accommodates up to four through travel lanes in each direction. Based on the Horizon Year 2045 analysis, four through lanes in each direction on 62nd Avenue are not needed. Long range traffic projections indicate that two travel lanes in each direction along 62nd Avenue will provide acceptable LOS in the Project area. In order to facilitate the eastbound right turn traffic from 62nd Avenue into Planning Area 2, a separate 300' long eastbound right turn lane should be provided at the Project Access 3 / 62nd Avenue intersection (#29).

The following recommendations are based on the improvements needed to accommodate site access and maintain acceptable peak hour operations for the proposed Project.

Recommendation 1 – Project to dedicate ultimate half-section right-of-way and construct 2 northbound through lanes along Harrison Street adjacent to Planning Area 2 (between Access 1 and 62nd Avenue) in conjunction with the first major phase of development (Planning Areas 1 to 4).

Recommendation 2 – In conjunction with the second major phase of development (Planning Areas 5 and 6), construct the 3rd northbound through lane along Harrison Street adjacent to Planning Area 2 (between Access 1 and 62nd Avenue).

Recommendation 3 – In conjunction with the second major phase of development (Planning Areas 5 and 6), project to dedicate ultimate half-section right-of-way and construct 3 northbound through lanes along Harrison Street adjacent to Planning Areas 5 and 6 (between Access 1 and 64th Avenue).

Recommendation 4 – Project to dedicate ultimate half-section right-of-way and construct 2 eastbound through lanes along 62nd Avenue adjacent to Planning Area 2 (between Harrison Street and Tyler Street) in conjunction with the first major phase of development (Planning Areas 1 to 4).

Recommendation 5 – Project to dedicate ultimate half-section right-of-way and construct 2 southbound through lanes along Tyler Street adjacent to Planning Areas 1B, 2, and 3 (between 62nd Avenue and the future 64th Avenue alignment) in conjunction with the first major phase of development (Planning Areas 1 to 4).

Recommendation 6 – Harrison St. / Project Access 1 (#27) – The following improvements are necessary to accommodate site access:

- Restrict Project Access 1 to left-in/right-in/right-out access only
- Project to construct a southbound left turn lane with a minimum of 300-feet of storage
- Project to construct a westbound right turn lane with a minimum of 200-feet of storage

Recommendation 7 – Harrison St. / Project Access 2 (#28) – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct a southbound left turn lane with a minimum of 350-feet of storage
- Project to construct a westbound left turn lane with a minimum of 150-feet of storage
- Project to construct a westbound right turn lane with a minimum of 200-feet of storage and right turn overlap phase

Recommendation 8 – Harrison St. / 62nd Av. (#6) – The following improvements are necessary to accommodate project traffic:

- Project to install a traffic signal.
- Project to construct a northbound right turn lane with a minimum of 300-feet of storage and right turn overlap phase
- Project to construct a westbound left turn lane with a minimum of 300-feet of storage
- Project to construct an eastbound left turn lane with a minimum of 150-feet of storage
- Project to construct an eastbound right turn lane with a minimum of 200-feet of storage

Recommendation 9 – Tyler St. / 62nd Av. (#13) – The following improvements are necessary to accommodate project traffic:

- Project to install a traffic signal.
- Project to construct a northbound left turn lane with a minimum of 200-feet of storage
- Project to construct an eastbound left turn lane with a minimum of 150-feet of storage
- Project to construct a westbound left turn lane with a minimum of 250-feet of storage

Recommendation 10 – Project Access 3 / 62nd Av. (#29) – The following improvements are necessary to accommodate site access:

- Project to install a stop sign for northbound traffic.
- Project to construct a westbound left turn lane with a minimum of 150-feet of storage
- Project to construct a northbound shared left-right turn lane with a minimum of 100-feet of storage
- Project to construct an eastbound right turn lane with 300-feet of storage

Recommendation 11 – Tyler St. / Project Access 4 (#30) – The following improvements are necessary to accommodate site access:

- Project to install a stop sign for eastbound traffic.
- Project to construct a northbound left turn lane with a minimum of 150-feet of storage
- Project to construct an eastbound shared left-right turn lane with a minimum of 100-feet of storage

Recommendation 12 – Tyler St. / Project Access 5 (#31) – The following improvements are necessary to accommodate site access:

- Project to install a stop sign for eastbound traffic.
- Project to construct a northbound left turn lane with a minimum of 150-feet of storage
- Project to construct an eastbound shared left-right turn lane with a minimum of 100-feet of storage

Recommendation 13 – Tyler St. / Project Access 6 (#32) – The following improvements are necessary to accommodate site access:

- Project to install a stop sign for eastbound traffic.
- Project to construct a northbound left turn lane with a minimum of 150-feet of storage
- Project to construct an eastbound shared left-right turn lane with a minimum of 100-feet of storage

On-site traffic signing and striping should be implemented agreeable with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and County of Riverside sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

1.5.2 PHASING OF INTERSECTION IMPROVEMENTS

The Project will construct the improvements as discussed in Section 1.5.1 *Site Adjacent and Site Access Recommendations*, with consideration of development phasing by planning area. The following off-site Improvements that are needed under **EAP** traffic conditions overlap with EAPC 2026 improvement needs and would be the Project's responsibility to construct in conjunction with the Interim Project (PAs 1 – 4) to maintain acceptable LOS, if not also required to address existing deficiencies.

- #6 - Harrison St. / 62nd Av.
    - Install traffic signal
    - Provide dedicated NB right turn lane with overlap phase
    - Provide dedicated EB left turn lane
    - Provide dedicated WB left turn lane
- #13 - Tyler St. / 62nd Av.
    - Install traffic signal
    - Provide a separate NB left turn lane
    - Provide a separate EB left turn lane
    - Modify WB approach to provide 1 WB left turn lane & 1 WB shared through-right lane
- #18 – SR-86 / 62nd Av.
    - Modify EB/WB signal phasing from split phase to protected phase
    - Modify EB approach to provide 1 EB left turn lane & 1 EB shared through-right lane
    - Modify WB approach to provide 1 WB left turn lane & 1 WB through lane & 1 WB right turn lane

The following Improvements for **EAPC 2026** (Interim Project) traffic conditions would be the Project's responsibility to construct in conjunction with development of Project PAs 1 to 4, and incorporate the improvements needed for EAP conditions:

- #6 - Harrison St. / 62nd Av.
  - Install traffic signal
  - Provide separate NB right turn lane with overlap phase
  - Provide dedicated EB left turn lane
  - Provide dedicated WB left turn lane
- #13 - Tyler St. / 62nd Av.
  - Install traffic signal
  - Provide dedicated NB left turn lane
  - Provide a separate EB left turn lane
  - Modify WB approach to provide 1 WB left turn lane, 1 WB shared through-right lane
- #18 – SR-86 / 62nd Av.
  - Modify EB/WB signal phasing from split phase to protected phase
  - Modify EB approach to provide 1 EB left turn lane & 1 EB shared through-right lane
  - Modify WB approach to provide 1 WB left turn lane, 1 WB through lane, and 1 WB right turn lane
  - Provide an overlap phase for the WB right turn lane
- #27 - Harrison St. / Project Access 1
  - Restrict Project Access 1 to left-in/right-in/right-out access only
  - Provide 1 SB left turn lane
  - Provide 1 WB right turn lane
- #28 - Harrison St. / Project Access 2
  - Install traffic signal
  - Provide 1 SB left turn lane
  - Provide 1 WB left turn lane
  - Provide 1 WB right turn lane with overlap phase
- #29 - Project Access 3 / 62nd Av.
  - Install south leg stop sign control
  - Provide 1 WB left turn lane
  - Provide 1 NB shared left/right lane
  - Provide 1 EB right turn lane
- #30 - Tyler St. / Project Access 4
  - Install west leg stop sign control
  - Provide 1 NB left turn lane
  - Provide 1 EB shared left/right lane

- #31 - Tyler St. / Project Access 5
    - Install west leg stop sign control
    - Provide 1 NB left turn lane
    - Provide 1 EB shared left/right lane
- #32 Tyler St. / Project Access 6
    - Install west leg stop sign control
    - Provide 1 NB left turn lane
    - Provide 1 EB shared left/right lane

The following Improvement for **EAPC 2026** (Interim Project) traffic conditions is not specifically tied to the Project, and the Project Applicant's responsibilities are fulfilled through payment of fair share fees or participation in applicable pre-existing fee programs:

- #18 – SR-86 / 62nd Av.
    - Provide an overlap phase for the WB right turn lane

The following Improvements for **EAPC 2032** (Project Buildout) traffic conditions include off-site improvements beyond those discussed in Section 1.5.1 *Site Adjacent and Site Access Recommendations*, and include locations in addition to those listed above for EAP and EAPC 2026 conditions.

For the EAPC 2032 off-site improvements listed below which are not constructed as part of the Interim Project, the Project Applicant's responsibilities are fulfilled through payment of fair share fees (see Table 8-1) or participation in applicable pre-existing fee programs that would be assigned to construction of cumulative improvements.

- #4 - Harrison St. / 58th Av.
    - Install traffic signal
- #5 - Harrison St. / 60th Av.
    - Install traffic signal
- #6 - Harrison St. / 62nd Av.
    - Install traffic signal
    - Provide dedicated EB left turn lane
    - Provide dedicated WB left turn lane
    - Provide separate NB right turn lane with overlap phase
- #8 - Harrison St. / Middleton St.
    - Install traffic signal
- #13 - Tyler St. / 62nd Av.
    - Install traffic signal
    - Provide a separate EB left turn lane
    - Modify WB approach to provide 1 WB left turn lane & 1 WB shared through-right lane

- #14 - Polk St. / 62nd Av.
    - Install traffic signal
- #15 - Fillmore St. / 62nd Av.
    - Install traffic signal
- #18 – SR-86 / 62nd Av.
    - Modify EB/WB signal phasing from split phase to protected phase
    - Modify EB approach to provide 1 EB left turn lane & 1 EB shared through-right lane
    - Modify WB approach to provide 1 WB left turn lane & 1 WB shared through-right lane
    - Provide separate WB right turn lane with overlap phase
- #20 – W. Pierce St. / 66th Av.
    - Install traffic signal

The **Horizon Year (2045)** off-site improvements listed below are needed without or with the proposed Project.

There are existing railroad tracks parallel to Highway 111 which cross 62nd Avenue at-grade, located east of Highway 111 and west of SR-86. Improvements to 62nd Avenue between Pierce Street and SR-86 are designated in TUMF, including the 62nd Avenue / SR-86 interchange. If the railroad tracks remain at-grade on 62nd Avenue, long range traffic projections at Highway 111 / 62nd Avenue (#17) indicate that peak hour westbound vehicle queues extend past the railroad tracks. This potential back-up over the at-grade crossing is a cumulative long-term volume not caused by the project. Section 7.10 of this report presents a potential grade-separated concept at this location, similar to the Airport Boulevard improvements in the vicinity of Highway 111. The potential grade separation alternative includes a bridge of 62nd Avenue over Highway 111 and the railroad, consistent with the classification of 62nd Avenue as an Expressway (see Exhibit 7-13).

The **Horizon Year (2045)** off-site intersection improvements consist of the following:

- #1 – Cesar Chavez St. / 62nd Av.
    - Provide 2nd NB left turn lane & 3rd NB through lane
    - Provide 2nd SB left turn lane & 3rd SB through lane
    - Provide separate WB right turn lane
- #2 – Cesar Chavez St. / 54th Av.
    - Provide 2nd NB through lane
    - Provide 2nd SB through lane
    - Provide separate EB left turn lane
    - Provide separate WB left turn lane
- #3 – Harrison St. / Airport Bl.
    - Provide 2nd NB through lane which makes the WB right turn lane no longer a free right turn lane by eliminating the receiving lane
    - Provide separate NB right turn lane
    - Provide 2nd SB through lane

- #4 - Harrison St. / 58th Av.
    - Install traffic signal
    - Provide 2nd NB through lane
    - Provide 2nd SB through lane
    - Provide separate EB left turn lane
- #5 - Harrison St. / 60th Av.
    - Install traffic signal
    - Provide 2nd NB through lane
    - Provide 2nd SB through lane
    - Modify EB approach to provide separate EB left turn lane and 2nd EB through lane
    - Modify WB approach to provide separate WB left turn lane and 2nd WB through lane
- #6 - Harrison St. / 62nd Av.
    - Install traffic signal
    - Provide 2nd NB through lane and separate NB right turn lane with overlap phase
    - Provide 2nd SB through lane
    - Modify EB approach to provide separate EB left turn lane and 2nd EB through lane and separate EB right turn lane
    - Modify WB approach to provide separate WB left turn lane and 2nd WB through lane
- #7 - Harrison St. / 66th Av.
    - Provide 2nd NB left turn lane
    - Provide separate EB right turn lane
- #8 - Harrison St. / Middleton St.
    - Install traffic signal
    - Provide 2nd NB through lane
    - Provide 2nd SB through lane
- #9 - Harrison St. / Desert Empire Homes
    - Install traffic signal
    - Provide 2nd NB through lane
    - Provide 2nd SB through lane
- #10 - Monroe St. / 62nd Av.
    - Install traffic signal
- #11 – Jackson St. / 62nd Av.
    - Install traffic signal
    - Provide separate NB left turn lane and 2nd NB through lane
    - Provide 2nd SB through lane
    - Provide separate EB right turn lane
- #12 – Van Buren St. / 62nd Av.
    - Install traffic signal

- #13 - Tyler St. / 62nd Av.
    - Install traffic signal
    - Provide a separate NB left turn lane
    - Modify EB approach to provide separate EB left turn lane and 2nd EB through lane
    - Modify WB approach to provide separate WB left turn lane and 2nd WB through lane
- #14 - Polk St. / 62nd Av.
    - Install traffic signal
    - Provide 2nd NB through lane
    - Provide 2nd SB through lane
    - Provide 2nd EB through lane
    - Provide separate WB left turn lane and separate WB right turn lane with overlap phase
- #15 - Fillmore St. / 62nd Av.
    - Install traffic signal
    - Provide separate NB left turn lane
    - Provide separate SB left turn lane
    - Provide separate EB left turn lane and 2nd EB through lane
    - Provide separate WB left turn lane and 2nd WB through lane
- #16 – Pierce St. / 62nd Av.
    - Install traffic signal
    - Provide separate NB left turn lane
    - Provide separate SB left turn lane
    - Provide separate EB left turn lane and 2nd EB through lane
    - Provide separate WB left turn lane and 2nd WB through lane
- #17 – Highway 111 / 62nd Av.
    - Provide 2nd EB through lane and separate EB right turn lane
    - Alternatively, modify intersection to be grade separated when needed, with Avenue 62 as an overcrossing over SR-86 and nearby railroad tracks.
- #18 – SR-86 / 62nd Av.
    - Provide Interchange with NB Ramp intersection and SB Ramp intersection
    - For SB Ramps, provide traffic signal control, SB left turn lane, SB right turn lane, 2 EB through lanes, 1 WB left turn lane, and 2 WB through lanes
    - For NB Ramps, provide traffic signal control, NB left turn lane, NB right turn lane, 1 EB left turn lane, 2 EB through lanes, and 2 WB through lanes
- #20 – W. Pierce St. / 66th Av.
    - Install traffic signal

- #21 – SR-86 / 66th Av.
    - Provide Interchange with NB Ramp intersection and SB Ramp intersection
    - For SB Ramps, provide traffic signal control, SB left turn lane, SB right turn lane, 1 EB through lane, 1 WB left turn lane, and 1 WB through lane
    - For NB Ramps, provide traffic signal control, NB left turn lane, NB right turn lane, 1 EB left turn lane, 1 EB through lanes, and 1 WB through lane
- #25 – SR-86 SB Ramps / Airport Blvd.
    - Provide overlap phase for existing SB right turn lane

The Project Applicant's responsibilities for 2045 off-site improvements beyond those discussed in Section 1.5.1 Site Adjacent and Site Access Recommendations, and in addition to those listed above for EAP and EAPC 2026 conditions, are fulfilled through payment of fair share fees or participation in applicable pre-existing fee programs that would be assigned to construction of cumulative 2032 and 2045 improvements, as indicated in Table 1-3.

TABLE 1-3: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO

#	Intersection	Jurisdiction	Analysis Scenarios					Improvements in TUMF, DIF, etc[1,2]	Project Responsibility	Project Fair Share
			EAP (2032)	EAPC (2026)	EAPC (2032)	2045 Without Project	2045 With Project			
1	Cesar Chavez St. / 52nd Av.	County	None	None	None	Provide 2nd NB left turn lane	Same	Yes (DIF/TUMF)	Fees	3.8%
						Provide 3rd NB through lane	Same			
						Provide 2nd SB left turn lane	Same			
						Provide 3rd SB through lane	Same			
						Provide WB right turn lane	Same			
2	Cesar Chavez St. / 54th Av.	County	None	None	None	Provide 2nd NB through lane	Same	Yes (DIF/TUMF)	Fees	6.6%
						Provide 2nd SB through lane	Same			
						Provide EB left turn lane	Same			
						Provide WB left turn lane	Same			
3	Harrison St. / Airport Bl.	County	None	None	None	Provide 2nd NB through lane which makes the WB right turn lane no longer a free right turn lane by eliminating the receiving lane.	Same	Yes (DIF/TUMF)	Fees	10.9%
						Provide NB right turn lane	Same			
						Provide 2nd SB through lane	Same			
4	Harrison St. / 58th Av.	County	None	None	Install Traffic Signal	Same	Same	Yes (DIF)	Fees	18.4%
						Provide 2nd NB through lane	Same			
						Provide 2nd SB through lane	Same			
						Provide EB left turn lane	Same			
5	Harrison St. / 60th Av.	County	None	None	Install Traffic Signal	Same	Same	Yes (DIF)	Fees	14.2%
						Provide 2nd NB through lane	Same			
						Provide 2nd SB through lane	Same			
						Modify EB approach to provide separate EB left turn lane and 2nd EB through lane	Same			
						Modify WB approach to provide separate WB left turn lane and 2nd WB through lane	Same			
6	Harrison St. / 62nd Av.		Install Traffic Signal	Install Traffic Signal	Same	Same	Same	Project	100%	24.4%
			Provide dedicated NB right turn lane w/ overlap phase	Provide dedicated NB right turn lane w/ overlap phase	Same	Same	Same			
			Provide EB left turn lane	Provide EB left turn lane	Same	Same	Same			
			Provide WB left turn lane	Provide WB left turn lane	Same	Same	Same			
						Modify EB approach to provide 2nd EB through lane and separate EB right turn lane	Same	Yes (DIF)	Fees	
						Modify WB approach to provide 2nd WB through lane	Same			
						Provide 2nd NB through lane	Same			
						Provide 2nd SB through lane	Same			

TABLE 1-3: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO

#	Intersection	Jurisdiction	Analysis Scenarios					Improvements in TUMF, DIF, etc[1,2]	Project Responsibility	Project Fair Share
			EAP (2032)	EAPC (2026)	EAPC (2032)	2045 Without Project	2045 With Project			
7	Harrison St. / 66th Av.	County	None	None	None	Provide 2nd NB left turn lane	Same	Yes (DIF)	Fees	4.6%
						Provide EB right turn lane	Same			
8	Harrison St. / Middleton St.	County	None	None	Install Traffic Signal	Same	Same	No	Fair Share	2.9%
						Provide 2nd NB through lane	Same			
						Provide 2nd SB through lane	Same			
9	Harrison St. / Desert Empire Homes	County	None	None	None	Install Traffic Signal	Same	No	Fair Share	2.3%
						Provide 2nd NB through lane	Same			
						Provide 2nd SB through lane	Same			
10	Monroe St. / 62nd Av.	County/La Quinta	None	None	None	Install Traffic Signal	Same	No	Fair Share	4.5%
11	Jackson St. / 62nd Av.	County	None	None	None	Install Traffic Signal	Same	Yes (DIF)	Fees	4.5%
						Provide NB left turn lane	Same			
						Provide 2nd NB through lane	Same			
						Provide 2nd SB through lane	Same			
						Provide separate EB right turn lane	Same			
12	Van Buren St. / 62nd Av.	County	None	None	None	Install Traffic Signal	Same	Yes (DIF)	Fees	7.7%
13	Tyler St. / 62nd Av.	County	Install Traffic Signal	Install Traffic Signal	Same	Same	Same	Project	100%	34.5%
			Provide NB left turn lane	Provide NB left turn lane	Same	Same	Same			
			Provide EB left turn lane	Provide EB left turn lane	Same	Same	Same			
			Modify WB approach to provide 1 WB left turn lane & 1 WB shared through-right lane	Modify WB approach to provide 1 WB left turn lane & 1 WB shared through-right lane	Same	Same	Same			
						Modify EB approach to provide 2 EB through lanes	Same	Yes (DIF)	Fees	
						Modify WB approach to provide 2nd WB through lane	Same			
14	Polk St. / 62nd Av.	County	None	None	Install Traffic Signal	Same	Same	Yes (DIF)	Fees	18.8%
						Provide 2nd NB through lane	Same			
						Provide 2nd SB through lane	Same			
						Provide 2nd EB through lane	Same			
						Provide separate WB left turn lane and separate WB right turn lane with overlap phase	Same			

TABLE 1-3: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO

#	Intersection	Jurisdiction	Analysis Scenarios					Improvements in TUMF, DIF, etc[1,2]	Project Responsibility	Project Fair Share
			EAP (2032)	EAPC (2026)	EAPC (2032)	2045 Without Project	2045 With Project			
15	Fillmore St. / 62nd Av.	County	None	None	Install Traffic Signal	Same	Same	Yes (DIF)	Fees	23.0%
						Provide NB left turn lane	Same			
						Provide SB left turn lane	Same			
						Provide EB left turn lane	Same			
						Provide 2nd EB through lane	Same			
						Provide WB left turn lane	Same			
						Provide 2nd WB through lane	Same			
16	Pierce St. / 62nd Av.	County	None	None	None	Install Traffic Signal	Same	Yes (DIF)	Fees	25.3%
						Provide NB left turn lane	Same			
						Provide SB left turn lane	Same			
						Provide EB left turn lane	Same			
						Provide WB left turn lane	Same			
						Provide 2nd EB through lane	Same			
						Provide 2nd WB through lane	Same			
17	Highway 111 / 62nd Av.	County	None	None	None	Provide 2nd EB through lane	Same	Yes (DIF/TUMF)	Fees	20.9%
						Provide EB right turn lane	Same			
18	SR-86 / 62nd Av.	Caltrans & County	Modify EB/WB signal phasing from split phase to protected phase	Modify EB/WB signal phasing from split phase to protected phase	Same	-	-	Project	100%	12.2%
			Modify EB approach to provide 1 EB left turn lane & 1 EB shared through-right lane	Modify EB approach to provide 1 EB left turn lane & 1 EB shared through-right lane	Same	-	-			
			Modify WB approach to provide 1 WB left turn lane, 1 WB through lane, & 1 WB right turn lane	Modify WB approach to provide 1 WB left turn lane, 1 WB through lane, & 1 WB right turn lane	Same	-	-			
				Provide an overlap phase for the WB right turn lane	Same	-	-	Yes (TUMF)	Fees	
						Provide Interchange with NB Ramp intersection and SB Ramp intersection	Same			
						For SB Ramps, provide traffic signal control, 1 SB left turn lane, 1 SB right turn lane, 2 EB through lanes, 1 WB left turn lane, & 2 WB through lanes	Same			
						For NB Ramps, provide traffic signal control, 1 NB left turn lane, 1 NB right turn lane, 1 EB left turn lane, 2 EB through lanes, & 2 WB through lanes	Same			

TABLE 1-3: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO

#	Intersection	Jurisdiction	Analysis Scenarios					Improvements in TUMF, DIF, etc[1,2]	Project Responsibility	Project Fair Share
			EAP (2032)	EAPC (2026)	EAPC (2032)	2045 Without Project	2045 With Project			
20	W. Pierce St. / 66th Av.	County	None	None	Install Traffic Signal	Same	Same	Yes (DIF)	Fees	13.8%
21	SR-86 / 66th Av.	Caltrans & County	None	None	None	Provide Interchange with NB Ramp intersection and SB Ramp intersection	Same	Yes (TUMF)	Fees	3.6%
						For SB Ramps, provide traffic signal control, 1 SB left turn lane, 1 SB right turn lane, 1 EB through lane, 1 WB left turn lane, & 1 WB through lane	Same			
						For NB Ramps, provide traffic signal control, 1 NB left turn lane, 1 NB right turn lane, 1 EB left turn lane, 1 EB through lanes, & 1 WB through lane	Same			
25	SR-86 SB Ramps / Airport Bl.	Caltrans & County	None	None	None	Provide overlap phase for existing SB right turn lane	Same	Yes (DIF/TUMF)	Fees	12.3%

[1] Improvements included in TUMF or County DIF DIF programs have been identified as such.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at the discretion of the County.

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2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with County of Riverside's Traffic Study Guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (4) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The County of Riverside requires signalized intersection operations analysis based on the methodology described in the HCM. (4) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1.

A saturation flow rate of 1900 vehicles per hour green per lane (vphgpl) has been utilized for all intersections for all scenarios.

The traffic modeling and signal timing optimization software package Synchro (Version 11) has been utilized to analyze signalized intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Customary practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (4)

2.2.2 UNSIGNALIZED INTERSECTIONS

The County of Riverside requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (4) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from

the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or determine the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (5)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (5)

This TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions and for all future analysis scenarios for existing unsignalized intersections. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics. For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. Urban warrants have been used where posted speed limits on the major roadways with unsignalized intersections are 40 miles per hour or below and rural warrants have been used where speeds exceed 40 miles per hour.

In addition, Warrant 1 (eight-hour vehicular volume) and Warrant 2 (four-hour vehicular volume) are used for existing unsignalized intersections. Each of Warrants 1, 2, and 3 documents the minimum per-hour vehicular volume on the major and minor street (or the volume relationship that results in undesirable interruption of continuous traffic) for the timeframe indicated.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Similarly, the speed limit has been used as the basis for determining the use of Urban and Rural warrants.

Traffic signal warrant analyses were performed for the following study area intersection shown in Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection	#	Intersection
4	Harrison St. / 58th Av.	12	Van Buren St. / 62nd Av.
5	Harrison St. / 60th Av.	13	Tyler St. / 62nd Av.
6	Harrison St. / 62nd Av.	14	Polk St. / 62nd Av.
8	Harrison St. / Middleton St.	15	Fillmore St. / 62nd Av.
9	Harrison St. / Desert Empire Homes Access	16	Pierce St. / 62nd Av.
10	Monroe St. / 62nd Av.	19	Tyler St. / 66th Av.
11	Jackson St. / 62nd Av.	20	W. Pierce St. / 66th Av.

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *EAP Traffic Conditions*, Section 6 *EAPC (2026 and 2032) Conditions*, and Section 7 *Horizon Year (2045) Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

Minimum Acceptable LOS and associated definitions of intersection deficiencies are based on the Riverside County General Plan. (1) Based on the Riverside County General Plan, the approved scoping agreement (see Appendix 1-1) indicates that applicable minimum LOS utilized for the purposes of this analysis is LOS D.

2.5 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. The following deficiency criteria has been utilized in the study area.

To determine whether the addition of project-related traffic at a study intersection would result in a deficiency, the following was utilized:

- A deficiency occurs at study area intersections if the pre-Project condition is at or better than LOS D (i.e., acceptable LOS), and the addition of project trips causes the peak hour LOS of the study area intersection to operate at unacceptable LOS (i.e., LOS E or F). Per the County of Riverside traffic study guidelines, for intersections currently operating at unacceptable LOS (LOS E or F), a deficiency will occur if the Project contributes peak hour trips to pre-project traffic conditions.

2.6 PROJECT FAIR SHARE CALCULATION METHODOLOGY

For improvements that do not appear to be in either the County TUMF and/or Development Impact Fee (DIF) programs, a fair share contribution based on the Project's proportional share may be imposed in order to address the Project's share of deficiencies in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the County Traffic Engineer will determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval). The Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (2045 Total Traffic – Existing (2023) Traffic)

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3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the County of Riverside General Plan Circulation Network, and a review of existing peak hour intersection operations and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with County of Riverside staff (Appendix 1.1), the study area includes a total of 32 existing and future intersections as shown previously on Exhibit 1-4. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 COUNTY OF RIVERSIDE GENERAL PLAN CIRCULATION ELEMENT

The County of Riverside General Plan roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area are described below. Exhibit 3-2 shows the County of Riverside General Plan Circulation Element and Exhibit 3-3 illustrates the County of Riverside General Plan roadway cross-sections.

Expressways can accommodate eight travel lanes. Access from abutting property is generally restricted. The following roadways are classified as an Expressway within the study area:

- Cesar Chavez Street / Harrison Street north of 66th Avenue
- 62nd Avenue

Harrison Street is a north-south oriented roadway located on the Project's westerly boundary. Based on the Horizon Year 2045 analysis, four through lanes in each direction on Harrison Street are not needed. Long range traffic projections indicate that three travel lanes in each direction along Harrison Street will provide acceptable LOS in the Project area.

62nd Avenue is an east-west oriented roadway located on the Project's northerly boundary. Based on the Horizon Year 2045 analysis, four through lanes in each direction on 62nd Avenue are not needed. Long range traffic projections indicate that two travel lanes in each direction along 62nd Avenue will provide acceptable LOS in the Project area.

Urban Arterial Highways can accommodate six travel lines. These facilities primarily serve through traffic throughout the region and provide connections to Arterial and Major highways. The following roadways are classified as an Urban Arterial Highway within the study area:

- Harrison Street south of 66th Avenue
- 52nd Avenue
- 54th Avenue
- Airport Boulevard
- 66th Avenue

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

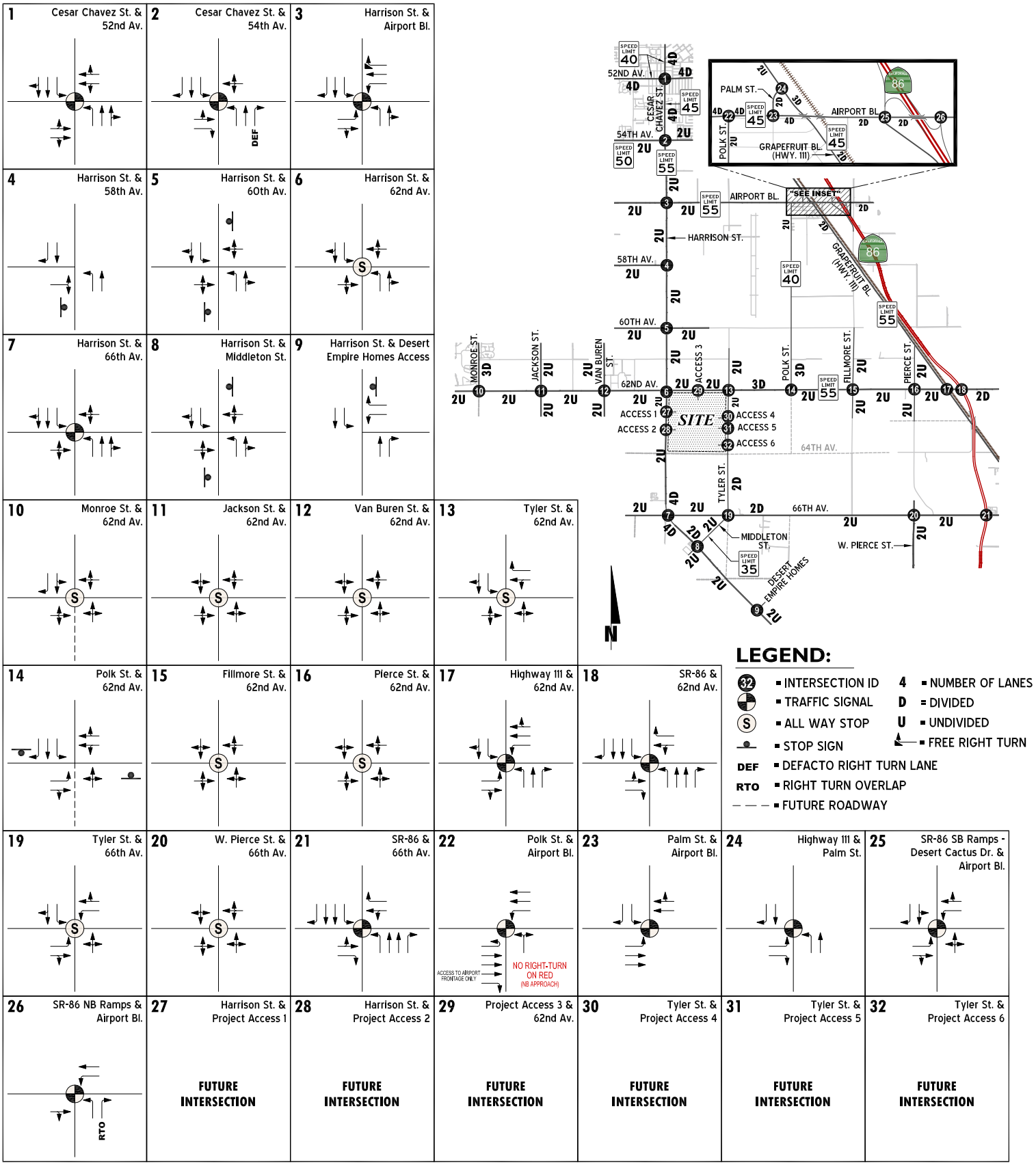
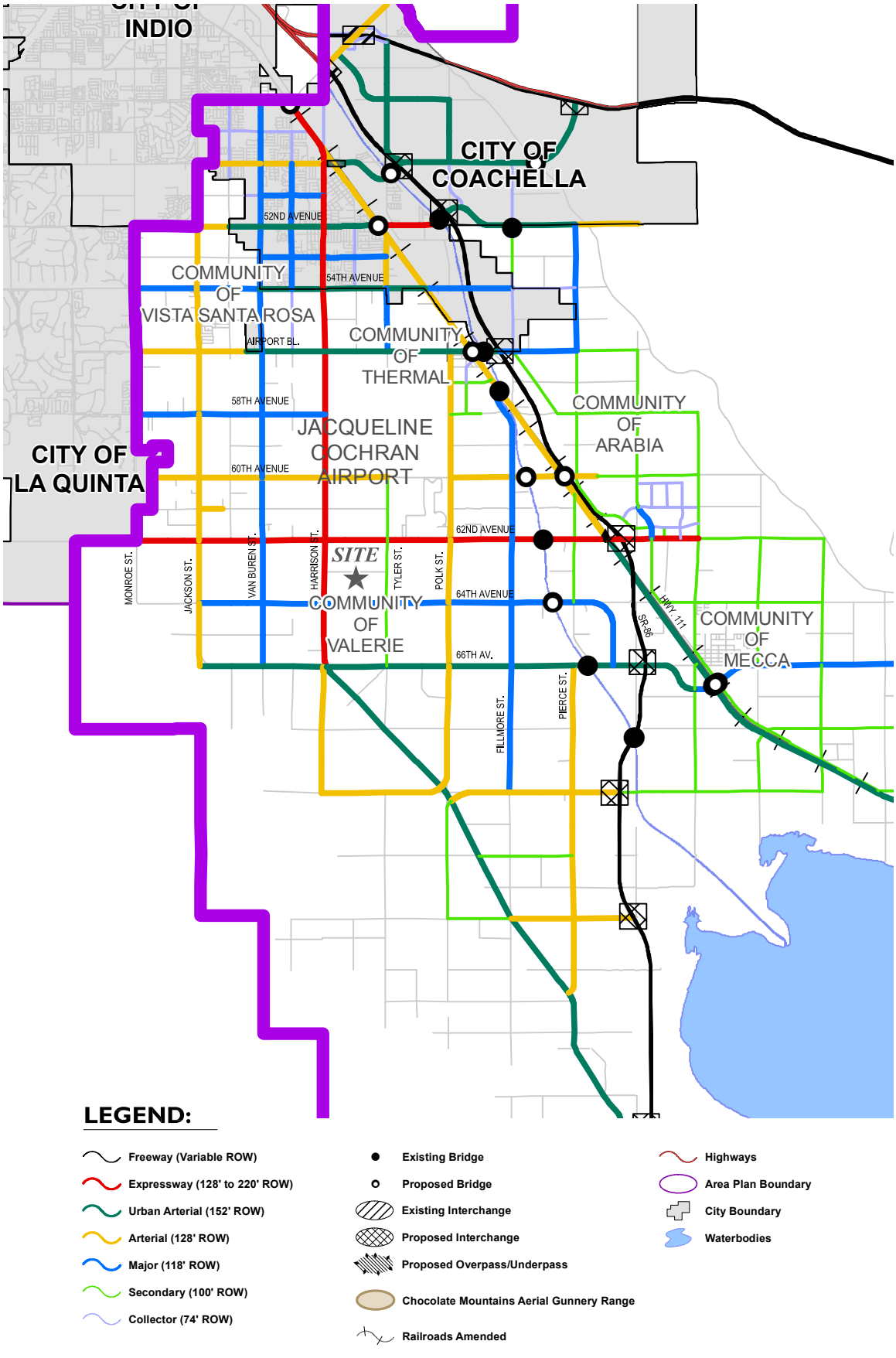
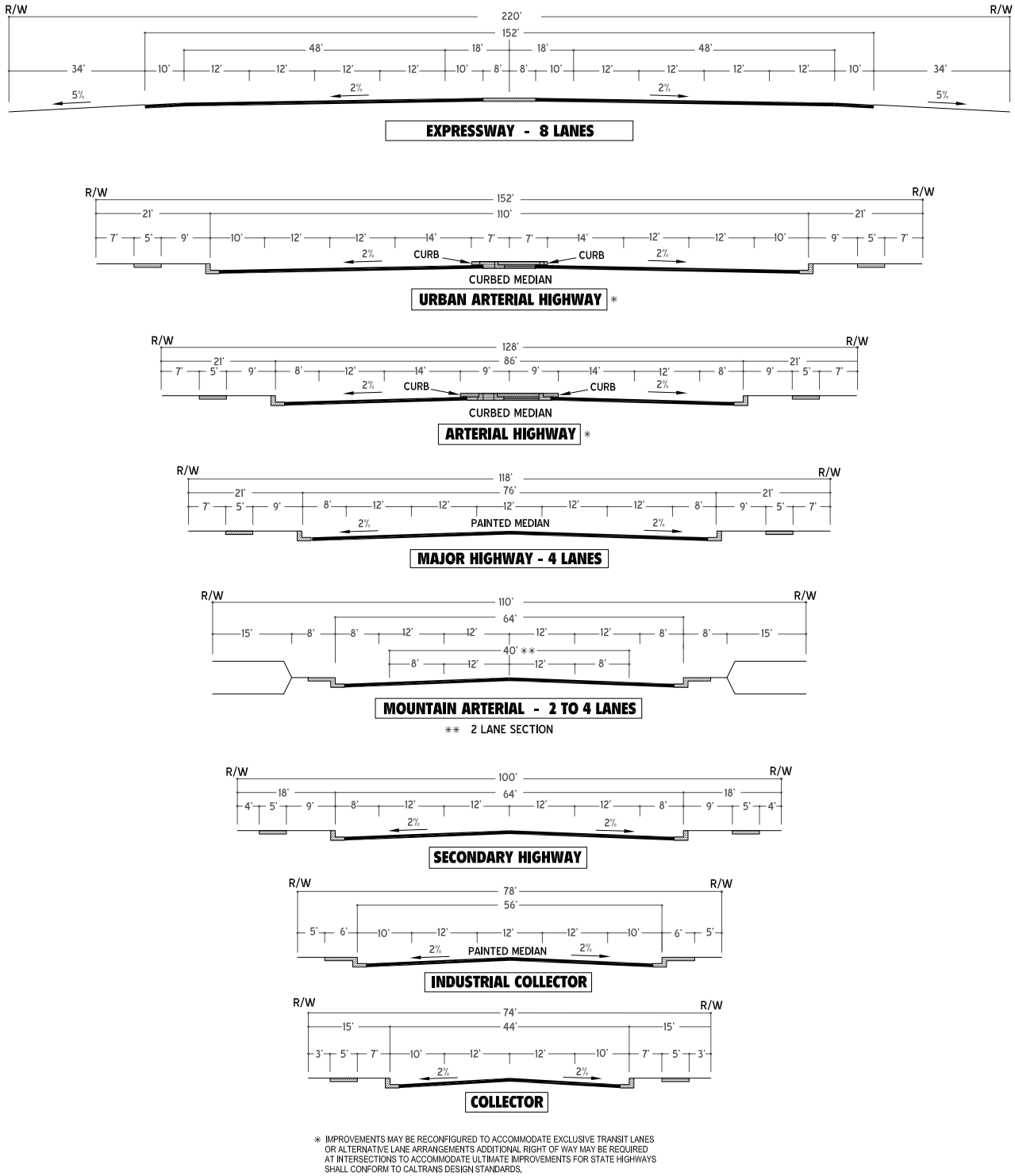


EXHIBIT 3-2: COUNTY OF RIVERSIDE GENERAL PLAN CIRCULATION ELEMENT



14492 - 01 - study area.dwg

EXHIBIT 3-3: COUNTY OF RIVERSIDE GENERAL PLAN ROADWAY CROSS-SECTIONS



* IMPROVEMENTS MAY BE RECONFIGURED TO ACCOMMODATE EXCLUSIVE TRANSIT LANES OR ALTERNATIVE LANE ARRANGEMENTS ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AT INTERSECTIONS TO ACCOMMODATE ULTIMATE IMPROVEMENTS FOR STATE HIGHWAYS SHALL CONFORM TO CALTRANS DESIGN STANDARDS.

NOT TO SCALE

SOURCE: COUNTY OF RIVERSIDE

Arterial Highways accommodate four travel lines, serving through traffic or providing connections to Major highways or. The following streets are classified as an Arterial Highway within the study area:

- Jackson Street
- Highway 111
- Polk Street
- Pierce Street
- 60th Avenue

Major Highways can accommodate four travel lanes. These facilities serve property zoned for major industrial and commercial uses, or to serve through traffic. The following roadways are classified as a Major Highways within the study area:

- Van Buren Street
- Fillmore Street
- 58th Avenue
- 64th Avenue

Secondary Highways can accommodate four travel laves. These facilities provide connection from Collectors to Major Highways and Arterials. Tyler Street is classified as a Secondary Highway within the study area.

3.3 BICYCLE & PEDESTRIAN FACILITIES

In an effort to promote alternative modes of transportation, the County of Riverside also includes a trails and bikeway system. The Riverside County General Plan trails and bikeway system is shown on Exhibit 3-4.

Internal to the Project, PAs 2 through 6 are connected to PA-1 via golf cart paths which also accommodate pedestrians and bicyclists.

Project and adjacent trail facilities within the study area are shown on Exhibit 3-5. Multi-use trails for use by bicycle and pedestrian travelers are proposed along the Project frontage of Harrison Street, Tyler Street, 62nd Avenue, and future 64th Avenue.

3.4 TRANSIT SERVICE

The study area is currently served by Sunline Transit Agency (Sunline), a public transit agency serving the Coachella Valley within Riverside County. Based on a review of the existing transit routes within the vicinity of the proposed Project, Sunline Route 8 runs along Cesar Chavez Street / Harrison Street, Avenue 54, Shady Lane, Airport Boulevard, Highway 86, and Avenue 62. Sunline Route 9 provides service along Avenue 66, Harrison Street, and Pierce Street.

EXHIBIT 3-4: RIVERSIDE COUNTY GENERAL PLAN TRAILS AND BIKEWAY SYSTEM

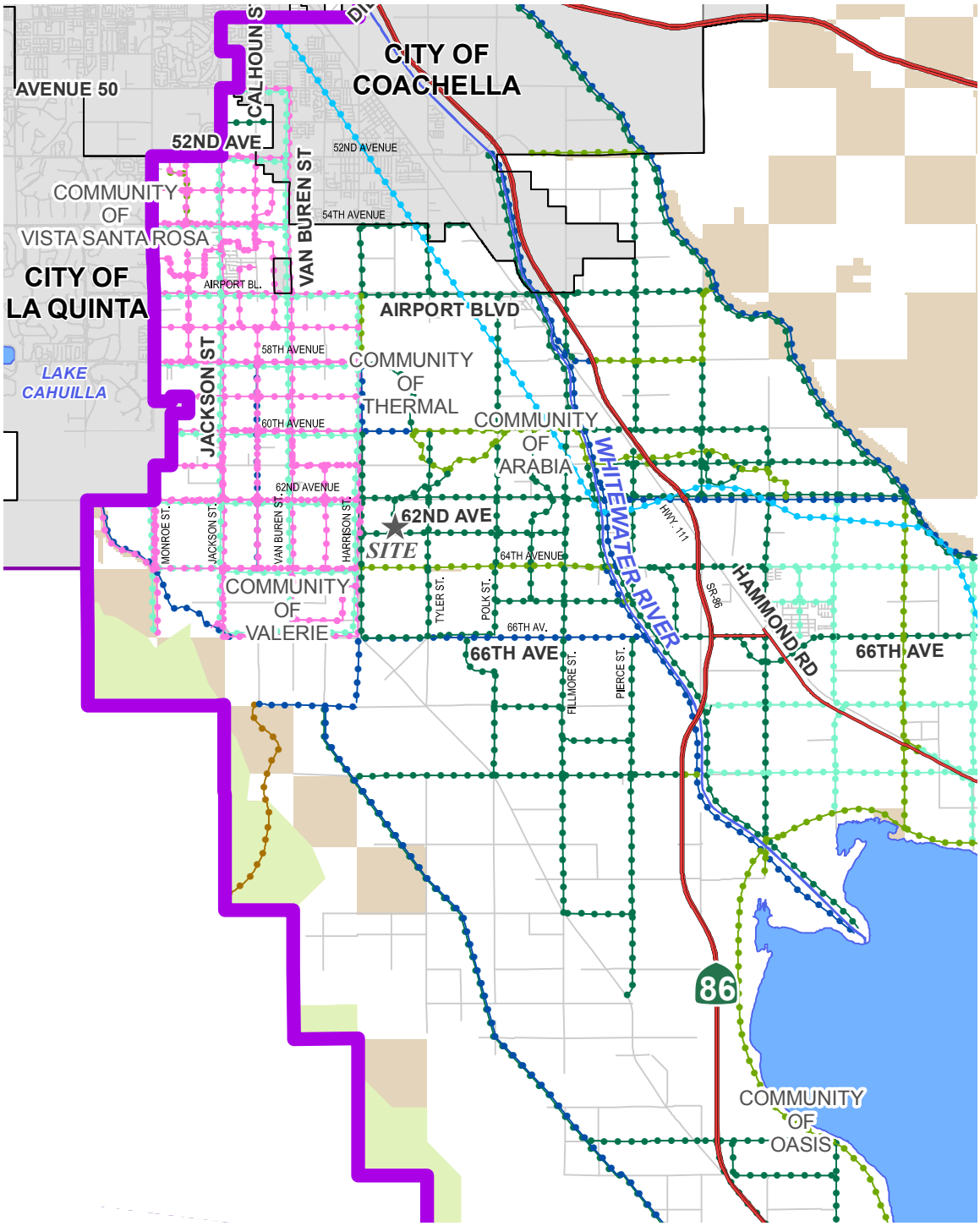


EXHIBIT 3-5: PROJECT AREA PUBLIC TRAILS

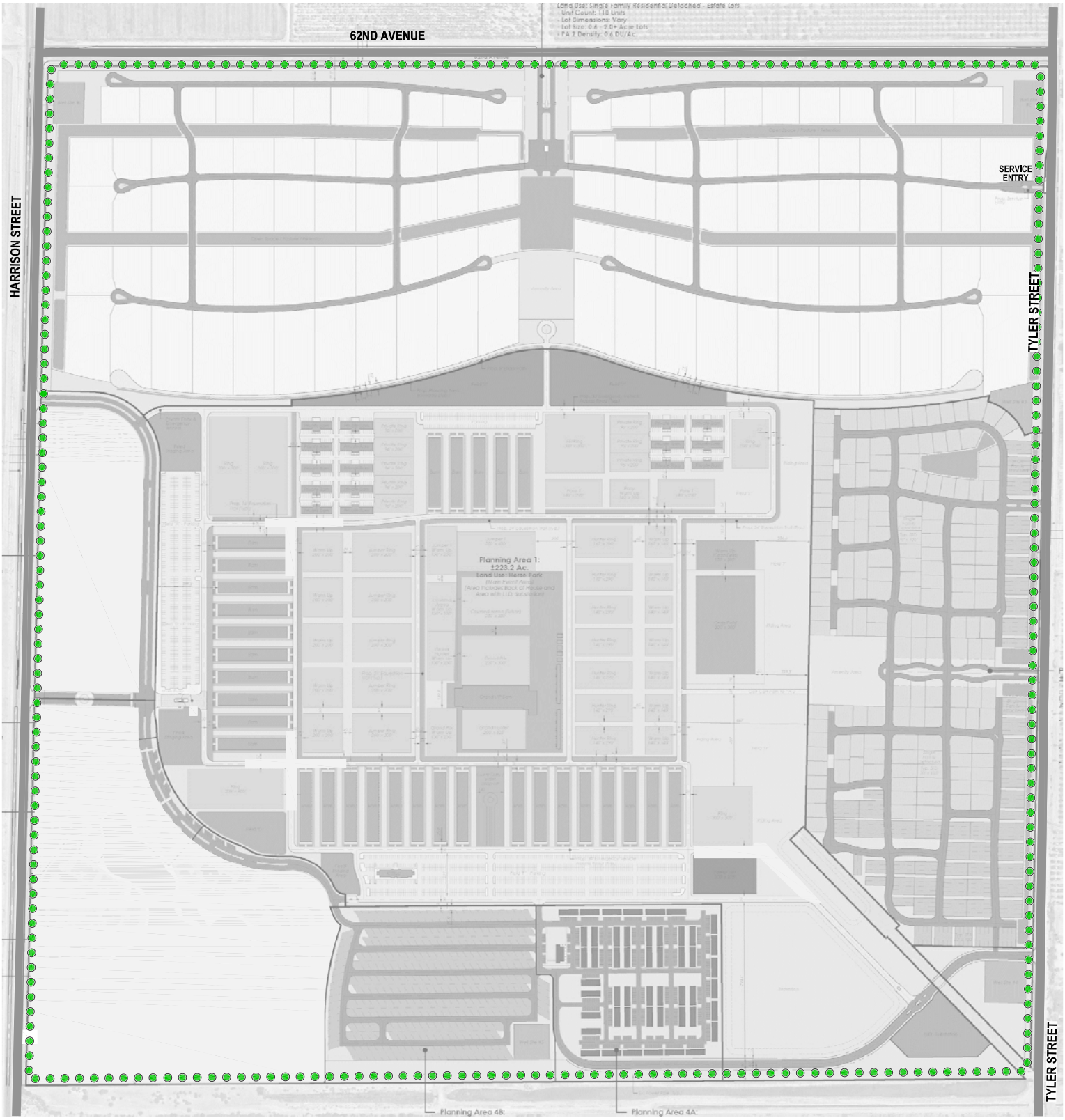
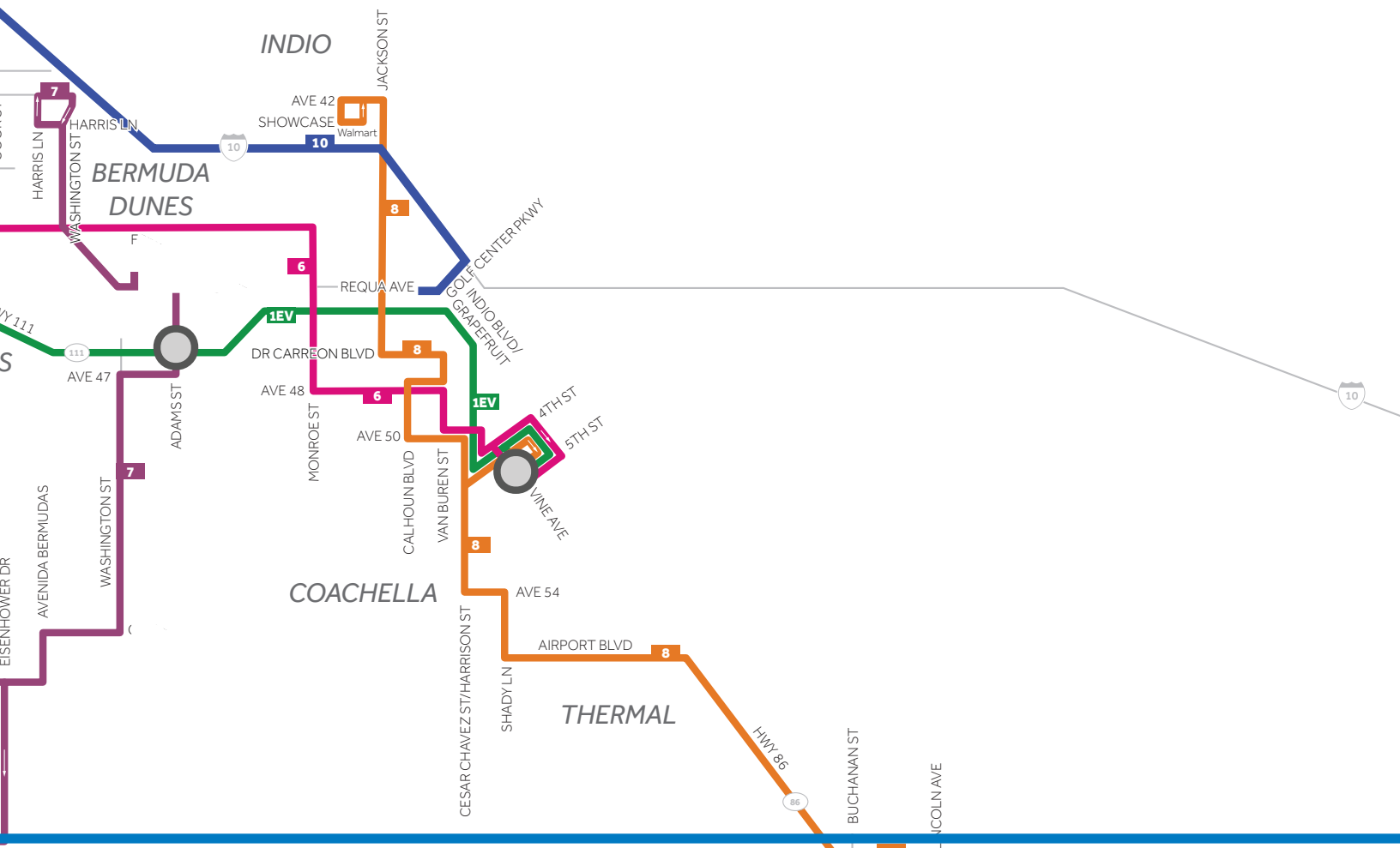


EXHIBIT 3-6: EXISTING TRANSIT FACILITIES



SYSTEM MAP – MAPA DEL SISTEMA

Effective: January 1, 2023 - *Efectivo: 1 de enero de 2023*

- 1WV **Route/*Ruta* 1WV** | Palm Desert Mall - Via Hwy 111 - Palm Springs
- 1EV **Route/*Ruta* 1EV** | Coachella - Via Hwy 111 - Palm Desert Mall
- 2 **Route/*Ruta* 2** | Desert Hot Springs - Palm Springs - Cathedral City
- 3 **Route/*Ruta* 3** | Desert Edge - Desert Hot Springs
- 4 **Route/*Ruta* 4** | Palm Desert Mall - Palm Springs
- 5 **Route/*Ruta* 5** | Desert Hot Springs - CSUSB (PDC) - Palm Desert Mall
- 6 **Route/*Ruta* 6** | Coachella - Via Fred Waring - Palm Desert Mall
- 7 **Route/*Ruta* 7** | Bermuda Dunes - Indian Wells - La Quinta
- 8 **Route/*Ruta* 8** | North Indio - Coachella - Thermal/Mecca
- 9 **Route/*Ruta* 9** | North Shore - Mecca - Oasis
- 10 **Route/*Ruta* 10** | Indio - CSUSB (PDC) - CSUSB
  San Bernardino Transit Center (SBTC) / Metrolink
- **Transfer Points/*Puntos de Transferencia***

Map not to scale. See individual route maps for Microtransit Zones.
Mapa no está a escala real. Ver mapas individuales para las zonas de viaje compartido.

Transit service is reviewed and updated by Sunline periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the applicant work in conjunction with Sunline to potentially provide bus service to the site. Existing transit routes in the vicinity of the study area are illustrated on Exhibit 3-6.

3.5 EXISTING (2023) TRAFFIC COUNTS, WEEKDAY

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in March 2023. The following weekday peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM & 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM & 6:00 PM)

The 2023 weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and nearby schools were in session and operating on normal schedules. As such, no additional adjustments were made to the traffic counts to establish the baseline condition.

Existing weekday AM peak hour volumes are shown on Exhibit 3-7. Existing weekday PM peak hour volumes are shown on Exhibit 3-8. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

Existing weekday ADT volumes are shown on Exhibit 3-9. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.821= Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.80 percent. As such, the above equation utilizing a factor of 12.821 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.80 percent (i.e., 1/0.0780 = 12.821) and was assumed to sufficiently estimate ADT volumes for planning-level analyses.

3.6 EXISTING (2023) TRAFFIC COUNTS, WEEKEND

The following weekend peak hours were selected for analysis:

- Weekend (Saturday) AM Peak Hour (peak hour between 7:00 AM & 9:00 AM), as shown on Exhibit 3-10
- Weekend (Sunday) PM Peak Hour (peak hour between 3:00 PM & 5:00 PM), as shown on Exhibit 3-11

Existing weekend Saturday ADT volumes are shown on Exhibit 3-12. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekend Saturday AM Peak Hour (Approach Volume + Exit Volume) x 27.727= Leg Volume

EXHIBIT 3-7: EXISTING (2023) WEEKDAY AM PEAK HOUR INTERSECTION VOLUMES

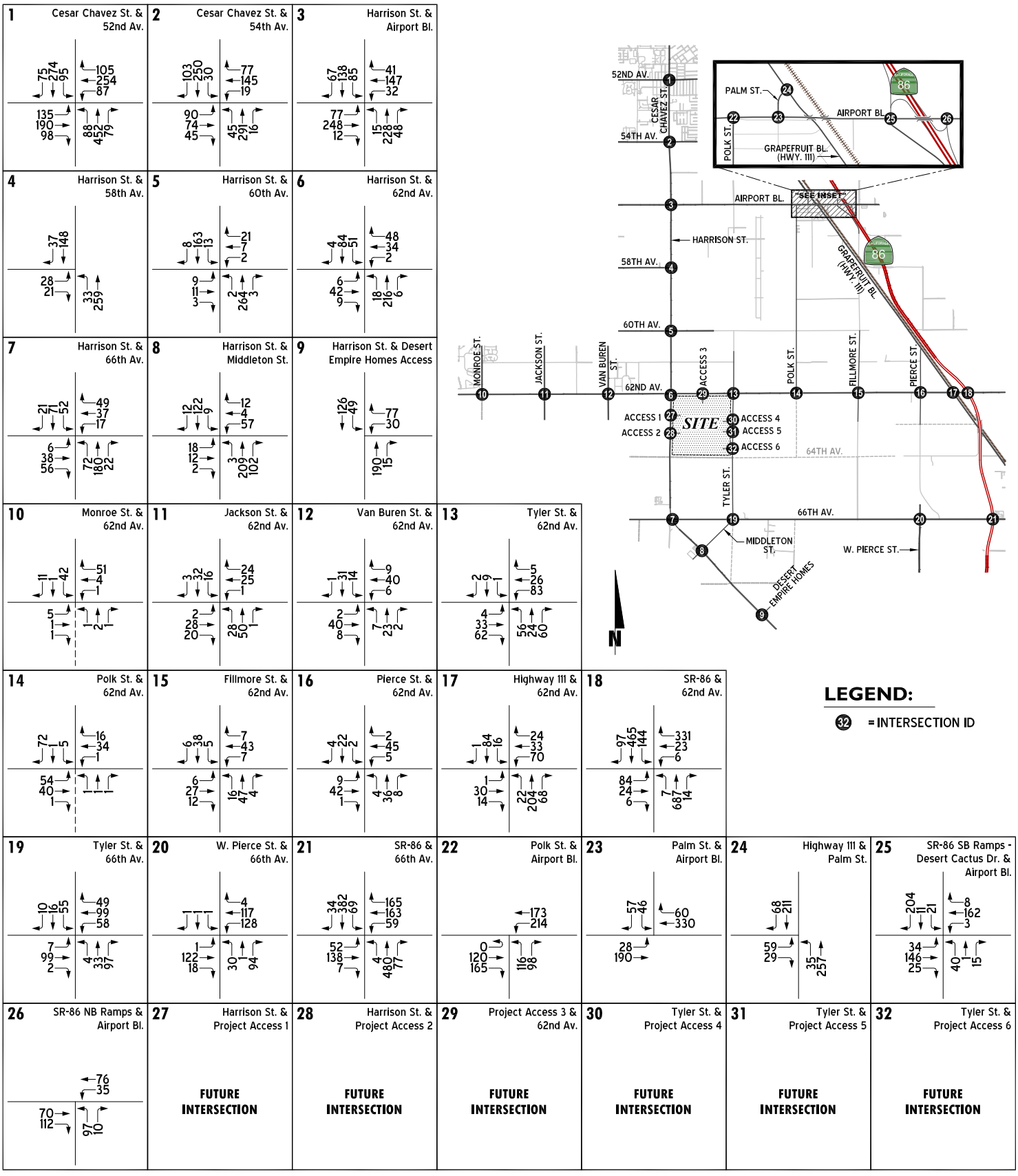


EXHIBIT 3-8: EXISTING (2023) WEEKDAY PM PEAK HOUR INTERSECTION VOLUMES

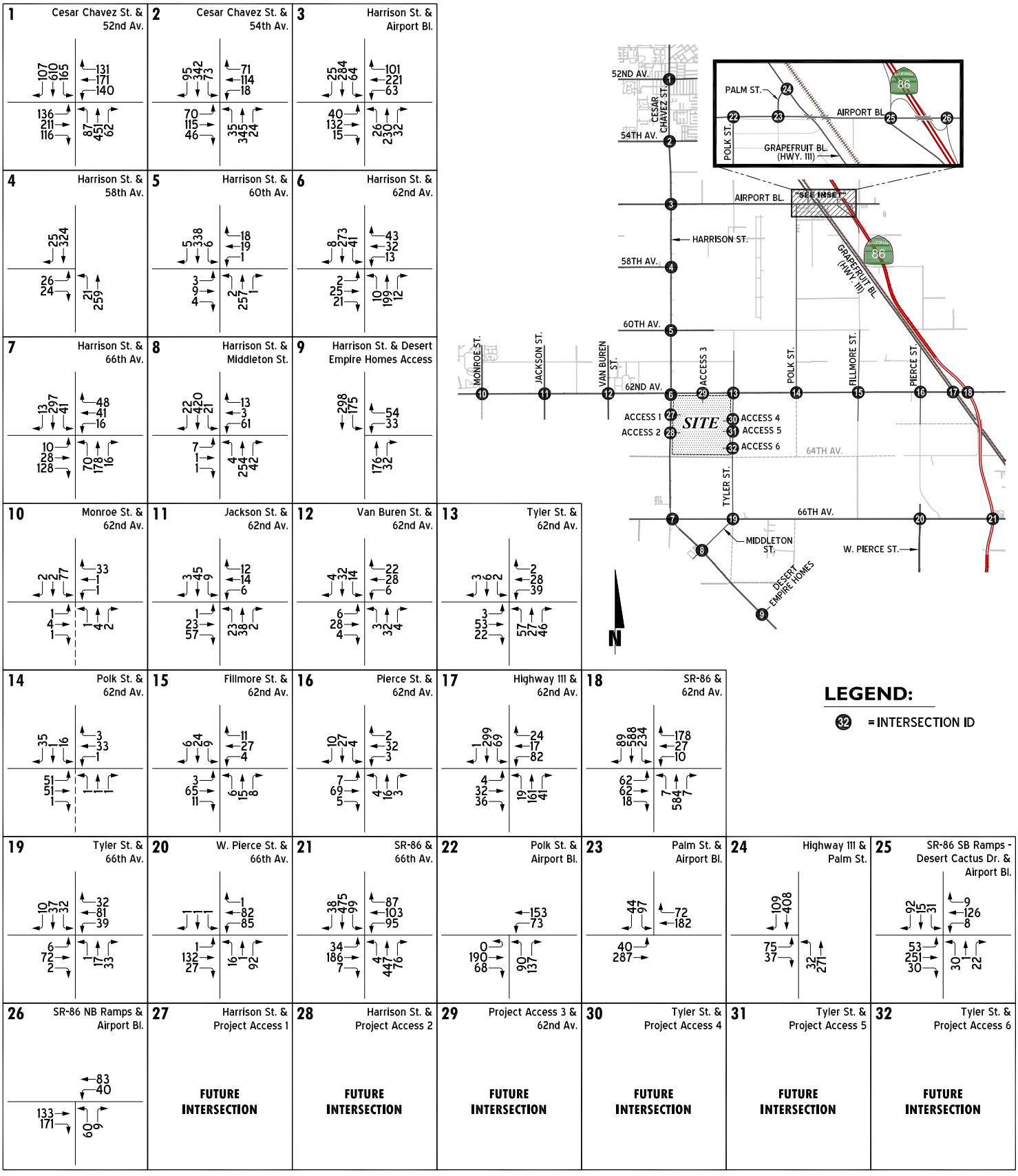


EXHIBIT 3-9: EXISTING (2023) WEEKDAY
AVERAGE DAILY TRAFFIC (ADT) VOLUMES

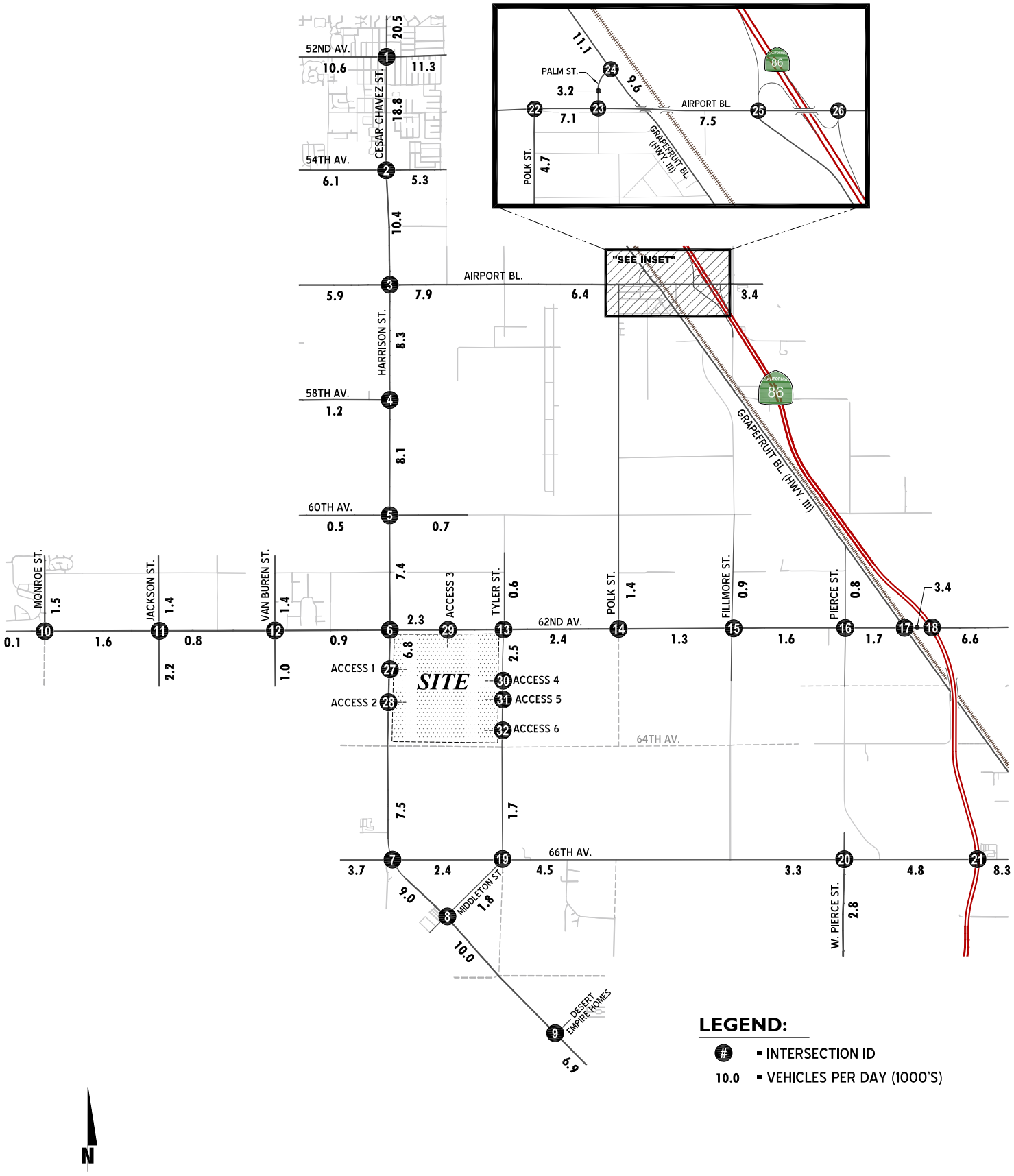


EXHIBIT 3-10: EXISTING (2023) WEEKEND
SATURDAY AM PEAK HOUR INTERSECTION VOLUMES

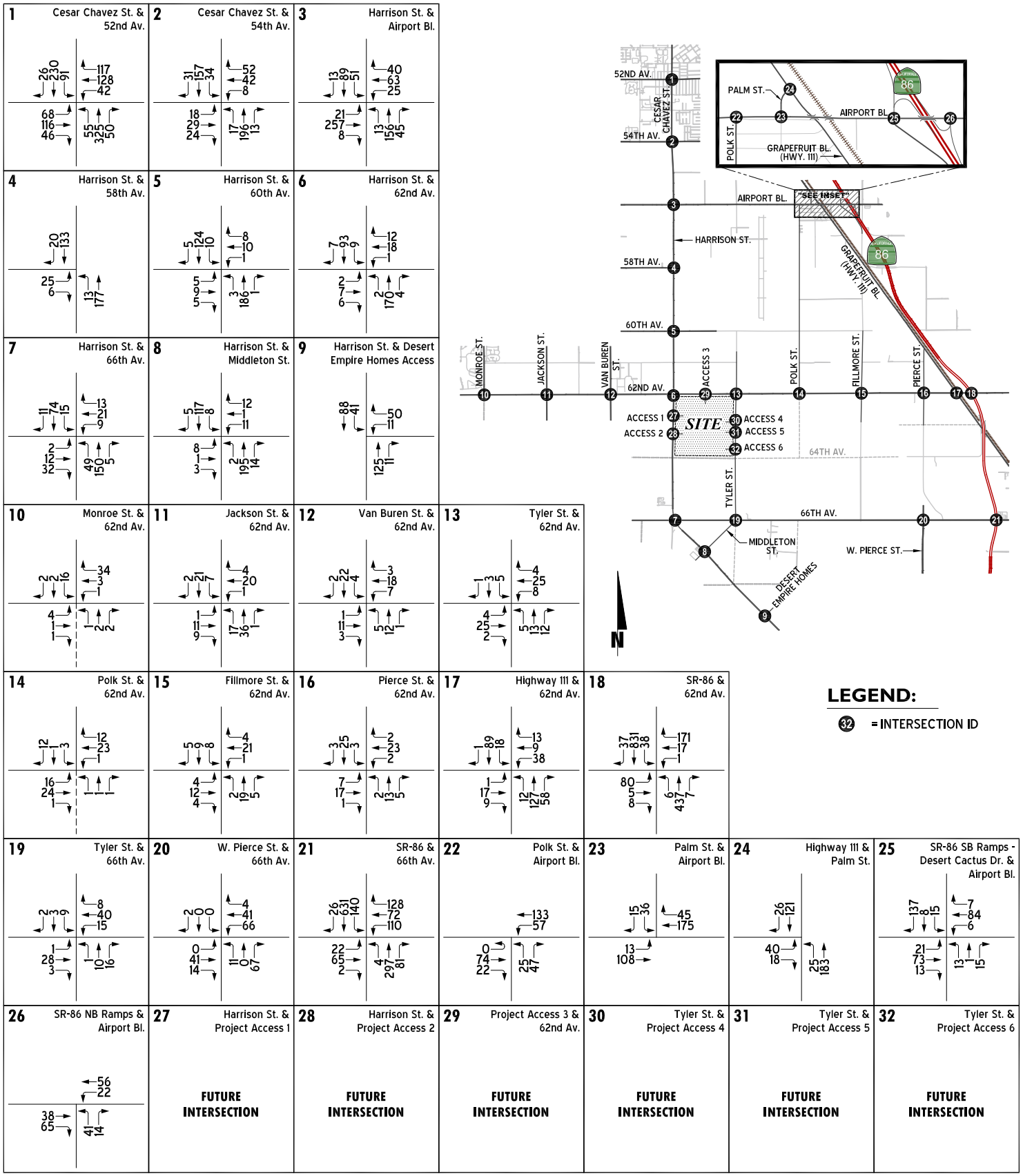


EXHIBIT 3-11: EXISTING (2023) WEEKEND SUNDAY PM PEAK HOUR INTERSECTION VOLUMES

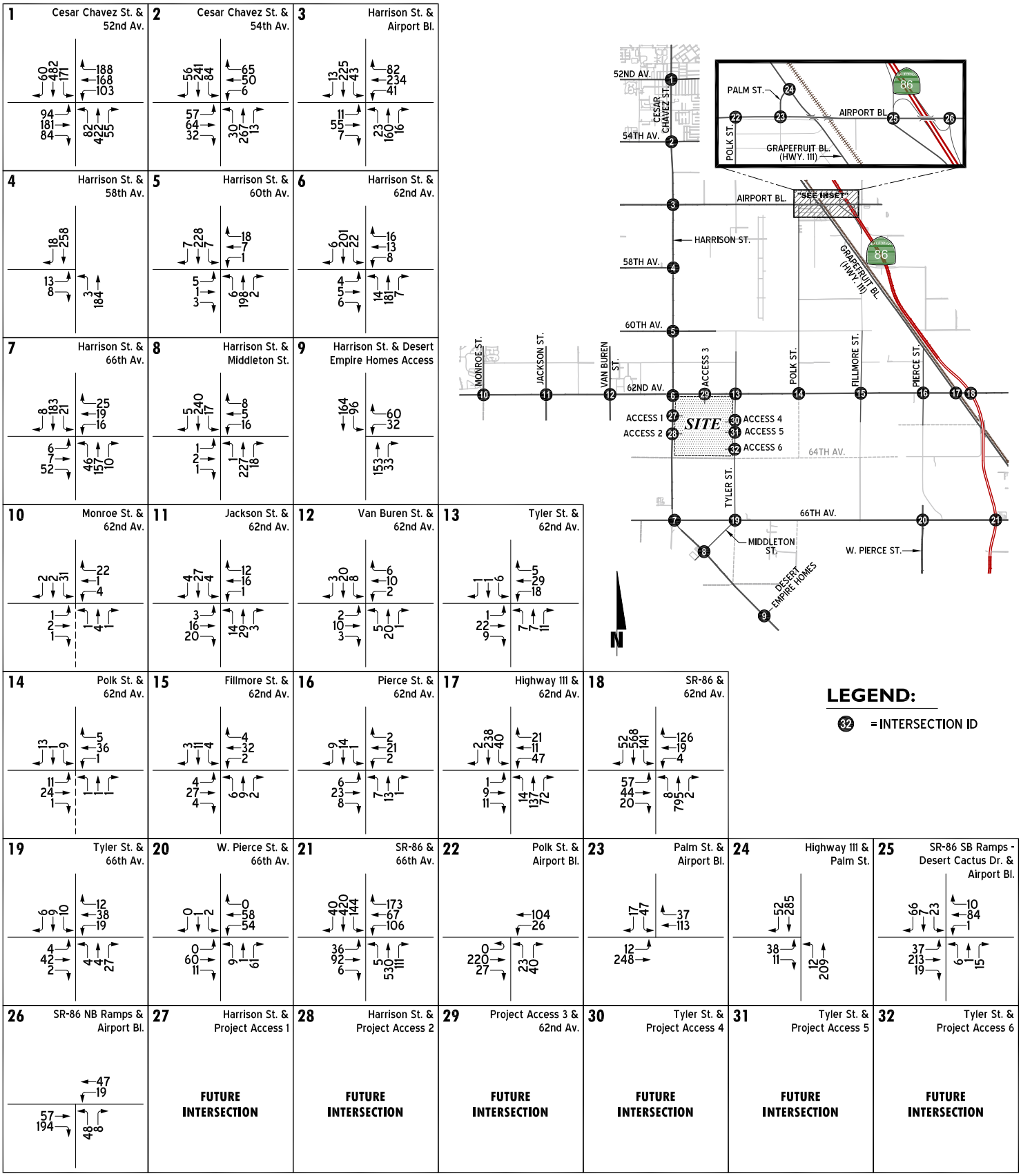


EXHIBIT 3-12: EXISTING (2023) WEEKEND
SATURDAY AVERAGE DAILY TRAFFIC (ADT) VOLUMES

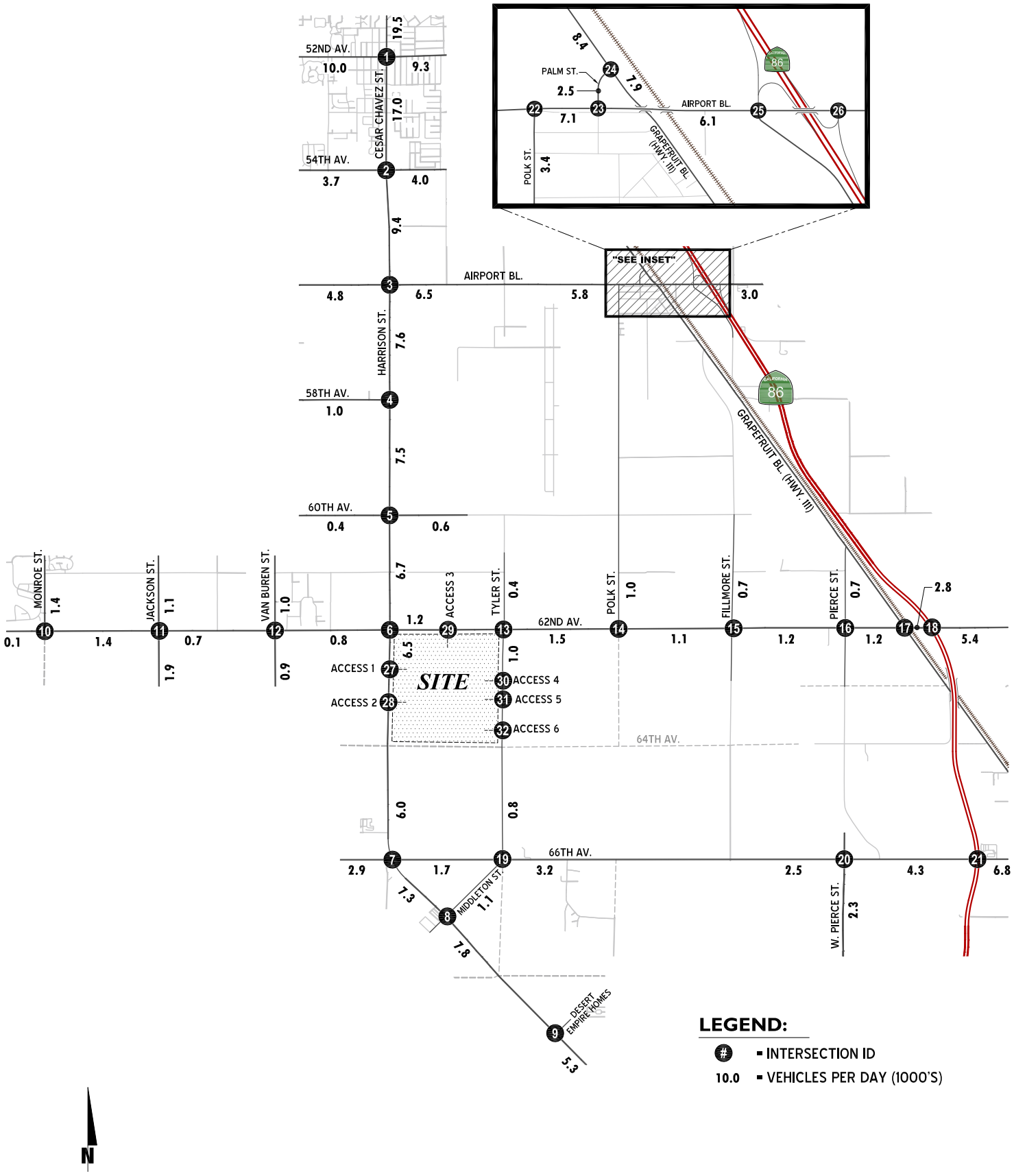
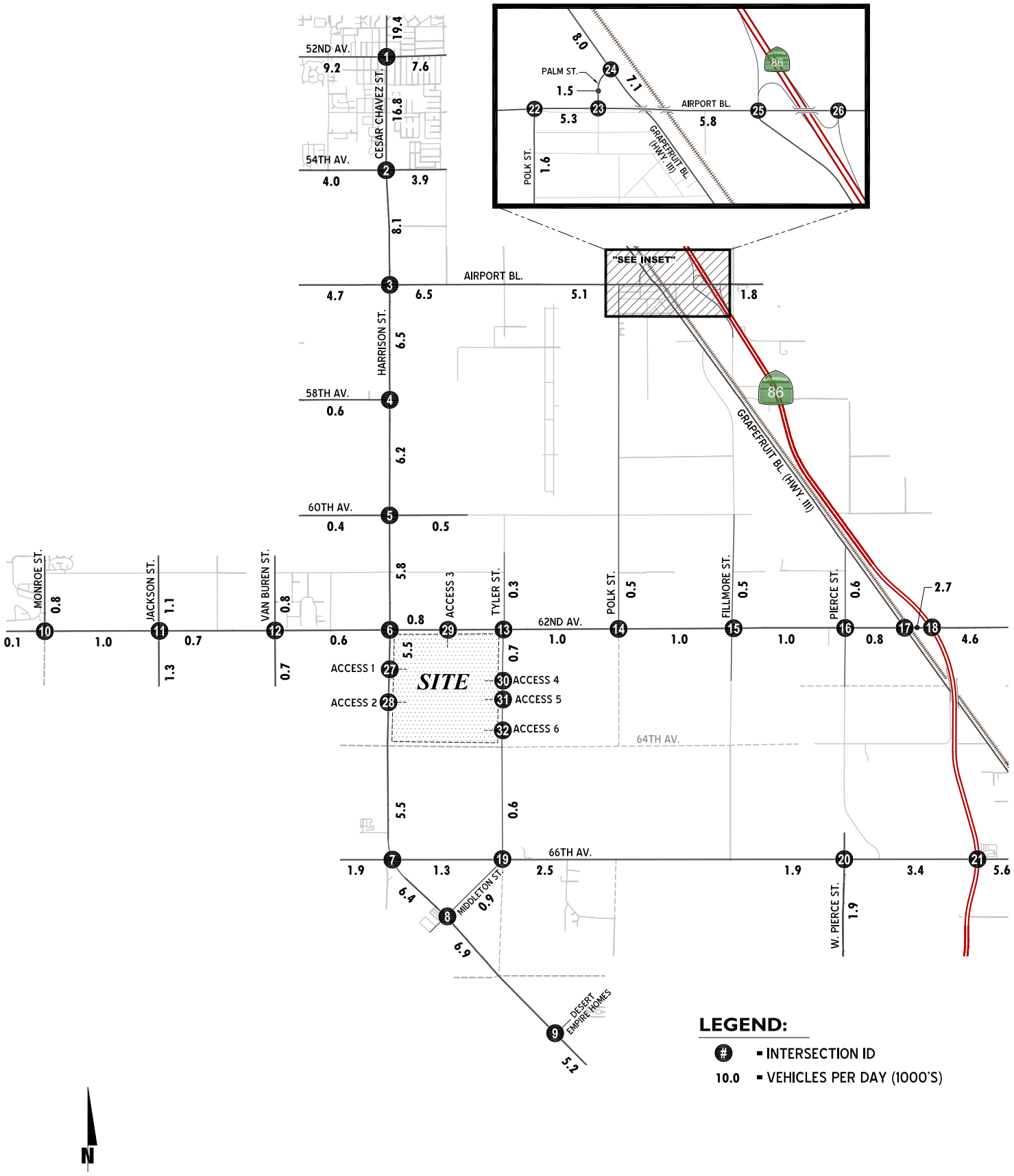


EXHIBIT 3-13: EXISTING (2023) WEEKEND
SUNDAY AVERAGE DAILY TRAFFIC (ADT) VOLUMES



Existing weekend Sunday ADT volumes are shown on Exhibit 3-13. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekend Sunday PM Peak Hour (Approach Volume + Exit Volume) x 13.699= Leg Volume

Existing peak hour turning movements were reviewed by Urban Crossroads for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two freeway ramp locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles.

3.7 INTERSECTION OPERATIONS ANALYSIS, WEEKDAY AND WEEKEND

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1, which indicates that study area intersections are currently operating at an acceptable LOS during the peak hours under Existing (2023) traffic conditions.

The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

3.8 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes, 4-hour volumes, and 8-hour volumes. Signal warrant analysis at existing unsignalized study area intersections did not indicate that signal warrants are satisfied at existing unsignalized study area intersections.

Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2023) CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.	TS	1	2	0	1	2	0	0.5	1.5	0	0.5	1.5	0	41.1	42.5	D	D	36.2	42.6	D	D
2	Cesar Chavez St. / 54th Av.	TS	1	1	d	1	1	1	0.5	0.5	1	0	1!	0	17.1	17.0	B	B	14.0	15.6	B	B
3	Harrison St. / Airport Bl.	TS	1	1	0	1	1	1	1	1	0	1	1	1>>	33.5	30.2	C	C	34.6	30.4	C	C
4	Harrison St. / 58th Av.	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	12.0	13.8	B	B	11.2	11.4	B	B
5	Harrison St. / 60th Av.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	13.9	15.2	B	C	11.6	12.2	B	B
6	Harrison St. / 62nd Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	9.5	10.9	A	B	8.7	9.4	A	A
7	Harrison St. / 66th Av.	TS	1	2	0	1	2	0	0	1!	0	0	1!	0	26.7	25.8	C	C	25.8	25.3	C	C
8	Harrison St. / Middleton St.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	13.3	24.9	B	C	11.1	13.6	B	B
9	Harrison St. / Desert Empire Homes	CSS	0	1	1	1	1	0	0	0	0	1	0	1	12.2	25.6	B	D	10.7	13.7	B	B
10	Monroe St. / 62nd Av.	AWS	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	7.5	8.0	A	A	7.0	7.4	A	A
11	Jackson St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	7.5	7.4	A	A	7.3	7.2	A	A
12	Van Buren St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	7.4	7.4	A	A	7.2	7.1	A	A
13	Tyler St. / 62nd Av.	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	10.4	9.0	B	A	7.7	7.8	A	A
14	Polk St. / 62nd Av.	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	11.2	10.6	B	B	9.8	9.7	A	A
15	Fillmore St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	7.6	7.7	A	A	7.1	7.3	A	A
16	Pierce St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	7.4	7.5	A	A	7.2	7.2	A	A
17	Highway 111 / 62nd Av.	TS	1	1	1	1	1	0	1	1	0	1	2	0	28.3	31.4	C	C	27.3	28.0	C	C
18	SR-86 / 62nd Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	47.1	39.4	D	D	34.3	32.1	C	C
19	Tyler St. / 66th Av.	AWS	0	1!	0	1	1	0	1	1	0	1	1	0	9.5	9.1	A	A	7.7	7.7	A	A
20	W. Pierce St. / 66th Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	10.4	9.7	B	A	7.6	7.7	A	A
21	SR-86 / 66th Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	28.9	39.9	C	D	28.8	30.8	C	C
22	Polk St. / Airport Bl.	TS	0	1!	0	0	0	0	1	3	1	1	2	0	35.1	35.8	D	D	27.8	27.1	C	C
23	Palm St. / Airport Bl.	TS	0	0	0	1	0	1	1	2	0	0	2	0	20.0	21.3	B	C	17.8	16.6	B	B
24	Highway 111 / Palm St.	TS	1	1	0	0	1	1	1	0	1	0	0	0	13.6	12.6	B	B	11.7	7.4	B	A
25	SR-86 SB Ramps / Airport Bl.	TS	0	1!	0	0.5	0.5	1	1	1	0	1	1	0	34.8	28.1	C	C	34.1	23.0	C	C
26	SR-86 NB Ramps / Airport Bl.	TS	1	0	1>	0	0	0	0	1	0	1	1	0	20.9	9.9	C	A	15.7	7.4	B	A
27	Harrison St. / Project Access 1		Future Intersection																			
28	Harrison St. / Project Access 2		Future Intersection																			
29	Project Access 3 / 62nd Av.		Future Intersection																			
30	Tyler St. / Project Access 4		Future Intersection																			
31	Tyler St. / Project Access 5		Future Intersection																			
32	Tyler St. / Project Access 6		Future Intersection																			

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; >> = Free-Right Turn

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. Regional access to the Project site is available from Highway 111 and SR-86.

The project consists of a mix of uses including and centered around a 223-acre equestrian center and related show facilities, including barns, stabling and related equestrian services. Other components of the Thermal Ranch Specific Plan include a mix of residential neighborhoods with seasonal and year-round workforce housing and RV park facilities, single-family and multi-family lots, and resort condominiums. Proposed commercial areas include a commercial village adjacent to Harrison Street, resort commercial uses near a proposed hotel (150± keys), and supporting commercial uses within the equestrian center. Exhibit 1-1 (previously presented) shows the preliminary site plan.

The Equestrian Center / Horse Park is planned as PA-1 and is comprised of 223± acres located primarily in the central portion of the Project. Primary vehicular access for PA-1 will be from two access drives with gated entries to parking areas, connecting to internal streets which intersect with Harrison Street, as shown on Exhibit 1-3 (previously presented). Supplemental service access for PA-1 is also available from the PA-4 driveway which connects to Tyler Street.

In order to facilitate traffic flow along Harrison Street and minimize traffic signal delay, Project Access 1 will have limited access and Project Access 2 will have full access with traffic signal control. Project Access 1 will have left turn out activity prohibited, while left turns in, right turns in and out will be allowed.

The Equestrian Center will include 47 barns with capacity for up to 2,700 horses and will also include 18 sand competition rings and one grass competition field. Horse Park events will occur between October and March (the Coachella Valley's equestrian show season).

The equestrian center portion of the project will include 75,000 square feet of event-related commercial space, and 10,000 square feet of office space.

PA-2 is comprised of 132 estate lots located in the northern most portion of the project site and fronting on and taking primary access from Avenue 62.

PA-3 is comprised of 390 detached and attached single-family dwelling units on the east side of the Project with two primary and one secondary/emergency access drives from Tyler Street.

PA-4 is oriented to workforce housing comprised of two sub-areas containing a total of 500 modular homes and 320 RV spaces located at the south end of the Project. Primary access to the PA-4 modular homes is provided from Tyler Street. Access to the RV sub-area is provided from Tyler Street as well as Harrison Street.

For traffic analysis purposes, PA-5 is comprised of 340 resort condominiums, a hotel (150 rooms), and 50,000 square feet of specialty retail space. PA-5 is located at the southwest corner of the Project site

and bounded on the west by Harrison Street and on the east by a major interior drive that separates PA-5 from PAs 1 and 4.

For analysis purposes, PA-6 provides 150,000 square feet of retail space located along the west boundary of the Project site. Primary access will be from two drives on Harrison Street.

It is anticipated that PAs 1 – 4 will be constructed as the initial / interim phase of the Project (2026), with PAs 5 and 6 then occurring upon buildout of the Project (2032).

Golf carts and bicycles will be used extensively to enhance onsite connectivity between the Planning Areas and within the Equestrian Center / Horse Park.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

In order to estimate vehicle trip generation for Planning Area 1, traffic count data was collected at the current Desert International Horse Show location on the southeast corner of Harrison Street at Airport Boulevard in Thermal, California. Inbound and outbound vehicle trip data was counted for passenger cars, recreational vehicles (RVs), trucks with trailers, and other trucks for 15-minute period for a full week (February 13th to 19th, 2023). Attachment 4.1 shows the inbound and outbound vehicles by 15-minute period for each day.

The highest weekday/mid-week volume occurred on Thursday, February 16th when 1,739 vehicles were counted over a 24-hr period at the horse park entrance. The total daily entering volume was 884 and the total daily exiting volume was 855 vehicles. The weekday/mid-week morning peak hour occurred between 8:00 and 9:00 AM (102 entering and 79 exiting vehicles). The evening peak hour occurred between 4:00 and 5:00 PM (40 entering and 157 exiting vehicles).

The total number of guests (owners, riders, grooms, spectators) was estimated to be 2,500 guests for weekday/mid-week conditions, with the highest attendance occurring on the weekend at 4,900 guests.

Based upon weekday and weekend traffic counts at the current Desert International Horse Show location, the LOS analysis for the proposed Project will take into account weekday/mid-week typical roadway peak periods (7:00 AM to 9:00 AM, 4:00 PM to 6:00 PM), Saturday morning event peak period (7:00 AM to 9:00 AM), and Sunday afternoon event peak period (3:00 PM to 5:00 PM) traffic conditions. With a proposed capacity of up to 2,700 horses in Planning Area 1, the horse park is anticipated to have up to 5,000 guests per weekday and 8,100 guests per Saturday and Sunday on-site during Coachella Valley's equestrian show season.

Planning Area 1 trip rates for the horse park are based on the relationship between the counted vehicle volume and the number of guests arriving onsite at the current Desert International Horse Show.

Table 4-1 presents a summary of horse park attendance and projected vehicle trip ends for the proposed Project during weekdays. Table 4-2 presents a weekend summary of horse park attendance and projected vehicle trip ends for the proposed Project on Saturday and Sunday.

TABLE 4-1: HORSE PARK TRIP GENERATION WEEKDAY ESTIMATES

Land Use	Guests	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Total Rate / Guest		0.041	0.032	0.073	0.016	0.063	0.079	0.696
Project Horse Park Trip Generation	5,000	205	160	365	80	315	395	3,480

TABLE 4-2: HORSE PARK TRIP GENERATION WEEKEND ESTIMATES

Land Use	Guests	Saturday Morning Peak Hour			Sunday Afternoon Peak Hour			Daily	
		In	Out	Total	In	Out	Total	Saturday	Sunday
Total Rate / Guest		0.046	0.006	0.052	0.009	0.057	0.066	0.708	0.705
Project Horse Park Trip Generation	8,100	373	49	422	73	462	535	5,735	5,711

Based on the derived horse park trip generation rates, proposed horse park trip generation on a peak season weekday is 3,480 vehicle trips per day with 205 AM peak hour trips inbound, 160 AM peak hour trips outbound, 80 PM peak hour trips inbound, 315 PM peak hour trips outbound. During weekends, the proposed horse park trip generation is 5,735 vehicle trips per day on Saturdays, with 373 Saturday morning peak hour trips inbound, 49 Saturday morning peak hour trips outbound, and 5,711 vehicle trips per day on Sundays, with 73 Sunday afternoon peak hour trips inbound, 462 Sunday afternoon peak hour trips outbound.

To develop the traffic characteristics of other land uses included in the proposed Project, trip-generation statistics published in the ITE Trip Generation Manual (11th Edition, 2021) were used to estimate the trip generation where available.

Table 4-3 presents the trip generation rates and the resulting trip generation summary for the proposed Project Interim Phase (PAs 1-4) **weekda**y scenario. As shown in Table 4-3, the Project Interim Phase weekday is anticipated to generate a total of 10,158 external vehicle trips per day with 766 AM peak hour trips and 975 PM peak hour trips.

Table 4-4 presents the trip generation rates and the resulting trip generation summary for the proposed Project Interim Phase (PAs 1-4) **weekend** scenario. As shown in Table 4-4, the Project Interim Phase weekend is anticipated to generate a total of 13,039 Saturday external vehicle trips per day and 11,012 Sunday external vehicle trips per day, with 1,029 Saturday morning peak hour trips and 13,039 Sunday afternoon peak hour trips.

TABLE 4-3: PROJECT INTERIM PHASE TRIP GENERATION WEEKDAY SUMMARY

Trip Generation Rates[1]

Land Use	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached	210	DU	0.18	0.52	0.70	0.59	0.35	0.94	9.43
Condominiums	220	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74
Modular Homes (Workforce Housing)	223	DU	0.10	0.26	0.36	0.27	0.19	0.46	4.81
RV Park[3]	416	Spaces	0.08	0.13	0.21	0.18	0.09	0.27	2.70
General Office Building	710	TSF	1.34	0.18	1.52	0.24	1.20	1.44	10.84
Specialty Retail[4]	--	TSF	0.72	0.48	1.20	1.80	1.80	3.60	40.00
Equestrian - Horse Park[5]	--	Guests	0.041	0.032	0.073	0.016	0.063	0.079	0.696

Trip Generation Results

Planning Area (PA)	Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
1	Specialty Retail	975	75 TSF	54	36	90	135	135	270	3,000
	General Office Building	710	10 TSF	13	2	15	2	12	14	108
	Equestrian - Horse Park	--	5,000 Guests	205	160	365	80	315	395	3,480
	Internal PA 1 interaction (Retail with Guests)			(18)	(18)	(36)	(68)	(68)	(136)	(1,500)
	PA 1 Interaction with Residential - PA's 2 & 3			(7)	(4)	(11)	(14)	(15)	(29)	(311)
	PA 1 Interaction with Workforce Housing - PA 4			(103)	(27)	(130)	(43)	(116)	(159)	(1,250)
	Interaction between Project PA's			*(128)*	*(49)*	*(177)*	*(125)*	*(199)*	*(324)*	*(3,061)*
	Planning Area 1 Subtotal External Trips			**144**	**149**	**293**	**92**	**263**	**355**	**3,527**
2	Single Family Detached	210	132 DU	24	69	93	78	46	124	1,245
	PA 2 Interaction with Horse Park - PA 1			*(1)*	*(2)*	*(3)*	*(3)*	*(4)*	*(7)*	*(78)*
	Planning Area 2 Subtotal External Trips			**23**	**67**	**90**	**75**	**42**	**117**	**1,167**
3	Single Family Detached	210	390 DU	70	203	273	230	137	367	3,678
	PA 3 Interaction with Horse Park - PA 1			*(3)*	*(5)*	*(8)*	*(12)*	*(10)*	*(22)*	*(233)*
	Planning Area 3 Subtotal External Trips			**67**	**198**	**265**	**218**	**127**	**345**	**3,445**
4	Modular Homes (Work Force Housing)	223	500 DU	50	130	180	135	95	230	2,405
	RV Park	416	320 Spaces	26	42	68	58	29	87	864
	PA 4 Interaction with Horse Park - PA 1			*(27)*	*(103)*	*(130)*	*(116)*	*(43)*	*(159)*	*(1,250)*
	Planning Area 4 Subtotal External Trips			**49**	**69**	**118**	**77**	**81**	**158**	**2,019**
Total Project Trip Ends				442	642	1,084	718	769	1,487	14,780
Total Internal Interaction				*(159)*	*(159)*	*(318)*	*(256)*	*(256)*	*(512)*	*(4,622)*
TOTAL PROJECT INTERIM PHASE WEEKDAY EXTERNAL TRIPS				**283**	**483**	**766**	**462**	**513**	**975**	**10,158**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).
[2] DU = Dwelling Units; RM = Occupied Rooms; TSF = Thousand Square Feet; EMP = Employees
[3] Since the ITE daily rate for Land Use Code 416 (RV Park) is not available, daily rates have been estimated (PM x 10).
[4] Since ITE does not have trip rates for a specialty retail, SANDAG's specialty retail rates has been utilized.
[5] Trip generation rates have been derived based on count data collected at the existing Desert International Horse Show facility during February, 2023.

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TABLE 4-4: PROJECT INTERIM PHASE TRIP GENERATION WEEKEND SUMMARY

Trip Generation Rates[1]

Land Use	ITE LU Code	Units[2]	Saturday Morning Peak Hour In	Saturday Morning Peak Hour Out	Saturday Morning Peak Hour Total	Sunday Afternoon Peak Hour In	Sunday Afternoon Peak Hour Out	Sunday Afternoon Peak Hour Total	Daily Saturday	Daily Sunday
Single Family Detached	210	DU	0.50	0.42	0.92	0.44	0.39	0.83	9.48	8.48
Condominiums, Modular Homes, RV Parks	220	DU/RV Space	0.22	0.19	0.41	0.19	0.17	0.36	4.55	3.86
General Office Building	710	TSF	0.29	0.24	0.53	0.12	0.09	0.21	2.21	0.70
Specialty Retail[3]	--	TSF	2.06	1.38	3.44	1.62	1.63	3.25	47.83	25.18
Equestrian - Horse Park[4]	--	Guests	0.046	0.006	0.052	0.009	0.057	0.066	0.708	0.705

Trip Generation Results

Planning Area (PA)	Land Use	ITE LU Code	Quantity[2]	Saturday Morning Peak Hour In	Saturday Morning Peak Hour Out	Saturday Morning Peak Hour Total	Sunday Afternoon Peak Hour In	Sunday Afternoon Peak Hour Out	Sunday Afternoon Peak Hour Total	Daily Saturday	Daily Sunday
1	Specialty Retail	975	75 TSF	155	103	258	122	122	244	3,587	1,889
	General Office Building	710	10 TSF	3	2	5	1	1	2	22	7
	Equestrian - Horse Park	--	8,100 Guests	373	49	422	73	462	535	5,735	5,711
	Internal PA 1 interaction (Retail with Guests)			(52)	(52)	(104)	(61)	(61)	(122)	(1,794)	(945)
	PA 1 Interaction with Residential - PA's 2 & 3			(16)	(11)	(27)	(12)	(12)	(24)	(361)	(190)
	PA 1 Interaction with Workforce Housing - PA 4			(94)	(63)	(157)	(49)	(94)	(143)	(1,234)	(1,430)
	Interaction between Project PA's			*(162)*	*(126)*	*(288)*	*(122)*	*(167)*	*(289)*	*(3,389)*	*(2,565)*
	Planning Area 1 Subtotal External Trips			**369**	**28**	**397**	**74**	**418**	**492**	**5,955**	**5,042**
2	Single Family Detached	210	132 DU	66	55	121	58	51	109	1,251	1,119
	PA 2 Interaction with Horse Park - PA 1			*(3)*	*(4)*	*(7)*	*(2)*	*(3)*	*(5)*	*(90)*	*(48)*
	Planning Area 2 Subtotal External Trips			**63**	**51**	**114**	**56**	**48**	**104**	**1,161**	**1,071**
3	Single Family Detached	210	390 DU	195	164	359	172	152	324	3,697	3,307
	PA 3 Interaction with Horse Park - PA 1			*(8)*	*(12)*	*(20)*	*(10)*	*(8)*	*(18)*	*(271)*	*(143)*
	Planning Area 3 Subtotal External Trips			**187**	**152**	**339**	**162**	**144**	**306**	**3,426**	**3,164**
4	Modular Homes (Work Force Housing)	220	500 DU	110	95	205	95	85	180	2,275	1,930
	RV Park	220	320 Spaces	70	61	131	61	54	115	1,456	1,235
	PA 4 Interaction with Horse Park - PA 1			*(63)*	*(94)*	*(157)*	*(94)*	*(49)*	*(143)*	*(1,234)*	*(1,430)*
	Planning Area 4 Subtotal External Trips			**117**	**62**	**179**	**62**	**90**	**152**	**2,497**	**1,735**
Total Project Trip Ends				972	529	1,501	582	927	1,509	18,023	15,198
Total Internal Interaction				*(236)*	*(236)*	*(472)*	*(228)*	*(227)*	*(455)*	*(4,984)*	*(4,186)*
TOTAL PROJECT INTERIM PHASE WEEKEND EXTERNAL TRIPS				**736**	**293**	**1,029**	**354**	**700**	**1,054**	**13,039**	**11,012**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).
[2] DU = Dwelling Units; RM = Occupied Rooms; TSF = Thousand Square Feet; EMP = Employees
[3] SANDAG's specialty retail weekday trip rates have been adjusted to estimate weekend trip rates based on the ITE 821 (Commercial) weekday to weekend relationship.
[4] Trip generation rates have been derived based on count data collected at the existing Desert International Horse Show facility during February, 2023.

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Table 4-5 presents the weekday trip generation rates and the resulting weekday trip generation summary for the proposed Project Buildout. As shown in Table 4-5, the Project Buildout weekday is anticipated to generate a total of 18,939 external vehicle trips per day with 1,000 AM peak hour trips and 1,393 PM peak hour trips.

Table 4-6 presents the weekend trip generation rates and the resulting weekend trip generation summary for the proposed Project Buildout. As shown in Table 4-6, the Project Buildout weekend is anticipated to generate a total of 21,523 Saturday external vehicle trips per day and 13,995 Sunday external vehicle trips per day, with 1,530 Saturday morning peak hour trips and 1,407 Sunday afternoon peak hour trips.

4.2 PROJECT TRIP DISTRIBUTION

The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. The Project trip distributions are provided on the following exhibits:

- Exhibit 4-1: Project Planning Area 1 External Trip Distribution
- Exhibit 4-2: Project Planning Area 2 External Trip Distribution
- Exhibit 4-3: Project Planning Area 3 External Trip Distribution
- Exhibit 4-4: Project Planning Area 4 External Trip Distribution
- Exhibit 4-5: Project Planning Area 5 External Trip Distribution
- Exhibit 4-6: Project Planning Area 6 External Trip Distribution

The external trip distribution patterns for PAs 1 and 5 include significant usage of the SR-86 corridor for regional access to the Horse Park and resort areas via 62nd Avenue east of Harrison Street.

The external trip distribution pattern for PA 6 is oriented to Harrison Street and 62nd Avenue both east and west of Harrison Street.

Residential external trip distribution patterns to/from the Project account for the direct access connections to Tyler Street (PAs 3 and 4) and 62nd Avenue (PA 2).

4.3 MODAL SPLIT

The potential for external Project trips to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's external traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

4.4 PROJECT INTERIM PHASE TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project.

TABLE 4-5: PROJECT BUILDOUT TRIP GENERATION WEEKDAY SUMMARY

Trip Generation Rates[1]

Land Use	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached	210	DU	0.18	0.52	0.70	0.59	0.35	0.94	9.43
Condominiums	220	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74
Modular Homes (Workforce Housing)	223	DU	0.10	0.26	0.36	0.27	0.19	0.46	4.81
Hotel	310	RM	0.35	0.27	0.62	0.36	0.37	0.73	12.23
RV Park[3]	416	Spaces	0.08	0.13	0.21	0.18	0.09	0.27	2.70
General Office Building	710	TSF	1.34	0.18	1.52	0.24	1.20	1.44	10.84
Commercial Retail (40-150 TSF)	821	TSF	1.07	0.66	1.73	2.54	2.65	5.19	67.52
Specialty Retail[4]	--	TSF	0.72	0.48	1.20	1.80	1.80	3.60	40.00
Equestrian - Horse Park[5]	--	Guests	0.041	0.032	0.073	0.016	0.063	0.079	0.696

Trip Generation Results

Planning Area (PA)	Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
1	Specialty Retail	975	75 TSF	54	36	90	135	135	270	3,000
	General Office Building	710	10 TSF	13	2	15	2	12	14	108
	Equestrian - Horse Park	--	5,000 Guests	205	160	365	80	315	395	3,480
	PA1 Subtotal			272	198	470	217	462	679	6,588
	Internal PA 1 interaction (Retail with Guests)			*(18)*	*(18)*	*(36)*	*(68)*	*(68)*	*(136)*	*(1,500)*
	PA 1 Interaction with Residential - PA's 2, 3, & 5			*(7)*	*(4)*	*(11)*	*(14)*	*(15)*	*(29)*	*(311)*
	PA 1 Interaction with Workforce Housing - PA 4			*(103)*	*(27)*	*(130)*	*(43)*	*(116)*	*(159)*	*(1,250)*
	PA 1 Interaction with Commercial - PA 6			*(15)*	*(23)*	*(38)*	*(60)*	*(57)*	*(117)*	*(265)*
	Interaction between Project PA's			*(143)*	*(72)*	*(215)*	*(185)*	*(256)*	*(441)*	*(3,326)*
	Planning Area 1 Subtotal External Trips			**129**	**126**	**255**	**32**	**206**	**238**	**3,262**
2	Single Family Detached	210	132 DU	24	69	93	78	46	124	1,245
	PA 2 Interaction with Horse Park - PA 1			*(1)*	*(1)*	*(2)*	*(3)*	*(3)*	*(6)*	*(53)*
	PA 2 Interaction with Hotel/Retail - PA 5			*(1)*	*(1)*	*(2)*	*(2)*	*(2)*	*(4)*	*(48)*
	PA 2 Interaction with Commercial - PA 6			*(2)*	*(4)*	*(6)*	*(8)*	*(6)*	*(14)*	*(141)*
	Interaction between Project PA's			*(4)*	*(6)*	*(10)*	*(13)*	*(11)*	*(24)*	*(242)*
	Planning Area 2 Subtotal External Trips			**20**	**63**	**83**	**65**	**35**	**100**	**1,003**
3	Single Family Detached	210	390 DU	70	203	273	230	137	367	3,678
	PA 3 Interaction with Horse Park - PA 1			*(2)*	*(4)*	*(6)*	*(7)*	*(7)*	*(14)*	*(158)*
	PA 3 Interaction with Hotel/Retail - PA 5			*(2)*	*(3)*	*(5)*	*(5)*	*(5)*	*(10)*	*(144)*
	PA 3 Interaction with Commercial - PA 6			*(8)*	*(11)*	*(19)*	*(27)*	*(27)*	*(54)*	*(478)*
	Interaction between Project PA's			*(12)*	*(18)*	*(30)*	*(39)*	*(39)*	*(78)*	*(780)*
	Planning Area 3 Subtotal External Trips			**58**	**185**	**243**	**191**	**98**	**289**	**2,898**
4	Modular Homes (Work Force Housing)	223	500 DU	50	130	180	135	95	230	2,405
	RV Park	416	320 Spaces	26	42	68	58	29	87	864
	PA4 Subtotal			76	172	248	193	124	317	3,269
	PA 4 Interaction with Horse Park - PA 1			*(27)*	*(103)*	*(130)*	*(116)*	*(43)*	*(159)*	*(1,250)*
	PA 4 Interaction with Commercial - PA 6			*(6)*	*(10)*	*(16)*	*(21)*	*(20)*	*(41)*	*(425)*
	Interaction between Project PA's			*(33)*	*(113)*	*(146)*	*(137)*	*(63)*	*(200)*	*(1,675)*
	Planning Area 4 Subtotal External Trips			**43**	**59**	**102**	**56**	**61**	**117**	**1,594**
5	Condominiums	220	340 DU	34	102	136	109	65	174	2,292
	Hotel	310	150 RM	53	41	94	54	56	110	1,835
	Specialty Retail	--	50 TSF	36	24	60	90	90	180	2,000
	PA5 Subtotal			123	167	290	253	211	464	6,127
	Internal PA 5 interaction			*(19)*	*(19)*	*(38)*	*(26)*	*(26)*	*(52)*	*(520)*
	PA 5 Interaction with Horse Park - PA1			*(1)*	*(2)*	*(3)*	*(5)*	*(4)*	*(9)*	*(100)*
	PA 5 Interaction with Residential - PA's 2 & 3			*(4)*	*(3)*	*(7)*	*(7)*	*(7)*	*(14)*	*(192)*
	PA 5 Interaction with Commercial - PA6			*(14)*	*(23)*	*(37)*	*(54)*	*(51)*	*(105)*	*(1,313)*
	Interaction between Project PA's			*(38)*	*(47)*	*(85)*	*(92)*	*(88)*	*(180)*	*(2,125)*
	Commercial Pass-By (5%)			*(5)*	*(4)*	*(9)*	*(8)*	*(7)*	*(15)*	*(200)*
	Planning Area 5 Subtotal External Trips			**80**	**116**	**196**	**153**	**116**	**269**	**3,802**
6	Commercial Retail (40-150 TSF)	821	150 TSF	161	99	260	381	398	779	10,128
	PA 6 Interaction with Horse Park - PA 1			*(23)*	*(15)*	*(38)*	*(57)*	*(60)*	*(117)*	*(265)*
	PA 6 Interaction with Hotel/Retail - PA 5			*(16)*	*(10)*	*(26)*	*(38)*	*(40)*	*(78)*	*(1,013)*
	PA 6 Interaction with Residential - PA's 2 to 5			*(32)*	*(20)*	*(52)*	*(66)*	*(70)*	*(136)*	*(1,344)*
	Interaction between Project PA's			*(71)*	*(45)*	*(116)*	*(161)*	*(170)*	*(331)*	*(2,622)*
	Commercial Pass-By (15%)			*(12)*	*(11)*	*(23)*	*(34)*	*(34)*	*(68)*	*(1,126)*
	Planning Area 6 Subtotal External Trips			**78**	**43**	**121**	**186**	**194**	**380**	**6,380**
Total Project Trip Ends				726	908	1,634	1,352	1,378	2,730	31,035
Total Internal Interaction				*(301)*	*(301)*	*(602)*	*(627)*	*(627)*	*(1,254)*	*(10,770)*
Commercial Pass-By				*(17)*	*(15)*	*(32)*	*(42)*	*(41)*	*(83)*	*(1,326)*
TOTAL PROJECT BUILDOUT WEEKDAY EXTERNAL TRIPS				**408**	**592**	**1,000**	**683**	**710**	**1,393**	**18,939**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] DU = Dwelling Units; RM = Occupied Rooms; TSF = Thousand Square Feet; EMP = Employees

[3] Since the ITE daily rate for Land Use Code 416 (RV Park) is not available, daily rates have been estimated (PM x 10).

[4] Since ITE does not have trip rates for a specialty retail, SANDAG's specialty retail rates has been utilized.

[5] Trip generation rates have been derived based on count data collected at the existing Desert International Horse Show facility during February, 2023.

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TABLE 4-6: PROJECT BUILDOUT TRIP GENERATION WEEKEND SUMMARY

Trip Generation Rates[1]

Land Use	ITE LU Code	Units[2]	Saturday Morning Peak Hour In	Saturday Morning Peak Hour Out	Saturday Morning Peak Hour Total	Sunday Afternoon Peak Hour In	Sunday Afternoon Peak Hour Out	Sunday Afternoon Peak Hour Total	Daily Saturday	Daily Sunday
Single Family Detached	210	DU	0.50	0.42	0.92	0.44	0.39	0.83	9.48	8.48
Condominiums, Modular Homes, RV Parks	220	DU/RV Space	0.22	0.19	0.41	0.19	0.17	0.36	4.55	3.86
Hotel	310	RM	0.36	0.43	0.79	0.37	0.33	0.70	10.05	7.83
General Office Building	710	TSF	0.29	0.24	0.53	0.12	0.09	0.21	2.21	0.70
Commercial Retail (40-150 TSF)	821	TSF	2.59	2.39	4.98	2.31	2.40	4.71	81.07	42.68
Specialty Retail[3]	--	TSF	2.06	1.38	3.44	1.62	1.63	3.25	47.83	25.18
Equestrian - Horse Park[4]	--	Guests	0.046	0.006	0.052	0.009	0.057	0.066	0.708	0.705

Trip Generation Results

Planning Area (PA)	Land Use	ITE LU Code	Quantity[2]	Saturday Morning Peak Hour In	Saturday Morning Peak Hour Out	Saturday Morning Peak Hour Total	Sunday Afternoon Peak Hour In	Sunday Afternoon Peak Hour Out	Sunday Afternoon Peak Hour Total	Daily Saturday	Daily Sunday
1	Specialty Retail	975	75 TSF	155	103	258	122	122	244	3,587	1,889
	General Office Building	710	10 TSF	3	2	5	1	1	2	22	7
	Equestrian - Horse Park	--	8,100 Guests	373	49	422	73	462	535	5,735	5,711
	PA1 Subtotal			531	154	685	196	585	781	9,344	7,607
	Internal PA 1 interaction (Retail with Guests)			*(52)*	*(52)*	*(104)*	*(61)*	*(61)*	*(122)*	*(1,794)*	*(945)*
	PA 1 Interaction with Residential - PA's 2, 3, & 5			*(16)*	*(11)*	*(27)*	*(12)*	*(12)*	*(24)*	*(361)*	*(190)*
	PA 1 Interaction with Workforce Housing - PA 4			*(94)*	*(63)*	*(157)*	*(49)*	*(94)*	*(143)*	*(1,570)*	*(1,430)*
	PA 1 Interaction with Commercial - PA 6			*(18)*	*(18)*	*(36)*	*(54)*	*(52)*	*(106)*	*(360)*	*(1,060)*
	Interaction between Project PA's			*(180)*	*(144)*	*(324)*	*(176)*	*(219)*	*(395)*	*(4,085)*	*(3,625)*
	Planning Area 1 Subtotal External Trips			**351**	**10**	**361**	**20**	**366**	**386**	**5,259**	**3,982**
2	Single Family Detached	210	132 DU	66	55	121	58	51	109	1,251	1,119
	PA 2 Interaction with Horse Park - PA 1			*(2)*	*(3)*	*(5)*	*(2)*	*(3)*	*(5)*	*(69)*	*(36)*
	PA 2 Interaction with Hotel/Retail - PA 5			*(2)*	*(2)*	*(4)*	*(2)*	*(2)*	*(4)*	*(49)*	*(31)*
	PA 2 Interaction with Commercial - PA 6			*(9)*	*(9)*	*(18)*	*(7)*	*(5)*	*(12)*	*(180)*	*(120)*
	Interaction between Project PA's			*(13)*	*(14)*	*(27)*	*(11)*	*(10)*	*(21)*	*(298)*	*(187)*
	Planning Area 2 Subtotal External Trips			**53**	**41**	**94**	**47**	**41**	**88**	**953**	**932**
3	Single Family Detached	210	390 DU	195	164	359	172	152	324	3,697	3,307
	PA 3 Interaction with Horse Park - PA 1			*(6)*	*(9)*	*(15)*	*(6)*	*(7)*	*(13)*	*(205)*	*(107)*
	PA 3 Interaction with Hotel/Retail - PA 5			*(5)*	*(6)*	*(11)*	*(5)*	*(5)*	*(10)*	*(146)*	*(92)*
	PA 3 Interaction with Commercial - PA 6			*(27)*	*(28)*	*(55)*	*(25)*	*(25)*	*(50)*	*(550)*	*(500)*
	Interaction between Project PA's			*(38)*	*(43)*	*(81)*	*(36)*	*(37)*	*(73)*	*(901)*	*(699)*
	Planning Area 3 Subtotal External Trips			**157**	**121**	**278**	**136**	**115**	**251**	**2,796**	**2,608**
4	Modular Homes (Work Force Housing)	220	500 DU	110	95	205	95	85	180	2,275	1,930
	RV Park	220	320 Spaces	70	61	131	61	54	115	1,456	1,235
	PA4 Subtotal			180	156	336	156	139	295	3,731	3,165
	PA 4 Interaction with Horse Park - PA 1			*(63)*	*(94)*	*(157)*	*(94)*	*(49)*	*(143)*	*(1,570)*	*(1,430)*
	PA 4 Interaction with Commercial - PA 6			*(26)*	*(28)*	*(54)*	*(22)*	*(21)*	*(43)*	*(540)*	*(430)*
	Interaction between Project PA's			*(89)*	*(122)*	*(211)*	*(116)*	*(70)*	*(186)*	*(2,110)*	*(1,860)*
	Planning Area 4 Subtotal External Trips			**91**	**34**	**125**	**40**	**69**	**109**	**1,621**	**1,305**
5	Condominiums	220	340 DU	75	65	140	65	58	123	1,547	1,312
	Hotel	310	150 RM	54	65	119	56	50	106	1,508	1,175
	Specialty Retail	--	50 TSF	103	69	172	81	81	162	2,392	1,259
	PA5 Subtotal			232	199	431	202	189	391	5,447	3,746
	Internal PA 5 interaction			*(19)*	*(19)*	*(38)*	*(26)*	*(26)*	*(52)*	*(380)*	*(520)*
	PA 5 Interaction with Horse Park - PA1			*(3)*	*(4)*	*(7)*	*(3)*	*(3)*	*(6)*	*(87)*	*(46)*
	PA 5 Interaction with Residential - PA's 2 & 3			*(8)*	*(7)*	*(15)*	*(7)*	*(7)*	*(14)*	*(195)*	*(122)*
	PA 5 Interaction with Commercial - PA6			*(47)*	*(51)*	*(98)*	*(43)*	*(41)*	*(84)*	*(1,446)*	*(770)*
	Interaction between Project PA's			*(77)*	*(81)*	*(158)*	*(79)*	*(77)*	*(156)*	*(2,108)*	*(1,458)*
	Commercial Pass-By (5%)			*(7)*	*(7)*	*(14)*	*(6)*	*(6)*	*(12)*	*(167)*	*(114)*
	Planning Area 5 Subtotal External Trips			**148**	**111**	**259**	**117**	**106**	**223**	**3,172**	**2,174**
6	Commercial Retail (40-150 TSF)	821	150 TSF	389	359	748	347	360	707	12,161	6,402
	PA 6 Interaction with Horse Park - PA 1			*(18)*	*(18)*	*(36)*	*(52)*	*(54)*	*(106)*	*(360)*	*(1,060)*
	PA 6 Interaction with Hotel/Retail - PA 5			*(39)*	*(36)*	*(75)*	*(35)*	*(36)*	*(71)*	*(1,216)*	*(640)*
	PA 6 Interaction with Residential - PA's 2 to 5			*(77)*	*(73)*	*(150)*	*(58)*	*(60)*	*(118)*	*(1,500)*	*(1,180)*
	Interaction between Project PA's			*(134)*	*(127)*	*(261)*	*(145)*	*(150)*	*(295)*	*(3,076)*	*(2,880)*
	Commercial Pass-By (15%)			*(37)*	*(37)*	*(74)*	*(31)*	*(31)*	*(62)*	*(1,363)*	*(528)*
	Planning Area 6 Subtotal External Trips			**218**	**195**	**413**	**171**	**179**	**350**	**7,722**	**2,994**
Total Project Trip Ends				1,593	1,087	2,680	1,131	1,476	2,607	35,631	25,346
Total Internal Interaction				*(531)*	*(531)*	*(1,062)*	*(563)*	*(563)*	*(1,126)*	*(12,578)*	*(10,709)*
Commercial Pass-By				*(44)*	*(44)*	*(88)*	*(37)*	*(37)*	*(74)*	*(1,530)*	*(642)*
TOTAL PROJECT BUILDOUT WEEKEND EXTERNAL TRIPS				**1,018**	**512**	**1,530**	**531**	**876**	**1,407**	**21,523**	**13,995**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] DU = Dwelling Units; RM = Occupied Rooms; TSF = Thousand Square Feet; EMP = Employees

[3] SANDAG's specialty retail weekday trip rates have been adjusted to estimate weekend trip rates based on the ITE 821 (Commercial) weekday to weekend relationship.

[4] Trip generation rates have been derived based on count data collected at the existing Desert International Horse Show facility during February, 2023.

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EXHIBIT 4-1: PROJECT PLANNING AREA 1 EXTERNAL TRIP DISTRIBUTION

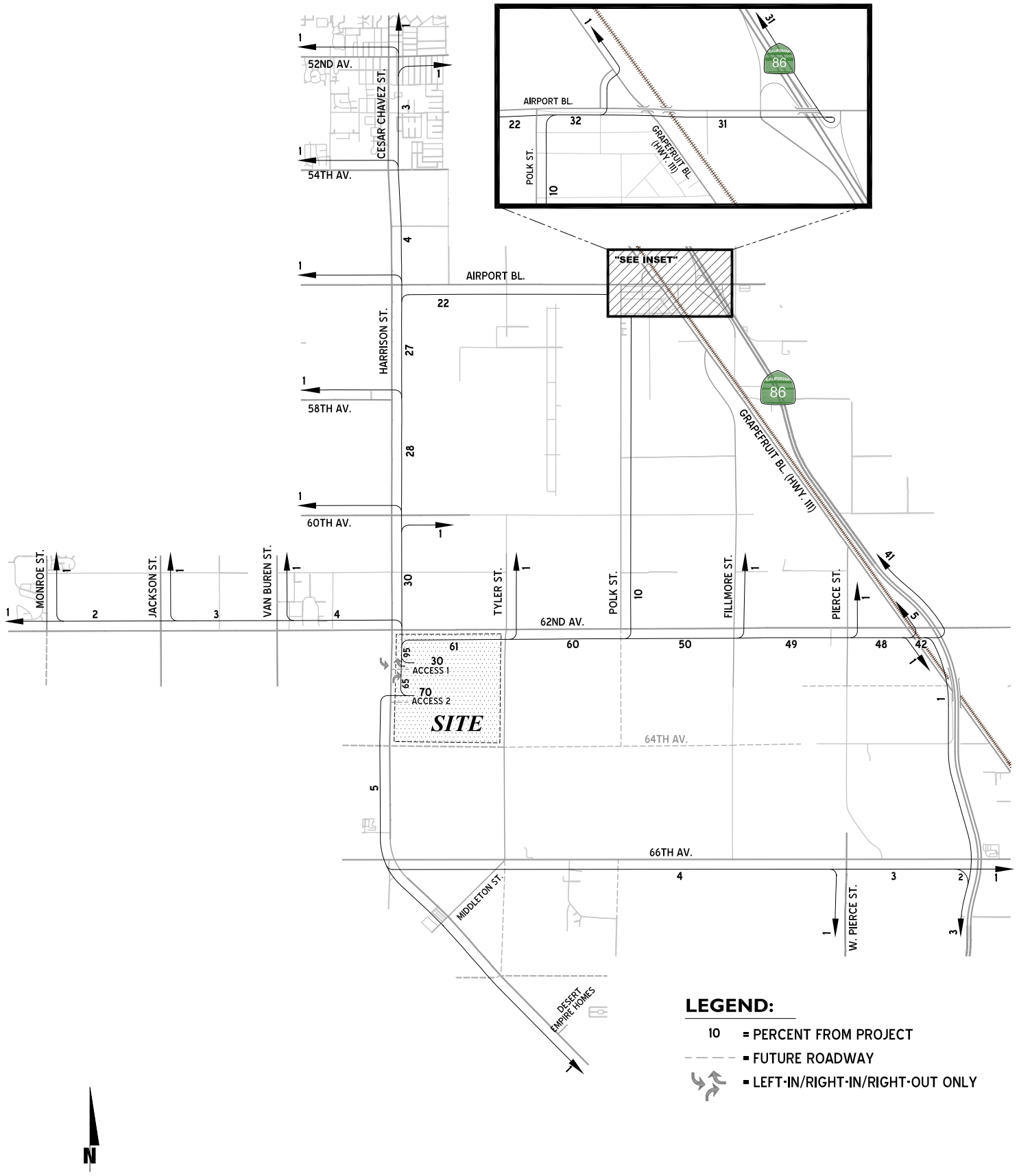


EXHIBIT 4-2: PROJECT PLANNING AREA 2 EXTERNAL TRIP DISTRIBUTION

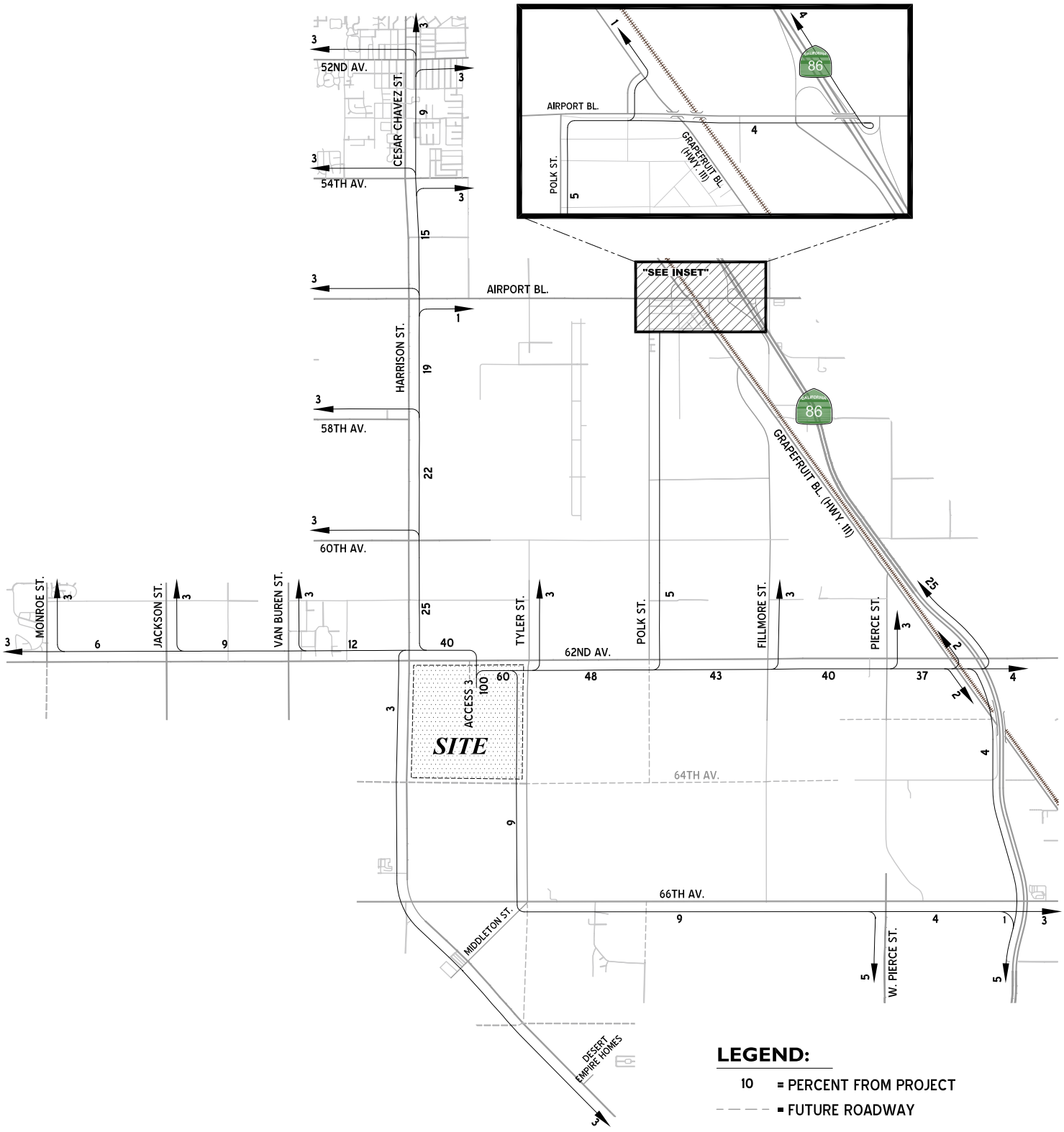


EXHIBIT 4-3: PROJECT PLANNING AREA 3 EXTERNAL TRIP DISTRIBUTION

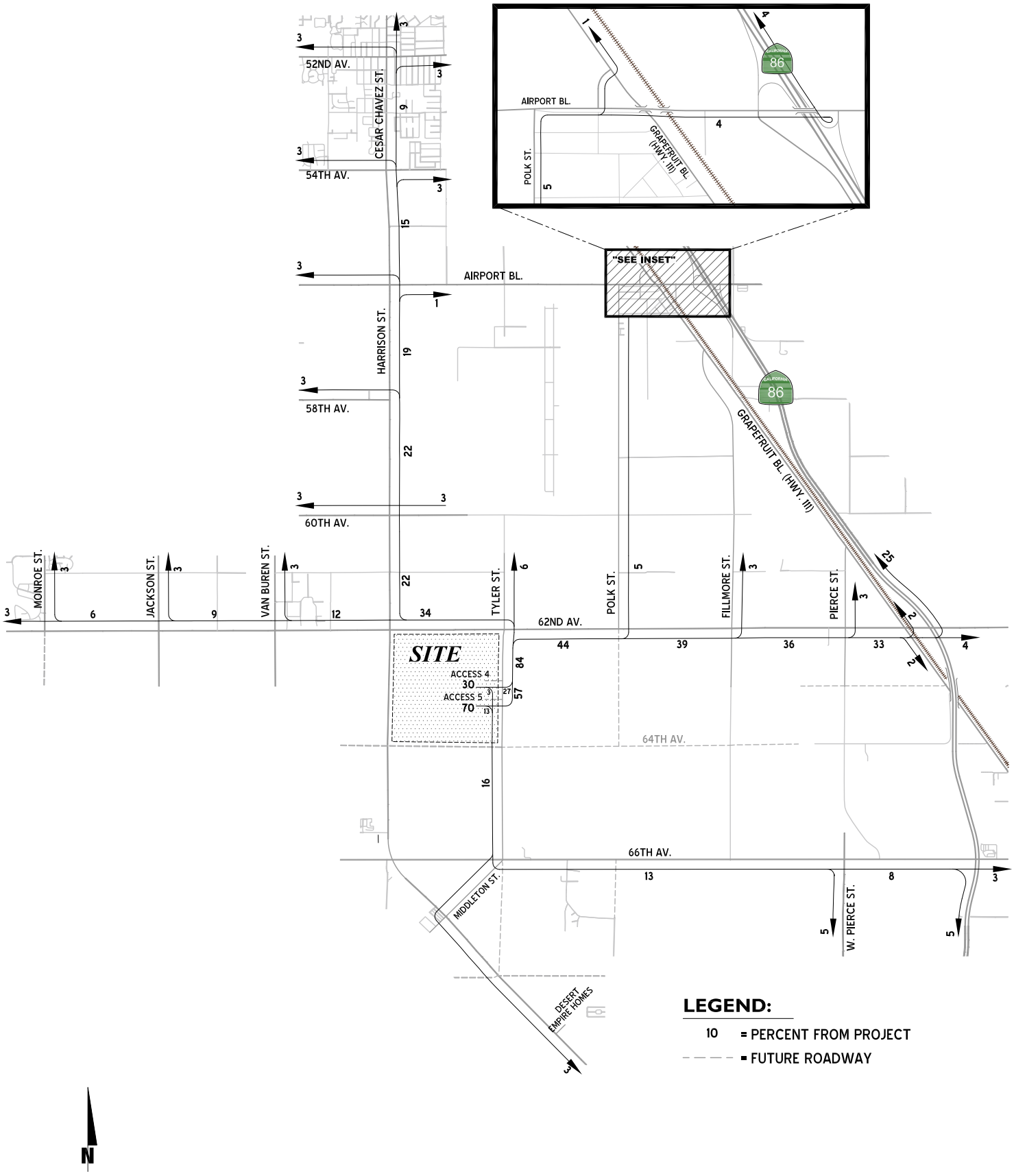


EXHIBIT 4-4: PROJECT PLANNING AREA 4 EXTERNAL TRIP DISTRIBUTION

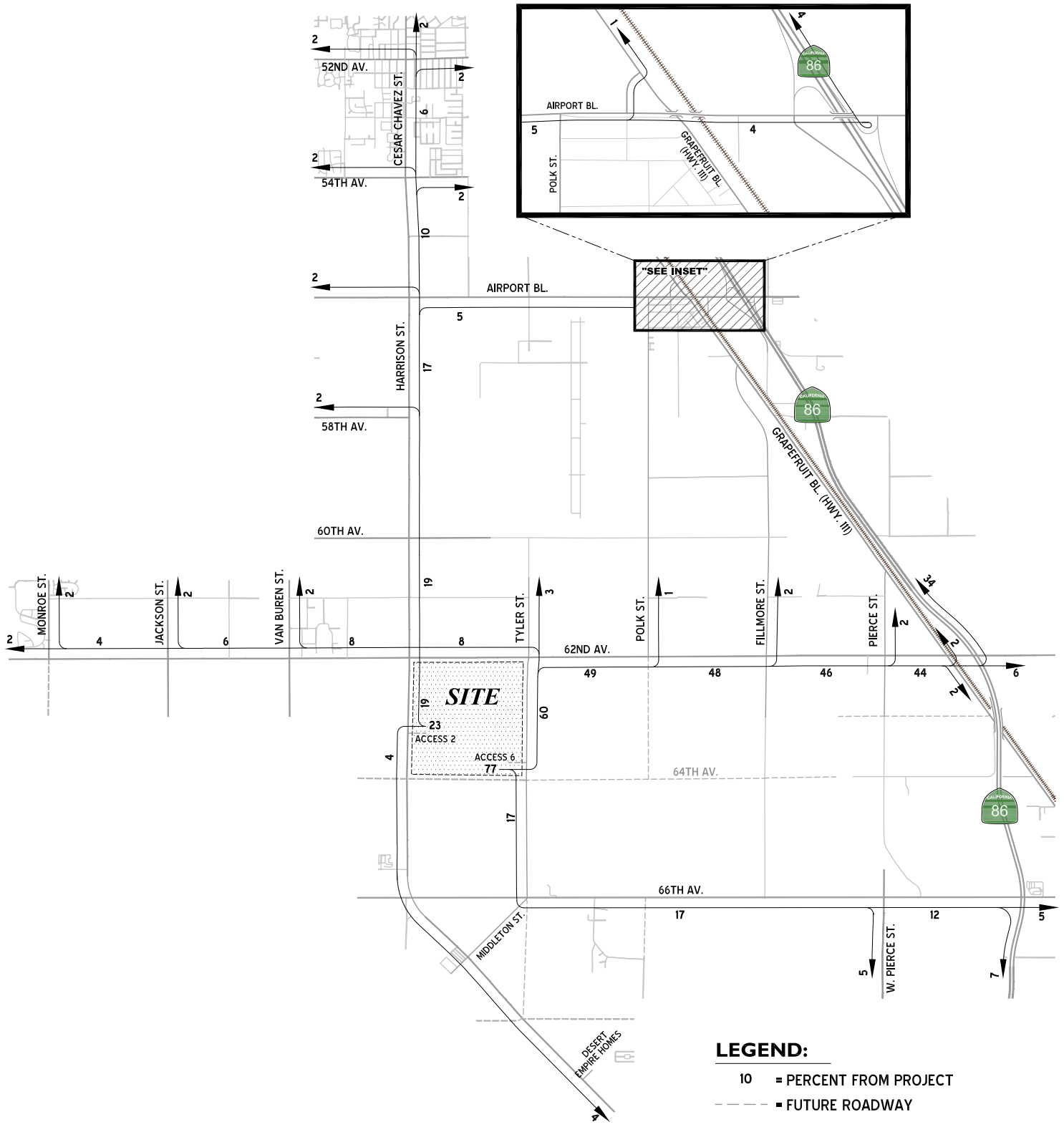


EXHIBIT 4-5: PROJECT PLANNING AREA 5 EXTERNAL TRIP DISTRIBUTION

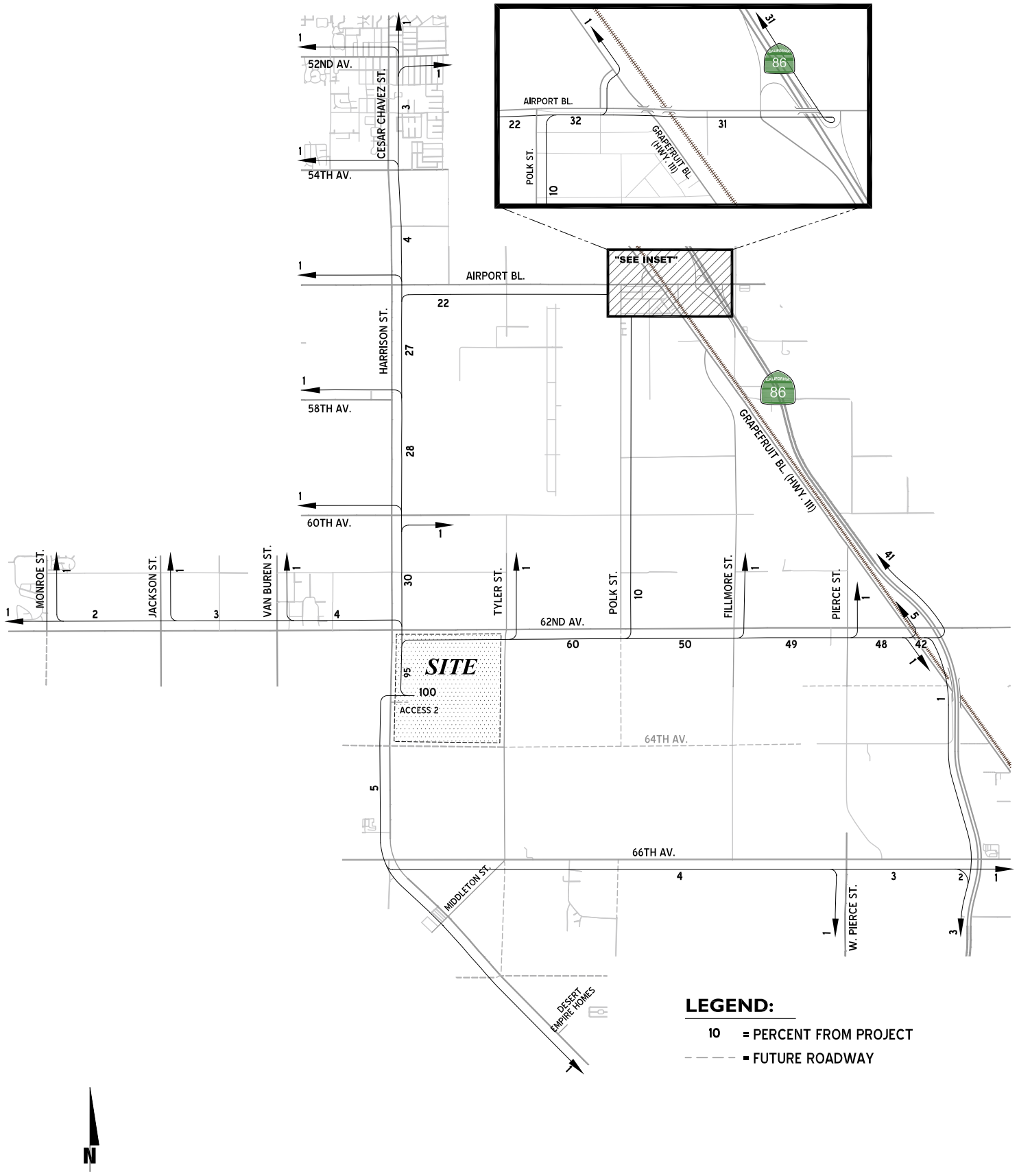
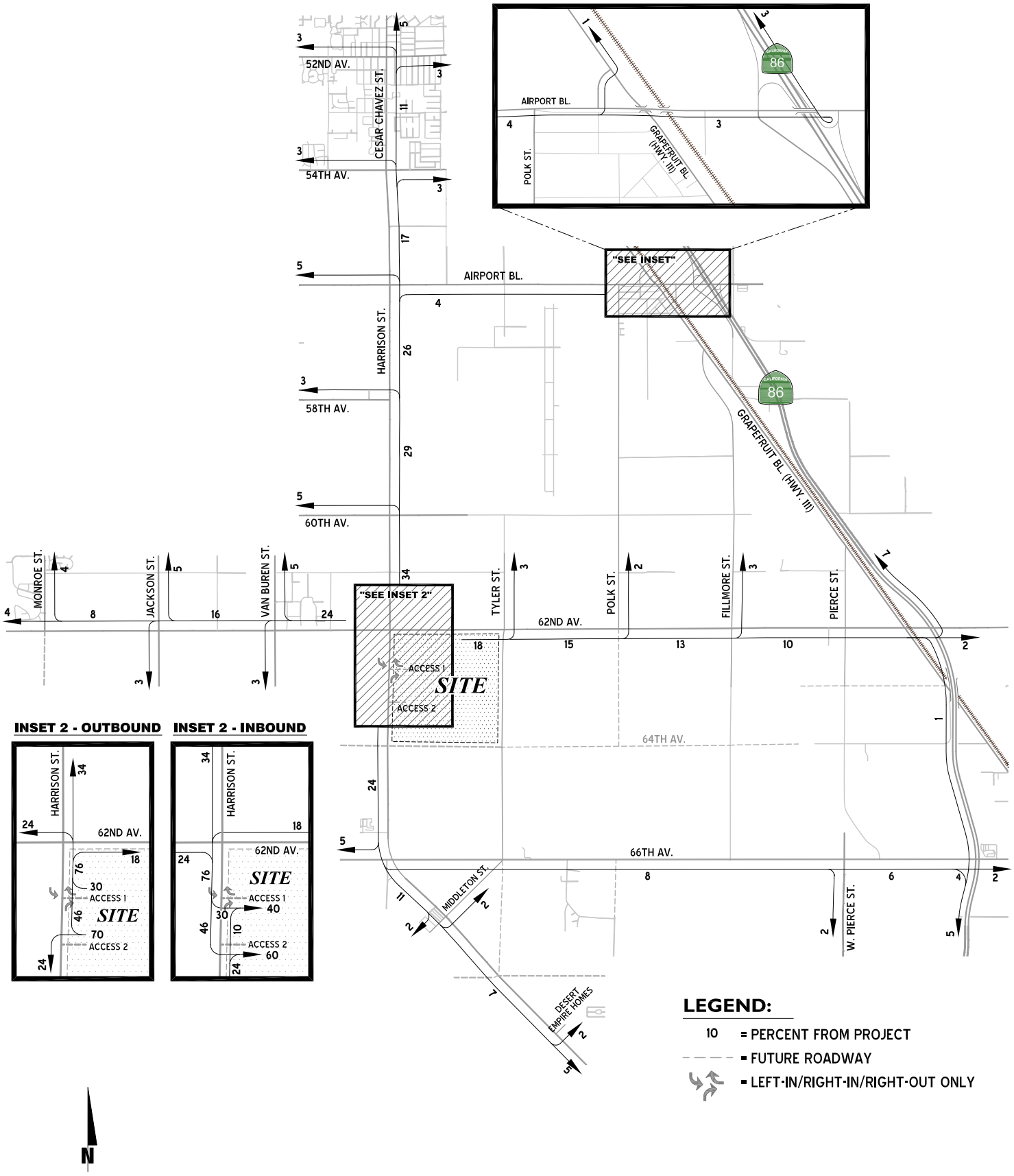


EXHIBIT 4-6: PROJECT PLANNING AREA 6 EXTERNAL TRIP DISTRIBUTION



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Based on the identified Project traffic generation and trip distribution patterns, Project interim phase (PAs 1 to 4) ADT and peak hour intersection turning movement volumes are shown on the following exhibits:

- Exhibit 4-7: Project Only Interim Phase Weekday AM Peak Hour Traffic Volumes
- Exhibit 4-8: Project Only Interim Phase Weekday PM Peak Hour Traffic Volumes
- Exhibit 4-9: Project Only Interim Phase Weekday Daily Traffic Volumes
- Exhibit 4-10: Project Only Interim Phase Weekend AM Peak Hour Traffic Volumes
- Exhibit 4-11: Project Only Interim Phase Weekend PM Peak Hour Traffic Volumes
- Exhibit 4-12: Project Only Interim Phase Weekend Daily Traffic Volumes

4.5 PROJECT BUILDOUT TRIP ASSIGNMENT

Based on the identified traffic generation and trip distribution patterns for Project buildout conditions, Project buildout (PAs 1 to 6) ADT and peak hour intersection turning movement volumes are shown on the following exhibits:

- Exhibit 4-13: Project Only Buildout Weekday AM Peak Hour Traffic Volumes
- Exhibit 4-14: Project Only Buildout Weekday PM Peak Hour Traffic Volumes
- Exhibit 4-15: Project Only Buildout Weekday Daily Traffic Volumes
- Exhibit 4-16: Project Only Buildout Weekend AM Peak Hour Traffic Volumes
- Exhibit 4-17: Project Only Buildout Weekend PM Peak Hour Traffic Volumes
- Exhibit 4-18: Project Only Buildout Weekend Daily Traffic Volumes

4.6 BACKGROUND TRAFFIC GROWTH

Future year traffic forecasts have been based upon background (ambient) growth at 2% per year, compounded annually, for 2026 and 2032 traffic conditions. The total ambient growth is 6.12% for 2026 traffic conditions and 19.51% for 2032 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects.

Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in conjunction with traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies. 2026 and 2032 traffic volumes are provided in Section 5 and Section 6 of this report.

A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the County of Riverside. The cumulative projects listed are those that would generate traffic and would contribute traffic to study area intersections. Exhibit 4-19 illustrates the cumulative development location map.

EXHIBIT 4-7: PROJECT ONLY INTERIM PHASE WEEKDAY AM PEAK HOUR INTERSECTION VOLUMES

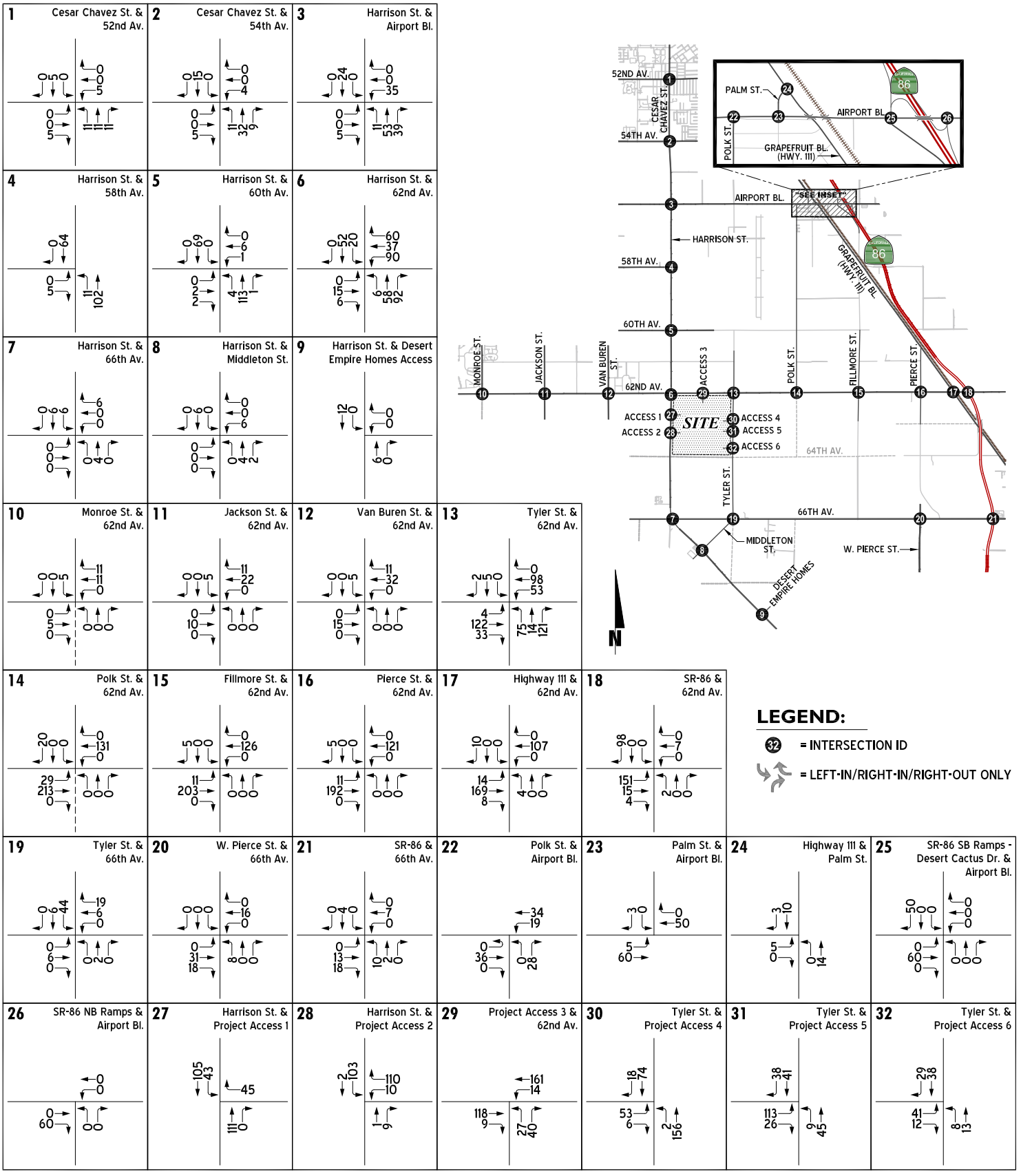

EXHIBIT 4-8: PROJECT ONLY INTERIM PHASE WEEKDAY PM PEAK HOUR INTERSECTION VOLUMES

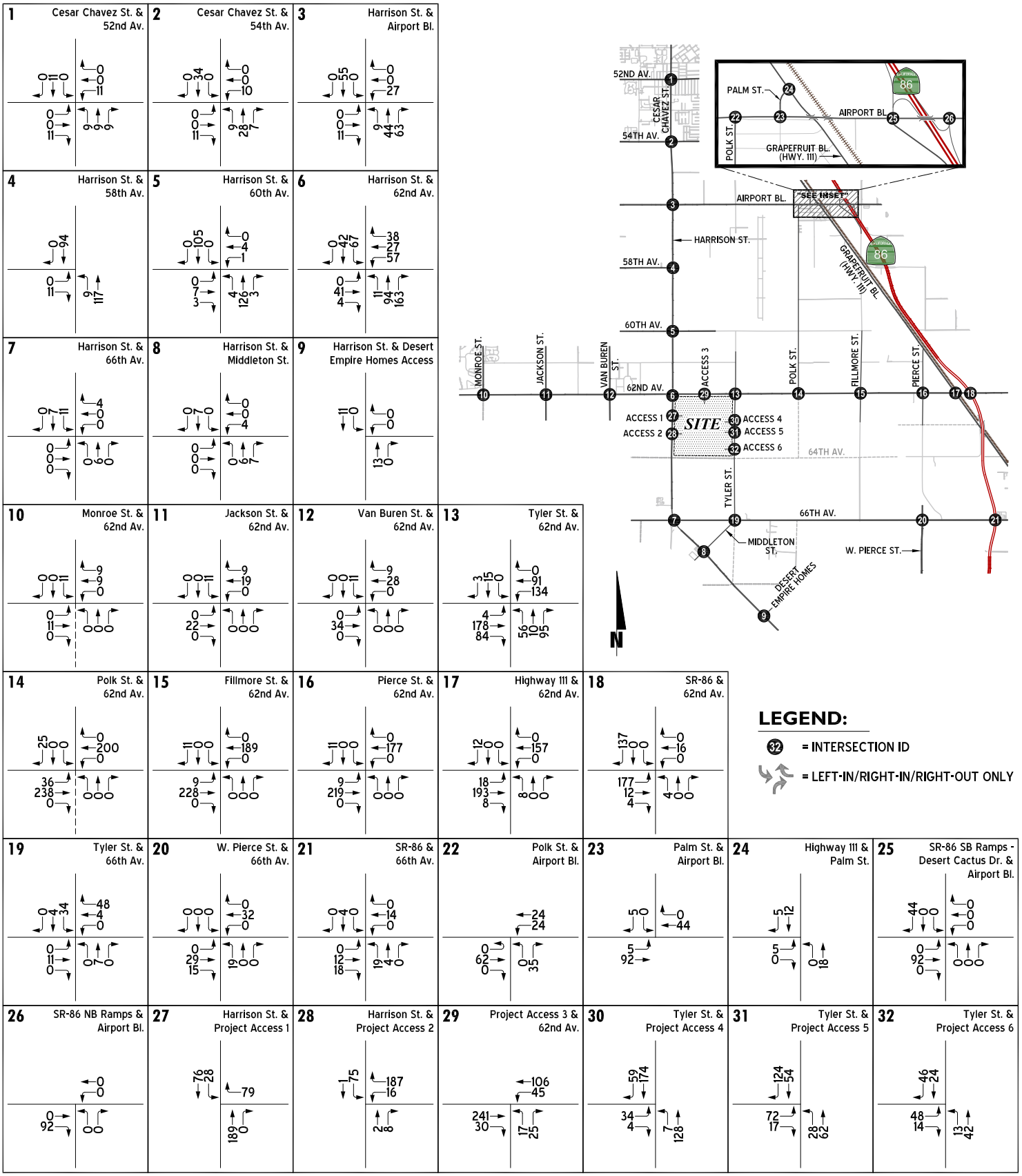

EXHIBIT 4-9: PROJECT ONLY INTERIM PHASE WEEKDAY AVERAGE DAILY TRAFFIC (ADT) VOLUMES

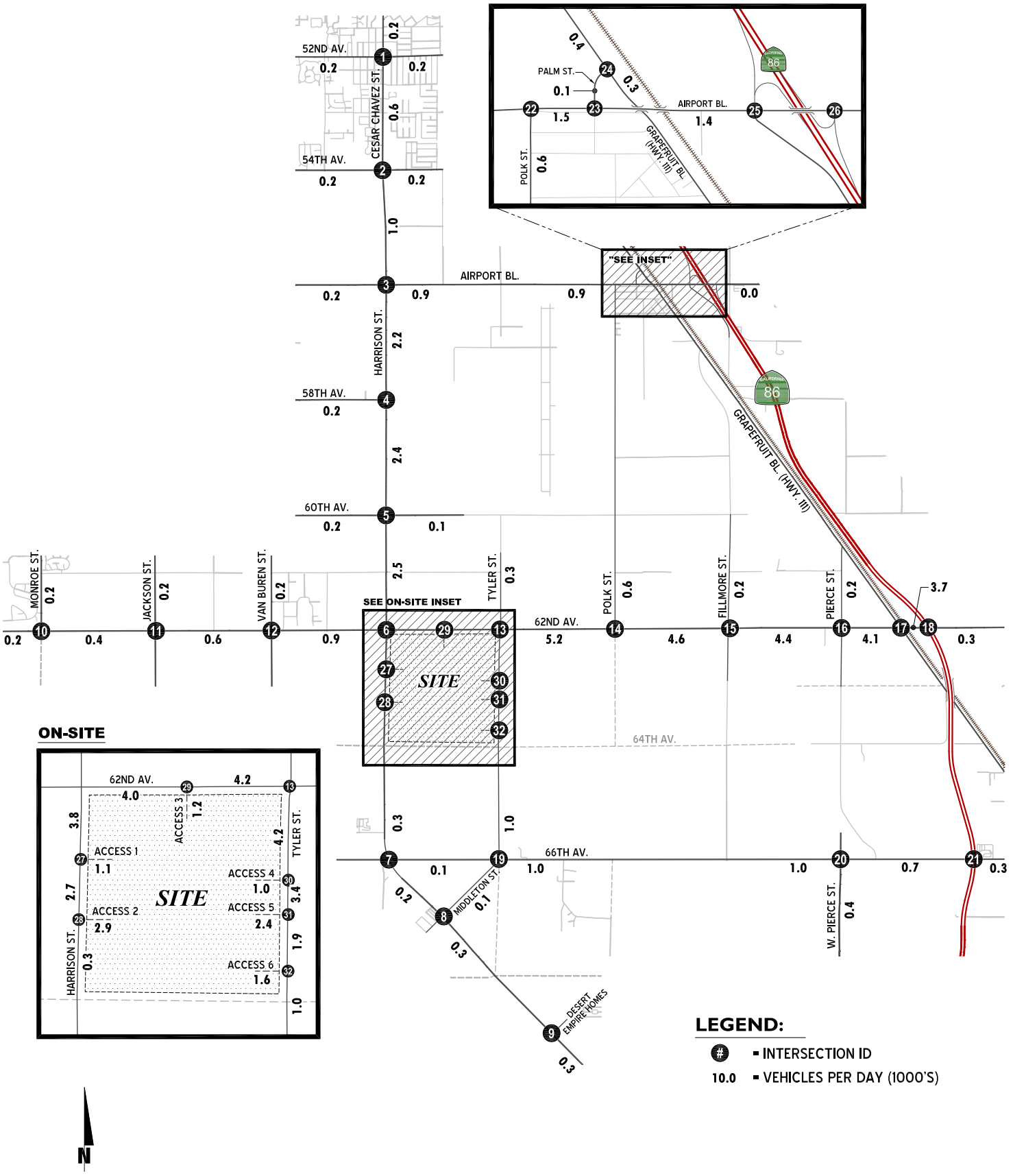

EXHIBIT 4-10: PROJECT ONLY INTERIM PHASE WEEKEND
SATURDAY AM PEAK HOUR INTERSECTION VOLUMES

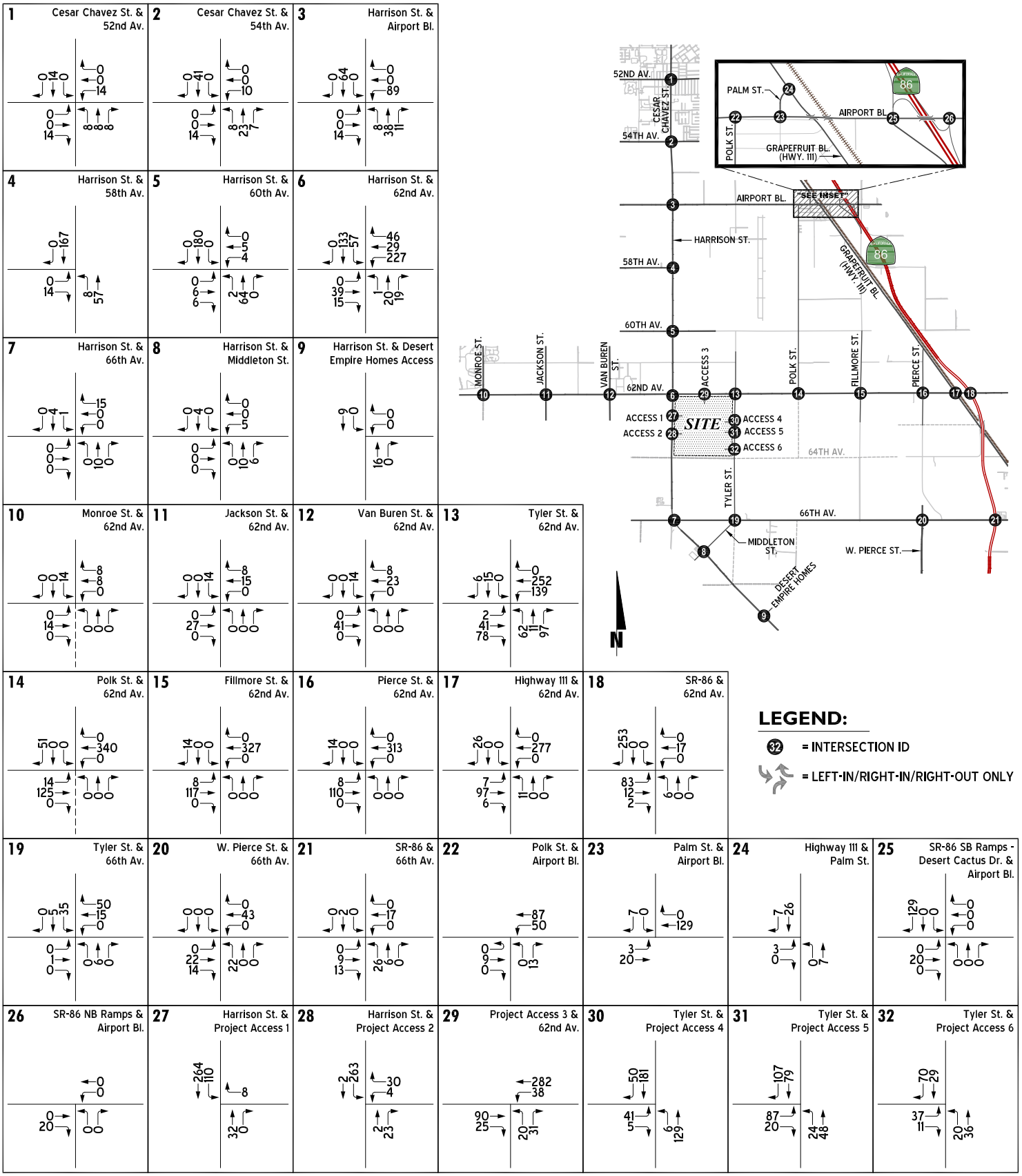

EXHIBIT 4-11: PROJECT ONLY INTERIM PHASE WEEKEND SUNDAY PM PEAK HOUR INTERSECTION VOLUMES

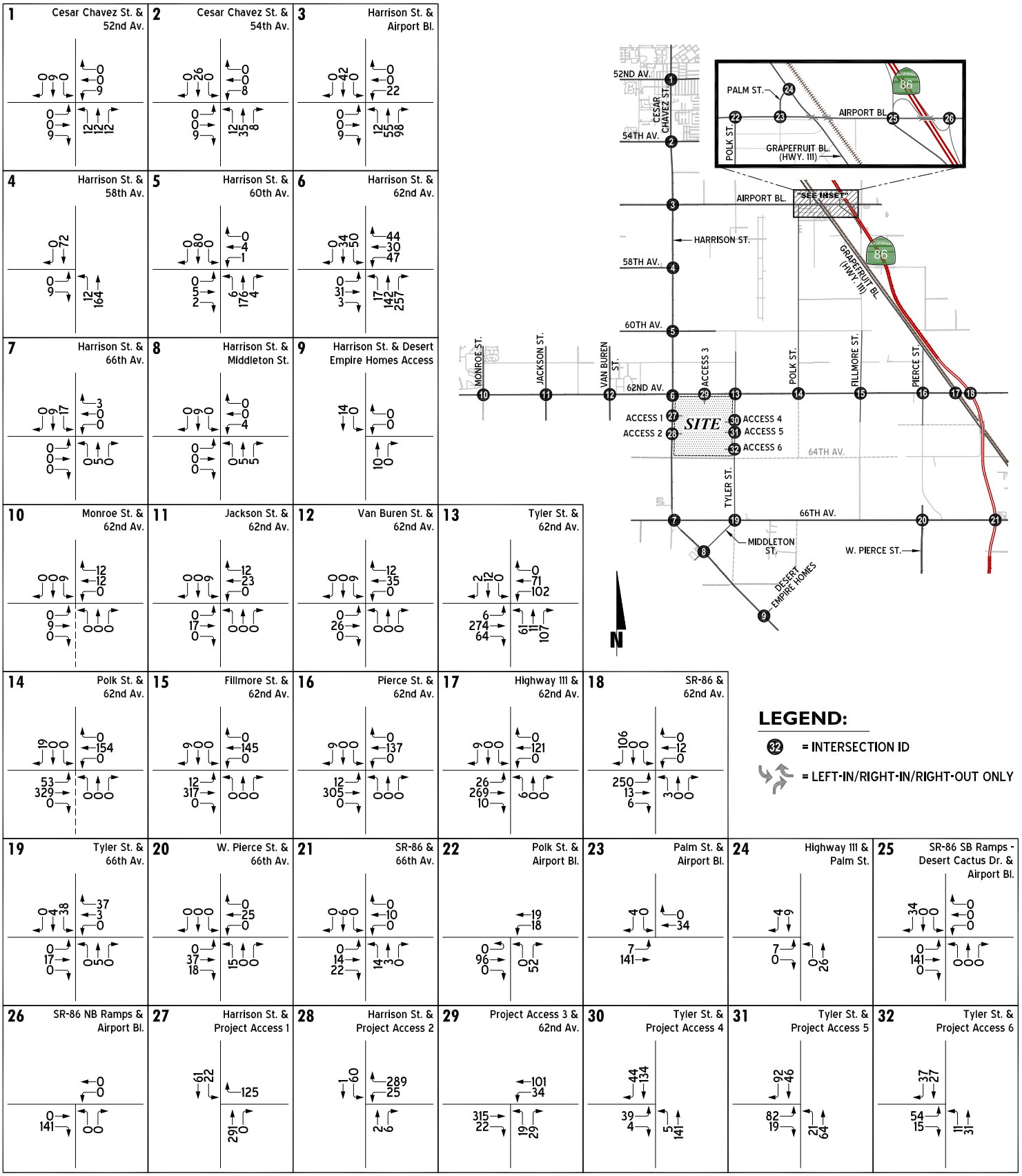

EXHIBIT 4-12: PROJECT ONLY INTERIM PHASE WEEKEND AVERAGE DAILY TRAFFIC (ADT) VOLUMES

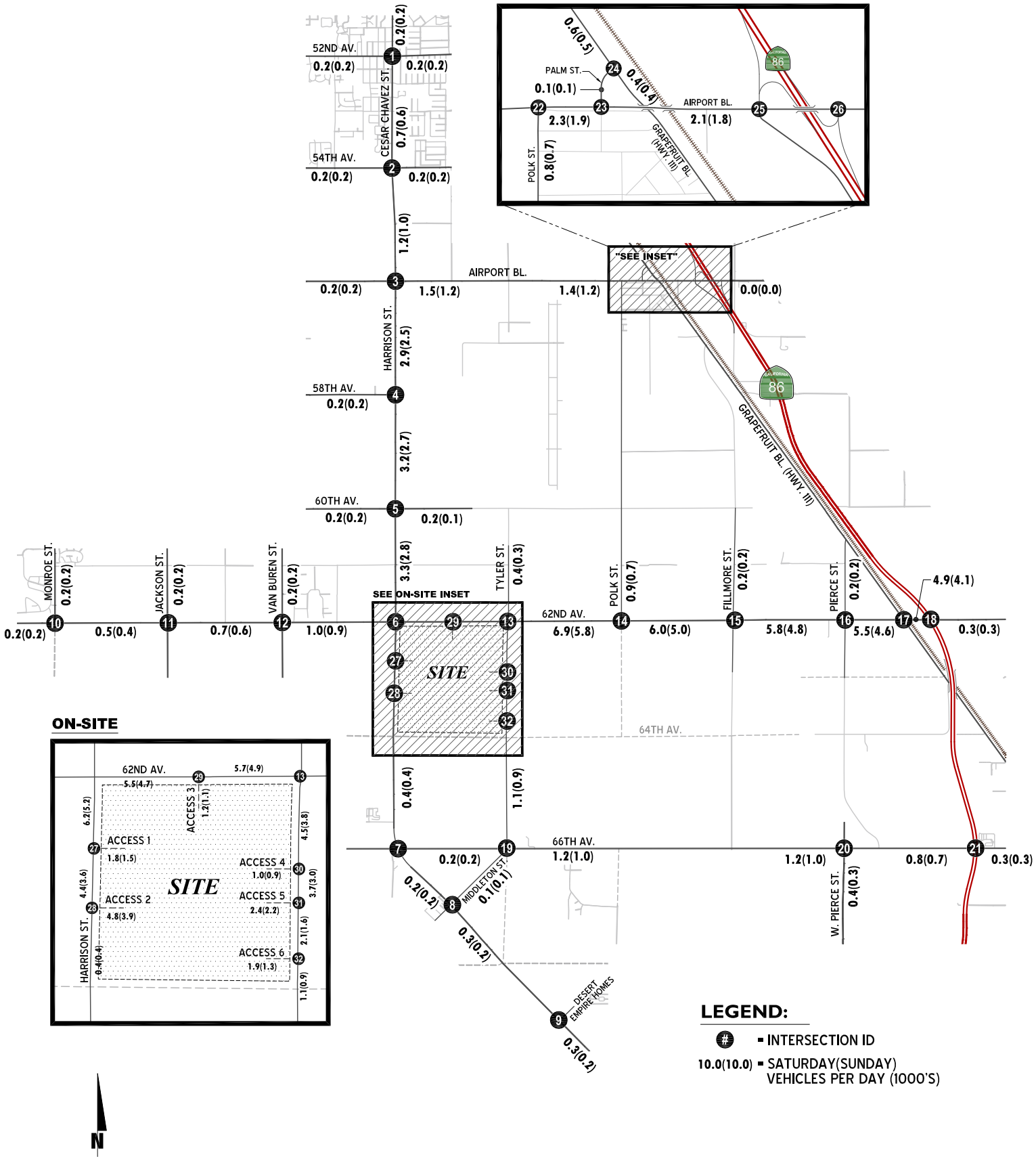

EXHIBIT 4-13: PROJECT ONLY BUILDOUT WEEKDAY AM PEAK HOUR INTERSECTION VOLUMES

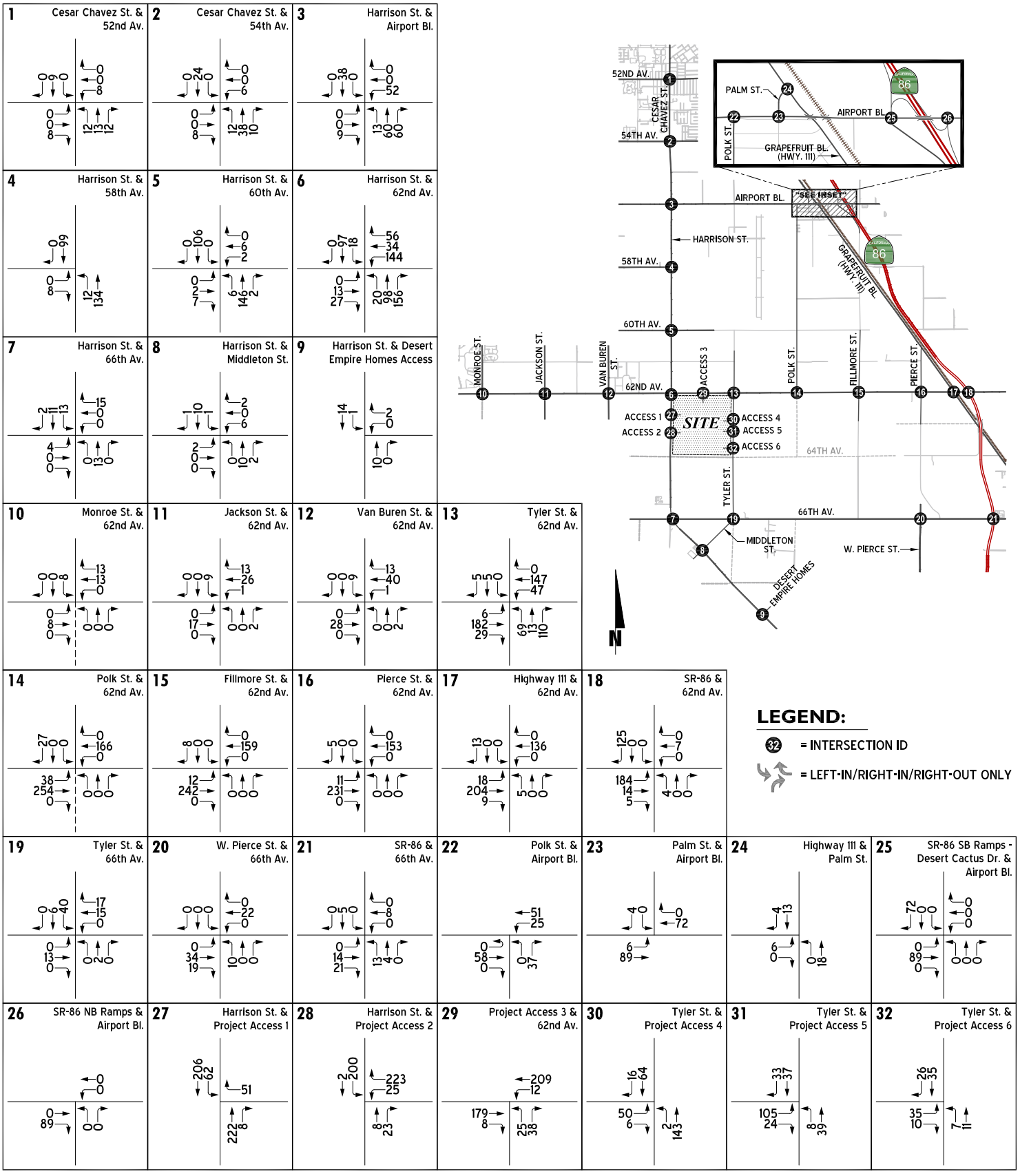

EXHIBIT 4-14: PROJECT ONLY BUILDOUT WEEKDAY PM PEAK HOUR INTERSECTION VOLUMES

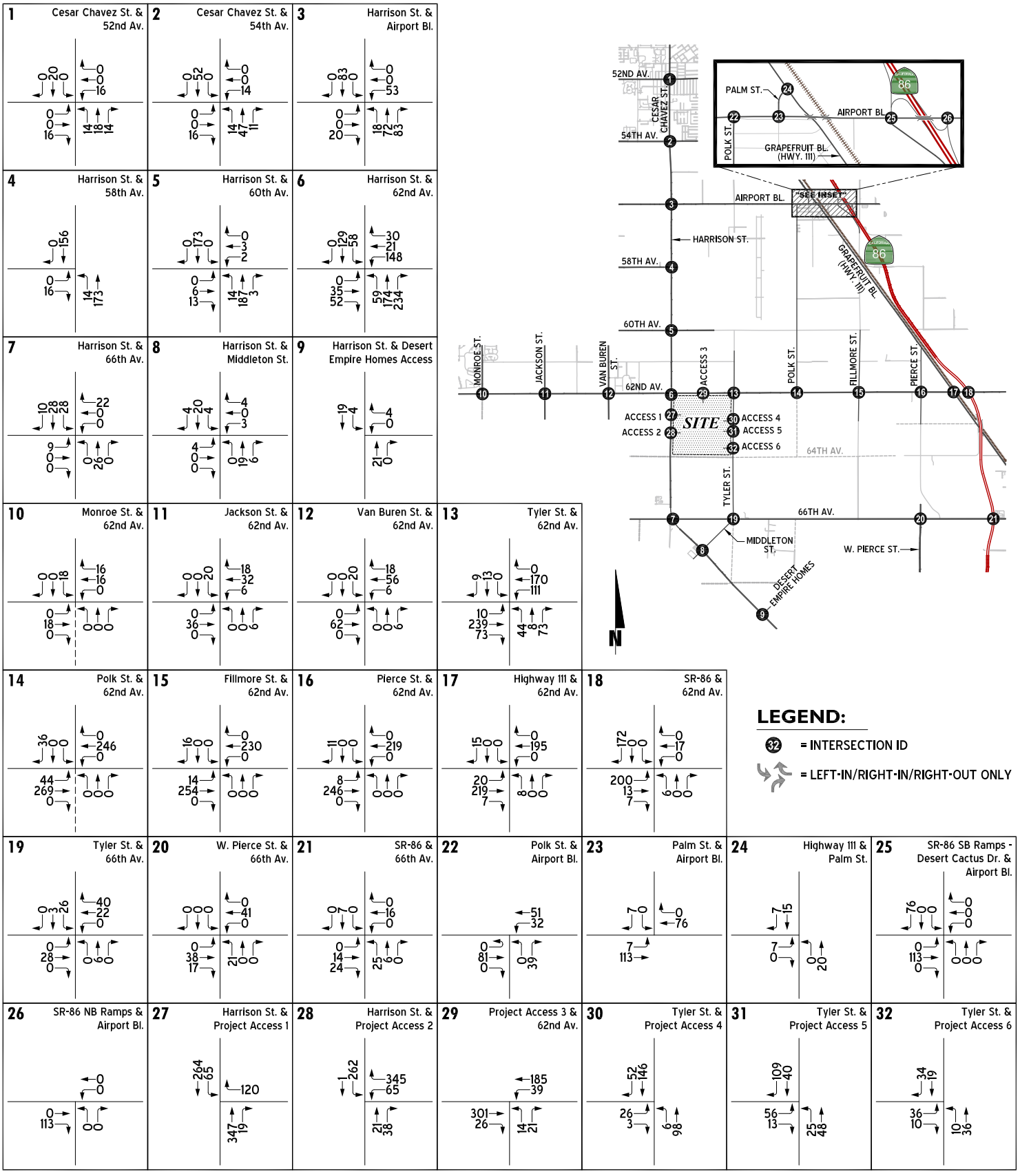

EXHIBIT 4-15: PROJECT ONLY BUILDOUT WEEKDAY AVERAGE DAILY TRAFFIC (ADT) VOLUMES

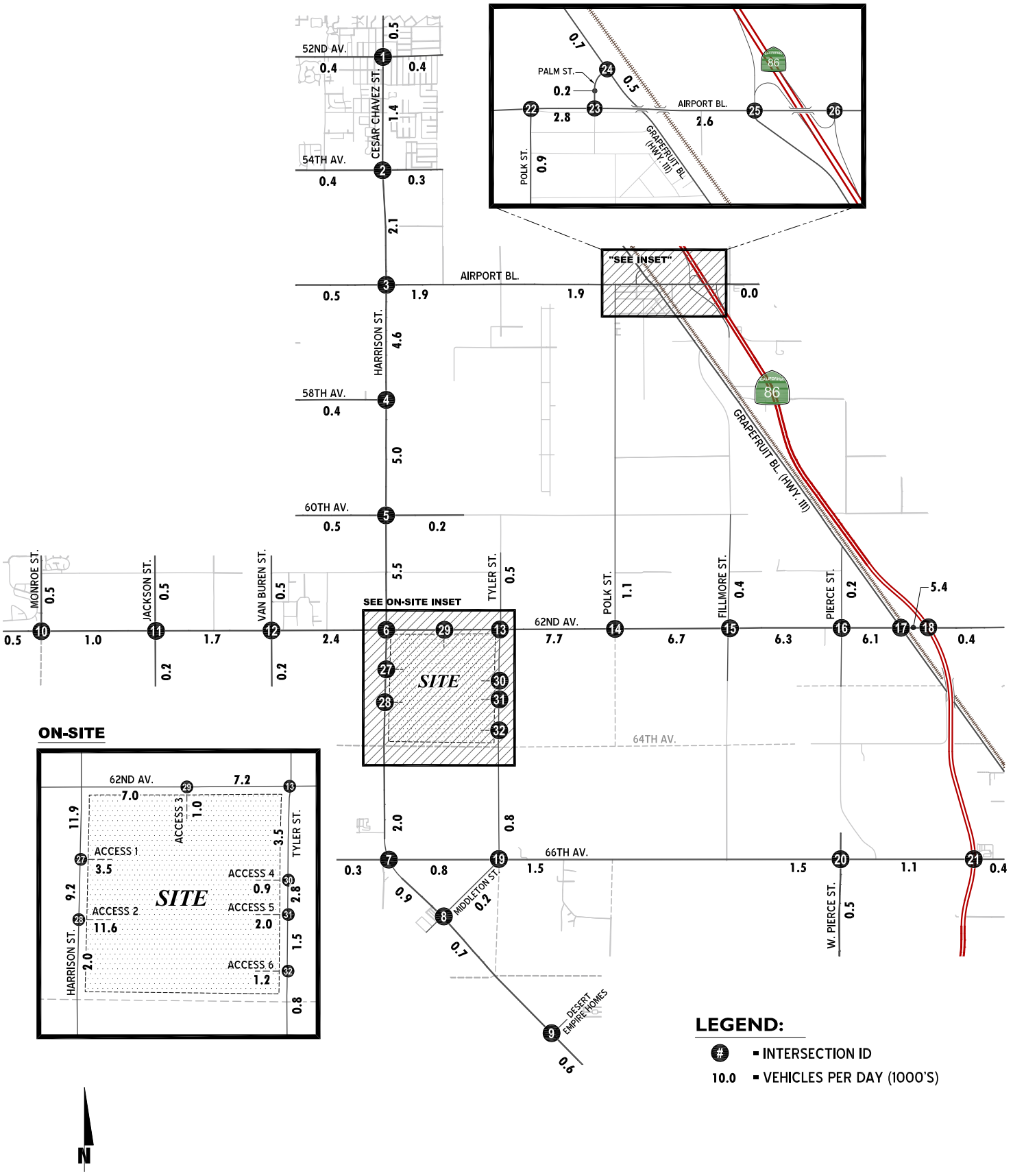

EXHIBIT 4-16: PROJECT ONLY BUILDOUT WEEKEND
SATURDAY AM PEAK HOUR INTERSECTION VOLUMES

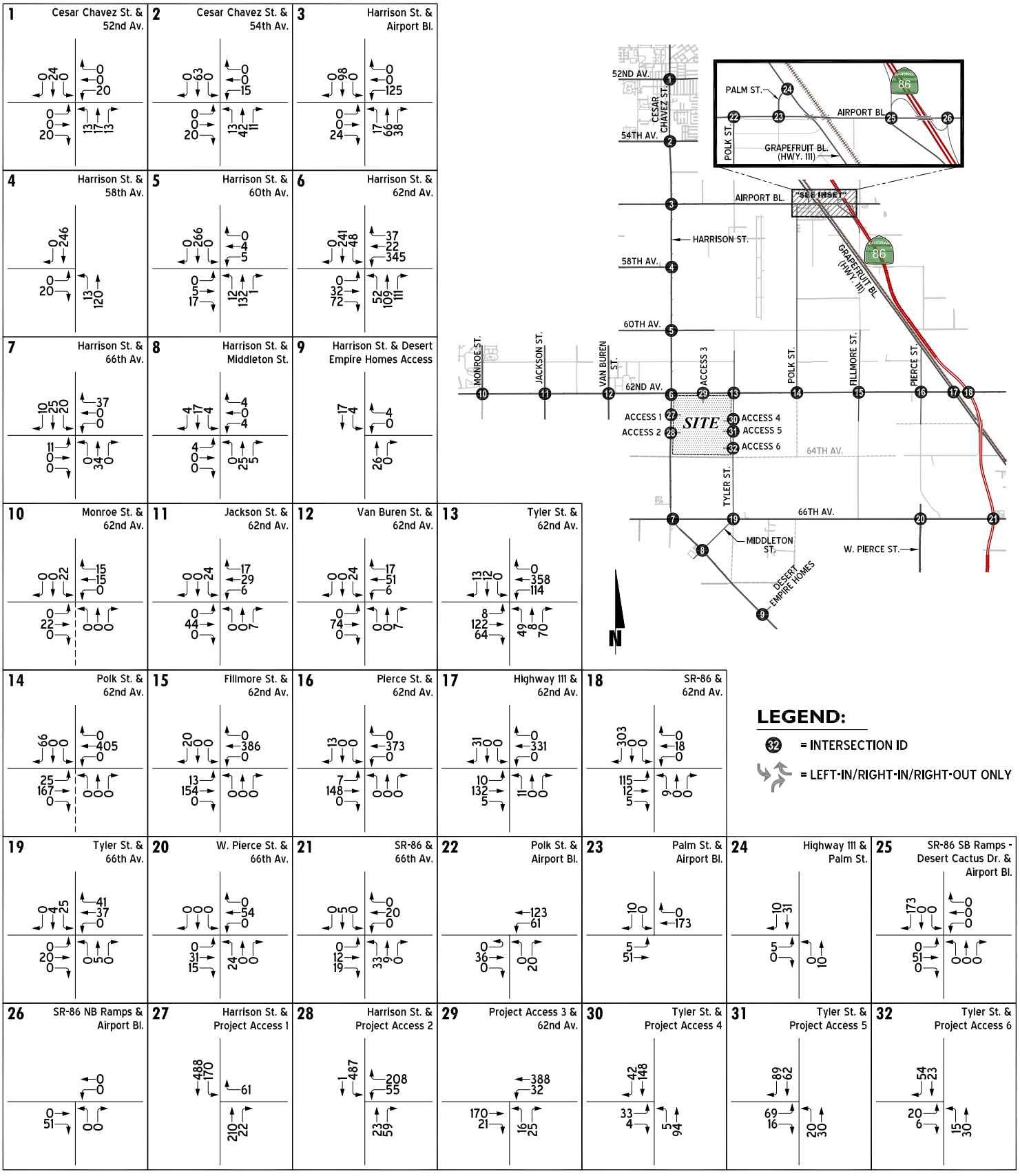

EXHIBIT 4-17: PROJECT ONLY BUILDOUT WEEKEND
SUNDAY PM PEAK HOUR INTERSECTION VOLUMES

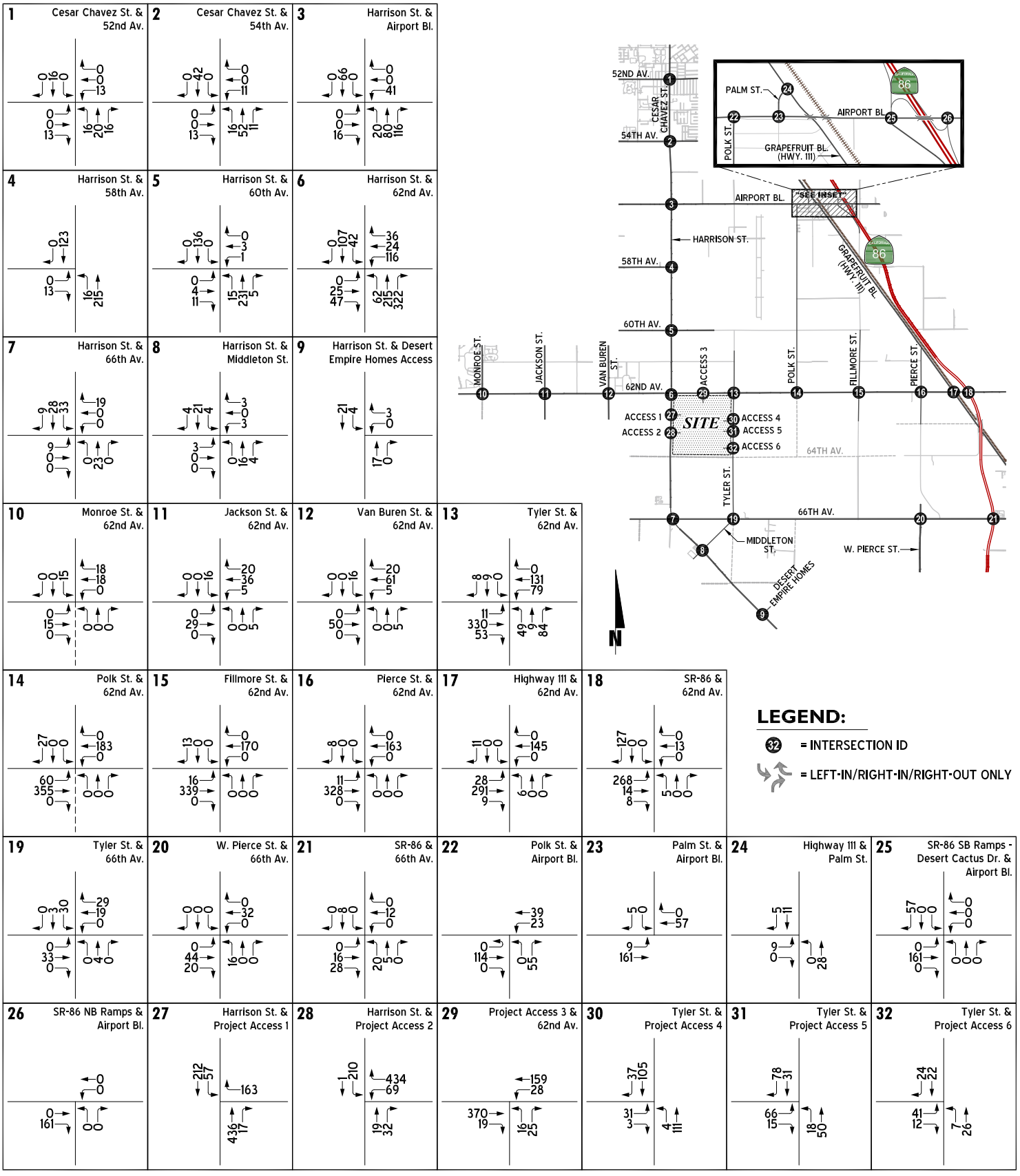

EXHIBIT 4-18: PROJECT ONLY BUILDOUT WEEKEND
AVERAGE DAILY TRAFFIC (ADT) VOLUMES

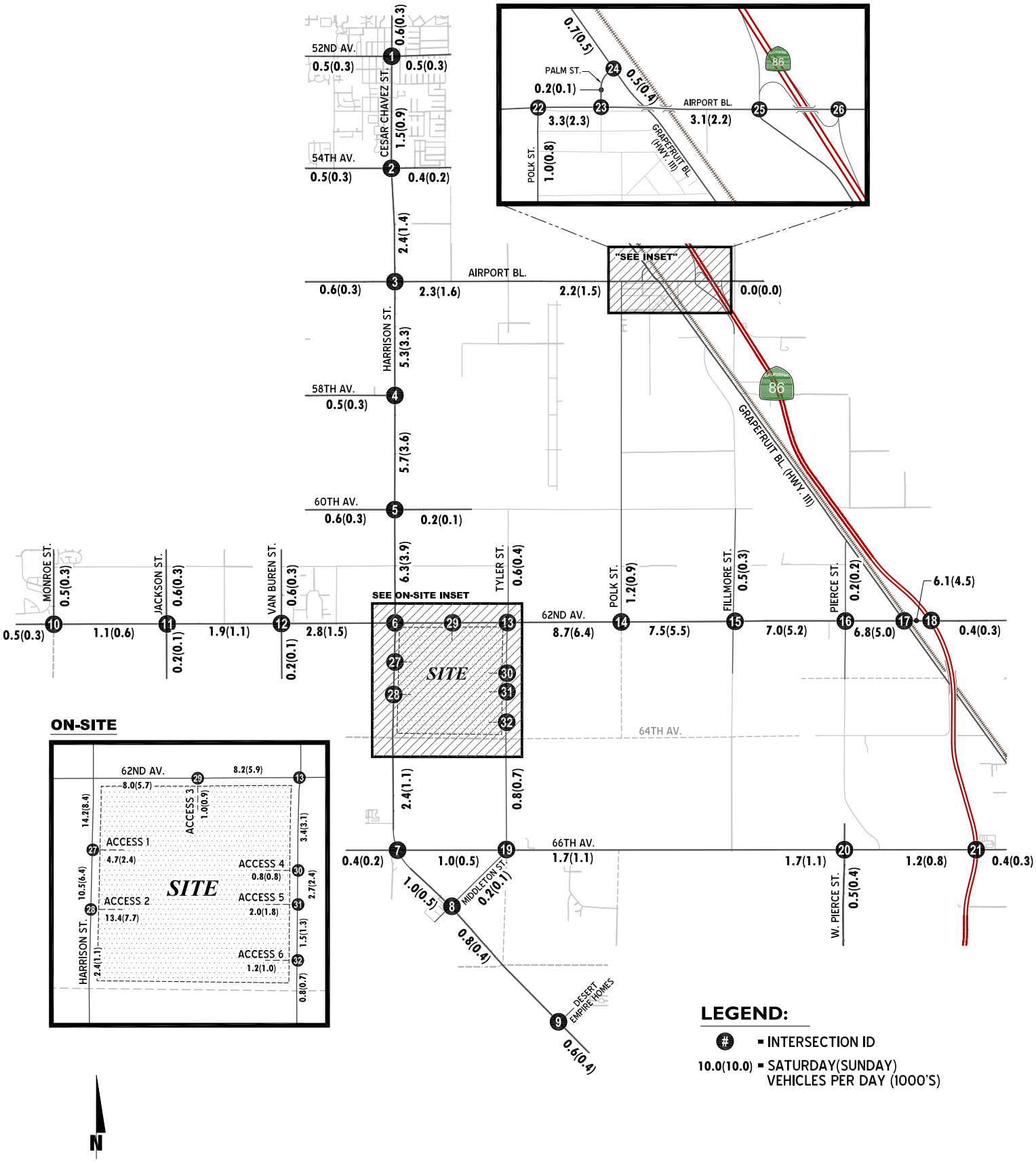

EXHIBIT 4-19: CUMULATIVE DEVELOPMENT LOCATION MAP

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A summary of cumulative development projects and their proposed land uses are shown in Table 4-7. If applicable, the traffic generated by individual cumulative projects was manually added to the Without Project forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-7 are reflected as part of the background traffic. In an effort to conduct a conservative analysis, the cumulative projects are added in conjunction with the ambient growth discussed above.

In order to estimate **weekend** peak hour volumes for cumulative projects, the 2023 traffic count data relationships were scrutinized. For the intersection peak hour counts in 2023, the Saturday AM peak hour total is compared to the weekday AM peak hour total. The Saturday AM peak hour total is approximately 65% of the weekday AM peak hour total, so 0.65 is multiplied by the AM peak hour trip generation for cumulative projects to estimate Saturday AM peak hour trips. In addition, the counted Sunday PM peak hour total is compared to the weekday PM peak hour total. The Sunday PM peak hour total is approximately 75% of the weekday PM peak hour total, so 0.75 is multiplied by the PM peak hour trip generation for cumulative projects to estimate Sunday PM peak hour trips.

4.8 NEAR-TERM TRAFFIC CONDITIONS

The "buildup" approach combines existing traffic counts with a background ambient growth factor to forecast EAP, EAPC (2026), and EAPC (2032) traffic conditions. An ambient growth factor accounts for background (area-wide) traffic increases that occur over time up to the year 2026 and 2032 from the year 2023. Traffic volumes generated by the Project are then added to assess the near-term traffic conditions. The 2026 and 2032 roadway networks are similar to the Existing conditions roadway network, with the exception of future driveways proposed to be developed by the Project or cumulative projects.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- EAP
  - Existing 2023 counts
  - Ambient growth traffic (19.51%)
  - Project Buildout traffic

- EAPC (2026)
  - Existing 2023 counts
  - Ambient growth traffic (6.12%)
  - Cumulative Development traffic
  - Project Interim Phase traffic

- EAPC (2032)
  - Existing 2023 counts
  - Ambient growth traffic (19.51%)
  - Cumulative Development traffic
  - Project Buildout traffic

TABLE 4-7: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

TAZ	Project	Land Use	Quantity	Units[1]
1	TR32693	Single Family Residential	228	DU
2	TR32694	Single Family Residential	547	DU
3	TR34556	Single Family Residential	301	DU
4	CUP03147	Mobile Home Park	38	DU
5	PP26120 & PP26121	Warehouse	135.549	TSF
		Warehouse	361.8	TSF
6	PPT210142	Commercial	7.04	TSF
	TPM38302	Single Family Residential	50	DU
7	TR33487	Single Family Residential	879	DU
8	Thermal Beach Club	Lagoon with Wave making facility	21	AC
	(PT180037 & TTM37269)	Clubhouse (spa, pool, restaurant, bar)	42	TSF
		Single Family Residential	326	DU
9	TPM37590 (Oasis Villas)	Multifamily Housing (Low-Rise)	160	DU
		Medical-Dental Office	4	TSF
		Day Care Center	3.5	TSF
		Supermarket	10.5	TSF
		Shopping Center (<40k)	3.5	TSF
		Fast-Food Restaurant w/o Drive-Through Window	1.5	TSF
10	Vista Soleada	Single Family Residential	230	DU
		Equestrian Way Station	1.4	AC
11	Polo Community	Senior & Single Family Residential	560	DU
12	Bellesara	Single Family Residential	320	DU
13	Andalusia Village	Single Family Residential	71	DU
14	CUP 3448	Mobile Home Park	72	DU
15	TPM 33805	Cannabis Cultivation	100	EMP
		Administration / Office Building	16	TSF

[1] DU = Dwelling Units; TSF = Thousand Square Feet ; AC = Acres; EMP = Employees

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4.9 HORIZON YEAR TRAFFIC FORECASTS

Traffic projections for Horizon Year conditions were derived from the RIVTAM regional model using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing and Horizon Year traffic conditions.

In most instances the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Therefore, the Horizon Year peak hour forecasts were refined using the model derived long-range forecasts, base (validation) year model forecasts, along with existing peak hour traffic count data collected at each analysis location.

The refined future peak hour approach and departure volumes obtained from these calculations are then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program (NCHRP Report 765), along with initial estimates of turning movement proportions. A linear programming algorithm is used to calculate individual turning movements which match the known directional roadway segment forecast volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Horizon Year traffic conditions. However, review of the resulting model growth indicates negative growth for some of the study area intersections. In an effort to conduct a conservative analysis, reductions to traffic forecasts from either Existing or EAPC traffic conditions were not assumed as part of this analysis. As such, in conjunction with the addition of cumulative projects that are not consistent with the General Plan, additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable Horizon Year forecasts.

Horizon Year turning volumes were compared to EAPC volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between EAPC and Horizon Year traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2023) and Horizon Year traffic conditions. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the Horizon Year peak hour forecasts. The only instance when the EAPC forecasts would not be used to manually adjust the Horizon Year forecasts is if there are new proposed roadway connections/facilities that would explain the change in travel patterns within the study area.

The currently adopted Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (May 2020) growth forecasts for the County of Riverside identifies projected growth in population of 370,500 in 2016 to 525,600 in 2045, or a 41.9 percent increase over the 29-year period. (18) The change in population equates to roughly a 1.21 percent growth rate, compounded annually. Similarly, growth over the same 29-year period in households is projected to increase by 59.2 percent, or 1.62 percent annual growth rate. Finally, growth in employment over the same 29-year period is projected to increase by 83.4 percent, or a 2.11 percent annual growth rate. This results in an average of 1.65 percent annual growth rate.

The future Horizon Year Without Project peak hour turning movements were then reviewed by Urban Crossroads for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two freeway ramp locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis.

4.10 PARKING DEMAND FOR PROJECT HORSE PARK

Parking demand for the Horse Park portion of the Project has been estimated based upon existing parking and weekend guest activity at Desert International Horse Park. Table 4-8 shows the existing parking demand. For Saturday, approximate parking accumulation (the maximum number of parking spaced used at one time during the day) was 738 spaces with a total of 4,600 guests. This relates to a total of 0.160 occupied parking spaces per guest. Parking lots are considered full when approximately 80% of the spaces are occupied, so the total number of provided spaces exceeds 886 parking spaces, resulting in 0.193 parking spaces per guest.

Approximate parking accumulation on Sunday was 769 spaces with a total of 4,900 guests. This relates to a total of 0.157 occupied parking spaces per guest. The total number of provided spaces exceeds 923 parking spaces, resulting in 0.188 parking spaces per guest.

The parking accumulation data and resulting required parking spaces per guest have been used to develop parking recommendations for the Horse Park portion of Thermal Ranch, as shown on Table 4-9. As indicated on Table 4-9, the number of parking spaces required is 1,371 spaces on Sunday. In addition, for trailer parking, there are 378 spaces necessary on Sunday which may be graded / unpaved.

TABLE 4-8: DESERT INTERNATIONAL HORSE PARK
EXISTING PARKING AND WEEKEND GUESTS

	Saturday		Sunday	
24-Hour Entering Volume[1]	1,637	vehicles	1,671	vehicles
Peak Parking Accumulation[1]	738	spaces	769	spaces
Parking Accumulation Factor[2]	0.451		0.460	
Total Number of Guests over 24-Hour Period[1]	4,600	guests	4,900	guests
Occupied Parking Spaces per Daily Guest[3]	0.160	space/guest	0.157	space/guest
Parking Lot Capacity Factor[4]	1.2		1.2	
Total Required Parking Spaces[5]	886	spaces	923	spaces
Total Required Parking Spaces per Daily Guest[6]	0.193		0.188	

[1] Based on data provided in Appendix 1.1.
[2] Accumulated occupancy of parking spaces divided 24-hour entering volume
[3] Peak Parking Accumulation / Number of Guests over 24-Hour Period
[4] Adjustment to account for turnover of parking spaces.
[5] Parking Lot Capacity Factor * Peak Parking Accumulation
[6] Total required parking spaces / Total Number Guests over 24-Hour Period.

TABLE 4-9: THERMAL RANCH HORSE PARK AREA
PARKING RECOMMENDATIONS

	Saturday		Sunday	
Total Required Parking Spaces per Daily Guests[1]	0.193		0.188	
Projected Number of Guests over 24-Hour Period	7,604	guests	8,100	guests
Total Parking Spaces Without Adjacent Project Land Uses	1,468	spaces	1,523	spaces
Total Required Parking Spaces with Site Context[2]	**1,321**	**spaces**	**1,371**	**spaces**
Horse Stalls (Occupied)	2,535	stalls	2,700	stalls
Trailer Parking Spaces Per Horse Stall[3]	0.14	space/stall	0.14	space/stall
Trailer Spaces Required[4]	**355**	**spaces**	**378**	**spaces**

[1] See Table 4-8
[2] Accounting for internal interaction between surrounding residences and worforce housing as indicated on Table 4-6.
[3] Based upon observations at Desert Internation Horse Park.
[4] May be graded/unpaved.

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5 EAP TRAFFIC CONDITIONS

This section discusses the traffic forecasts for EAP conditions and the resulting intersection operations and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAP conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access are assumed to be in place for EAP conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 EAP GROWTH TRAFFIC VOLUME FORECASTS, WEEKDAY

This scenario includes Existing (2023) weekday traffic volumes plus an ambient growth factor of 19.51% and the addition of Project Buildout traffic.

The weekday AM peak hour volumes are shown on Exhibit 5-1. Exhibit 5-2 shows EAP weekday PM peak hour volumes. EAP weekday ADT volumes are shown on Exhibit 5-3.

5.3 EAP GROWTH TRAFFIC VOLUME FORECASTS, WEEKEND

This scenario includes Existing (2023) weekend traffic volumes plus an ambient growth factor of 19.51% and the addition of Project Buildout traffic. The weekend AM peak hour volumes are shown on Exhibit 5-4. Exhibit 5-5 shows EAP weekend PM peak hour volumes. EAP weekend ADT volumes are shown on Exhibit 5-6.

5.4 INTERSECTION OPERATIONS ANALYSIS

5.4.1 EAP CONDITIONS, WEEKDAY

EAP peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1 for EAP weekday traffic conditions, which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours with the addition of Project Buildout traffic:

- #6 - Harrison St. / 62nd Av. – LOS F (AM & PM)
- #13 - Tyler St. / 62nd Av. – LOS F (AM & PM)
- #18 – SR-86 / 62nd Av. – LOS F (AM & PM)

The intersection operations analysis worksheets for EAP weekday traffic conditions are included in Appendix 5.1 of this TA.

EXHIBIT 5-1: EAP WEEKDAY
AM PEAK HOUR INTERSECTION VOLUMES

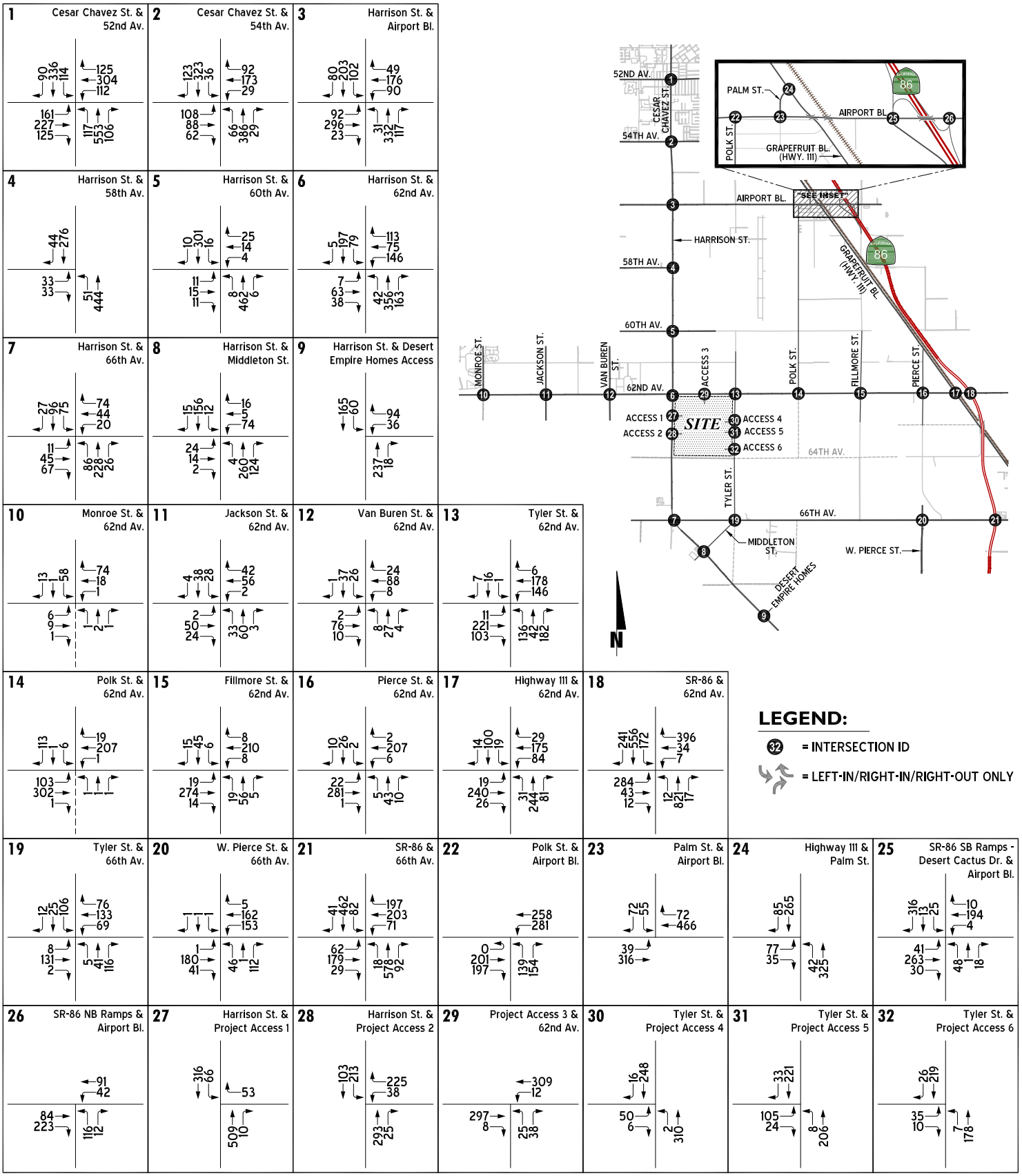

EXHIBIT 5-2: EAP WEEKDAY
PM PEAK HOUR INTERSECTION VOLUMES

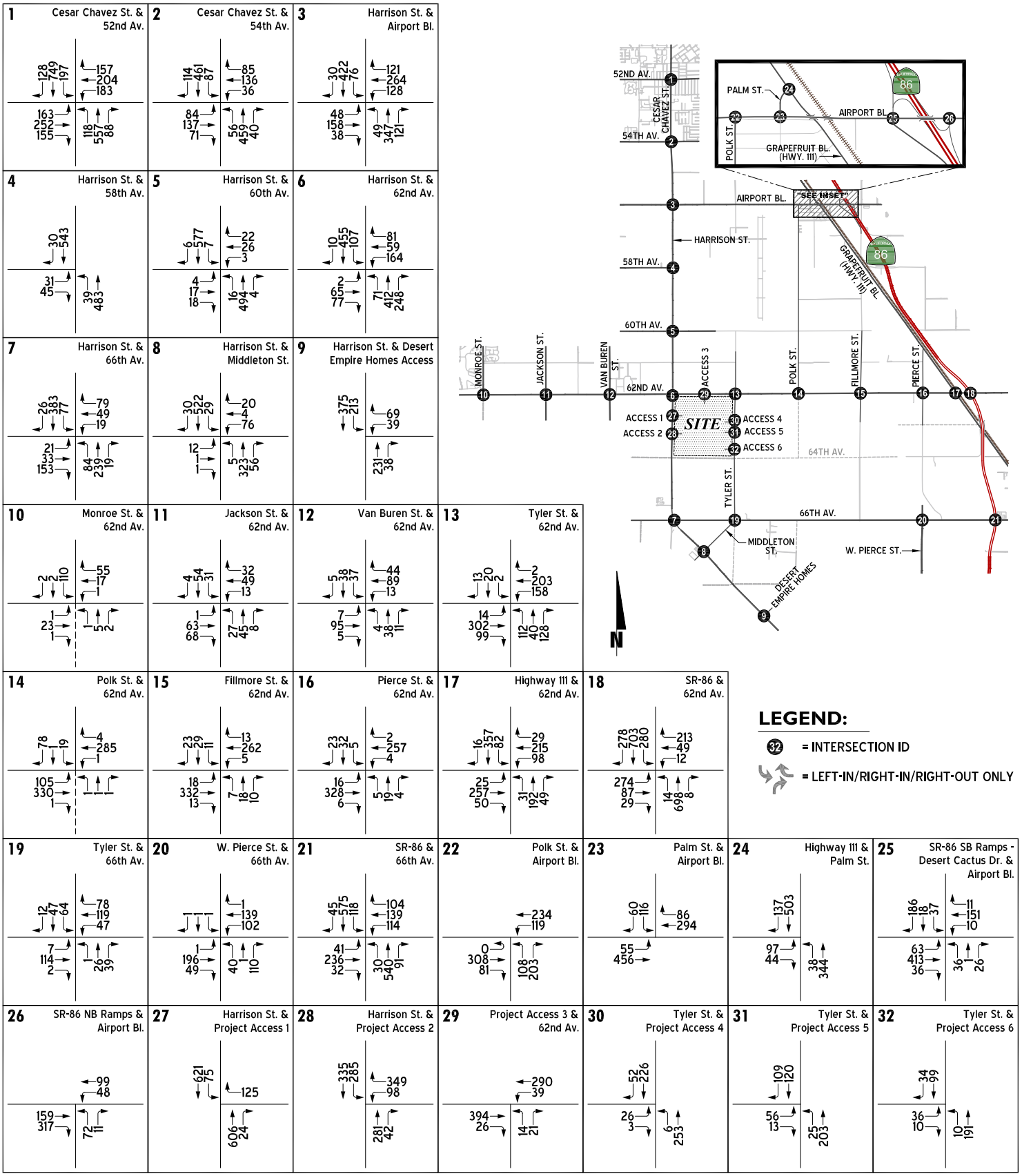

EXHIBIT 5-3: EAP WEEKDAY
AVERAGE DAILY TRAFFIC (ADT) VOLUMES

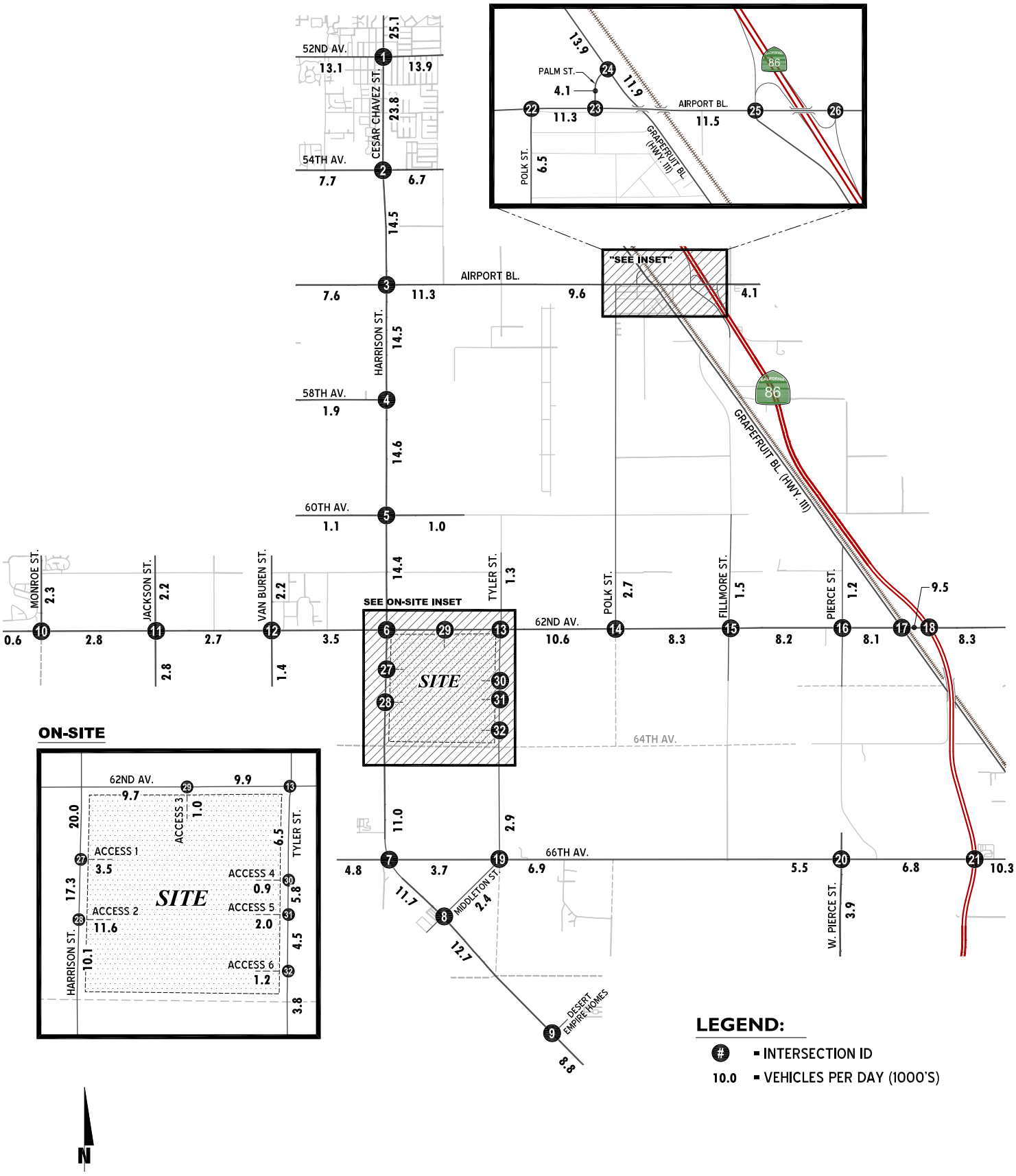

EXHIBIT 5-4: EAP WEEKEND
SATURDAY AM PEAK HOUR INTERSECTION VOLUMES

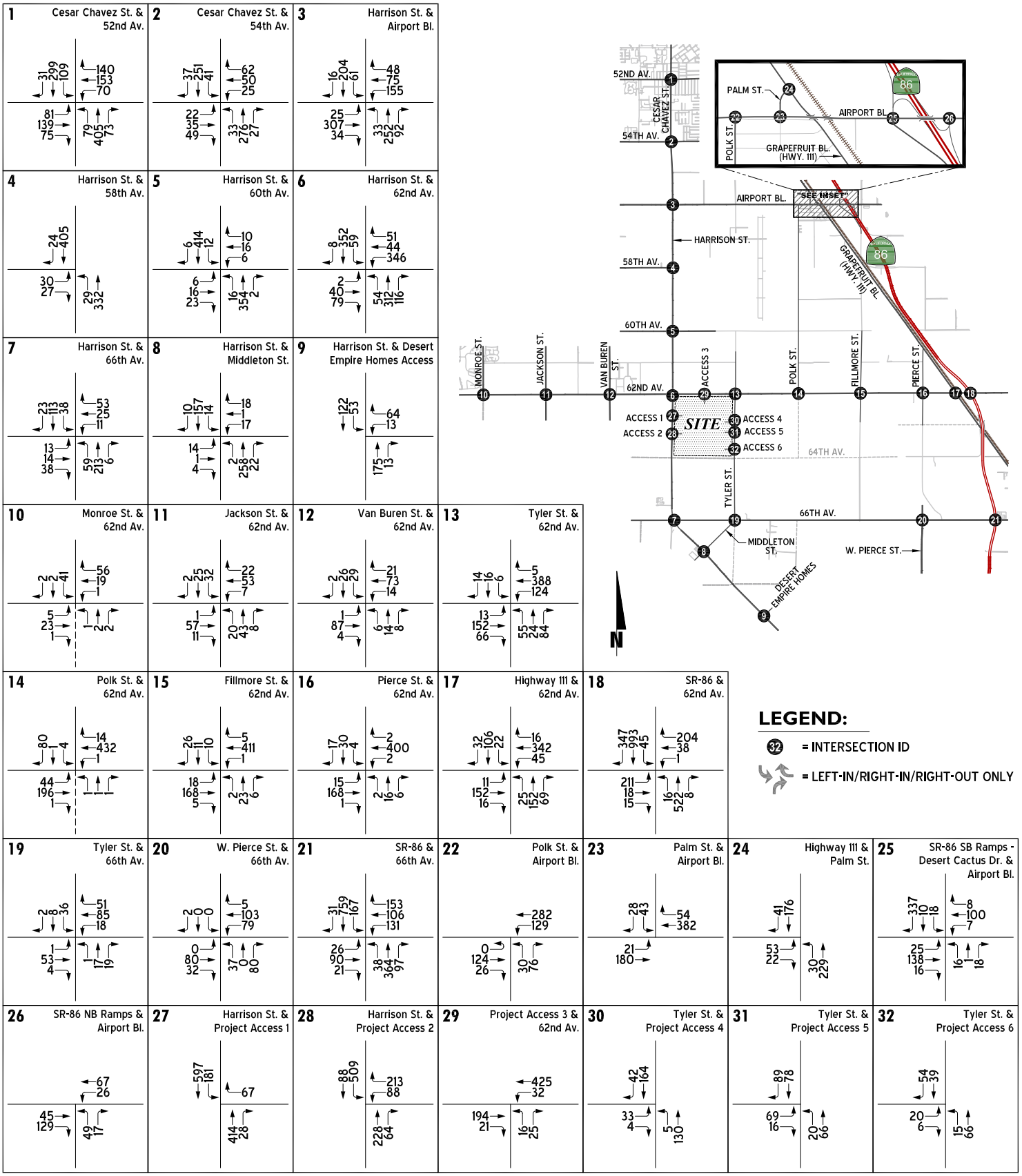

EXHIBIT 5-5: EAP WEEKEND
SUNDAY PM PEAK HOUR INTERSECTION VOLUMES

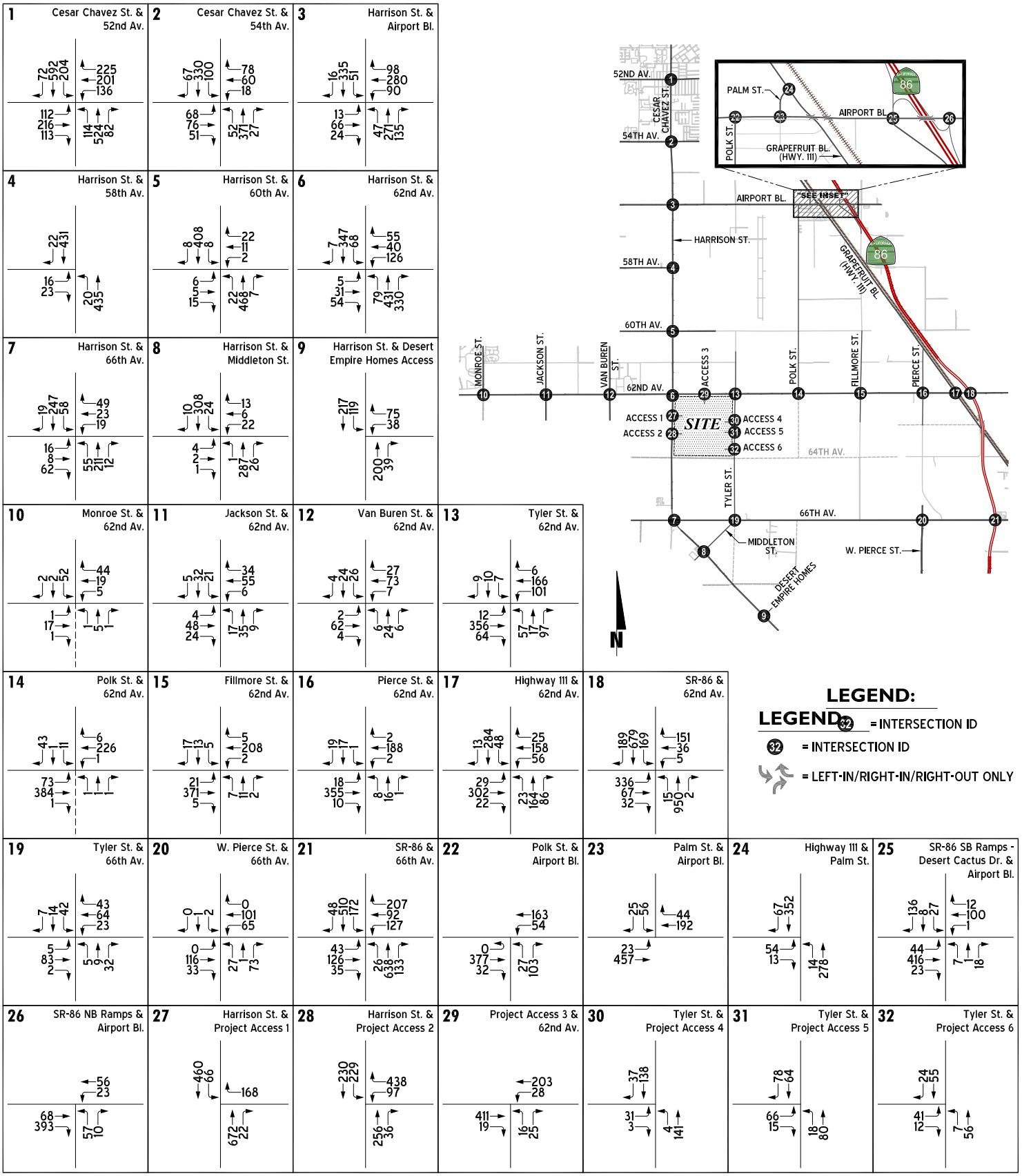

EXHIBIT 5-6: EAP WEEKEND
AVERAGE DAILY TRAFFIC (ADT) VOLUMES

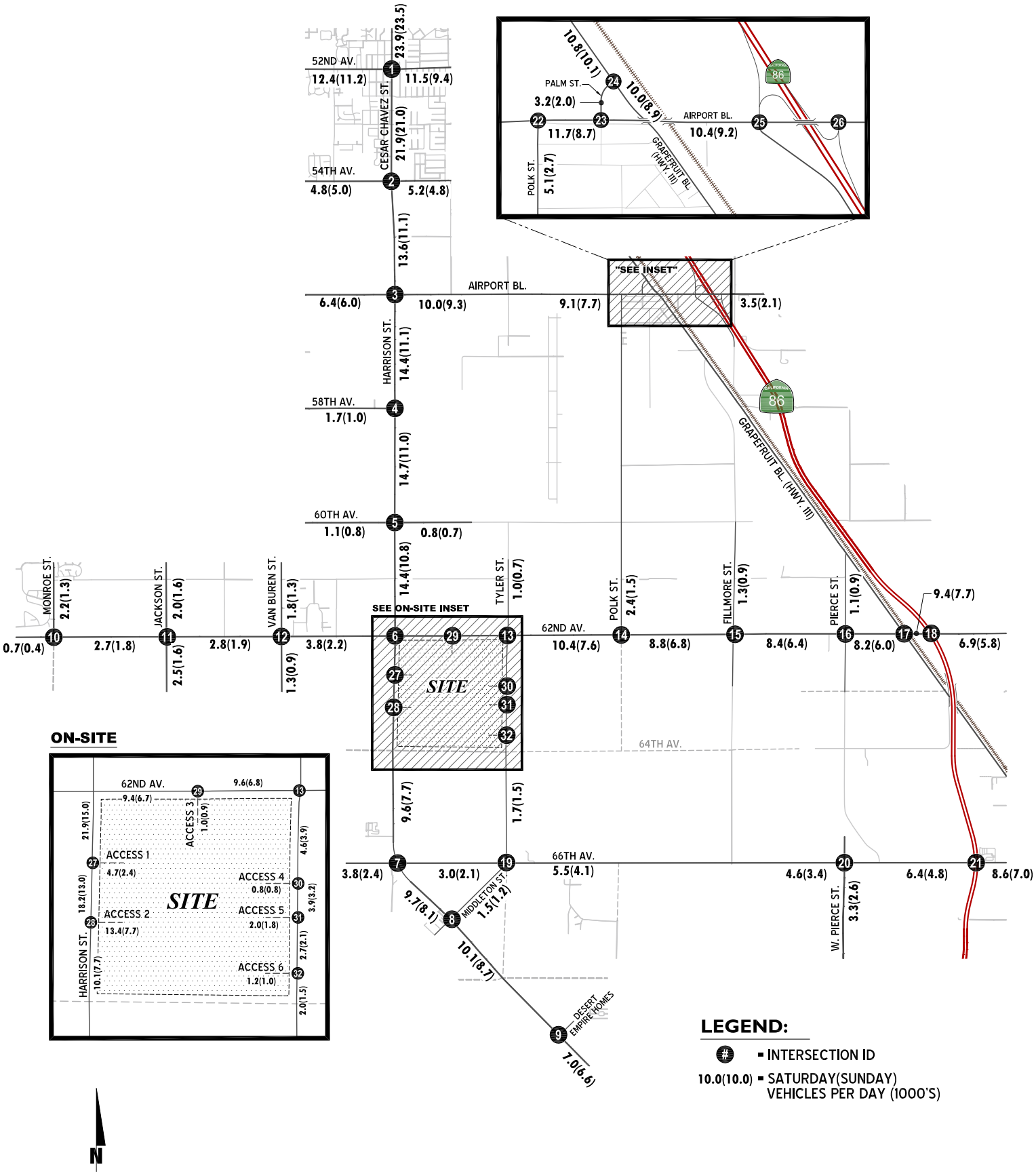

TABLE 5-1: INTERSECTION ANALYSIS FOR EAP CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.	TS	1	2	0	1	2	0	0.5	1.5	0	0.5	1.5	0	47.1	50.6	D	D	39.2	48.6	D	D
2	Cesar Chavez St. / 54th Av.	TS	1	1	d	1	1	1	0.5	0.5	1	0	1!	0	22.8	21.5	C	C	14.5	16.5	B	B
3	Harrison St. / Airport Bl.	TS	1	1	0	1	1	1	1	1	0	1	1	1>>	33.1	30.6	C	C	32.2	29.1	C	C
4	Harrison St. / 58th Av.	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	17.2	25.1	C	D	17.6	15.7	C	C
5	Harrison St. / 60th Av.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	21.8	30.5	C	D	21.0	17.5	C	C
6	Harrison St. / 62nd Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**58.1**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
7	Harrison St. / 66th Av.	TS	1	2	0	1	2	0	0	1!	0	0	1!	0	28.8	28.3	C	C	26.5	26.7	C	C
8	Harrison St. / Middleton St.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	16.0	34.7	C	D	12.6	16.7	B	C
9	Harrison St. / Desert Empire Homes	CSS	0	1	1	1	1	0	0	0	0	1	0	1	13.8	27.2	B	D	11.7	16.5	B	C
10	Monroe St. / 62nd Av.	AWS	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	7.8	8.3	A	A	7.5	7.7	A	A
11	Jackson St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	8.0	8.1	A	A	7.8	7.8	A	A
12	Van Buren St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	7.9	8.2	A	A	9.0	7.9	A	A
13	Tyler St. / 62nd Av.	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**67.7**	**F**	**F**	**35.1**	17.3	**E**	C
14	Polk St. / 62nd Av.	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	28.3	24.5	D	C	21.7	19.1	C	C
15	Fillmore St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	10.9	18.7	B	C	12.4	13.4	B	B
16	Pierce St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	10.2	11.3	B	B	12.2	11.1	B	B
17	Highway 111 / 62nd Av.	TS	1	1	1	1	1	0	1	1	0	1	2	0	31.1	35.2	C	D	30.2	32.2	C	C
18	SR-86 / 62nd Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	38.4	**58.1**	D	**E**
19	Tyler St. / 66th Av.	AWS	0	1!	0	1	1	0	1	1	0	1	1	0	11.2	11.3	B	B	8.5	8.3	A	A
20	W. Pierce St. / 66th Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	13.8	13.5	B	B	8.4	8.5	A	A
21	SR-86 / 66th Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	37.3	44.8	D	D	31.8	39.5	C	D
22	Polk St. / Airport Bl.	TS	0	1!	0	0	0	0	1	3	1	1	2	0	37.7	35.9	D	D	27.5	28.5	C	C
23	Palm St. / Airport Bl.	TS	0	0	0	1	0	1	1	2	0	0	2	0	20.8	21.9	C	C	18.8	17.6	B	B
24	Highway 111 / Palm St.	TS	1	1	0	0	1	1	1	0	1	0	0	0	14.0	13.3	B	B	11.4	7.8	B	A
25	SR-86 SB Ramps / Airport Bl.	TS	0	1!	0	0.5	0.5	1	1	1	0	1	1	0	40.3	32.2	D	C	32.1	24.0	C	C
26	SR-86 NB Ramps / Airport Bl.	TS	1	0	1>	0	0	0	0	1	0	1	1	0	15.3	10.5	B	B	15.2	7.5	B	A
27	Harrison St. / Project Access 1	**CSS**	0	1	0	**1**	1	0	0	0	0	0	0	**1**	12.6	16.2	B	C	11.9	20.3	B	C
28	Harrison St. / Project Access 2	**TS**	0	1	0	**1**	1	0	0	0	0	**1**	0	**1>**	16.7	15.2	B	B	32.5	15.4	C	B
29	Project Access 3 / 62nd Av.	**CSS**	0	**1!**	0	0	0	0	0	1	0	**1**	1	0	12.5	13.7	B	B	12.1	13.1	B	B
30	Tyler St. / Project Access 4	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	13.8	12.6	B	B	10.8	10.6	B	B
31	Tyler St. / Project Access 5	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	13.6	12.1	B	B	10.4	10.3	B	B
32	Tyler St. / Project Access 6	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	11.6	10.7	B	B	9.4	9.4	A	A

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane;
> = Right-Turn Overlap Phasing; >> = Free-Right Turn; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.
For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

5.4.2 EAP CONDITIONS, WEEKEND

EAP weekend peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1 for EAP weekend traffic conditions, which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours with the addition of Project Buildout traffic:

- #6 - Harrison St. / 62nd Av. – LOS F (AM & PM)
- #13 - Tyler St. / 62nd Av. – LOS E (AM)
- #18 – SR-86 / 62nd Av. – LOS E (PM)

The intersection operations analysis worksheets for EAP weekend traffic conditions are included in Appendix 5.2 of this TA.

5.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAP traffic conditions are based on the peak hour volumes or planning level ADT volume-based traffic signal warrants. The following unsignalized intersections are anticipated to meet traffic signal warrants under EAP traffic conditions (see Appendix 5.3):

- #4 – Harrison St. / 58th Av.
- #6 - Harrison St. / 62nd Av.
- #8 – Harrison St. / Middleton St.
- #9 – Harrison St. / Desert Empire Homes
- #13 - Tyler St. / 62nd Av.
- #28 - Harrison St. / Project Access 2

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

5.6 DEFICIENCIES AND IMPROVEMENTS

Improvement strategies have been recommended at intersections that have been identified as deficient under EAP traffic conditions in an effort to achieve an acceptable LOS (i.e., LOS D or better). Recommendations for Project access intersections have also been developed.

The effectiveness of the recommended improvement strategies to address EAP traffic deficiencies and provide Project access that satisfies LOS requirements are presented in Table 5-2.

Worksheets for EAP, with improvements, intersection operations are provided in Appendices 5.4 and 5.5, respectively.

- #6 - Harrison St. / 62nd Av.
    - Install traffic signal
    - Provide dedicated NB right turn lane with overlap phase
    - Provide dedicated EB left turn lane
    - Provide dedicated WB left turn lane
- #13 - Tyler St. / 62nd Av.
    - Install traffic signal
    - Provide a separate NB left turn lane
    - Provide a separate EB left turn lane
    - Modify WB approach to provide 1 WB left turn lane & 1 WB shared through-right lane
- #18 – SR-86 / 62nd Av.
    - Modify EB/WB signal phasing from split phase to protected phase
    - Modify EB approach to provide 1 EB left turn lane & 1 EB shared through-right lane
    - Modify WB approach to provide 1 WB left turn lane, 1 WB through lane, and 1 WB right turn lane
- #27 - Harrison St. / Project Access 1
    - Provide 1 SB left turn lane
    - Provide 1 WB right turn lane
- #28 - Harrison St. / Project Access 2
    - Install traffic signal
    - Provide 1 SB left turn lane
    - Provide 1 WB left turn lane
    - Provide 1 WB right turn lane with overlap phase
- #29 - Project Access 3 / 62nd Av.
    - Install stop sign control
    - Provide 1 WB left turn lane
    - Provide 1 NB shared left/right lane
- #30 - Tyler St. / Project Access 4
    - Install stop sign control
    - Provide 1 NB left turn lane
    - Provide 1 EB shared left/right lane
- #31 - Tyler St. / Project Access 5
    - Install stop sign control
    - Provide 1 NB left turn lane
    - Provide 1 EB shared left/right lane
- #32 Tyler St. / Project Access 6
    - Install stop sign control
    - Provide 1 NB left turn lane
    - Provide 1 EB shared left/right lane

TABLE 5-2: INTERSECTION ANALYSIS FOR EAP CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
6	Harrison St. / 62nd Av.																					
	Without Improvements:	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**58.1**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	1	1	**1>**	1	1	0	**1**	1	0	**1**	1	0	35.2	36.8	D	D	44.4	29.7	D	C
13	Tyler St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	67.7	**F**	**F**	**35.1**	17.3	**E**	C
	With Improvements:	**TS**	**1**	1	0	1	1	0	**1**	1	0	**1**	1	0	16.9	16.7	B	B	18.0	15.8	B	B
18	SR-86 / 62nd Av.																					
	Without Improvements:	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	38.4	**58.1**	D	**E**
	With Improvements:	TS	1	2	1	1	2	1	**1**	1	0	**1**	1	1	41.4	39.2	D	D	30.6	40.1	C	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

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6 EAPC (2026 AND 2032) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for EAPC (2026 and 2032) traffic conditions and the resulting intersection operations and traffic signal warrant analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAPC (2026) Project conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project Interim Phase driveways and those facilities assumed to be constructed by the Project to provide site access are assumed to be in place for EAPC (2026) conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC (2026) conditions.

Similarly, for EAPC (2032) conditions, further Project access (or cumulative access) lane configurations and traffic controls are assumed to be in place.

The improvements needed to accommodate site access and maintain acceptable peak hour operations for the proposed Project include the following:

Project to dedicate ultimate half-section right-of-way and construct 2 northbound through lanes along Harrison Street adjacent to Planning Area 2 (between Access 1 and 62nd Avenue) in conjunction with the first major phase of development (Planning Areas 1 to 4).

In conjunction with the second major phase of development (Planning Areas 5 and 6), construct the 3rd northbound through lane along Harrison Street adjacent to Planning Area 2 (between Access 1 and 62nd Avenue).

In conjunction with the second major phase of development (Planning Areas 5 and 6), project to dedicate ultimate half-section right-of-way and construct 3 northbound through lanes along Harrison Street adjacent to Planning Areas 5 and 6 (between Access 1 and 64th Avenue).

Project to dedicate ultimate half-section right-of-way and construct 2 eastbound through lanes along 62nd Avenue adjacent to Planning Area 2 (between Harrison Street and Tyler Street) in conjunction with the first major phase of development (Planning Areas 1 to 4).

6.2 EAPC (2026) TRAFFIC VOLUME FORECASTS, WEEKDAY

This scenario includes Existing traffic volumes plus an ambient growth factor of 6.12%, the addition of traffic generated by cumulative development projects, and the addition of weekday Project Interim Phase traffic. The EAPC (2026) weekday AM peak hour volumes are shown on Exhibit 6-1. Exhibit 6-2 shows EAPC (2026) weekday PM peak hour volumes. EAPC (2026) weekday ADT volumes are shown on Exhibit 6-3.

EXHIBIT 6-1: EAPC (2026) WEEKDAY
AM PEAK HOUR INTERSECTION VOLUMES

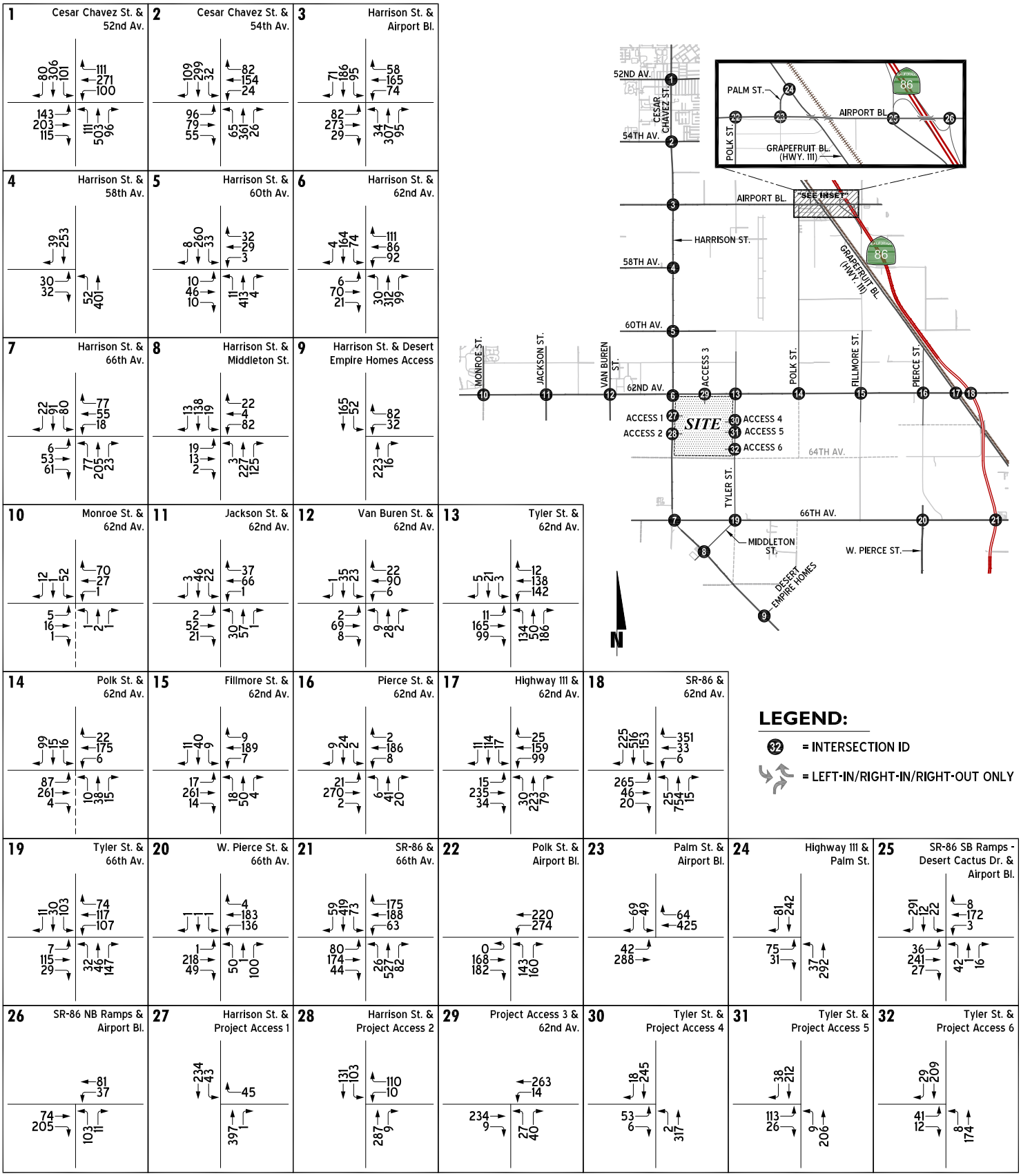


EXHIBIT 6-2: EAPC (2026) WEEKDAY
PM PEAK HOUR INTERSECTION VOLUMES

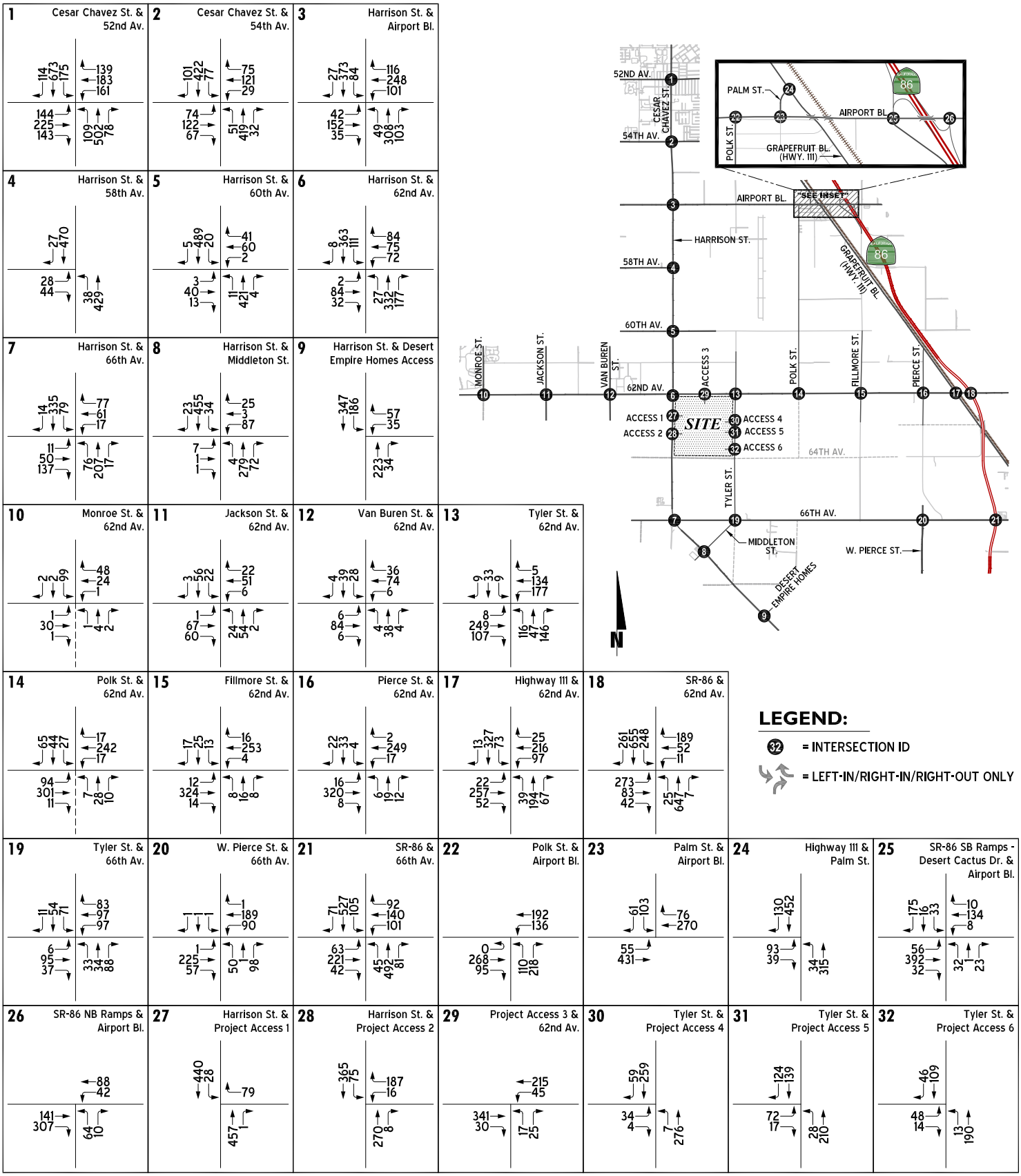
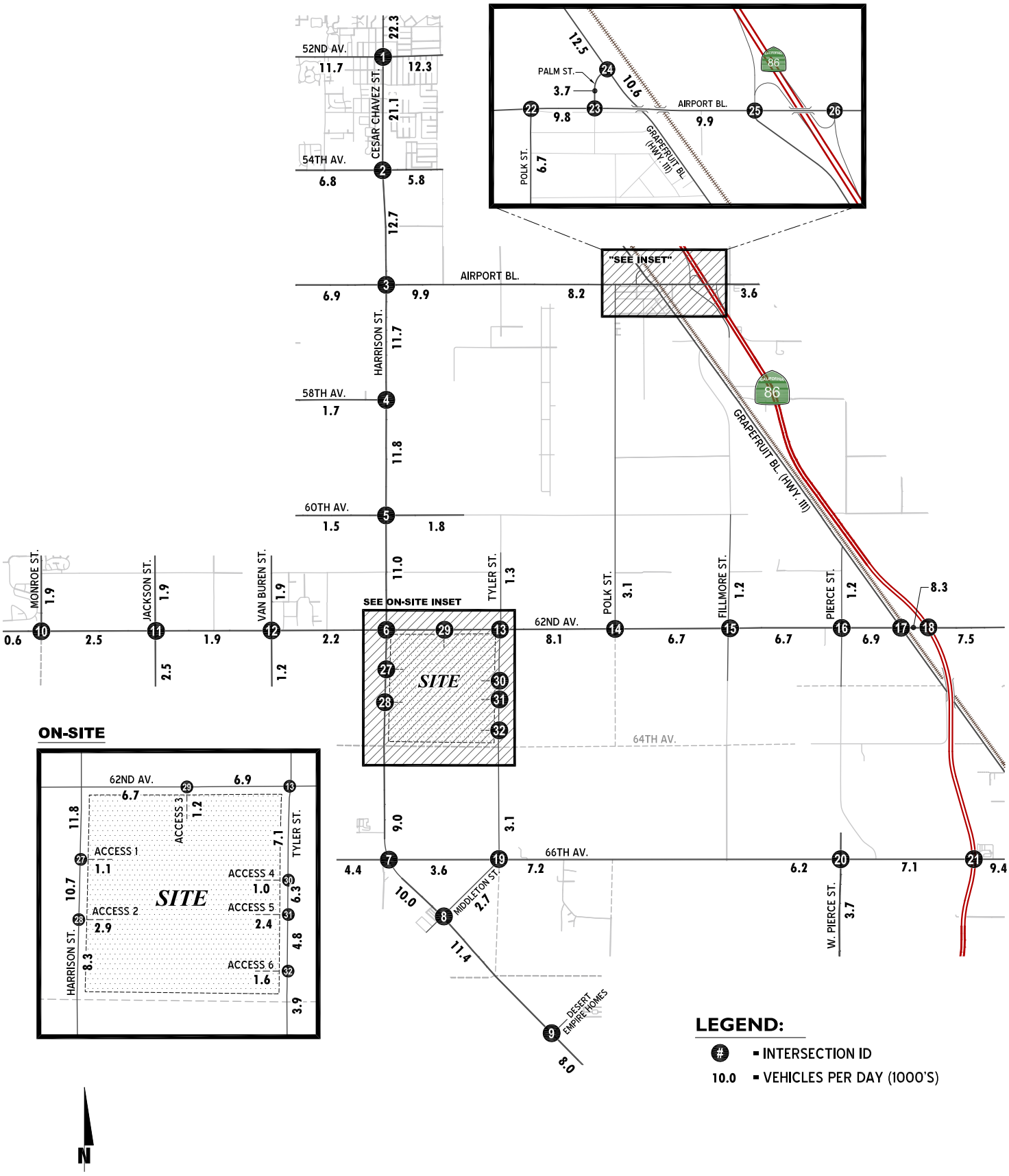


EXHIBIT 6-3: EAPC (2026) WEEKDAY
AVERAGE DAILY TRAFFIC (ADT) VOLUMES



6.3 EAPC (2026) TRAFFIC VOLUME FORECASTS, WEEKEND

This scenario includes Existing traffic volumes plus an ambient growth factor of 6.12%, the addition of traffic generated by cumulative development projects, and the addition of weekend Project Interim Phase traffic. The EAPC (2026) weekend AM peak hour volumes are shown on Exhibit 6-4. Exhibit 6-5 shows EAPC (2026) weekend PM peak hour volumes. EAPC (2026) weekend ADT volumes are shown on Exhibit 6-6.

6.4 EAPC (2026) INTERSECTION OPERATIONS ANALYSIS, WEEKDAY

EAPC (2026) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 6-1 for EAPC (2026) traffic conditions, which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours with the addition of Project Interim traffic:

- #6 - Harrison St. / 62nd Av. – LOS F (PM)
- #13 - Tyler St. / 62nd Av. – LOS F (AM & PM)
- #18 – SR-86 / 62nd Av. – LOS E (AM & PM)

The intersection operations analysis worksheets for EAPC (2026) weekday traffic conditions are included in Appendix 6.1.

6.5 EAPC (2026) INTERSECTION OPERATIONS ANALYSIS, WEEKEND

EAPC (2026) weekend peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 6-1 for EAPC (2026) traffic conditions, which indicates that the intersection of #6 - Harrison St. / 62nd Av. is anticipated to operate at an unacceptable LOS during the PM peak hour with the addition of Project Interim traffic.

The intersection operations analysis worksheets for EAPC (2026) weekend traffic conditions are included in Appendix 6.2.

6.6 EAPC (2026) TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAPC (2026) traffic conditions are based on the peak hour volumes or planning level ADT volume-based traffic signal warrants. The following additional unsignalized study area intersection is anticipated to meet a traffic signal warrant under EAPC (2026) conditions (see Appendix 6.3):

- #5 - Harrison St. / 60th Av
- #6 - Harrison St. / 62nd Av.
- #8 - Harrison St. / Middleton St.
- #13 - Tyler St. / 62nd Av.
- #28 - Harrison St. / Project Access 2

EXHIBIT 6-4: EAPC (2026) WEEKEND
SATURDAY AM PEAK HOUR INTERSECTION VOLUMES

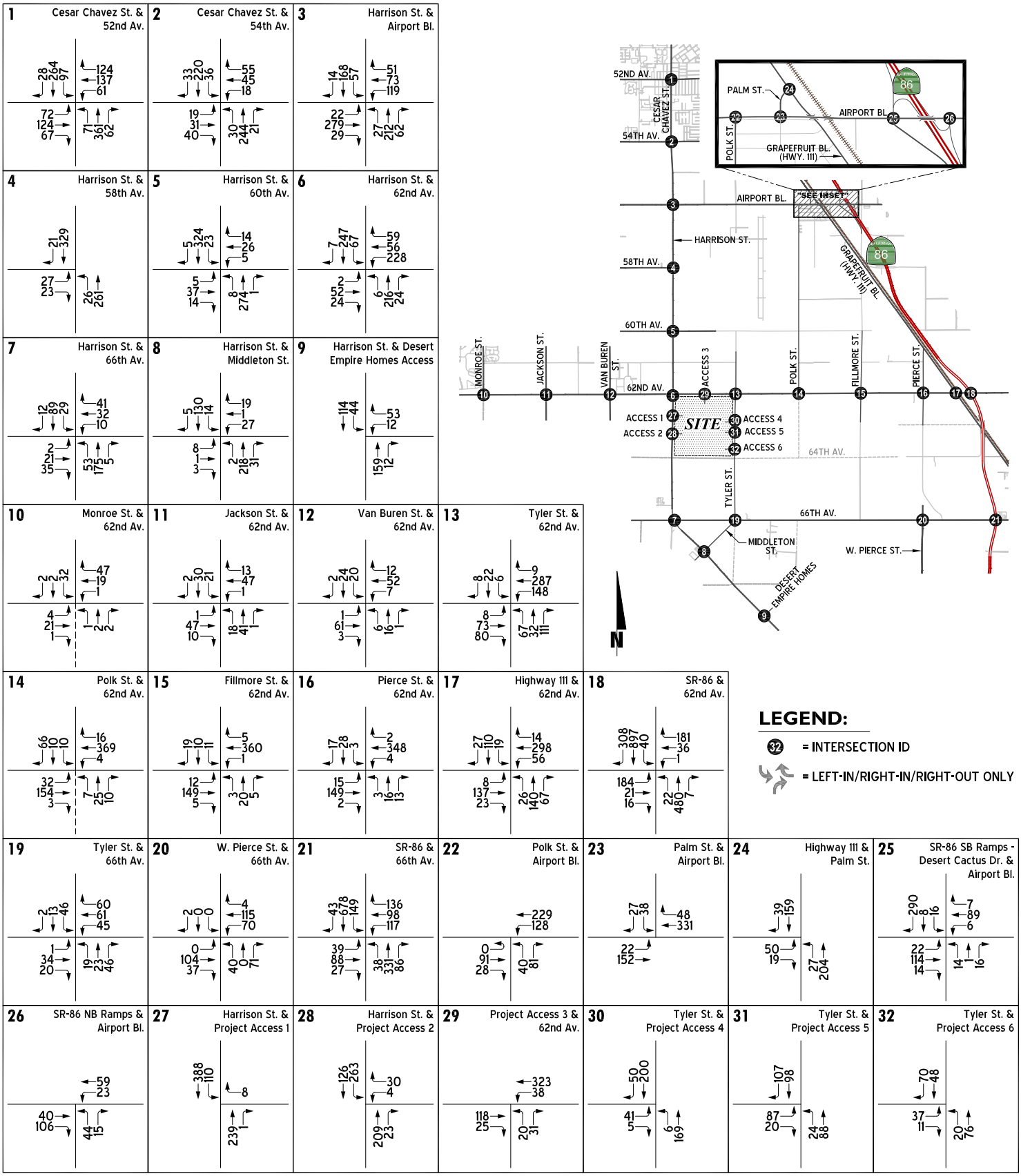


EXHIBIT 6-5: EAPC (2026) WEEKEND
SUNDAY PM PEAK HOUR INTERSECTION VOLUMES

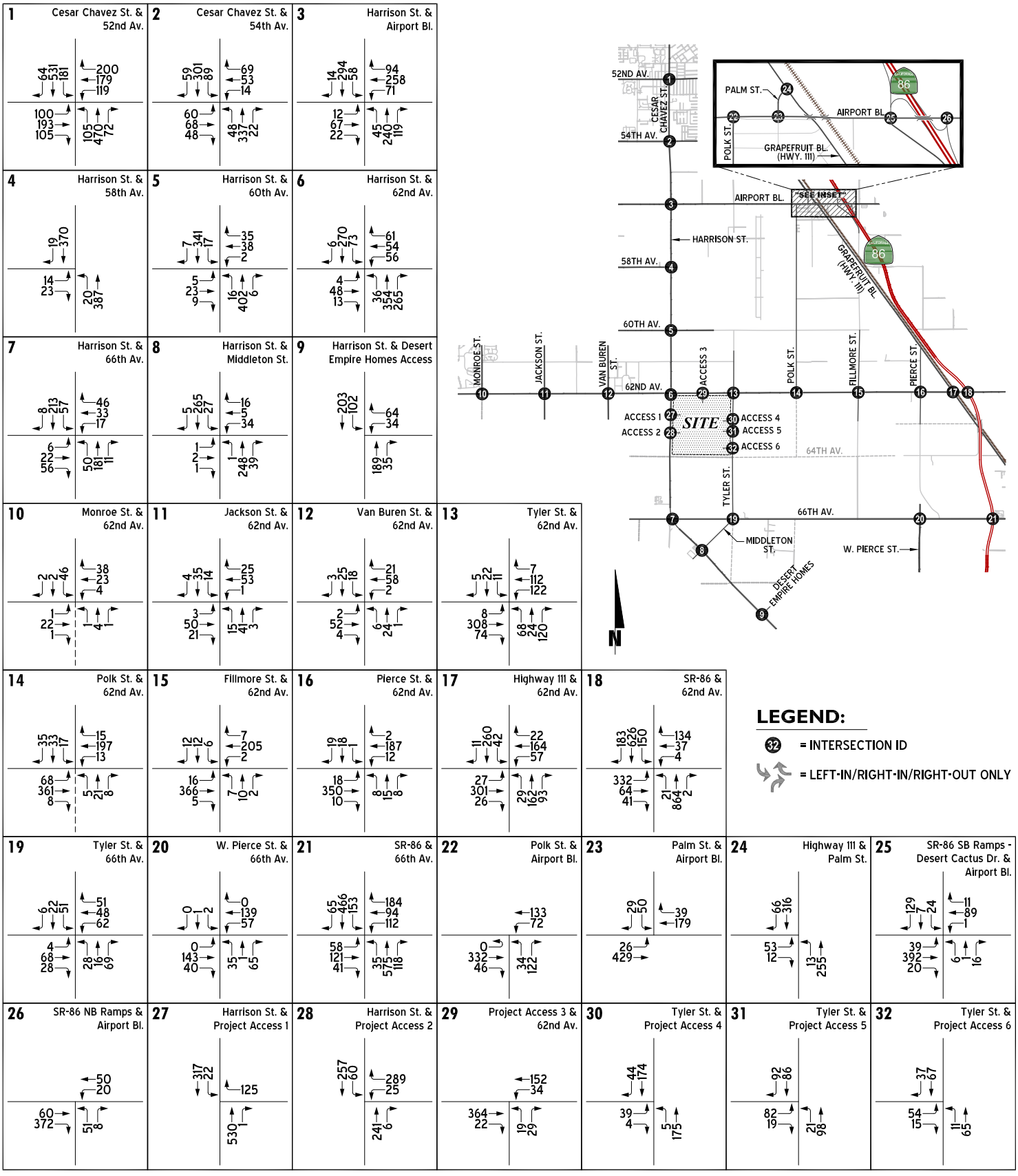


EXHIBIT 6-6: EAPC (2026) WEEKEND
AVERAGE DAILY TRAFFIC (ADT) VOLUMES

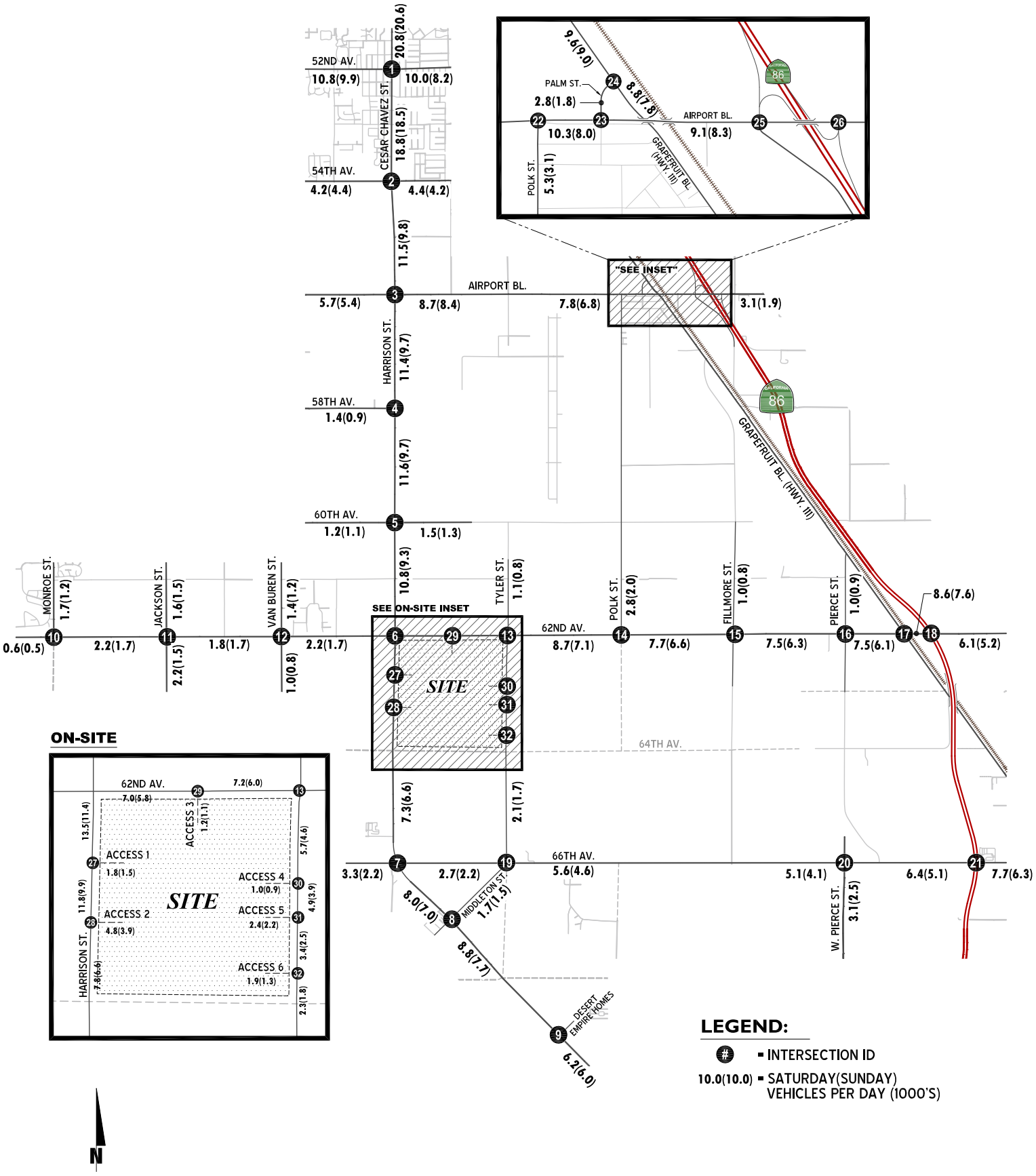


TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2026) CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.	TS	1	2	0	1	2	0	0.5	1.5	0	0.5	1.5	0	44.3	45.9	D	D	36.9	44.5	D	D
2	Cesar Chavez St. / 54th Av.	TS	1	1	d	1	1	1	0.5	0.5	1	0	1!	0	18.6	18.8	B	B	14.1	15.9	B	B
3	Harrison St. / Airport Bl.	TS	1	1	0	1	1	1	1	1	0	1	1	1>>	32.8	30.7	C	C	31.9	29.2	C	C
4	Harrison St. / 58th Av.	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	15.6	19.9	C	C	14.6	13.9	B	B
5	Harrison St. / 60th Av.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	25.3	32.7	D	D	18.4	19.4	C	C
6	Harrison St. / 62nd Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	22.9	**53.5**	C	**F**	19.1	**51.4**	C	**F**
7	Harrison St. / 66th Av.	TS	1	2	0	1	2	0	0	1!	0	0	1!	0	29.2	28.0	C	C	26.0	26.6	C	C
8	Harrison St. / Middleton St.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	15.4	33.6	C	D	11.7	15.7	B	C
9	Harrison St. / Desert Empire Homes	CSS	0	1	1	1	1	0	0	0	0	1	0	1	13.2	33.0	B	D	11.2	15.1	B	C
10	Monroe St. / 62nd Av.	AWS	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	7.8	8.1	A	A	7.4	7.7	A	A
11	Jackson St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	8.0	8.0	A	A	7.6	7.7	A	A
12	Van Buren St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	7.9	7.9	A	A	7.5	7.6	A	A
13	Tyler St. / 62nd Av.	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**52.1**	**F**	**F**	22.6	16.0	C	C
14	Polk St. / 62nd Av.	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	32.8	27.1	D	D	20.0	20.2	C	C
15	Fillmore St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	10.4	16.9	B	C	10.9	12.9	B	B
16	Pierce St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	10.0	11.3	A	B	10.9	11.1	B	B
17	Highway 111 / 62nd Av.	TS	1	1	1	1	1	0	1	1	0	1	2	0	32.5	35.6	C	D	30.7	33.0	C	C
18	SR-86 / 62nd Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**72.5**	**62.5**	**E**	**E**	35.6	50.1	D	D
19	Tyler St. / 66th Av.	AWS	0	1!	0	1	1	0	1	1	0	1	1	0	12.3	13.2	B	B	8.8	8.8	A	A
20	W. Pierce St. / 66th Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	14.6	16.2	B	C	8.6	8.9	A	A
21	SR-86 / 66th Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	33.4	42.4	C	D	30.6	35.9	C	D
22	Polk St. / Airport Bl.	TS	0	1!	0	0	0	0	1	3	1	1	2	0	38.3	36.9	D	D	28.1	29.0	C	C
23	Palm St. / Airport Bl.	TS	0	0	0	1	0	1	1	2	0	0	2	0	20.8	21.4	C	C	18.7	17.7	B	B
24	Highway 111 / Palm St.	TS	1	1	0	0	1	1	1	0	1	0	0	0	14.0	13.1	B	B	11.5	7.9	B	A
25	SR-86 SB Ramps / Airport Bl.	TS	0	1!	0	0.5	0.5	1	1	1	0	1	1	0	35.0	31.0	C	C	35.9	23.4	D	C
26	SR-86 NB Ramps / Airport Bl.	TS	1	0	1>	0	0	0	0	1	0	1	1	0	21.5	10.5	C	B	16.3	7.4	B	A
27	Harrison St. / Project Access 1	**CSS**	0	1	0	**1**	1	0	0	0	0	0	0	**1**	11.3	12.4	B	B	9.7	14.5	A	B
28	Harrison St. / Project Access 2	**TS**	0	1	0	**1**	1	0	0	0	0	**1**	0	**1>**	13.2	11.5	B	B	27.8	12.4	C	B
29	Project Access 3 / 62nd Av.	**CSS**	0	**1!**	0	0	0	0	0	1	0	**1**	1	0	11.6	12.8	B	B	10.9	12.5	B	B
30	Tyler St. / Project Access 4	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	13.9	12.9	B	B	10.9	10.8	B	B
31	Tyler St. / Project Access 5	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	13.7	12.2	B	B	10.4	10.7	B	B
32	Tyler St. / Project Access 6	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	11.6	10.8	B	B	9.5	9.5	A	A

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane;
> = Right-Turn Overlap Phasing; >> = Free-Right Turn; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.
For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

6.7 EAPC (2032) TRAFFIC VOLUME FORECASTS, WEEKDAY

This scenario includes Existing traffic volumes plus an ambient growth factor of 19.51%, the addition of traffic generated by cumulative development projects, and the addition of weekday Project Buildout traffic. The EAPC (2032) weekday AM peak hour volumes are shown on Exhibit 6-7. Exhibit 6-8 shows EAPC (2032) weekday PM peak hour volumes. EAPC (2032) weekday ADT volumes are shown on Exhibit 6-9.

6.8 EAPC (2032) TRAFFIC VOLUME FORECASTS, WEEKEND

This scenario includes Existing traffic volumes plus an ambient growth factor of 19.51%, the addition of traffic generated by cumulative development projects, and the addition of weekend Project Buildout traffic. The EAPC (2032) weekend AM peak hour volumes are shown on Exhibit 6-10. Exhibit 6-11 shows EAPC (2032) weekend PM peak hour volumes. EAPC (2032) weekend ADT volumes are shown on Exhibit 6-12.

6.9 EAPC (2032) INTERSECTION OPERATIONS ANALYSIS, WEEKDAY

EAPC (2032) weekday peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 6-2 for EAPC (2032) weekday traffic conditions, which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours:

- #4 - Harrison St. / 58th Av. – LOS E (PM)
- #5 - Harrison St. / 60th Av – LOS F (AM & PM)
- #6 - Harrison St. / 62nd Av. – LOS F (AM & PM)
- #8 - Harrison St. / Middleton St. – LOS F (PM)
- #13 - Tyler St. / 62nd Av. – LOS F (AM & PM)
- #14 - Polk St. / 62nd Av. – LOS F (AM & PM)
- #15 - Fillmore St. / 62nd Av. – LOS E (AM) & LOS F (PM)
- #18 – SR-86 / 62nd Av. – LOS F (AM & PM)
- #20 - W. Pierce St. / 66th Av. – LOS F (PM)

The intersection operations analysis worksheets for EAPC (2032) weekday traffic conditions are included in Appendix 6.4.

EXHIBIT 6-7: EAPC (2032) WEEKDAY
AM PEAK HOUR INTERSECTION VOLUMES

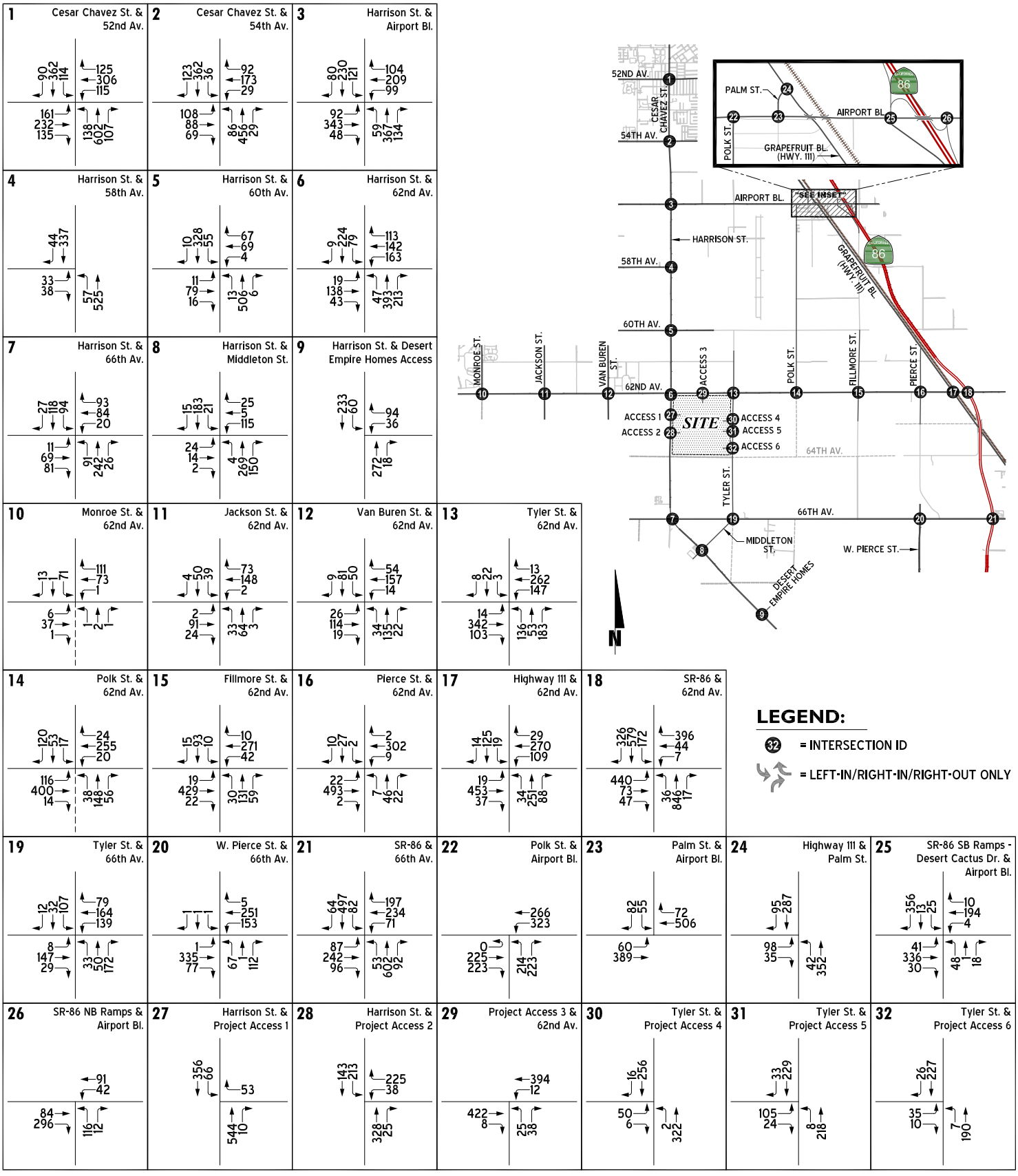


EXHIBIT 6-8: EAPC (2032) WEEKDAY
PM PEAK HOUR INTERSECTION VOLUMES

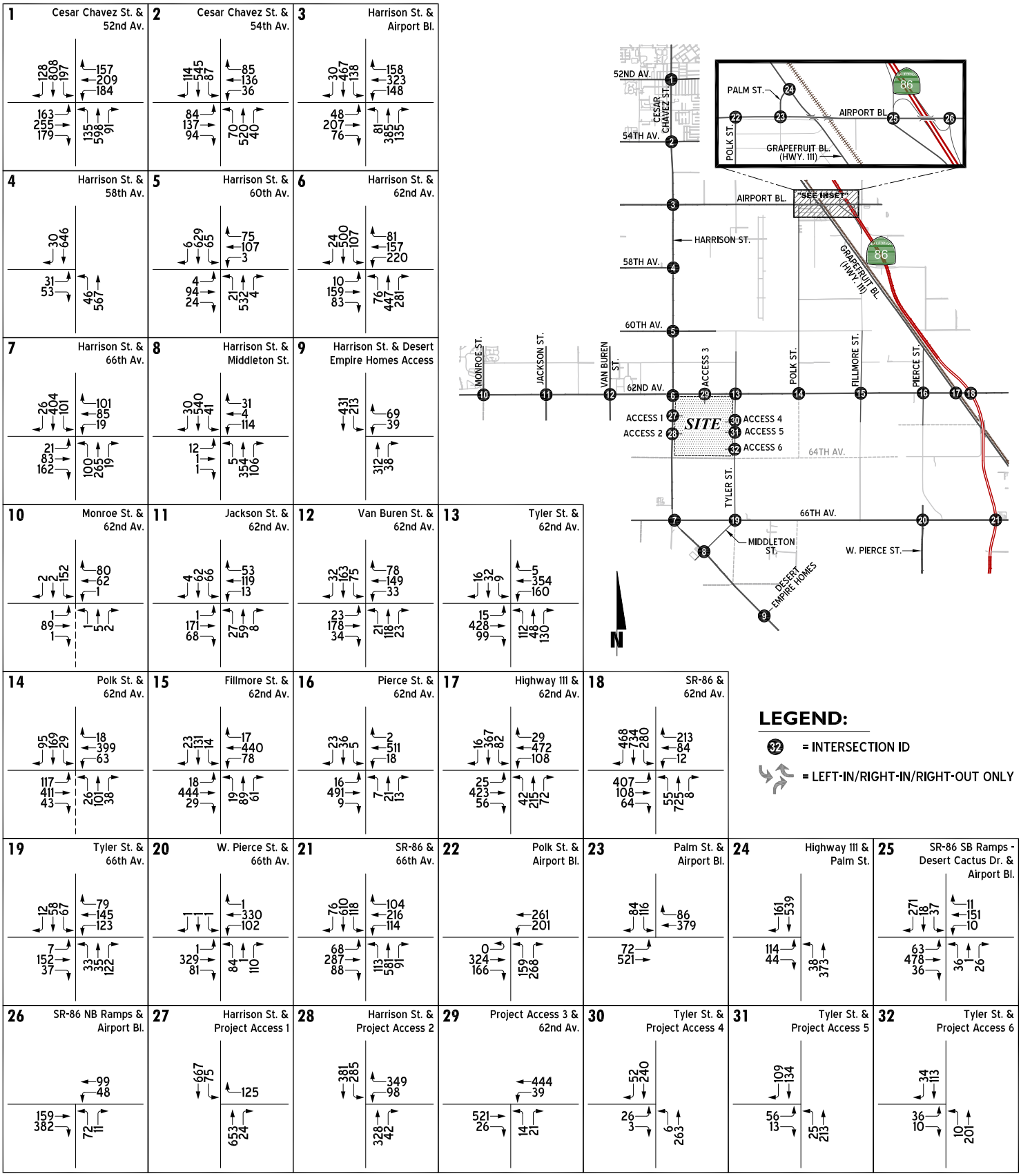


EXHIBIT 6-9: EAPC (2032) WEEKDAY
AVERAGE DAILY TRAFFIC (ADT) VOLUMES

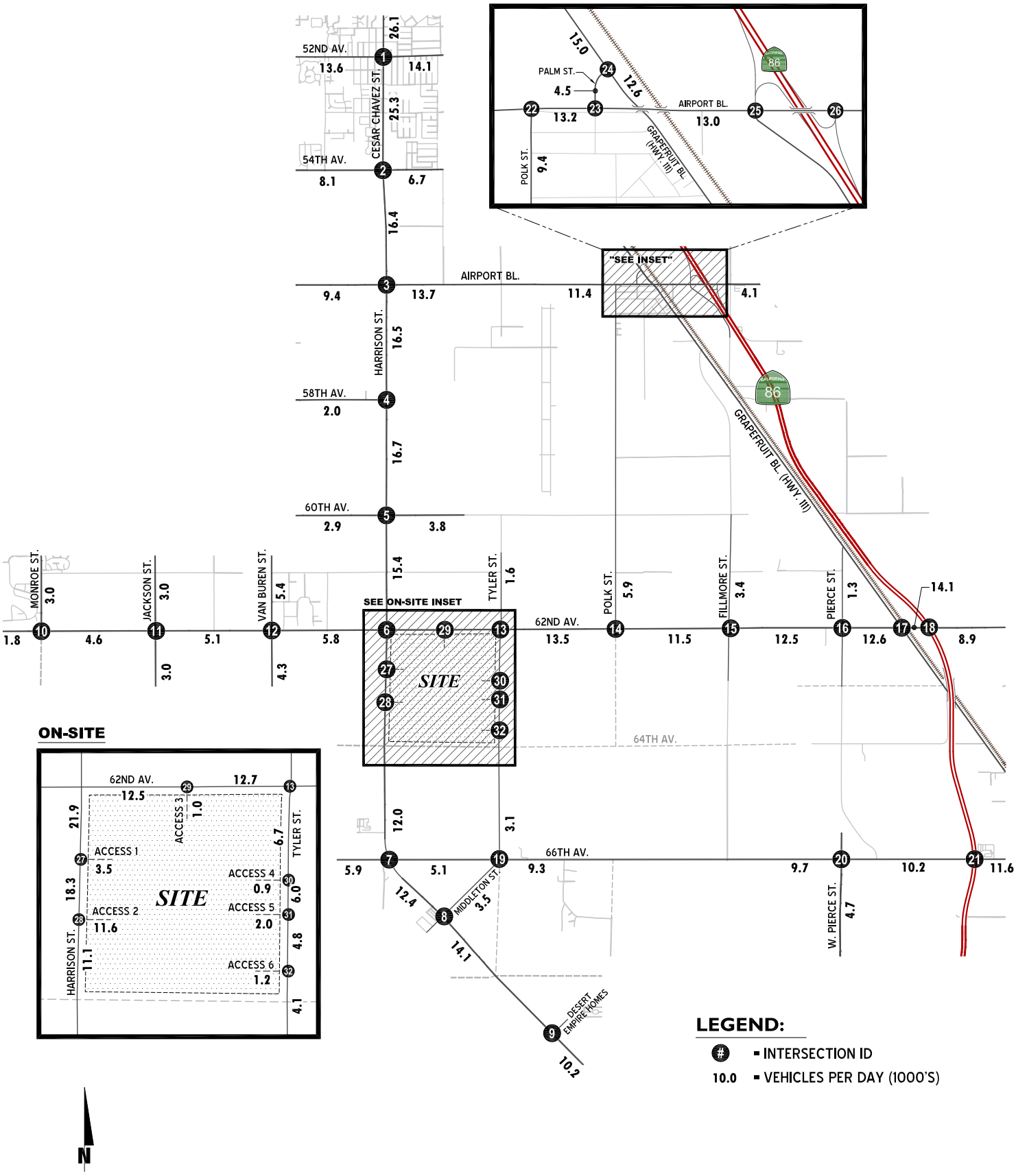


EXHIBIT 6-10: EAPC (2032) WEEKEND
SATURDAY AM PEAK HOUR INTERSECTION VOLUMES

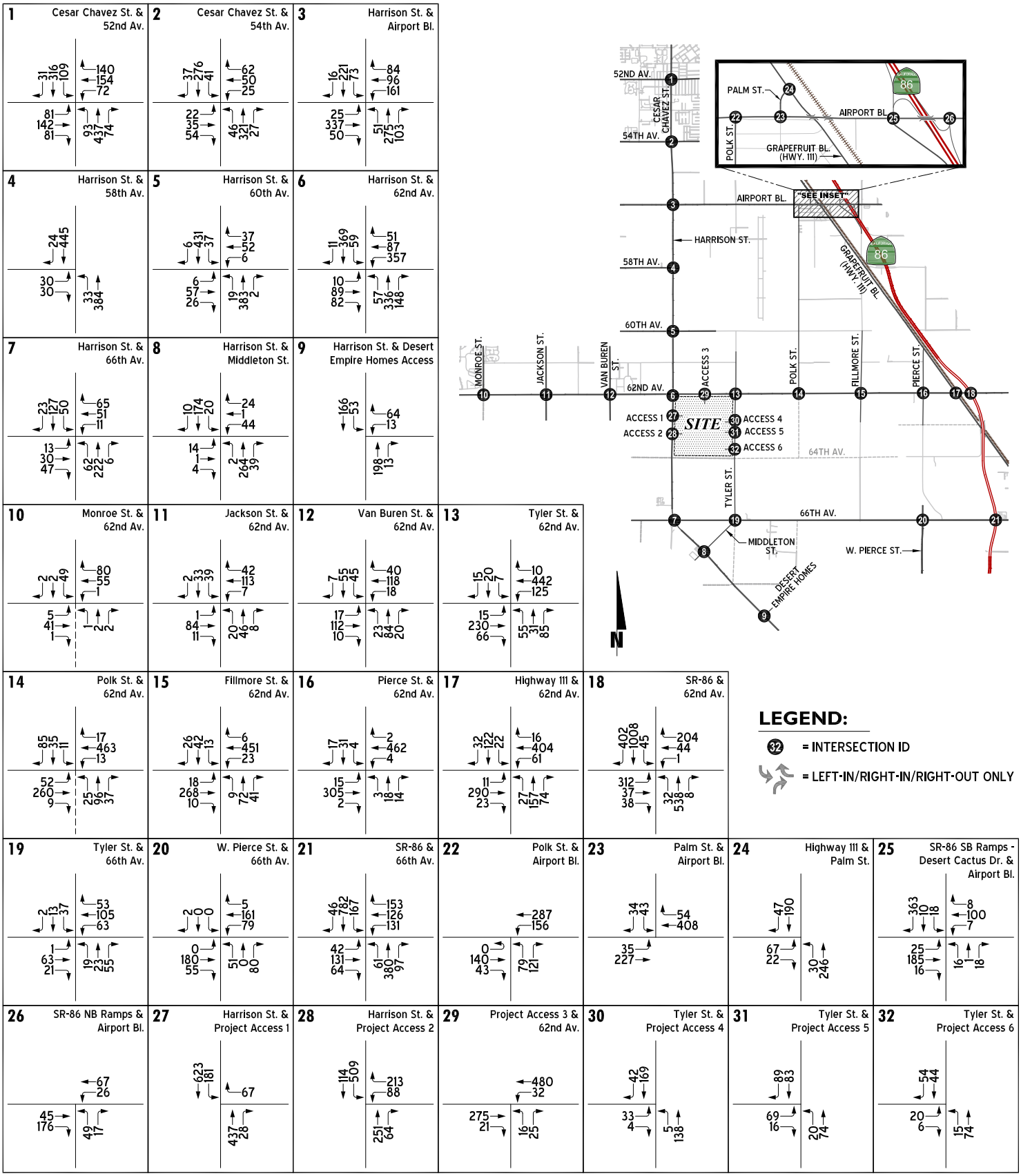


EXHIBIT 6-11: EAPC (2032) WEEKEND
PM PEAK HOUR INTERSECTION VOLUMES

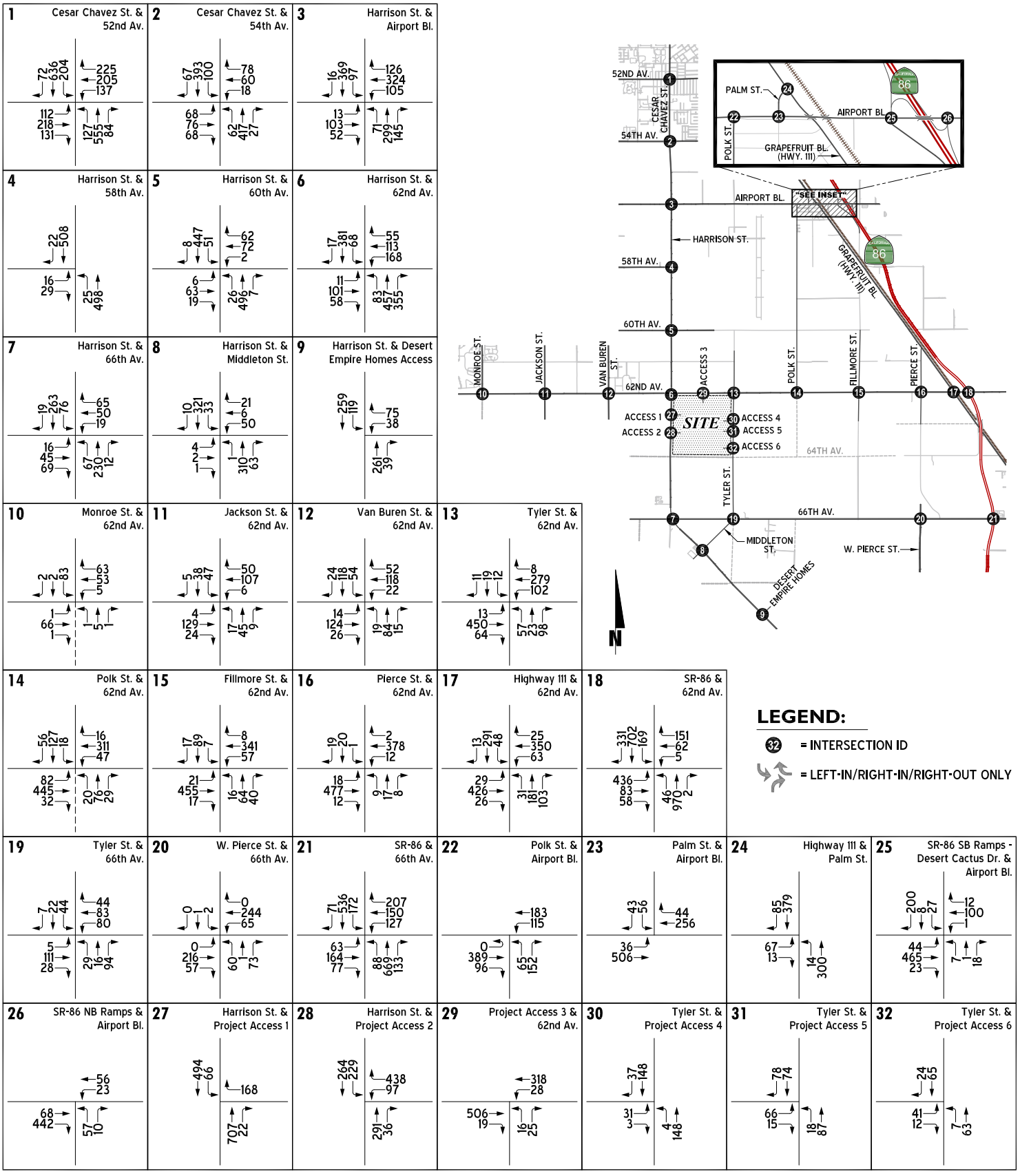
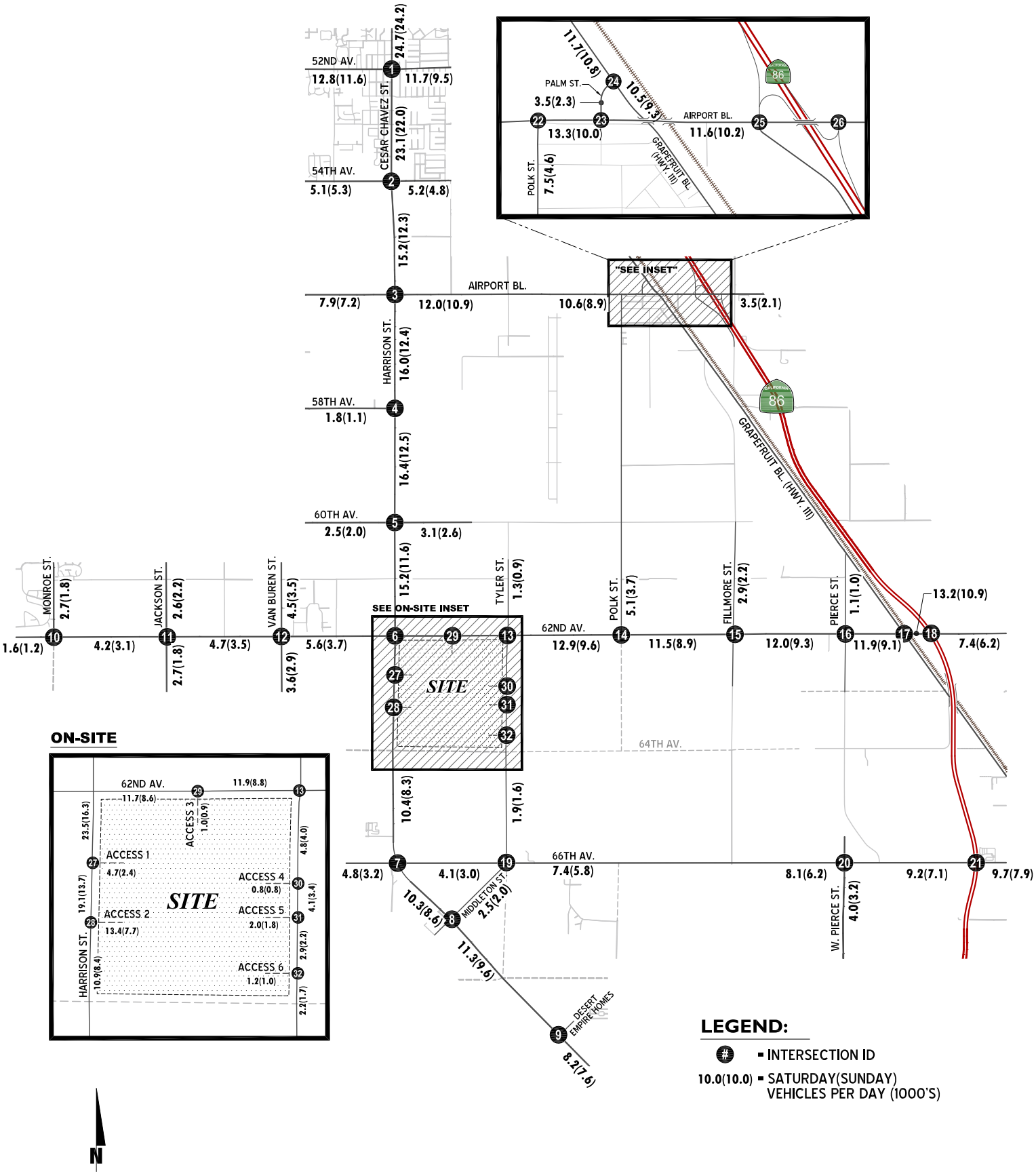


EXHIBIT 6-12: EAPC (2032) WEEKEND AVERAGE DAILY TRAFFIC (ADT) VOLUMES



6.10 EAPC (2032) INTERSECTION OPERATIONS ANALYSIS, WEEKEND

EAPC (2032) weekend peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 6-2 for EAPC (2032) weekend traffic conditions, which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours:

- #5 - Harrison St. / 60th Av – LOS E (AM & PM)
- #6 - Harrison St. / 62nd Av. – LOS F (AM & PM)
- #13 - Tyler St. / 62nd Av. – LOS F (AM)
- #14 - Polk St. / 62nd Av. – LOS F (AM & PM)
- #15 - Fillmore St. / 62nd Av. –LOS F (PM)
- #18 – SR-86 / 62nd Av. –LOS E (PM)

The intersection operations analysis worksheets for EAPC (2032) weekend traffic conditions are included in Appendix 6.5.

6.11 EAPC (2032) TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAPC (2032) traffic conditions are based on the peak hour volumes or planning level ADT volume-based traffic signal warrants. The following additional unsignalized study area intersections (beyond those that meet traffic signal warrants for EAPC (2026) conditions) are anticipated to meet a traffic signal warrant under EAPC (2032) weekday conditions (see Appendix 6.6):

- #4 - Harrison St. / 58th Av.
- #9 – Harrison St. / Desert Empire Homes
- #12 – Van Buren St. / 62nd Av.
- #14 - Polk St. / 62nd Av.
- #15 - Fillmore St. / 62nd Av.
- #19 - Tyler St. / 66th Av.
- #20 - W. Pierce St. / 66th Av.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified.

It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

TABLE 6-2: INTERSECTION ANALYSIS FOR EAPC (2032) CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.	TS	1	2	0	1	2	0	0.5	1.5	0	0.5	1.5	0	48.8	52.6	D	D	40.1	49.2	D	D
2	Cesar Chavez St. / 54th Av.	TS	1	1	d	1	1	1	0.5	0.5	1	0	1!	0	30.9	28.1	C	C	14.6	16.7	B	B
3	Harrison St. / Airport Bl.	TS	1	1	0	1	1	1	1	1	0	1	1	1>>	37.7	37.1	D	D	34.1	34.1	C	C
4	Harrison St. / 58th Av.	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	20.7	**36.3**	C	**E**	19.9	17.8	C	C
5	Harrison St. / 60th Av.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**37.4**	**49.4**	**E**	**E**
6	Harrison St. / 62nd Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
7	Harrison St. / 66th Av.	TS	1	2	0	1	2	0	0	1!	0	0	1!	0	28.8	28.9	C	C	26.6	27.5	C	C
8	Harrison St. / Middleton St.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	20.9	**>80**	C	**F**	13.6	21.6	B	C
9	Harrison St. / Desert Empire Homes	CSS	0	1	1	1	1	0	0	0	0	1	0	1	15.4	34.1	C	D	12.4	18.7	B	C
10	Monroe St. / 62nd Av.	AWS	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	8.8	9.2	A	A	7.8	8.4	A	A
11	Jackson St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	9.0	9.6	A	A	8.4	8.9	A	A
12	Van Buren St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	10.5	12.9	B	B	9.0	11.1	A	B
13	Tyler St. / 62nd Av.	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**>80**	**F**	**F**	**60.3**	33.8	**F**	D
14	Polk St. / 62nd Av.	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
15	Fillmore St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**35.5**	**>80**	**E**	**F**	21.5	**68.3**	C	**F**
16	Pierce St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	18.3	31.2	C	D	16.3	18.3	C	C
17	Highway 111 / 62nd Av.	TS	1	1	1	1	1	0	1	1	0	1	2	0	51.3	53.1	D	D	33.7	39.9	C	D
18	SR-86 / 62nd Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	51.3	**66.8**	D	**E**
19	Tyler St. / 66th Av.	AWS	0	1!	0	1	1	0	1	1	0	1	1	0	14.9	18.9	B	C	9.3	9.4	A	A
20	W. Pierce St. / 66th Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	34.7	**>80**	D	**F**	9.6	11.0	A	B
21	SR-86 / 66th Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	44.3	53.3	D	D	39.6	48.5	D	D
22	Polk St. / Airport Bl.	TS	0	1!	0	0	0	0	1	3	1	1	2	0	51.3	40.0	D	D	29.6	29.4	C	C
23	Palm St. / Airport Bl.	TS	0	0	0	1	0	1	1	2	0	0	2	0	21.7	22.8	C	C	19.6	18.7	B	B
24	Highway 111 / Palm St.	TS	1	1	0	0	1	1	1	0	1	0	0	0	14.7	13.8	B	B	12.0	8.3	B	A
25	SR-86 SB Ramps / Airport Bl.	TS	0	1!	0	0.5	0.5	1	1	1	0	1	1	0	41.1	40.7	D	D	36.8	29.6	D	C
26	SR-86 NB Ramps / Airport Bl.	TS	1	0	1>	0	0	0	0	1	0	1	1	0	21.6	10.5	C	B	15.5	7.6	B	A
27	Harrison St. / Project Access 1	**CSS**	0	1	0	**1**	1	0	0	0	0	0	0	**1**	13.1	17.4	B	C	12.1	21.7	B	C
28	Harrison St. / Project Access 2	**TS**	0	1	0	**1**	1	0	0	0	0	**1**	0	**1>**	22.8	16.4	C	B	37.5	15.7	D	B
29	Project Access 3 / 62nd Av.	**CSS**	0	**1!**	0	0	0	0	0	1	0	**1**	1	0	15.0	17.5	B	C	13.5	15.5	B	C
30	Tyler St. / Project Access 4	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	14.0	12.9	B	B	10.9	10.8	B	B
31	Tyler St. / Project Access 5	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	13.9	12.3	B	B	10.5	10.4	B	B
32	Tyler St. / Project Access 6	**CSS**	**1**	1	0	0	1	0	0	**1!**	0	0	0	0	11.8	10.9	B	B	9.5	9.5	A	A

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane;
> = Right-Turn Overlap Phasing; >> = Free-Right Turn; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.
For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

6.12 DEFICIENCIES AND IMPROVEMENTS

The following improvements for **EAPC 2026** (Interim Project) traffic conditions would be the Project's responsibility to construct in conjunction with development of Project PAs 1 to 4.

- #6 - Harrison St. / 62nd Av.
  - Install traffic signal
  - Provide dedicated NB right turn lane with overlap phase
  - Provide dedicated EB left turn lane
  - Provide dedicated WB left turn lane
- #13 - Tyler St. / 62nd Av.
  - Install traffic signal
  - Provide a separate NB left turn lane
  - Provide a separate EB left turn lane
  - Modify WB approach to provide 1 WB left turn lane and 1 WB shared through-right lane
- #18 – SR-86 / 62nd Av.
  - Modify EB/WB signal phasing from split phase to protected phase
  - Modify EB approach to provide 1 EB left turn lane & 1 EB shared through-right lane
  - Modify WB approach to provide 1 WB left turn lane, 1 WB through lane, and 1 WB right turn lane
  - Provide an overlap phase for the WB right turn lane
- #27 - Harrison St. / Project Access 1
  - Restrict Project Access 1 to left-in/right-in/right-out access only
  - Provide 1 SB left turn lane
  - Provide 1 WB right turn lane
- #28 - Harrison St. / Project Access 2
  - Install traffic signal
  - Provide 1 SB left turn lane
  - Provide 1 WB left turn lane
  - Provide 1 WB right turn lane with overlap phase
- #29 - Project Access 3 / 62nd Av.
  - Install south leg stop sign control
  - Provide 1 WB left turn lane
  - Provide 1 NB shared left/right lane
- #30 - Tyler St. / Project Access 4
  - Install west leg stop sign control
  - Provide 1 NB left turn lane
  - Provide 1 EB shared left/right lane

- #31 - Tyler St. / Project Access 5
    - Install west leg stop sign control
    - Provide 1 NB left turn lane
    - Provide 1 EB shared left/right lane
- #32 Tyler St. / Project Access 6
    - Install west leg stop sign control
    - Provide 1 NB left turn lane
    - Provide 1 EB shared left/right lane

The following Improvement for **EAPC 2026** (Interim Project) traffic conditions is not specifically tied to the Project, and the Project Applicant's responsibilities are fulfilled through payment of fair share fees or participation in applicable pre-existing fee programs:

- #18 – SR-86 / 62nd Av.
    - Provide an overlap phase for the WB right turn lane

The effectiveness of the recommended improvement strategies to address EAPC (2032) traffic deficiencies are presented in Table 6-3. Worksheets for EAPC (2032), with improvements, intersection operations are provided in Appendix 6.7.

The following Improvements for **EAPC 2032** (Project Buildout) traffic conditions include off-site improvements beyond those discussed in Section 1.5.1 *Site Adjacent and Site Access Recommendations*, and include locations in addition to those listed above for EAPC 2026 conditions.

For the EAPC 2032 off-site improvements listed below which are not constructed as part of the Interim Project, the Project Applicant's responsibilities are fulfilled through payment of fair share fees or participation in applicable pre-existing fee programs that would be assigned to construction of cumulative improvements.

- #4 - Harrison St. / 58th Av.
    - Install traffic signal
- #5 - Harrison St. / 60th Av.
    - Install traffic signal
- #6 - Harrison St. / 62nd Av.
    - Install traffic signal
    - Provide separate NB right turn lane with overlap phase
    - Provide dedicated EB left turn lane
    - Provide dedicated WB left turn lane
- #8 - Harrison St. / Middleton St.
    - Install traffic signal

TABLE 6-3: INTERSECTION ANALYSIS FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
6	Harrison St. / 62nd Av.																					
	Without Improvements:	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	22.9	**53.5**	C	**F**	**19.1**	**51.4**	C	**F**
	With Improvements:	**TS**	1	1	**1>**	1	1	0	**1**	1	0	**1**	1	0	37.5	30.9	D	C	39.3	33.7	D	C
13	Tyler St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**52.1**	**F**	**F**	22.6	16.0	C	C
	With Improvements:	**TS**	**1**	1	0	1	1	0	**1**	1	0	**1**	1	0	16.3	15.3	B	B	17.2	16.0	B	B
18	SR-86 / 62nd Av.																					
	Without Improvements:	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**72.5**	**62.5**	**E**	**E**	35.6	50.1	D	D
	With Improvements:	TS	1	2	1	1	2	1	**1**	1	0	**1**	1	**1>**	37.0	37.9	D	D	29.7	39.2	C	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

- #13 - Tyler St. / 62nd Av.
  - Install traffic signal
  - Provide dedicated NB left turn lane
  - Provide a separate EB left turn lane
  - Modify WB approach to provide 1 WB left turn lane & 1 WB shared through-right lane
- #14 - Polk St. / 62nd Av.
  - Install traffic signal
- #15 - Fillmore St. / 62nd Av.
  - Install traffic signal
- #18 – SR-86 / 62nd Av.
  - Modify EB/WB signal phasing from split phase to protected phase
  - Modify EB approach to provide 1 EB left turn lane & 1 EB shared through-right lane
  - Modify WB approach to provide 1 WB left turn lane, 1 WB through lane, and 1 WB right turn lane
  - Provide an overlap phase for the WB right turn lane
- #20 – W. Pierce St. / 66th Av.
  - Install traffic signal
- #27 - Harrison St. / Project Access 1
  - Restrict Project Access 1 to left-in/right-in/right-out access only
  - Provide 1 SB left turn lane
  - Provide 1 WB right turn lane
- #28 - Harrison St. / Project Access 2
  - Install traffic signal
  - Provide 1 SB left turn lane
  - Provide 1 WB left turn lane
  - Provide 1 WB right turn lane with overlap phase
- #29 - Project Access 3 / 62nd Av.
  - Install stop sign control
  - Provide 1 WB left turn lane
  - Provide 1 NB shared left/right lane
  - Provide 1 EB right turn lane
- #30 - Tyler St. / Project Access 4
  - Install stop sign control
  - Provide 1 NB left turn lane
  - Provide 1 EB shared left/right lane
- #31 - Tyler St. / Project Access 5
  - Install stop sign control
  - Provide 1 NB left turn lane
  - Provide 1 EB shared left/right lane

- #32 Tyler St. / Project Access 6
    - Install stop sign control
    - Provide 1 NB left turn lane
    - Provide 1 EB shared left/right lane

The effectiveness of the recommended improvement strategies to address EAPC (2032) traffic deficiencies are presented in Table 6-4. Worksheets for EAPC (2032), with improvements, intersection operations are provided in Appendix 6.8.

TABLE 6-4: INTERSECTION ANALYSIS FOR EAPC (2032) CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
4	Harrison St. / 58th Av.																					
	Without Improvements:	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	20.7	36.3	C	**E**	19.9	17.8	C	C
	With Improvements:	**TS**	1	1	0	0	1	1	0	1!	0	0	0	0	8.9	10.9	A	B	8.4	7.0	A	A
5	Harrison St. / 60th Av.																					
	Without Improvements:	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	37.4	49.4	**E**	**E**
	With Improvements:	**TS**	1	1	0	1	1	0	0	1!	0	0	1!	0	9.9	11.3	A	B	8.3	8.7	A	A
6	Harrison St. / 62nd Av.																					
	Without Improvements:	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	1	1	**1>**	1	1	0	**1**	1	0	**1**	1	0	40.0	46.5	D	D	48.3	34.9	D	C
8	Harrison St. / Middleton St.																					
	Without Improvements:	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	20.9	**>80**	C	**F**	13.6	21.6	B	C
	With Improvements:	**TS**	1	1	0	1	1	0	0	1!	0	0	1!	0	9.3	9.2	A	A	6.5	6.0	A	A
13	Tyler St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**>80**	**F**	**F**	**60.3**	33.8	**F**	D
	With Improvements:	**TS**	**1**	1	0	1	1	0	**1**	1	0	**1**	1	0	20.7	16.1	C	B	18.2	15.9	B	B
14	Polk St. / 62nd Av.																					
	Without Improvements:	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	18.4	16.3	B	B	17.2	17.8	B	B
15	Fillmore St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	35.5	**>80**	**E**	**F**	21.5	**68.3**	C	**F**
	With Improvements:	**TS**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	17.0	23.4	B	C	17.5	18.7	B	B
18	SR-86 / 62nd Av.																					
	Without Improvements:	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	51.3	**66.8**	D	**E**
	With Improvements:	TS	1	2	1	1	2	1	**1**	1	0	**1**	1	**1>**	50.4	45.8	D	D	35.3	44.5	D	D
20	W. Pierce St. / 66th Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	34.7	**>80**	D	**F**	9.6	11.0	A	B
	With Improvements:	**TS**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	16.3	17.1	B	B	18.4	17.9	B	B

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

7 HORIZON YEAR (2045) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Horizon Year (2045) conditions and the resulting intersection operations and traffic signal warrant analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year (2045) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project (Project Buildout) to provide site access are also assumed to be in place for Horizon Year (2045) conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Other parallel facilities, that although not evaluated for the purposes of this analysis, are anticipated to be in place for Horizon Year traffic conditions and would affect the travel patterns within the study area.

7.2 HORIZON YEAR (2045) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS, WEEKDAY

This scenario accounts for RIVTAM projections and includes ambient growth rate (see Section 4.8 *Horizon Year Volume Development* of this TA for a detailed discussion on the methodology).

The Horizon Year (2045) Without Project weekday AM peak hour volumes are shown on Exhibit 7-1. Exhibit 7-2 shows Horizon Year (2045) Without Project weekday PM peak hour volumes.

Horizon Year (2045) Without Project weekday ADT volumes are shown on Exhibit 7-3.

7.3 HORIZON YEAR (2045) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS, WEEKEND

This scenario includes an overall ambient growth of 32.04 percent from 2032 weekend conditions (see Section 4.8 *Horizon Year Volume Development* of this TA for a detailed discussion on the methodology).

The Horizon Year (2045) Without Project weekend AM peak hour volumes are shown on Exhibit 7-4. Exhibit 7-5 shows Horizon Year (2045) Without Project weekend PM peak hour volumes.

Horizon Year (2045) Without Project weekend ADT volumes are shown on Exhibit 7-6.

7.4 HORIZON YEAR (2045) WITH PROJECT TRAFFIC VOLUME FORECASTS, WEEKDAY

Project Buildout volumes have been added to the Horizon Year (2045) Without Project weekday traffic forecasts to reflect Horizon Year (2045) With Project conditions.

The Horizon Year (2045) With Project weekday AM peak hour volumes are shown on Exhibit 7-7. Exhibit 7-8 shows Horizon Year (2045) With Project weekday PM peak hour volumes. Horizon Year (2045) With Project weekday ADT volumes are shown on Exhibit 7-9.

EXHIBIT 7-1: HORIZON YEAR (2045) WITHOUT PROJECT WEEKDAY AM PEAK HOUR INTERSECTION VOLMES

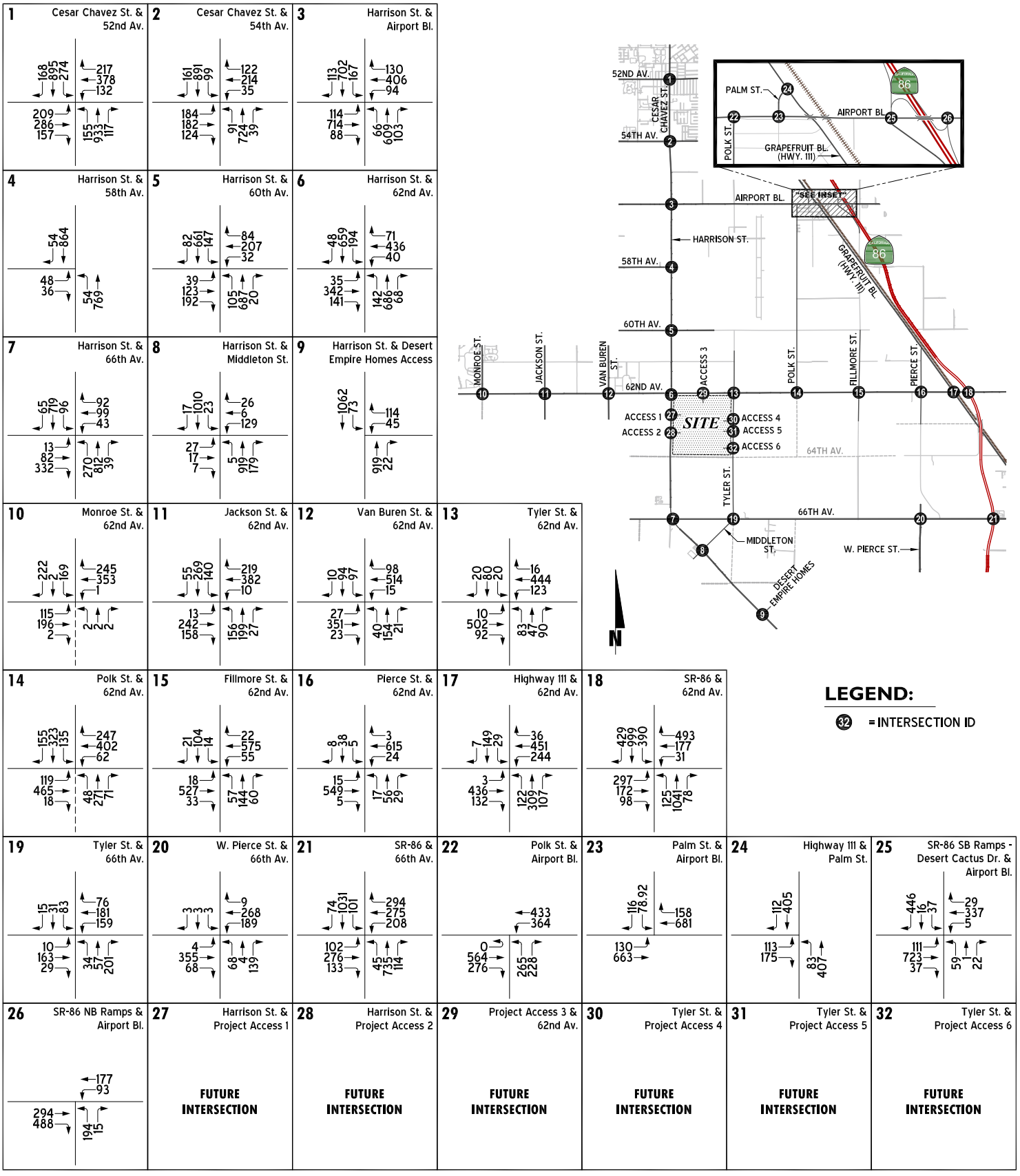


EXHIBIT 7-2: HORIZON YEAR (2045) WITHOUT PROJECT WEEKDAY PM PEAK HOUR INTERSECTION VOLMES

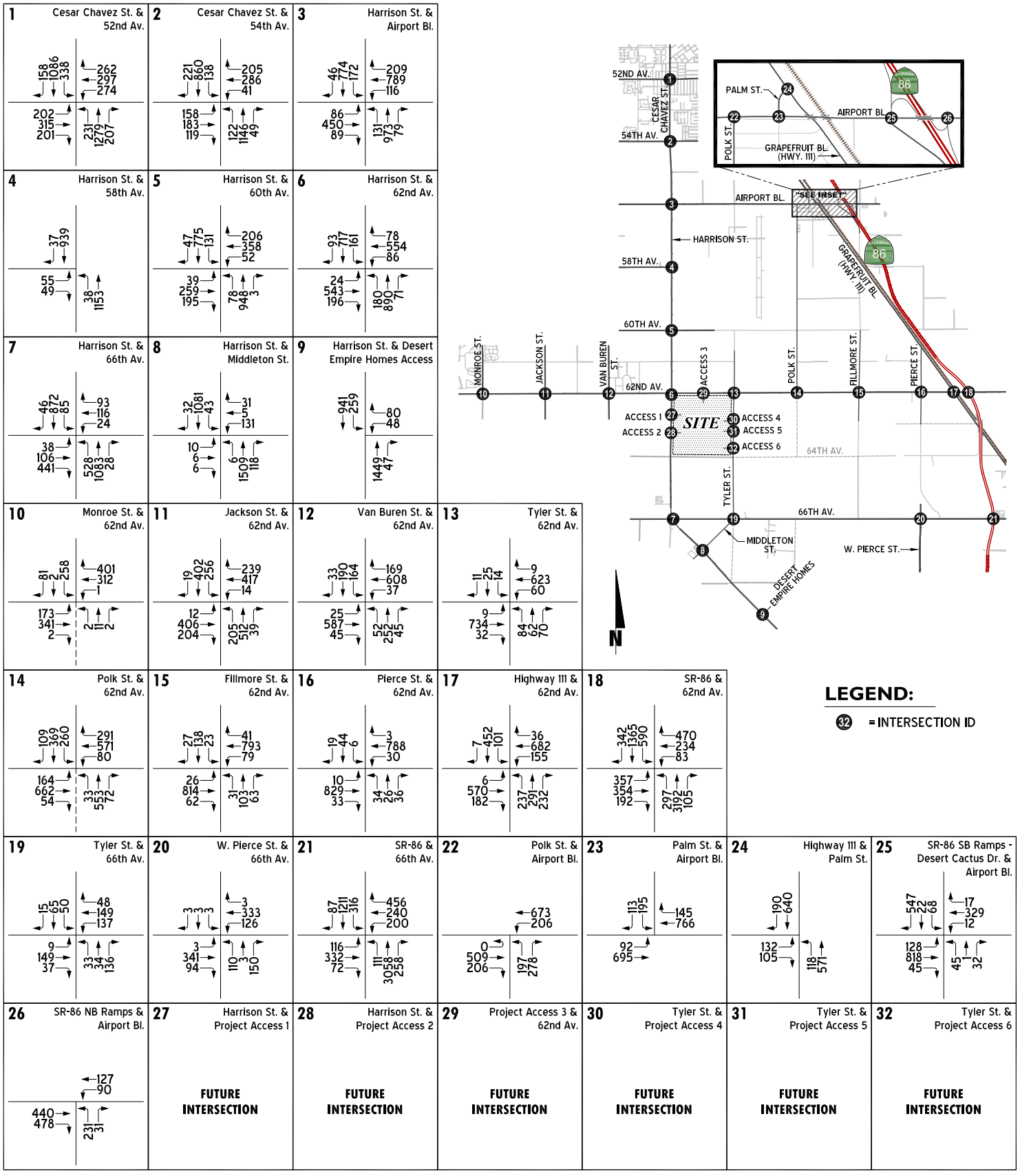


EXHIBIT 7-3: HORIZON YEAR (2045) WITHOUT PROJECT WEEKDAY AVERAGE DAILY TRAFFIC (ADT) VOLUMES

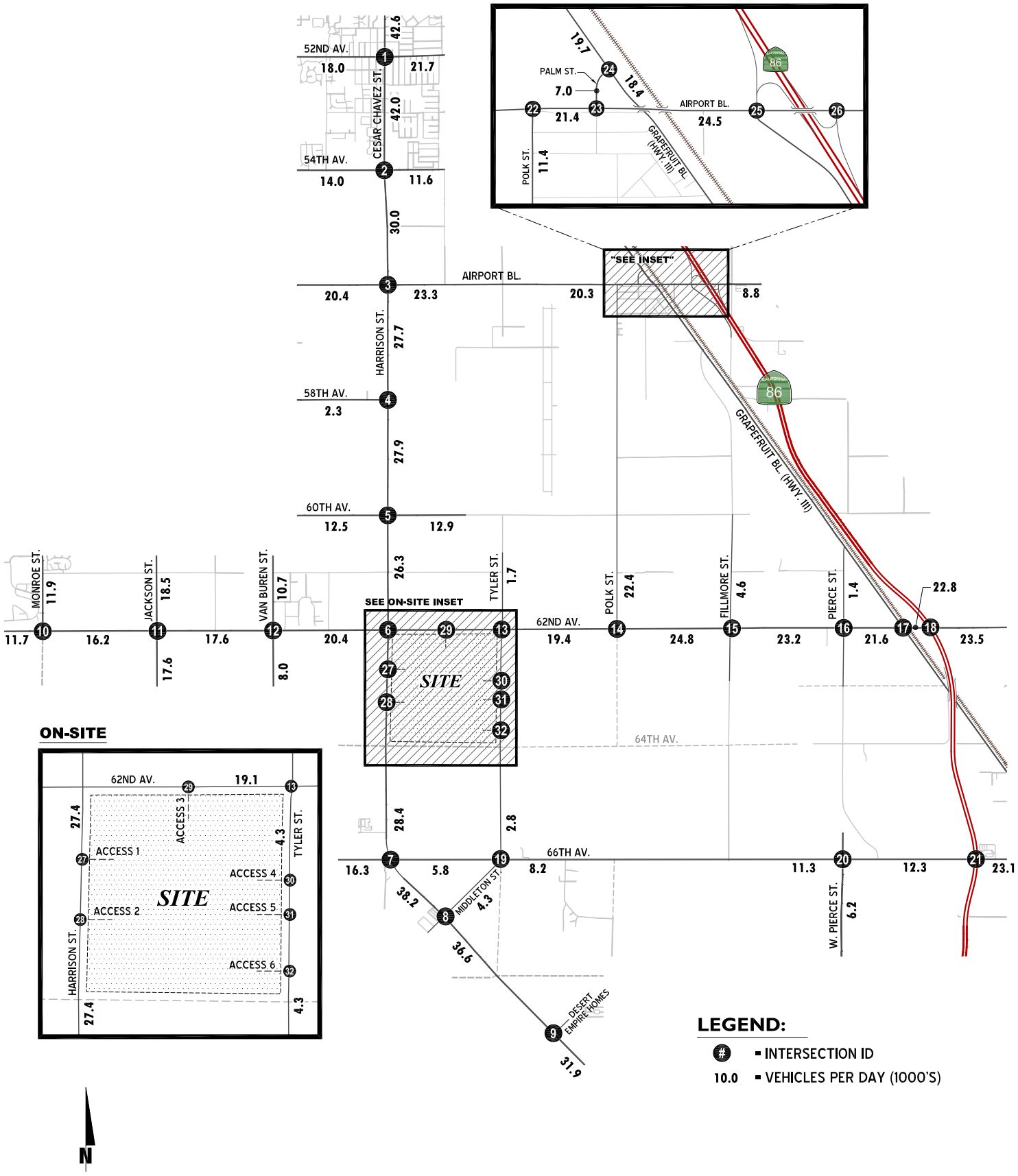


EXHIBIT 7-4: HORIZON YEAR (2045) WITHOUT PROJECT WEEKEND
SATURDAY AM PEAK HOUR INTERSECTION VOLMES

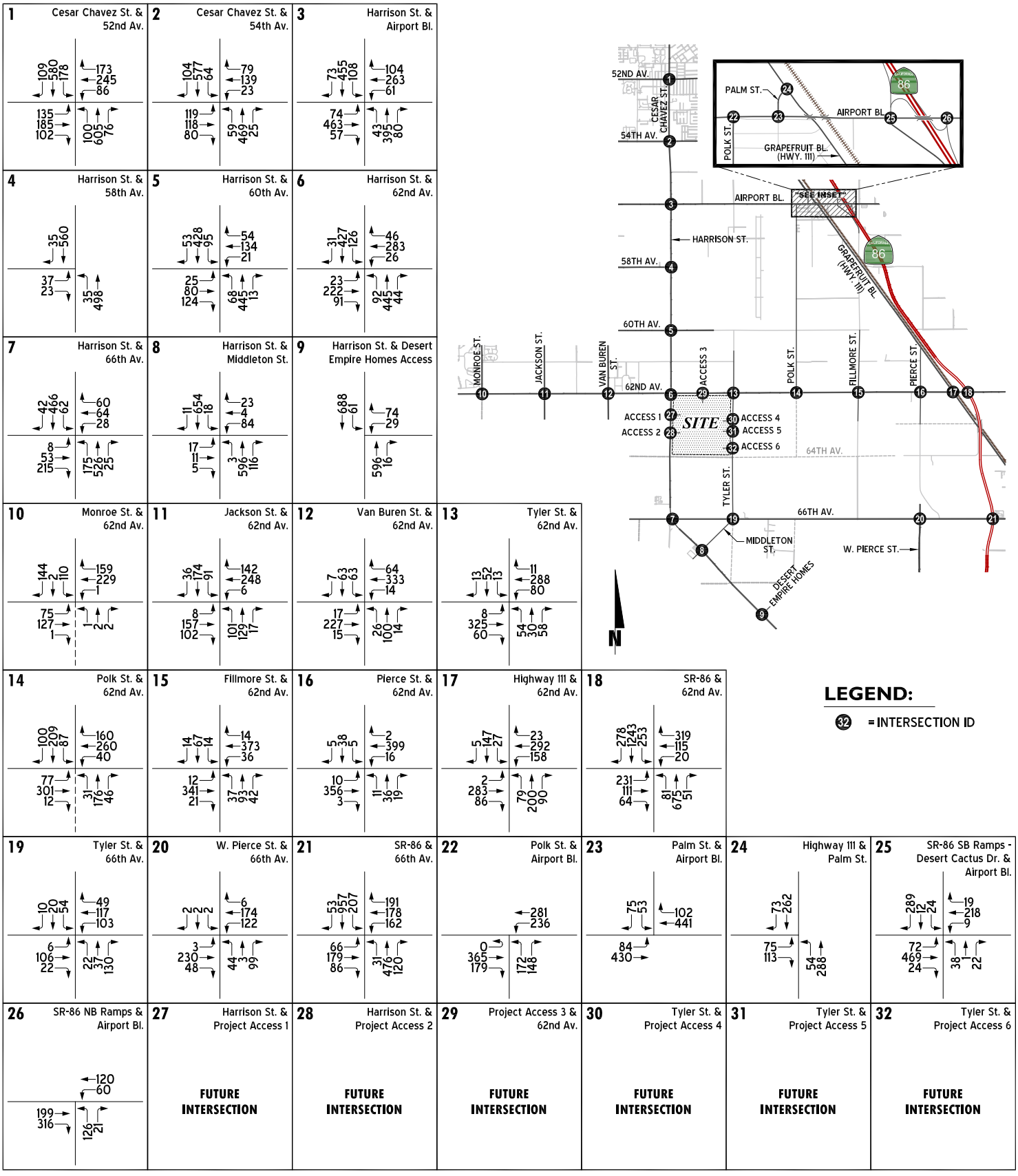


EXHIBIT 7-5: HORIZON YEAR (2045) WITHOUT PROJECT WEEKEND
SUNDAY PM PEAK HOUR INTERSECTION VOLMES

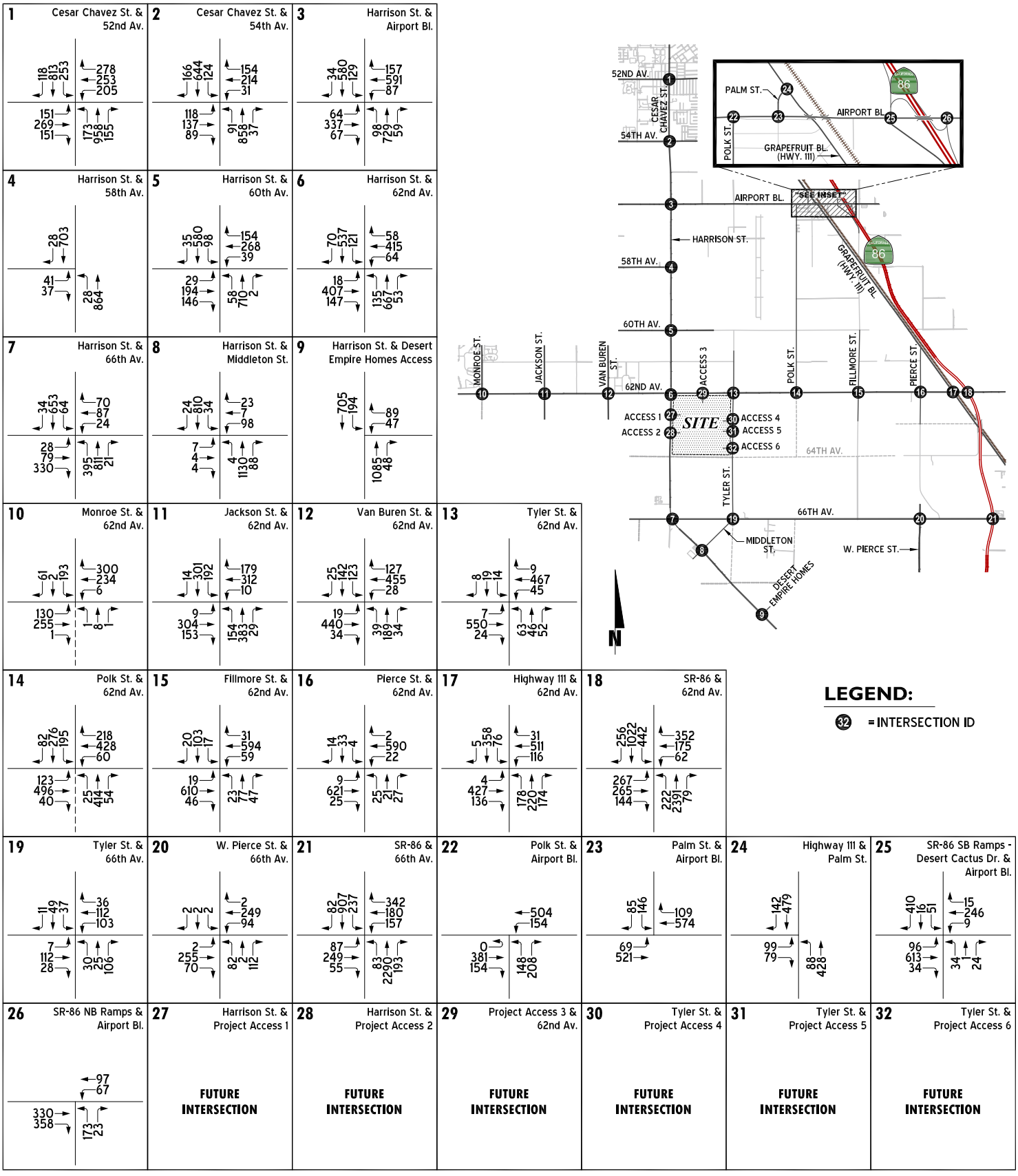


EXHIBIT 7-6: HORIZON YEAR (2045) WITHOUT PROJECT WEEKEND
AVERAGE DAILY TRAFFIC (ADT) VOLUMES

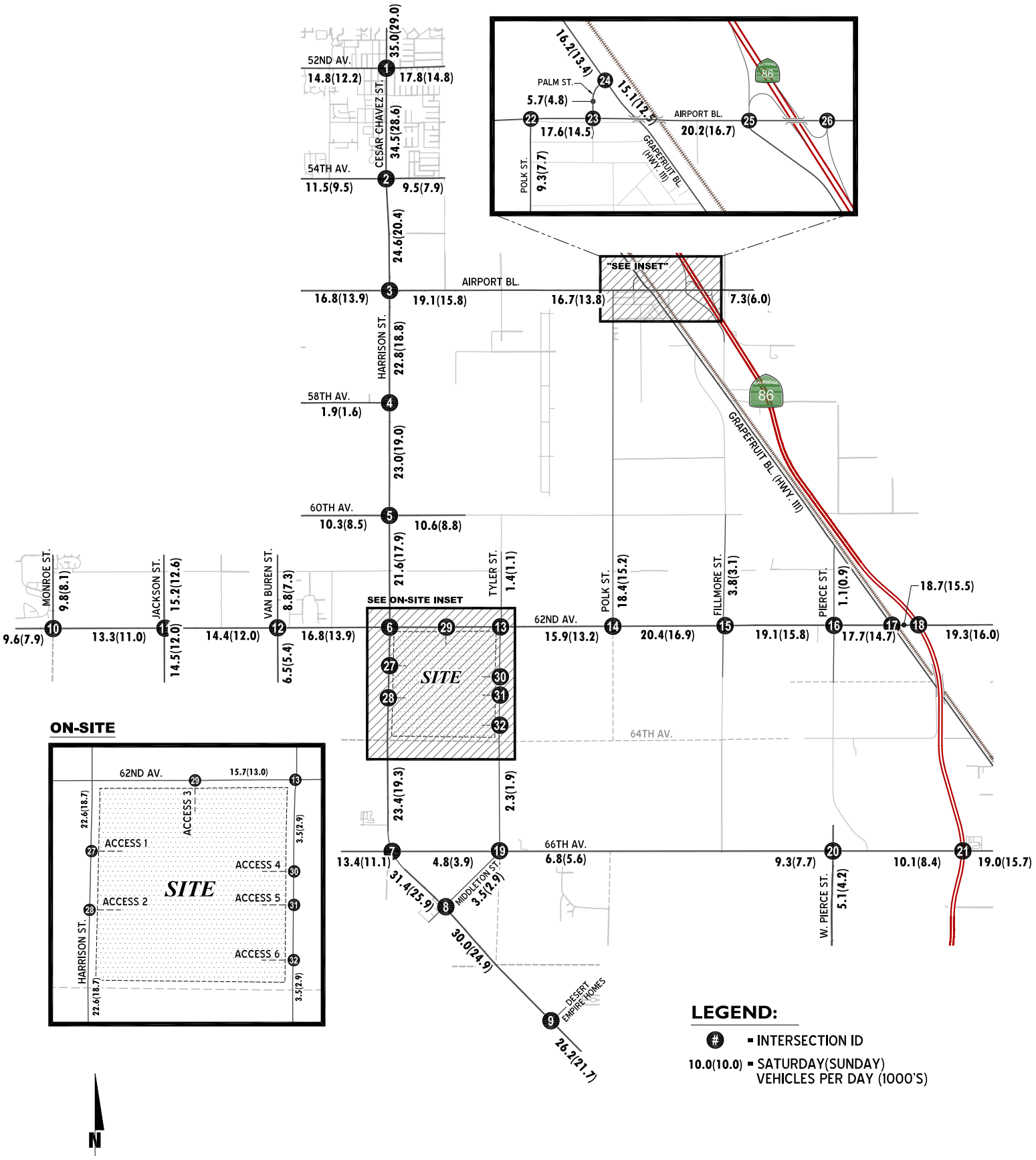


EXHIBIT 7-7: HORIZON YEAR (2045) WITH PROJECT WEEKDAY AM PEAK HOUR INTERSECTION VOLUMES

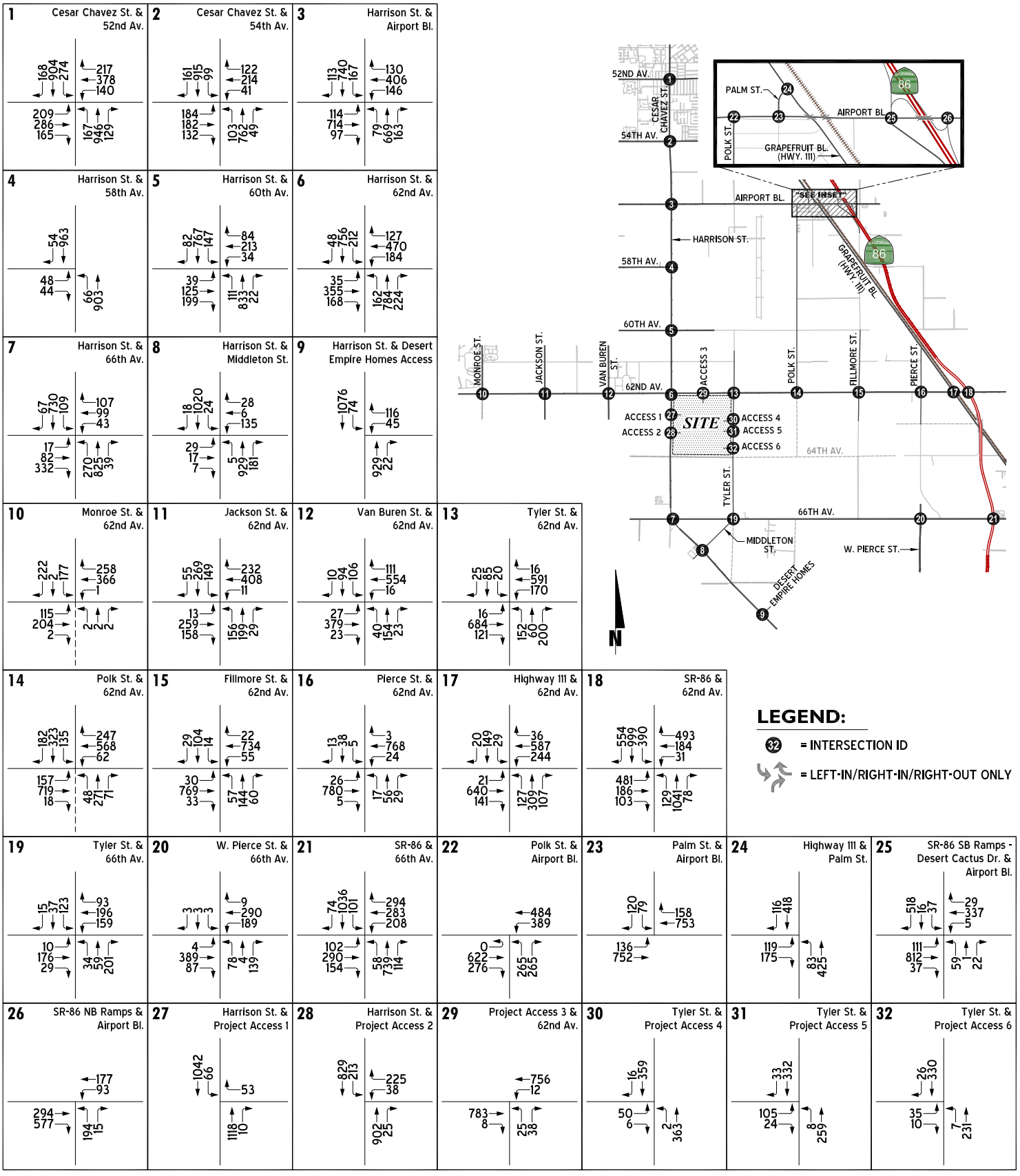


EXHIBIT 7-8: HORIZON YEAR (2045) WITH PROJECT WEEKDAY PM PEAK HOUR INTERSECTION VOLUMES

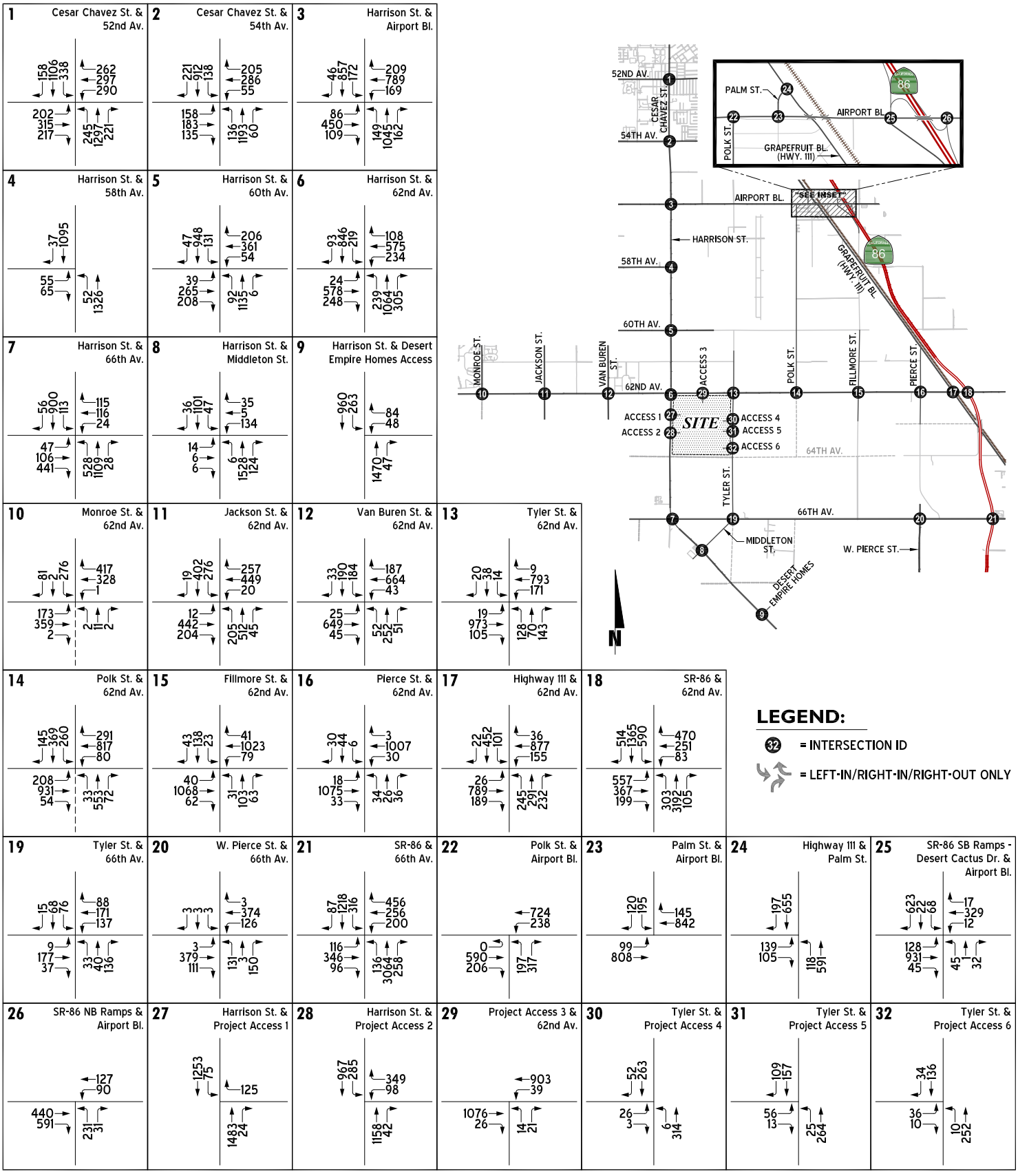
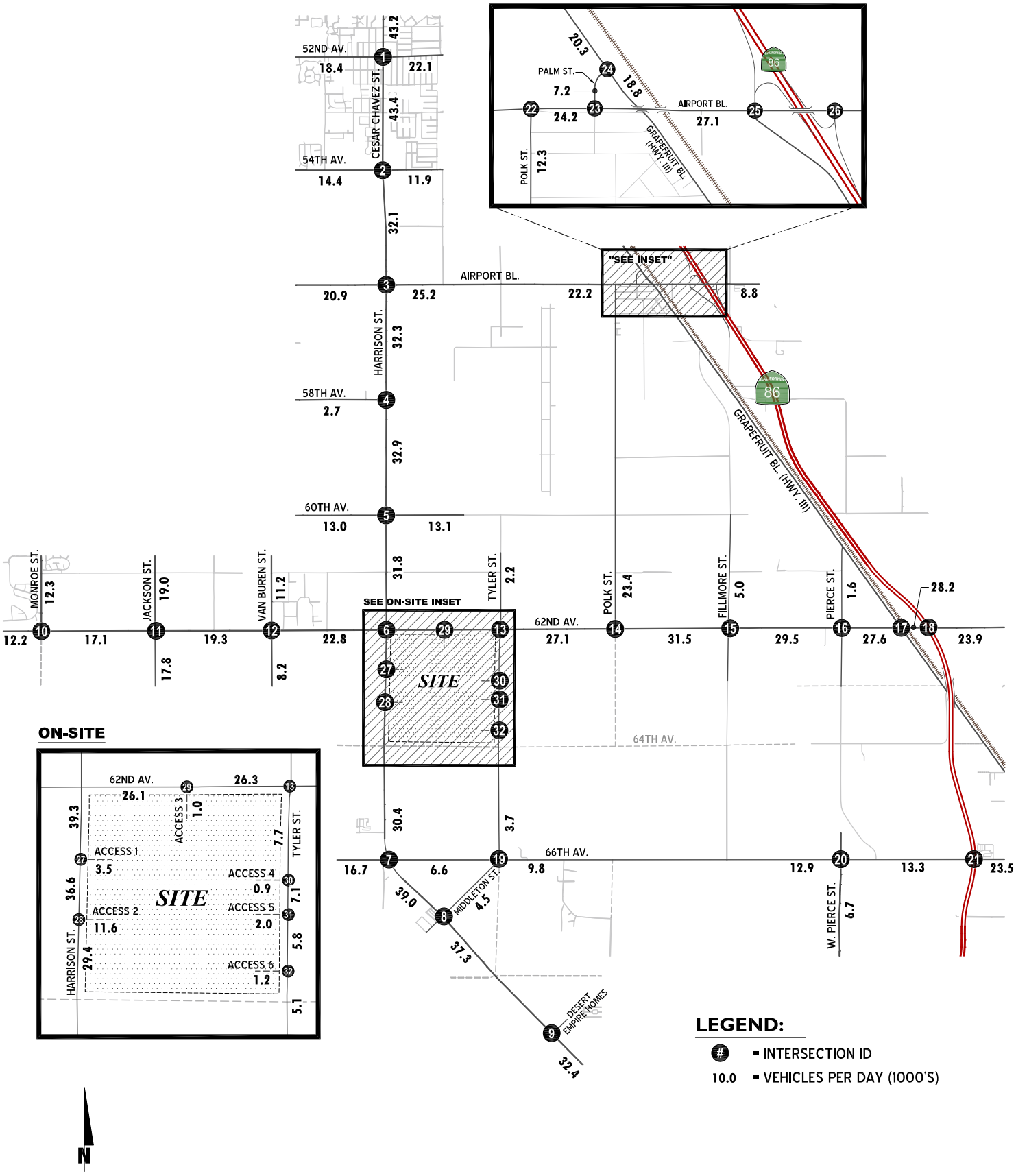


EXHIBIT 7-9: HORIZON YEAR (2045) WITH PROJECT WEEKDAY AVERAGE DAILY TRAFFIC (ADT) VOLUMES



7.5 HORIZON YEAR (2045) WITH PROJECT TRAFFIC VOLUME FORECASTS, WEEKEND

Project Buildout volumes have been added to the Horizon Year (2045) Without Project weekend traffic forecasts to reflect Horizon Year (2045) With Project conditions.

The Horizon Year (2045) With Project weekend Saturday AM peak hour volumes are shown on Exhibit 7-10. Exhibit 7-11 shows Horizon Year (2045) With Project weekend Sunday PM peak hour volumes. Horizon Year (2045) With Project weekend ADT volumes are shown on Exhibit 7-12.

7.6 INTERSECTION OPERATIONS ANALYSIS

7.6.1 HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS

Horizon Year (2045) Without Project weekday conditions peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 7-1 for Horizon Year (2045) Without Project conditions which indicates the following study area intersections are anticipated to operate at an unacceptable LOS under Horizon Year (2045) Without Project traffic conditions:

- Cesar Chavez St. / 52nd Av. (#1) – LOS F (Weekday)
- Cesar Chavez St. / 54th Av. (#2) – LOS F (Weekday)
- Harrison St. / Airport Bl. (#3) –LOS F (Weekday)
- Harrison St. / 58th Av. (#4) – LOS F (Weekend)
- Harrison St. / 60th Av. (#5) – LOS F (Weekday & Weekend Saturday AM)
- Harrison St. / 62nd Av. (#6) – LOS F (Weekday & Weekend Saturday AM)
- Harrison St. / 66th Av. (#7) – LOS F (Weekday PM)
- Harrison St. / Middleton St (#8) – LOS F (Weekday & Weekend Saturday AM)
- Harrison St. / Desert Empire Homes (#9) – LOS F (Weekday & Weekend Saturday AM)
- Monroe St. / 62nd Av. (#10) –LOS F (Weekday PM)
- Jackson St. / 62nd Av. (#11) – LOS F (Weekday)
- Van Buren St. / 62nd Av. (#12) – LOS F (Weekday)
- Tyler St. / 62nd Av. (#13) – LOS F (Weekday)
- Polk St. / 62nd Av. (#14) – LOS F (Weekday & Weekend Saturday AM)
- Fillmore St. / 62nd Av. (#15) – LOS F (Weekday)
- Pierce St. / 62nd Av (#16) – LOS E (Weekday AM) & LOS F (Weekday PM)
- Highway 111 / 62nd Av (#17) – LOS E (Weekday AM) & LOS F (Weekday PM)
- SR-86 / 62nd Av. (#18) – LOS F (Weekday & Weekend Saturday AM)
- W. Pierce St. / 66th Av. (#20) – LOS F (Weekday)
- SR-86 / 66th Av. (#21) – LOS E (Weekday AM) & LOS F (Weekend PM)
- SR-86 SB Ramps / Airport Bl. (#25) – LOS E (Weekday AM) & LOS F (Weekday PM)

EXHIBIT 7-10: HORIZON YEAR (2045) WITH PROJECT WEEKEND SATURDAY AM PEAK HOUR INTERSECTION VOLUMES

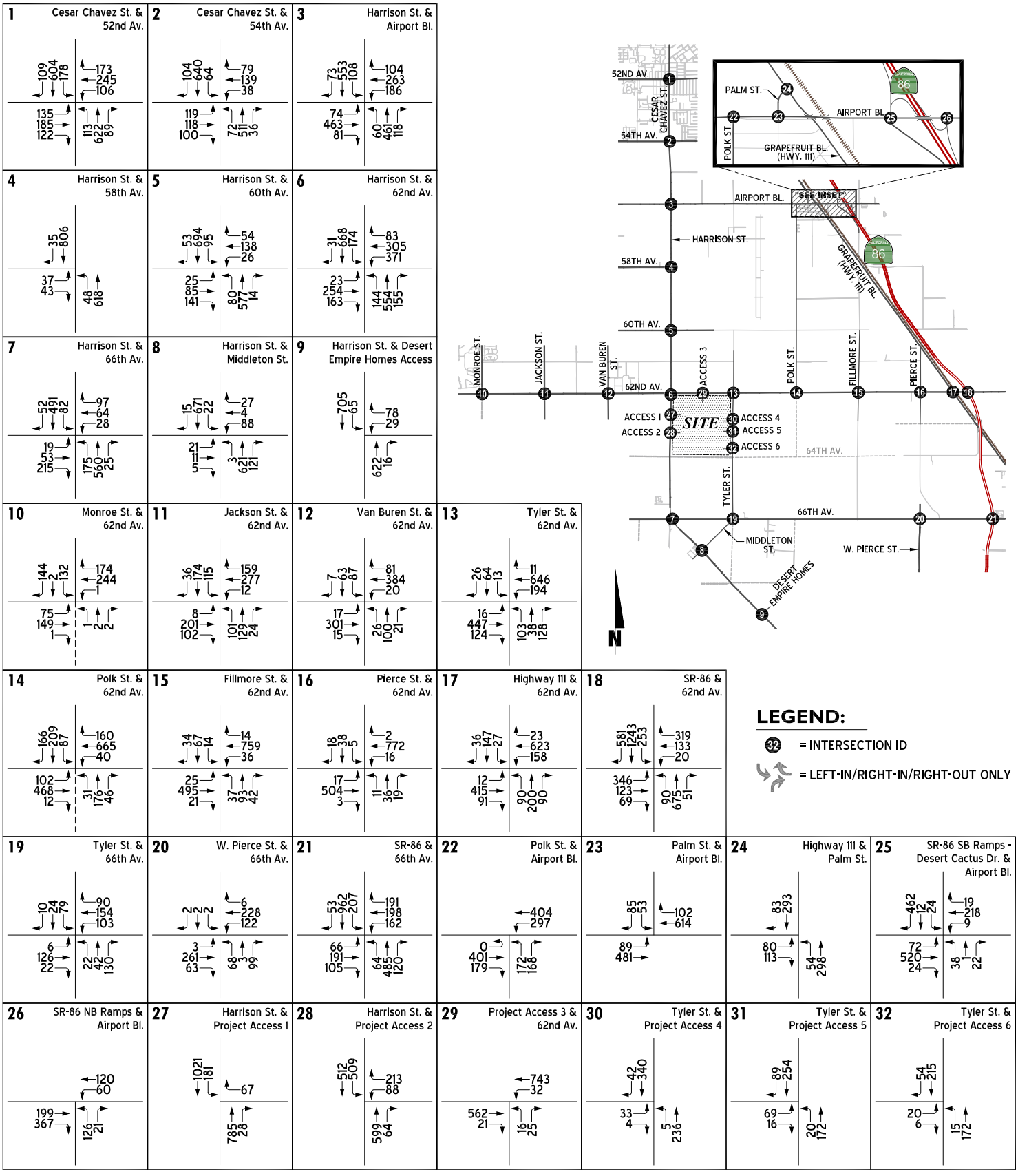


EXHIBIT 7-11: HORIZON YEAR (2045) WITH PROJECT WEEKEND SUNDAY PM PEAK HOUR INTERSECTION VOLUMES

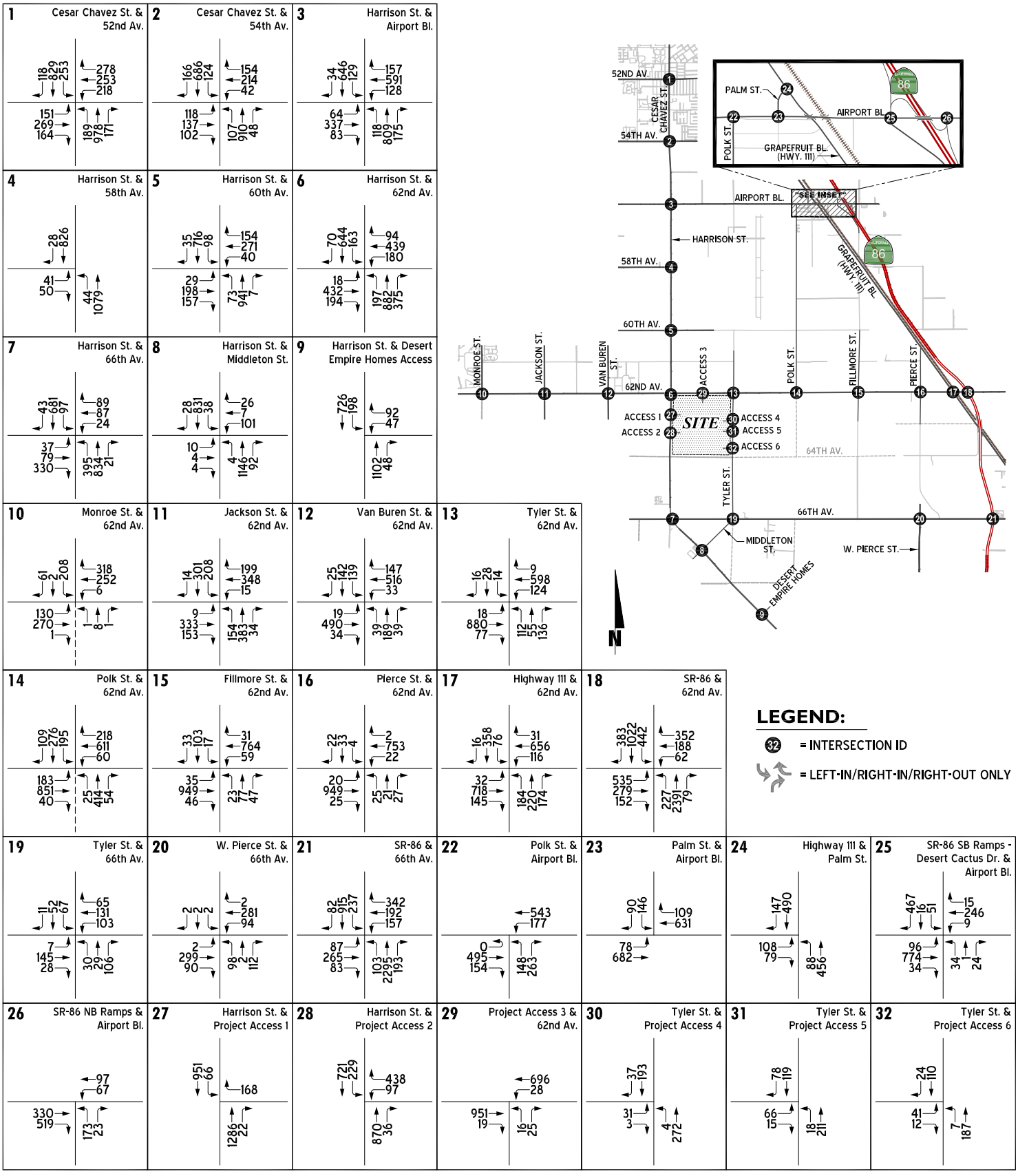


EXHIBIT 7-12: HORIZON YEAR (2045) WITH PROJECT WEEKEND AVERAGE DAILY TRAFFIC (ADT) VOLUMES

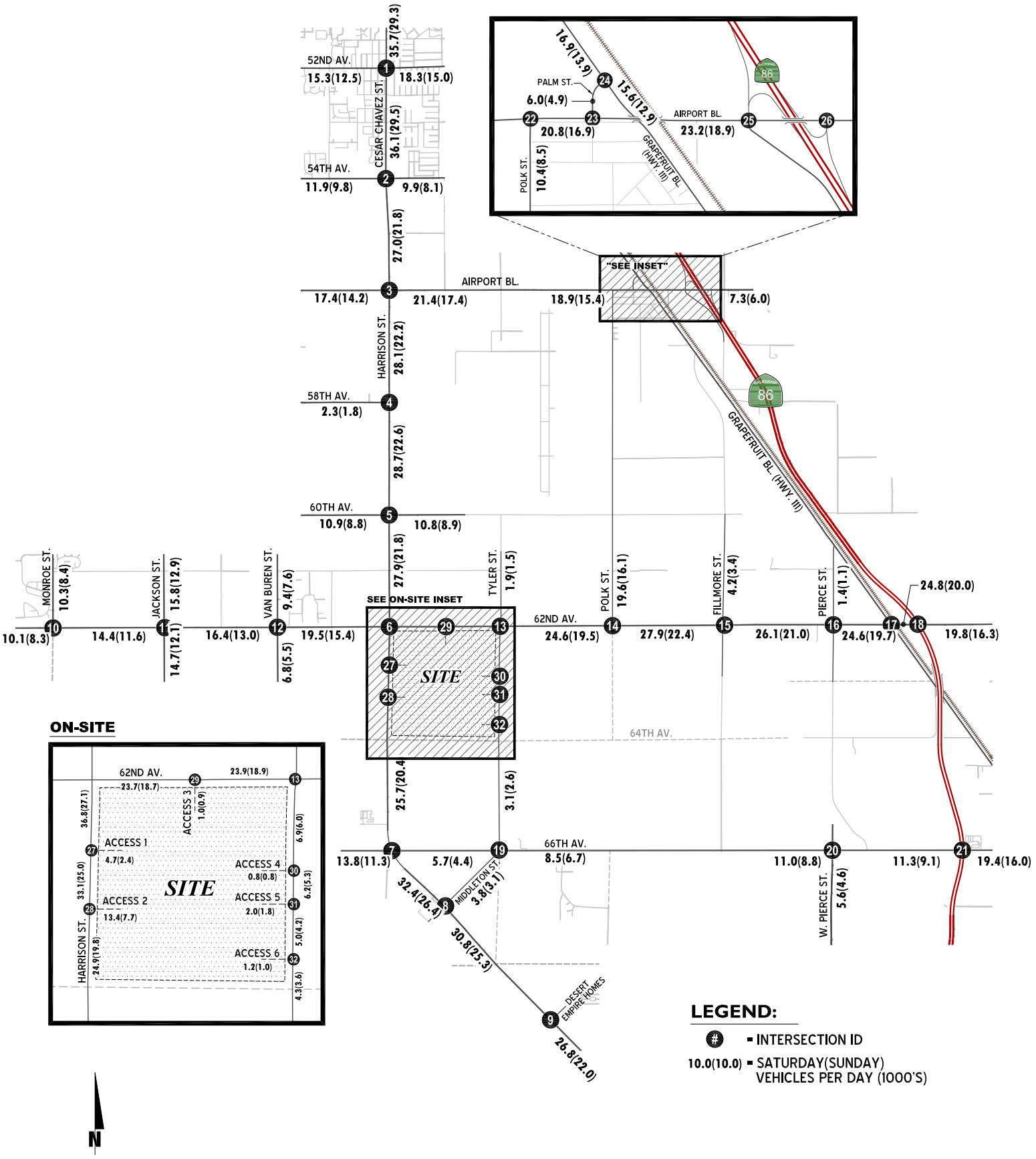


TABLE 7-1: INTERSECTION ANALYSIS FOR HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.	TS	1	2	0	1	2	0	0.5	1.5	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	43.5	43.2	D	D
2	Cesar Chavez St. / 54th Av.	TS	1	1	d	1	1	1	0.5	0.5	1	0	1!	0	**>80**	**>80**	**F**	**F**	23.3	15.6	C	B
3	Harrison St. / Airport Bl.	TS	1	1	0	1	1	1	1	1	0	1	1	1>>	**>80**	**>80**	**F**	**F**	35.0	28.8	C	C
4	Harrison St. / 58th Av.	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	**76.5**	**>80**	**F**	**F**	21.7	13.0	C	B
5	Harrison St. / 60th Av.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	17.5	**F**	C
6	Harrison St. / 62nd Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	29.9	**F**	D
7	Harrison St. / 66th Av.	TS	1	2	0	1	2	0	0	1!	0	0	1!	0	37.3	**>80**	D	**F**	28.8	25.6	C	C
8	Harrison St. / Middleton St.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	14.4	**F**	B
9	Harrison St. / Desert Empire Homes	CSS	0	1	1	1	1	0	0	0	0	1	0	1	**>80**	**>80**	**F**	**F**	**37.3**	14.3	**E**	B
10	Monroe St. / 62nd Av.	AWS	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	25.3	**70.7**	D	**F**	11.1	7.5	B	A
11	Jackson St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	18.3	7.6	C	A
12	Van Buren St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**57.4**	**>80**	**F**	**F**	12.8	7.5	B	A
13	Tyler St. / 62nd Av.	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**>80**	**F**	**F**	16.5	14.6	C	B
14	Polk St. / 62nd Av.	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	**>80**	19.0	**F**	C
15	Fillmore St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	15.0	10.1	B	B
16	Pierce St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	35.4	**>80**	**E**	**F**	12.3	10.0	B	A
17	Highway 111 / 62nd Av.	TS	1	1	1	1	1	0	1	1	0	1	2	0	**66.3**	**>80**	**E**	**F**	40.0	35.9	D	D
18	SR-86 / 62nd Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	**>80**	47.5	**F**	D
19	Tyler St. / 66th Av.	AWS	0	1!	0	1	1	0	1	1	0	1	1	0	14.9	11.7	B	B	10.3	8.8	B	A
20	W. Pierce St. / 66th Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**63.2**	**>80**	**F**	**F**	10.8	8.9	B	A
21	SR-86 / 66th Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**76.0**	**>80**	**E**	**F**	52.9	43.2	D	D
22	Polk St. / Airport Bl.	TS	0	1!	0	0	0	0	1	3	1	1	2	0	41.5	38.0	D	D	30.2	28.8	C	C
23	Palm St. / Airport Bl.	TS	0	0	0	1	0	1	1	2	0	0	2	0	23.7	24.2	C	C	21.7	17.2	C	B
24	Highway 111 / Palm St.	TS	1	1	0	0	1	1	1	0	1	0	0	0	20.7	17.6	C	B	15.8	7.9	B	A
25	SR-86 SB Ramps / Airport Bl.	TS	0	1!	0	0.5	0.5	1	1	1	0	1	1	0	**64.3**	**>80**	**E**	**F**	32.2	22.2	C	C
26	SR-86 NB Ramps / Airport Bl.	TS	1	0	1>	0	0	0	0	1	0	1	1	0	26.2	20.0	C	B	11.9	7.1	B	A
27	Harrison St. / Project Access 1		Future Intersection																			
28	Harrison St. / Project Access 2		Future Intersection																			
29	Project Access 3 / 62nd Av.		Future Intersection																			
30	Tyler St. / Project Access 4		Future Intersection																			
31	Tyler St. / Project Access 5		Future Intersection																			
32	Tyler St. / Project Access 6		Future Intersection																			

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

The intersection operations analysis worksheets for Horizon Year (2045) Without Project traffic conditions for weekdays and weekends are included in Appendices 7.1 and 7.2, respectively.

7.6.2 HORIZON YEAR (2045) WITH PROJECT CONDITIONS

Horizon Year (2045) With Project conditions peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 7-2 for Horizon Year (2045) With Project conditions which indicates that there are no additional new intersections anticipated to operate at an unacceptable LOS with the addition of Project traffic. Similar to Horizon Year (2045) Without Project traffic conditions, the following study area intersections are anticipated to continue to operate at an unacceptable LOS under Horizon Year (2045) With Project traffic conditions:

- Cesar Chavez St. / 52nd Av. (#1) – LOS F (Weekday & Weekend PM)
- Cesar Chavez St. / 54th Av. (#2) – LOS F (Weekday & Weekend PM)
- Harrison St. / Airport Bl. (#3) – LOS F (Weekday & Weekend PM)
- Harrison St. / 58th Av. (#4) – LOS F (Weekday & Weekend PM)
- Harrison St. / 60th Av. (#5) – LOS F (Weekday & Weekend)
- Harrison St. / 62nd Av. (#6) – LOS F (Weekday & Weekend)
- Harrison St. / 66th Av. (#7) – LOS F (Weekday PM)
- Harrison St. / Middleton St (#8) – LOS F (Weekday & Weekend)
- Harrison St. / Desert Empire Homes (#9) – LOS E (Weekend AM) & LOS F (Weekday & Weekend PM)
- Monroe St. / 62nd Av. (#10) –LOS F (Weekday PM)
- Jackson St. / 62nd Av. (#11) – LOS F (Weekday) & LOS E (Weekend PM)
- Van Buren St. / 62nd Av. (#12) – LOS F (Weekday) & LOS E (Weekend PM)
- Tyler St. / 62nd Av. (#13) – LOS F (Weekday & Weekend)
- Polk St. / 62nd Av. (#14) – LOS F (Weekday & Weekend)
- Fillmore St. / 62nd Av. (#15) – LOS F (Weekday & Weekend)
- Pierce St. / 62nd Av (#16) – LOS F (Weekday & Weekend)
- Highway 111 / 62nd Av (#17) – LOS F (Weekday & Weekend PM)
- SR-86 / 62nd Av. (#18) – LOS F (Weekday & Weekend)
- W. Pierce St. / 66th Av. (#20) – LOS F (Weekday)
- SR-86 / 66th Av. (#21) – LOS F (Weekday & Weekend PM)
- SR-86 SB Ramps / Airport Bl. (#25) – LOS E (Weekend AM) & LOS F (Weekday & Weekend PM)

The intersection operations analysis worksheets for Horizon Year (2045) With Project traffic conditions for weekdays and weekends are included in Appendices 7.3 and 7.4, respectively.

TABLE 7-2: INTERSECTION ANALYSIS FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday				Weekend			
			Northbound			Southbound			Eastbound			Westbound			Delay[3] (secs.)		Level of Service		Delay[3] (secs.)		Level of Service	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.	TS	1	2	0	1	2	0	0.5	1.5	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	44.2	**>80**	D	**F**
2	Cesar Chavez St. / 54th Av.	TS	1	1	d	1	1	1	0.5	0.5	1	0	1!	0	**>80**	**>80**	**F**	**F**	30.1	**>80**	C	**F**
3	Harrison St. / Airport Bl.	TS	1	1	0	1	1	1	1	1	0	1	1	1>>	**>80**	**>80**	**F**	**F**	44.3	**>80**	D	**F**
4	Harrison St. / 58th Av.	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	**>80**	**>80**	**F**	**F**	**37.3**	**>80**	**E**	**F**
5	Harrison St. / 60th Av.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
6	Harrison St. / 62nd Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
7	Harrison St. / 66th Av.	TS	1	2	0	1	2	0	0	1!	0	0	1!	0	38.0	**>80**	D	**F**	29.7	50.3	C	D
8	Harrison St. / Middleton St.	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
9	Harrison St. / Desert Empire Homes	CSS	0	1	1	1	1	0	0	0	0	1	0	1	**>80**	**>80**	**F**	**F**	**40.5**	**>80**	**E**	**F**
10	Monroe St. / 62nd Av.	AWS	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	29.8	**>80**	D	**F**	12.2	22.9	B	C
11	Jackson St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	28.6	**>80**	D	**F**
12	Van Buren St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	17.2	**>80**	C	**F**
13	Tyler St. / 62nd Av.	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
14	Polk St. / 62nd Av.	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
15	Fillmore St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
16	Pierce St. / 62nd Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**61.0**	**>80**	**F**	**F**
17	Highway 111 / 62nd Av.	TS	1	1	1	1	1	0	1	1	0	1	2	0	**>80**	**>80**	**F**	**F**	43.2	**>80**	D	**F**
18	SR-86 / 62nd Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
19	Tyler St. / 66th Av.	AWS	0	1!	0	1	1	0	1	1	0	1	1	0	16.8	13.2	C	B	11.4	10.9	B	B
20	W. Pierce St. / 66th Av.	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	12.6	16.3	B	C
21	SR-86 / 66th Av.	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	53.5	**>80**	D	**F**
22	Polk St. / Airport Bl.	TS	0	1!	0	0	0	0	1	3	1	1	2	0	43.8	38.8	D	D	30.7	31.1	C	C
23	Palm St. / Airport Bl.	TS	0	0	0	1	0	1	1	2	0	0	2	0	24.5	24.4	C	C	23.1	22.4	C	C
24	Highway 111 / Palm St.	TS	1	1	0	0	1	1	1	0	1	0	0	0	20.8	17.6	C	B	16.2	14.4	B	B
25	SR-86 SB Ramps / Airport Bl.	TS	0	1!	0	0.5	0.5	1	1	1	0	1	1	0	**>80**	**>80**	**F**	**F**	**66.1**	**>80**	**E**	**F**
26	SR-86 NB Ramps / Airport Bl.	TS	1	0	1>	0	0	0	0	1	0	1	1	0	27.5	22.2	C	C	11.6	13.7	B	B
27	Harrison St. / Project Access 1	**CSS**	0	**2**	0	**1**	**2**	0	0	0	0	0	0	**1**	14.2	22.9	B	C	12.1	21.8	B	C
28	Harrison St. / Project Access 2	**TS**	0	**2**	0	**1**	**2**	0	0	0	0	**1**	0	**1>**	21.7	23.8	C	C	29.2	24.2	C	C
29	Project Access 3 / 62nd Av.	**CSS**	0	**1!**	0	0	0	0	0	**2**	0	**1**	1	0	21.3	34.4	C	D	16.1	25.0	C	C
30	Tyler St. / Project Access 4	**CSS**	**1**	**2**	0	0	1	0	0	**1!**	0	0	0	0	16.1	13.5	C	B	13.6	12.2	B	B
31	Tyler St. / Project Access 5	**CSS**	**1**	**2**	0	0	**2**	0	0	**1!**	0	0	0	0	16.1	13.0	C	B	13.2	11.8	B	B
32	Tyler St. / Project Access 6	**CSS**	**1**	**1**	0	0	**2**	0	0	**1!**	0	0	0	0	13.2	11.4	B	B	11.4	10.6	B	B

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane;
> = Right-Turn Overlap Phasing; >> = Free-Right Turn; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.
For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

7.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

The following additional study area intersections are anticipated to meet a traffic signal warrant under Horizon Year (2045) Weekday Without and With Project conditions (see Appendices 7.5 and 7.6):

- Harrison St. / Desert Empire Homes (#9)
- Monroe St. & 62nd Av. (#10)
- Jackson St. / 62nd Av. (#11)
- Van Buren St. & 62nd Av. (#12)
- Pierce St. / 62nd Av (#16)

7.8 CUMULATIVE IMPROVEMENTS

The **Horizon Year (2045)** off-site improvements listed below are needed without or with the proposed Project.

The Project Applicant's responsibilities for 2045 off-site improvements beyond those discussed in Section 1.5.1 *Site Adjacent and Site Access Recommendations*, and in addition to those listed for EAP and EAPC 2026 conditions, are fulfilled through payment of fair share fees or participation in applicable pre-existing fee programs that would be assigned to construction of cumulative 2032 and 2045 improvements.

- #1 – Cesar Chavez St. / 52nd Av.
  - Provide 2nd NB left turn lane & 3rd NB through lane
  - Provide 2nd SB left turn lane & 3rd SB through lane
  - Provide separate WB right turn lane
- #2 – Cesar Chavez St. / 54th Av.
  - Provide 2nd NB through lane
  - Provide 2nd SB through lane
  - Provide separate EB left turn lane
  - Provide separate WB left turn lane
- #3 – Harrison St. / Airport Bl.
  - Provide 2nd NB through lane which makes the WB right turn lane no longer a free right turn lane by eliminating the receiving lane
  - Provide separate NB right turn lane
  - Provide 2nd SB through lane
- #4 - Harrison St. / 58th Av.
  - Install traffic signal
  - Provide 2nd NB through lane
  - Provide 2nd SB through lane
  - Provide separate EB left turn lane

- #5 - Harrison St. / 60th Av.
  - Install traffic signal
  - Provide 2nd NB through lane
  - Provide 2nd SB through lane
  - Modify EB approach to provide separate EB left turn lane and 2nd EB through lane
  - Modify WB approach to provide separate WB left turn lane and 2nd WB through lane
- #6 - Harrison St. / 62nd Av.
  - Install traffic signal
  - Provide 2nd NB through lane and separate NB right turn lane with overlap phase
  - Provide 2nd SB through lane
  - Modify EB approach to provide separate EB left turn lane and 2nd EB through lane and separate EB right turn lane
  - Modify WB approach to provide separate WB left turn lane and 2nd WB through lane
- #7 - Harrison St. / 66th Av.
  - Provide 2nd NB left turn lane
  - Provide separate EB right turn lane
- #8 - Harrison St. / Middleton St.
  - Install traffic signal
  - Provide 2nd NB through lane
  - Provide 2nd SB through lane
- #9 - Harrison St. / Desert Empire Homes
  - Install traffic signal
  - Provide 2nd NB through lane
  - Provide 2nd SB through lane
- #10 - Monroe St. / 62nd Av.
  - Install traffic signal
- #11 – Jackson St. / 62nd Av.
  - Install traffic signal
  - Provide separate NB left turn lane and 2nd NB through lane
  - Provide 2nd SB through lane
  - Provide separate EB right turn lane
- #12 – Van Buren St. / 62nd Av.
  - Install traffic signal
- #13 - Tyler St. / 62nd Av.
  - Install traffic signal
  - Provide a separate NB left turn lane
  - Modify EB approach to provide separate EB left turn lane and 2nd EB through lane
  - Modify WB approach to provide separate WB left turn lane and 2nd WB through lane

- #14 - Polk St. / 62nd Av.
  - Install traffic signal
  - Provide 2nd NB through lane
  - Provide 2nd SB through lane
  - Provide 2nd EB through lane
  - Provide separate WB left turn lane and separate WB right turn lane with overlap phase
- #15 - Fillmore St. / 62nd Av.
  - Install traffic signal
  - Provide separate NB left turn lane
  - Provide separate SB left turn lane
  - Provide separate EB left turn lane and 2nd EB through lane
  - Provide separate WB left turn lane and 2nd WB through lane
- #16 – Pierce St. / 62nd Av.
  - Install traffic signal
  - Provide separate NB left turn lane
  - Provide separate SB left turn lane
  - Provide separate EB left turn lane
  - Provide separate WB left turn lane
- #17 – Highway 111 / 62nd Av.
  - Provide 2nd EB through lane and separate EB right turn lane
  - Alternatively, modify intersection to be grade separated when needed, with Avenue 62 as an overcrossing over SR-86 and nearby railroad tracks.
- #18 – SR-86 / 62nd Av.
  - Provide Interchange with NB Ramp intersection and SB Ramp intersection
  - For SB Ramps, provide traffic signal control, SB left turn lane, SB right turn lane, 2 EB through lanes, 1 WB left turn lane, and 2 WB through lanes
  - For NB Ramps, provide traffic signal control, NB left turn lane, NB right turn lane, 1 EB left turn lane, 2 EB through lanes, and 2 WB through lanes
- #20 – W. Pierce St. / 66th Av.
  - Install traffic signal
- #21 – SR-86 / 66th Av.
  - Provide Interchange with NB Ramp intersection and SB Ramp intersection
  - For SB Ramps, provide traffic signal control, SB left turn lane, SB right turn lane, 1 EB through lane, 1 WB left turn lane, and 1 WB through lane
  - For NB Ramps, provide traffic signal control, NB left turn lane, NB right turn lane, 1 EB left turn lane, 1 EB through lanes, and 1 WB through lane
- #25 – SR-86 SB Ramps / Airport Blvd.
  - Provide overlap phase for existing SB right turn lane

The effectiveness of the recommended improvement strategies to address Horizon Year (2045) Without and With Project traffic deficiencies are presented in Tables 7-3 and 7-4, respectively.

It should be noted that the SR-86 interchange at 62nd Avenue and the SR-86 interchange at 66th Avenue are included in TUMF; therefore, Project TUMF fees address the Project contribution at these intersections.

Worksheets for Horizon Year (2045), with improvements, intersection operations are provided in the following appendices:

- Appendix 7.7 for Horizon Year (2045) Weekday Without Project Conditions
- Appendix 7.8 for Horizon Year (2045) Weekday With Project Conditions
- Appendix 7.9 for Horizon Year (2045) Weekend Without Project Conditions
- Appendix 7.10 for Horizon Year (2045) Weekend With Project Conditions

7.9 QUEUEING ANALYSIS

The peak hour queues have been evaluated under Horizon Year (2045) With Project traffic conditions (most intensive traffic scenario) to determine the 95th percentile queues. The analysis was conducted for the weekday AM and weekday PM peak hours. The traffic modeling and signal timing optimization software package Synchro/SimTraffic (Version 11) has been utilized to assess queues at the Project access points. Synchro is a macroscopic traffic software program that is based on the signalized and unsignalized intersection capacity analyses as specified in the HCM. SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine-tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations.

The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). Many jurisdictions utilize the 95th percentile queues for design purposes. SimTraffic simulations have been recorded 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 15-minute periods with 60-minute recording intervals. Queuing results are provided in Appendix 7.11 and on Table 7-5, based on the 95th percentile queues.

The proposed Project turn bay lengths generally provide adequate storage to accommodate the anticipated 95th percentile queues. As shown in Table 7-5, the calculated 95th percentile queue lengths slightly exceed turn lane storage at the following locations:

- #1 - Cesar Chavez Street / 52nd Avenue
  - NBL, SBL, & WBR
- #2 – Cesar Chaves Street / 54th Avenue
  - EBL
- #3 – Harrison Street / Airport Boulevard
  - EBL & WBL

TABLE 7-3: INTERSECTION ANALYSIS FOR HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday Delay[3] (secs.)		Weekday Level of Service		Weekend Delay[3] (secs.)		Weekend Level of Service	
			Northbound			Southbound			Eastbound			Westbound										
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.																					
	Without Improvements:	TS	1	2	0	1	2	0	0.5	1.5	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	43.5	43.2	D	D
	With Improvements:	TS	**2**	**3**	0	**2**	**3**	0	0.5	1.5	0	0.5	1.5	**1**	49.5	54.0	D	D	34.9	42.3	C	D
2	Cesar Chavez St. / 54th Av.																					
	Without Improvements:	TS	1	1	d	1	1	1	0.5	0.5	1	0	1!	0	**>80**	**>80**	**F**	**F**	23.3	15.6	C	B
	With Improvements:	TS	1	**2**	0	1	**2**	0	**1**	1	0	**1**	1	0	32.9	45.3	C	D	16.9	23.1	B	C
3	Harrison St. / Airport Bl.																					
	Without Improvements:	TS	1	1	0	1	1	1	1	1	0	1	1	1>>	**>80**	**>80**	**F**	**F**	35.0	28.8	C	C
	With Improvements:	TS	1	**2**	**1**	1	**2**	0	1	1	0	1	1	1	41.1	50.0	D	D	31.4	33.6	C	C
4	Harrison St. / 58th Av.																					
	Without Improvements:	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	**76.5**	**>80**	**F**	**F**	21.7	13.0	C	B
	With Improvements:	**TS**	1	**2**	0	0	**2**	0	**1**	0	1	0	0	0	7.3	7.0	A	A	6.1	5.9	A	A
5	Harrison St. / 60th Av.																					
	Without Improvements:	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	17.5	**F**	C
	With Improvements:	**TS**	1	**2**	0	1	**2**	0	**1**	**2**	0	**1**	**2**	0	19.4	33.5	B	C	16.0	17.7	B	B
6	Harrison St. / 62nd Av.																					
	Without Improvements:	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	29.9	**F**	D
	With Improvements:	**TS**	1	**2**	0	1	**2**	0	**1**	**2**	0	**1**	**2**	0	42.7	46.6	D	D	36.6	39.9	D	D
7	Harrison St. / 66th Av.																					
	Without Improvements:	TS	1	2	0	1	2	0	0	1!	0	0	1!	0	37.3	**>80**	D	**F**	28.8	25.6	C	C
	With Improvements:	TS	**2**	2	0	1	2	0	0.5	0.5	**1**	0	1!	0	32.1	40.8	C	D	27.6	33.6	C	C
8	Harrison St. / Middleton St.																					
	Without Improvements:	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	14.4	**F**	B
	With Improvements:	**TS**	1	**2**	0	1	**2**	0	0	1!	0	0	1!	0	9.1	9.4	A	A	5.7	6.2	A	A
9	Harrison St. / Desert Empire Homes																					
	Without Improvements:	CSS	0	1	1	1	1	0	0	0	0	1	0	1	**>80**	**>80**	**F**	**F**	**37.3**	14.3	**E**	B
	With Improvements:	**TS**	0	**2**	0	1	**2**	0	0	0	0	1	0	1	14.0	18.6	B	B	9.4	16.4	A	B
10	Monroe St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	25.3	**70.7**	D	**F**	11.1	7.5	B	A
	With Improvements:	**TS**	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	13.0	23.2	B	C	12.0	11.8	B	B
11	Jackson St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	18.3	7.6	C	A
	With Improvements:	**TS**	**1**	**2**	0	1	**2**	0	0.5	0.5	**1**	0	1!	0	32.2	43.5	C	D	20.6	29.4	C	C
12	Van Buren St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**57.4**	**>80**	**F**	**F**	12.8	7.5	B	A
	With Improvements:	**TS**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	13.7	21.9	B	C	12.2	15.1	B	B
13	Tyler St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**>80**	**F**	**F**	16.5	14.6	C	B
	With Improvements:	**TS**	**1**	1	0	1	1	0	**1**	**2**	0	**1**	**2**	0	11.8	19.2	B	B	11.6	11.8	B	B
14	Polk St. / 62nd Av.																					
	Without Improvements:	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	**>80**	19.0	**F**	C
	With Improvements:	**TS**	**1**	**2**	0	1	**2**	0	1	**2**	0	**1**	2	**1>**	37.8	45.6	D	D	37.5	42.5	D	D
15	Fillmore St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	15.0	10.1	B	B
	With Improvements:	**TS**	**1**	1	0	**1**	1	0	**1**	**2**	0	**1**	**2**	0	16.1	13.2	B	B	19.1	17.5	B	B
16	Pierce St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**35.4**	**>80**	**E**	**F**	12.3	10.0	B	A
	With Improvements:	**TS**	**1**	1	0	**1**	1	0	**1**	**2**	0	**1**	**2**	0	18.3	14.6	B	B	19.1	17.6	B	B
17	Highway 111 / 62nd Av.																					
	Without Improvements:	TS	1	1	1	1	1	0	1	1	0	1	2	0	**66.3**	**>80**	**E**	**F**	40.0	35.9	D	D
	With Improvements:	TS	1	1	1	1	1	0	1	**2**	**1**	1	2	0	41.1	48.8	D	D	37.4	43.0	D	D
18	SR-86 / 62nd Av.																					
	Without Improvements:	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	**>80**	47.5	**F**	D
	With Proposed Interchange:																					
	SR-86 SB Ramps / 62nd Av.	**TS**	0	0	0	**1**	0	**1**	0	**2**	0	**1**	**2**	0	32.2	29.8	C	C	27.8	26.3	C	C
	SR-86 NB Ramps / 62nd Av.	**TS**	**1**	0	**1**	0	0	0	**1**	**2**	0	0	**2**	0	21.6	25.1	C	C	21.8	21.9	C	C
20	W. Pierce St. / 66th Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**63.2**	**>80**	**F**	**F**	10.8	8.9	B	A
	With Improvements:	**TS**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	29.7	27.1	C	C	18.1	18.4	B	B
21	SR-86 / 66th Av.																					
	Without Improvements:	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**76.0**	**>80**	**E**	**F**	52.9	43.2	D	D
	With Proposed Interchange:																					
	SR-86 SB Ramps / 66th Av.	**TS**	0	0	0	**1**	0	**1**	0	**1**	0	**1**	**1**	0	18.0	28.1	B	C	18.6	14.7	B	B
	SR-86 NB Ramps / 66th Av.	**TS**	**1**	0	**1**	0	0	0	**1**	**1**	0	0	**1**	0	18.2	29.4	B	C	12.8	18.4	B	B
25	SR-86 SB Ramps / Airport Bl.																					
	Without Improvements:	TS	0	1!	0	0.5	0.5	1	1	1	0	1	1	0	**64.3**	**>80**	**E**	**F**	32.2	22.2	C	C
	With Improvements:	TS	0	1!	0	0.5	0.5	**1>**	1	1	0	1	1	0	40.2	41.2	D	D	22.7	28.1	C	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

TABLE 7-4: INTERSECTION ANALYSIS FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Weekday Delay[3] (secs.)		Weekday Level of Service		Weekend Delay[3] (secs.)		Weekend Level of Service	
			Northbound			Southbound			Eastbound			Westbound											
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	Sat AM	Sun PM	Sat AM	Sun PM
1	Cesar Chavez St. / 52nd Av.																					
	Without Improvements:	TS	1	2	0	1	2	0	0.5	1.5	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	44.2	**>80**	D	**F**
	With Improvements:	TS	**2**	**3**	0	**2**	**3**	0	0.5	1.5	0	0.5	1.5	**1**	50.0	54.5	D	D	35.0	42.7	C	D
2	Cesar Chavez St. / 54th Av.																					
	Without Improvements:	TS	1	1	d	1	1	1	0.5	0.5	1	0	1!	0	**>80**	**>80**	**F**	**F**	30.1	**>80**	C	**F**
	With Improvements:	TS	1	**2**	0	1	**2**	0	**1**	1	0	**1**	1	0	33.9	47.4	C	D	26.2	31.9	C	C
3	Harrison St. / Airport Bl.																					
	Without Improvements:	TS	1	1	0	1	1	1	1	1	0	1	1	1>>	**>80**	**>80**	**F**	**F**	44.3	**>80**	D	**F**
	With Improvements:	TS	1	**2**	**1**	1	**2**	0	1	1	0	1	1	1	47.9	52.7	D	D	33.0	35.0	C	C
4	Harrison St. / 58th Av.																					
	Without Improvements:	CSS	1	1	0	0	1	1	0	1!	0	0	0	0	**>80**	**>80**	**F**	**F**	37.3	**>80**	**E**	**F**
	With Improvements:	**TS**	1	**2**	0	0	**2**	0	**1**	0	1	0	0	0	7.8	8.0	A	A	7.2	6.7	A	A
5	Harrison St. / 60th Av.																					
	Without Improvements:	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	1	**2**	0	1	**2**	0	**1**	**2**	**1**	**1**	**2**	0	20.1	33.6	C	C	15.7	18.3	B	B
6	Harrison St. / 62nd Av.																					
	Without Improvements:	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	1	**2**	**1>**	1	**2**	0	**1**	**2**	0	**1**	**2**	0	42.7	52.1	D	D	45.0	41.9	D	D
7	Harrison St. / 66th Av.																					
	Without Improvements:	TS	1	2	0	1	2	0	0	1!	0	0	1!	0	38.0	**>80**	D	**F**	29.7	50.3	C	D
	With Improvements:	TS	**2**	2	0	1	2	0	0.5	0.5	**1**	0	1!	0	33.3	42.0	C	D	28.7	35.0	C	C
8	Harrison St. / Middleton St.																					
	Without Improvements:	CSS	1	1	0	1	1	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	1	**2**	0	1	**2**	0	0	1!	0	0	1!	0	9.4	9.7	A	A	8.1	7.6	A	A
9	Harrison St. / Desert Empire Homes																					
	Without Improvements:	CSS	0	1	1	1	1	0	0	0	0	1	0	1	**>80**	**>80**	**F**	**F**	**40.5**	**>80**	**E**	**F**
	With Improvements:	**TS**	0	**2**	0	1	**2**	0	0	0	0	1	0	1	14.5	19.4	B	B	9.7	16.6	A	B
10	Monroe St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	29.8	**>80**	D	**F**	12.2	22.9	B	C
	With Improvements:	**TS**	0	1!	0	0.5	0.5	1	0	1!	0	0	1!	0	13.2	26.9	B	C	11.9	12.4	B	B
11	Jackson St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	28.6	**>80**	D	**F**
	With Improvements:	**TS**	**1**	**2**	0	1	**2**	0	0.5	0.5	**1**	0	1!	0	34.3	44.1	C	D	21.0	30.9	C	C
12	Van Buren St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	17.2	**>80**	C	**F**
	With Improvements:	**TS**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	14.2	27.5	B	C	12.5	16.3	B	B
13	Tyler St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	1	1	0	0	1!	0	0.5	0.5	1	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	**1**	1	0	1	1	0	**1**	**2**	0	**1**	**2**	0	13.2	21.6	B	C	11.7	12.1	B	B
14	Polk St. / 62nd Av.																					
	Without Improvements:	CSS	0	1!	0	1	1	1	1	1	0	0.5	1.5	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	**1**	**2**	0	1	**2**	0	1	**2**	0	**1**	2	**1>**	40.4	48.3	D	D	37.8	46.6	D	D
15	Fillmore St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Improvements:	**TS**	**1**	1	0	**1**	1	0	**1**	**2**	0	**1**	**2**	0	16.6	14.0	B	B	18.1	15.5	B	B
16	Pierce St. / 62nd Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	**61.0**	**>80**	**F**	**F**
	With Improvements:	**TS**	**1**	1	0	**1**	1	0	**1**	**2**	0	**1**	**2**	0	19.2	16.4	B	B	20.0	18.0	B	B
17	Highway 111 / 62nd Av.																					
	Without Improvements:	TS	1	1	1	1	1	0	1	1	0	1	2	0	**>80**	**>80**	**F**	**F**	43.2	**>80**	D	**F**
	With Improvements:	TS	1	1	1	1	1	0	1	**2**	**1**	1	2	0	42.5	53.5	D	D	38.3	44.9	D	D
18	SR-86 / 62nd Av.																					
	Without Improvements:	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	**>80**	**>80**	**F**	**F**
	With Proposed Interchange:																					
	SR-86 SB Ramps / 62nd Av.	TS	0	0	0	**1**	0	**1**	0	**2**	0	**1**	**2**	0	34.6	34.9	C	C	34.1	28.9	C	C
	SR-86 NB Ramps / 62nd Av.	TS	**1**	0	**1**	0	0	0	**1**	**2**	0	0	**2**	0	25.6	30.1	C	C	23.6	27.0	C	C
20	W. Pierce St. / 66th Av.																					
	Without Improvements:	AWS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	**>80**	**>80**	**F**	**F**	12.6	16.3	B	C
	With Improvements:	**TS**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	31.0	27.0	C	C	18.2	18.4	B	B
21	SR-86 / 66th Av.																					
	Without Improvements:	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	**>80**	**>80**	**F**	**F**	53.5	**>80**	D	**F**
	With Proposed Interchange:																					
	SR-86 SB Ramps / 66th Av.	**TS**	0	0	0	**1**	0	**1**	0	**1**	0	**1**	**1**	0	19.2	28.4	B	C	18.9	17.7	B	B
	SR-86 NB Ramps / 66th Av.	**TS**	**1**	0	**1**	0	0	0	**1**	**1**	0	0	**1**	0	18.3	30.2	B	C	12.8	18.4	B	B
25	SR-86 SB Ramps / Airport Bl.																					
	Without Improvements:	TS	0	1!	0	0.5	0.5	1	1	1	0	1	1	0	**>80**	**>80**	**F**	**F**	**66.1**	**>80**	**E**	**F**
	With Improvements:	TS	0	1!	0	0.5	0.5	**1>**	1	1	0	1	1	0	46.2	45.7	D	D	42.1	34.5	D	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] TS = Traffic Signal; CSS = Cross-street Stop; AWS = All Way Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

- #7 – Harrison Street / 66th Avenue
  - EBR
- #14 – Polk Street / 62nd Avenue
  - SBL
- #17 – Highway 111 / 62nd Avenue
  - NBL & WBL
- #18 (b) – SR-86 NB Ramps / 62nd Avenue
  - EBL
- #25 – SR-86 SB Ramps / Airport Boulevard
  - EBL

However, review of SimTraffic simulation results indicate that the turn lane queues are anticipated to clear in a timely manner at these locations and that the provided pocket lengths are adequate to accommodate projected peak hour turning volumes.

7.10 62ND AVENUE / HIGHWAY 111 LONG RANGE IMPROVEMENT CONCEPT

There are existing railroad tracks parallel to Highway 111 which cross 62nd Avenue at-grade, located east of Highway 111 and west of SR-86. Improvements to 62nd Avenue between Pierce Street and SR-86 are designated in TUMF, including the 62nd Avenue / SR-86 interchange. If the railroad tracks remain at-grade on 62nd Avenue, long range traffic projections at Highway 111 / 62nd Avenue (#17) indicate that peak hour westbound vehicle queues extend past the railroad tracks. This potential back-up over the at-grade crossing is a cumulative long-term volume not caused by the project.

Exhibit 7-13 presents a potential grade-separated concept at this location, similar to the Airport Boulevard improvements in the vicinity of Highway 111. The potential grade separation alternative includes a bridge of 62nd Avenue over Highway 111 and the railroad, consistent with the classification of 62nd Avenue as an Expressway. A new connection would then occur between Highway 111 and 62nd Avenue, with a traffic signal at each of the new connection intersections.

Grade separation for 62nd Avenue at Highway 111 and the railroad would be consistent with nearby roads that are classified as Urban Arterials. The Transportation Uniform Mitigation Program (TUMF) includes grade separation for 66th Avenue (an Urban Arterial) at Highway 111 / SPRR. Riverside County should coordinate with the Coachella Valley Association of Governments (CVAG) to further consider the potential grade separation concept for 62nd Avenue as presented on Exhibit 7-13.

7.11 SITE-ADJACENT GENERAL PLAN IMPROVEMENTS

Adjacent to the Project, Harrison Street and 62nd Avenue are classified as Expressways (220-foot right-of-way) which accommodate up to four through travel lanes in each direction.

Harrison Street is a north-south oriented roadway located on the Project's westerly boundary. Based on the Horizon Year 2045 analysis, four through lanes in each direction on Harrison Street are not

needed. Long range traffic projections indicate that three travel lanes in each direction along Harrison Street will provide acceptable LOS in the Project area (see Table 7-6).

In order to facilitate traffic flow along Harrison Street and minimize traffic signal delay, Project Access 1 will have limited access and Project Access 2 will have full access with traffic signal control. Project Access 1 will have left turn out activity prohibited, while left turns in, right turns in and out will be allowed.

Project to dedicate ultimate half-section right-of-way and construct 2 northbound through lanes along Harrison Street adjacent to Planning Area 2 (between Access 1 and 62nd Avenue) in conjunction with the first major phase of development (Planning Areas 1 to 4).

In conjunction with the second major phase of development (Planning Areas 5 and 6), construct the 3rd northbound through lane along Harrison Street adjacent to Planning Area 2 (between Access 1 and 62nd Avenue).

In conjunction with the second major phase of development (Planning Areas 5 and 6), project to dedicate ultimate half-section right-of-way and construct 3 northbound through lanes along Harrison Street adjacent to Planning Areas 5 and 6 (between Access 1 and 64th Avenue). The outside (easternmost) northbound through lane will provide additional capacity for right turning vehicles into the Project site outside of the two most-used general purpose lanes.

62nd Avenue is an east-west oriented roadway located on the Project's northerly boundary. Based on the Horizon Year 2045 analysis, four through lanes in each direction on 62nd Avenue are not needed. Long range traffic projections indicate that two travel lanes in each direction along 62nd Avenue will provide acceptable LOS in the Project area (see Table 7-6).

Project to dedicate ultimate half-section right-of-way and construct 2 eastbound through lanes along 62nd Avenue adjacent to Planning Area 2 (between Harrison Street and Tyler Street) in conjunction with the first major phase of development (Planning Areas 1 to 4).

In order to facilitate the eastbound right turn traffic from 62nd Avenue into Planning Area 2, a separate 300' long eastbound right turn lane should be provided at the Project Access 3 / 62nd Avenue intersection (#29).

TABLE 7-5: QUEUEING ANALYSIS FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS, WITH IMPROVEMENTS

ID	Intersection		Movement	# of Lanes	2045 With Project AM	2045 With Project PM	Peak	Volume	Storage Length[2] (ft.)	95th Percentile Queue Length (ft.)[1] AM	95th Percentile Queue Length (ft.)[1] PM
1	Cesar Chavez St. / 52nd Av.										
		WEEKDAY:	NBL	2	167	245	PM	245	120	130 [3]	210 [3]
			SBL	2	274	338	PM	338	120	242 [3]	229 [3]
			WBR	1	217	262	PM	262	**130**	171 [3]	124
		WEEKEND:	NBL	2	113	189	SUN PM	189	120	86	133 [3]
			SBL	2	178	253	SUN PM	253	120	203 [3]	243 [3]
			WBR	1	173	278	SUN PM	278	**130**	84	95
2	Cesar Chavez St. / 54th Av.										
		WEEKDAY:	NBL	1	103	136	PM	136	620	130	129
			SBL	1	99	138	PM	138	300	114	187
			EBL	1	184	158	AM	184	**200**	231 [3]	490 [3]
			WBL	1	41	55	PM	55	**150**	65	69
		WEEKEND:	NBL	1	72	107	SUN PM	107	620	94	117
			SBL	1	64	124	SUN PM	124	300	114	153
			EBL	1	119	118	SAT AM	119	**200**	177	169
			WBL	1	38	42	SUN PM	42	**150**	64	69
3	Harrison St. / Airport Bl.										
		WEEKDAY:	NBL	1	79	149	PM	149	615	99	229
			NBR	1	163	162	AM	163	**250**	191	247
			SBL	1	167	172	PM	172	400	218	255
			EBL	1	114	86	AM	114	150	551 [3]	327 [3]
			WBL	1	146	169	PM	169	150	313 [3]	302 [3]
			WBR	1	130	209	PM	209	305	68	95
		WEEKEND:	NBL	1	60	118	SUN PM	118	615	71	133
			NBR	1	118	175	SUN PM	175	**250**	63	123
			SBL	1	108	129	SUN PM	129	400	134	203
			EBL	1	74	64	SAT AM	74	150	77	139
			WBL	1	186	128	SAT AM	186	150	256 [3]	246 [3]
			WBR	1	104	157	SUN PM	157	305	38	84
4	Harrison St. / 58th Av.										
		WEEKDAY:	NBL	1	66	52	AM	66	300	91	70
			EBL	1	48	55	PM	55	**150**	54	92
			EBR	1	44	65	PM	65	>150	67	58
		WEEKEND:	NBL	1	48	44	SAT AM	48	300	69	66
			EBL	1	37	41	SUN PM	41	**150**	76	62
			EBR	1	43	50	SUN PM	50	>150	42	38
5	Harrison St. / 60th Av.										
		WEEKDAY:	NBL	1	111	92	AM	111	300	124	129
			SBL	1	147	131	AM	147	315	124	133
			EBL	1	39	39	AM	39	**150**	82	94
			WBL	1	34	54	PM	54	**200**	61	160
		WEEKEND:	NBL	1	80	73	SAT AM	80	300	79	105
			SBL	1	95	98	SUN PM	98	315	103	77
			EBL	1	25	29	SUN PM	29	**150**	59	46
			WBL	1	26	40	SUN PM	40	**200**	58	69
6	Harrison St. / 62nd Av.										
		WEEKDAY:	NBL	1	162	239	PM	239	300	209	266
			NBR	1	224	305	PM	305	**300**	56	123
			SBL	1	212	219	PM	219	300	178	215
			EBL	1	35	24	AM	35	**150**	78	107
			EBR	1	168	248	PM	248	**200**	76	107
			WBL	1	184	234	PM	234	**300**	211	168
		WEEKEND:	NBL	1	144	197	SUN PM	197	300	157	213
			NBR	1	155	375	SUN PM	375	**300**	48	88
			SBL	1	174	163	SAT AM	174	300	180	174
			EBL	1	23	18	SAT AM	23	**150**	43	56
			EBR	1	163	194	SUN PM	194	200	107	80
			WBL	1	371	180	SAT AM	371	**300**	258	126
7	Harrison St. / 66th Av.										
		WEEKDAY:	NBL	2	270	528	PM	528	**275**	156	275
			SBL	1	109	113	PM	113	270	106	185
			EBR	1	332	441	PM	441	**200**	135	211 [3]
		WEEKEND:	NBL	2	175	395	SUN PM	395	**275**	102	195
			SBL	1	82	97	SUN PM	97	270	109	133
			EBR	1	215	330	SUN PM	330	**200**	68	133

TABLE 7-5: QUEUEING ANALYSIS FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS, WITH IMPROVEMENTS

ID	Intersection	Movement	# of Lanes	2045 With Project AM	2045 With Project PM	2045 With Project Peak	2045 With Project Volume	Storage Length[2] (ft.)	95th Percentile Queue Length (ft.)[1] AM	95th Percentile Queue Length (ft.)[1] PM
8	Harrison St. / Middleton St.									
	WEEKDAY:	NBL	1	5	6	PM	6	310	18	20
		SBL	1	24	47	PM	47	325	35	68
	WEEKEND:	NBL	1	3	4	SUN PM	4	310	9	9
		SBL	1	22	38	SUN PM	38	325	29	59
9	Harrison St. / Desert Empire Homes									
	WEEKDAY:	SBL	1	74	263	PM	263	**275**	85	258
	WEEKEND:	SBL	1	65	198	SUN PM	198	**275**	79	201
10	Monroe St. / 62nd Av.									
	WEEKDAY:	SBR	1	222	81	AM	222	>100	30	27
	WEEKEND:	SBR	1	144	61	SAT AM	144	>100	45	31
11	Jackson St. / 62nd Av.									
	WEEKDAY:	NBL	1	156	205	PM	205	**250**	121	223
		SBL	1	149	276	PM	276	**275**	166	261
		EBR	1	158	204	PM	204	**250**	63	232
	WEEKEND:	NBL	1	101	154	SUN PM	154	**250**	102	157
		SBL	1	115	208	SUN PM	208	**275**	106	169
		EBR	1	102	153	SUN PM	153	**250**	53	63
13	Tyler St. / 62nd Av.									
	WEEKDAY:	NBL	1	152	128	AM	152	**200**	99	164
		SBL	1	20	14	AM	20	300	37	41
		EBL	1	16	19	PM	19	**150**	31	28
		WBL	1	170	171	PM	171	**250**	207	250
	WEEKEND:	NBL	1	103	112	SUN PM	112	**200**	91	92
		SBL	1	13	14	SUN PM	14	300	29	30
		EBL	1	16	18	SUN PM	18	**150**	29	22
		WBL	1	194	124	SAT AM	194	**250**	122	121
14	Polk St. / 62nd Av.									
	WEEKDAY:	NBL	1	48	33	AM	48	**150**	116	119
		SBL	1	135	260	PM	260	315	168	379 [3]
		EBL	1	157	208	PM	208	190	129	187
		WBL	1	62	80	PM	80	**200**	178	200
		WBR	1	247	291	PM	291	**225**	118	222
	WEEKEND:	NBL	1	31	25	SAT AM	31	**150**	80	73
		SBL	1	87	195	SUN PM	195	315	123	237
		EBL	1	102	183	SUN PM	183	190	108	186
		WBL	1	40	60	SUN PM	60	**200**	116	178
		WBR	1	160	218	SUN PM	218	**225**	61	103
15	Fillmore St. / 62nd Av.									
	WEEKDAY:	NBL	1	57	31	AM	57	**150**	39	50
		SBL	1	14	23	PM	23	**150**	31	41
		EBL	1	30	40	PM	40	**150**	52	44
		WBL	1	55	79	PM	79	**150**	121	82
	WEEKEND:	NBL	1	37	23	SAT AM	37	**150**	35	34
		SBL	1	14	17	SUN PM	17	**150**	32	37
		EBL	1	25	35	SUN PM	35	**150**	31	41
		WBL	1	36	59	SUN PM	59	**150**	51	113
16	Pierce St. / 62nd Av.									
	WEEKDAY:	NBL	1	17	34	PM	34	**150**	29	32
		SBL	1	5	6	PM	6	**150**	NOM	14
		EBL	1	26	18	AM	26	**200**	35	33
		WBL	1	24	30	PM	30	**200**	47	167
	WEEKEND:	NBL	1	11	25	SUN PM	25	**150**	20	46
		SBL	1	5	4	SAT AM	5	**150**	NOM	14
		EBL	1	17	20	SUN PM	20	**200**	20	39
		WBL	1	16	22	SUN PM	22	**200**	132	36

TABLE 7-5: QUEUEING ANALYSIS FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS, WITH IMPROVEMENTS

ID	Intersection		Movement	# of Lanes	2045 With Project AM	2045 With Project PM	2045 With Project Peak	2045 With Project Volume	Storage Length[2] (ft.)	95th Percentile Queue Length (ft.)[1] AM	95th Percentile Queue Length (ft.)[1] PM
17	Highway 111 / 62nd Av.										
		WEEKDAY:	NBL	1	127	245	PM	245	280	131	289 [3]
			NBR	1	107	232	PM	232	280	NOM	NOM
			SBL	1	29	101	PM	101	375	47	108
			EBL	1	21	26	PM	26	150	7	54
			EBR	1	141	189	PM	189	**150**	25	54
			WBL	1	244	155	AM	244	115	216 [3]	200 [3]
		WEEKEND:	NBL	1	90	184	SUN PM	184	280	129	201
			NBR	1	90	174	SUN PM	174	280	NOM	NOM
			SBL	1	27	76	SUN PM	76	375	47	111
			EBL	1	12	32	SUN PM	32	150	NOM	22
			EBR	1	91	145	SUN PM	145	**150**	NOM	NOM
			WBL	1	158	116	SAT AM	158	115	183 [3]	175 [3]
18a	SR-86 SB Ramps / 62nd Av.										
		WEEKDAY:	SBL	1	390	590	PM	590	**>200**	326	405
			SBR	1	554	514	AM	554	**>200**	156	370
			WBL	1	31	83	PM	83	**150**	59	103
		WEEKEND:	SBL	1	253	442	SUN PM	442	**>200**	185	345
			SBR	1	581	383	SAT AM	581	**>200**	178	220
			WBL	1	20	62	SUN PM	62	**150**	88	83
18b	SR-86 NB Ramps / 62nd Av.										
		WEEKDAY:	NBL	1	129	303	PM	303	**>200**	153	301
			NBR	1	78	105	PM	105	**>200**	49	51
			EBL	1	481	557	PM	557	**150**	257 [3]	266 [3]
		WEEKEND:	NBL	1	90	227	SUN PM	227	**>200**	117	236
			NBR	1	51	79	SUN PM	79	**>200**	44	60
			EBL	1	346	535	SUN PM	535	**150**	224 [3]	246 [3]
21a	SR-86 SB Ramps / 66th Av.										
		WEEKDAY:	SBL	1	101	316	PM	316	**>200**	89	241
			SBR	1	74	87	PM	87	**>200**	44	47
			WBL	1	208	200	AM	208	**200**	172	187
		WEEKEND:	SBL	1	207	237	SUN PM	237	**>200**	148	154
			SBR	1	53	82	SUN PM	82	**>200**	41	56
			WBL	1	162	157	SAT AM	162	**200**	120	139
21b	SR-86 SB Ramps / 66th Av.										
		WEEKDAY:	NBL	1	58	136	PM	136	**>200**	89	146
			NBR	1	114	258	PM	258	**>200**	53	128
			EBL	1	102	116	PM	116	**225**	141	130
		WEEKEND:	NBL	1	64	103	SUN PM	103	**>200**	76	104
			NBR	1	120	193	SUN PM	193	**>200**	68	81
			EBL	1	66	87	SUN PM	87	**225**	66	141
22	Polk St. / Airport Bl.										
		WEEKDAY:	EBR	1	276	206	AM	276	390	128	85
			WBL	1	389	238	AM	389	**250**	240	230
		WEEKEND:	EBR	1	179	154	SAT AM	179	390	55	63
			WBL	1	297	177	SAT AM	297	**250**	249	243
23	Palm St. / Airport Bl.										
		WEEKDAY:	SBL	1	79	195	PM	195	**200**	95	195
			SBR	1	120	120	AM	120	>100	109	199
			EBL	1	136	99	AM	136	**250**	228	209
		WEEKEND:	SBL	1	53	146	SUN PM	146	**200**	55	103
			SBR	1	85	90	SUN PM	90	>100	56	85
			EBL	1	89	78	SAT AM	89	**250**	96	150
24	Highway 111 / Palm St.										
		WEEKDAY:	NBL	1	83	118	PM	118	250	126	163
			SBR	1	116	197	PM	197	180	54	64
			EBL	1	119	139	PM	139	**200**	153	158
			EBR	1	175	105	AM	175	>100	115	108
		WEEKEND:	NBL	1	54	88	SUN PM	88	250	76	102
			SBR	1	83	147	SUN PM	147	180	39	49
			EBL	1	80	108	SUN PM	108	**200**	92	104
			EBR	1	113	79	SAT AM	113	>100	62	60

TABLE 7-5: QUEUEING ANALYSIS FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS, WITH IMPROVEMENTS

ID	Intersection		Movement	# of Lanes	2045 With Project AM	2045 With Project PM	2045 With Project Peak	2045 With Project Volume	Storage Length[2] (ft.)	95th Percentile Queue Length (ft.)[1] AM	95th Percentile Queue Length (ft.)[1] PM
25	SR-86 SB Ramps / Airport Bl.										
		WEEKDAY:	SBL	1	37	68	PM	68	>700	71	117
			SBR	1	518	623	PM	623	700	252	259
			EBL	1	111	128	PM	128	135	114	198 [3]
			WBL	1	5	12	PM	12	490	9	41
		WEEKEND:	SBL	1	24	51	SUN PM	51	>700	73	113
			SBR	1	462	467	SUN PM	467	700	177	221
			EBL	1	72	96	SUN PM	96	135	74	132
			WBL	1	9	9	SAT AM	9	490	25	39
26	SR-86 NB Ramps / Airport Bl.										
		WEEKDAY:	NBL	1	194	231	PM	231	>570	135	124
			NBR	1	15	31	PM	31	570	37	50
			WBL	1	93	90	AM	93	150	142	112
		WEEKEND:	NBL	1	126	173	SUN PM	173	>570	120	142
			NBR	1	21	23	SUN PM	23	570	40	41
			WBL	1	60	67	SUN PM	67	150	93	77
27	Harrison St. / Project Access 1										
		WEEKDAY:	SBL	1	66	75	PM	75	**300**	49	62
			WBR	1	53	125	PM	125	**≥100**	44	110
		WEEKEND:	SBL	1	181	66	SAT AM	181	**300**	83	38
			WBR	1	67	168	SUN PM	168	**≥100**	50	87
28	Harrison St. / Project Access 2										
		WEEKDAY:	SBL	1	213	285	PM	285	**300**	177	283
			WBL	1	38	98	PM	98	**150**	63	136
			WBR	1	225	349	PM	349	**≥100**	108	203
		WEEKEND:	SBL	1	509	229	SAT AM	509	**350**	311	102
			WBL	1	88	97	SUN PM	97	**150**	135	102
			WBR	1	213	438	SUN PM	438	**≥100**	140	161
29	Project Access 3 / 62nd Av.										
		WEEKDAY:	NBL/R	1	63	35	AM	63	**≥100**	67	45
			WBL	1	12	39	PM	39	**150**	9	39
		WEEKEND:	NBL/R	1	41	41	SAT AM	41	**≥100**	62	57
			WBL	1	32	28	SAT AM	32	**150**	26	35
30	Tyler St. / Project Access 4										
		WEEKDAY:	NBL	1	2	6	PM	6	**150**	NOM	17
			EBL/R	1	56	29	AM	56	**≥100**	49	44
		WEEKEND:	NBL	1	5	4	SAT AM	5	**150**	15	NOM
			EBL	1	33	31	SAT AM	33	**≥100**	54	44
31	Tyler St. / Project Access 5										
		WEEKDAY:	NBL	1	8	25	PM	25	**150**	9	20
			EBL	1	129	69	AM	129	**≥100**	52	43
		WEEKEND:	NBL	1	20	18	SAT AM	20	**150**	16	20
			EBL	1	69	66	SAT AM	69	**≥100**	51	50
32	Tyler St. / Project Access 6										
		WEEKDAY:	NBL	1	7	10	PM	10	**150**	20	10
			EBL	1	45	46	PM	46	**≥100**	51	50
		WEEKEND:	NBL	1	15	7	SAT AM	15	**150**	NOM	NOM
			EBL	1	20	41	SUN PM	41	**≥100**	44	60

[1] Queue length calculated using SimTraffic.
NOM = Nominal, less than 5 feet.

[2] **BOLD** = New / modified length of storage.

[3] Review of SimTraffic simulation results indicate that the turn lane queue is anticipated to clear in a timely manner and that the provided pocket length is adequate to accommodate the 95th percentile queue.

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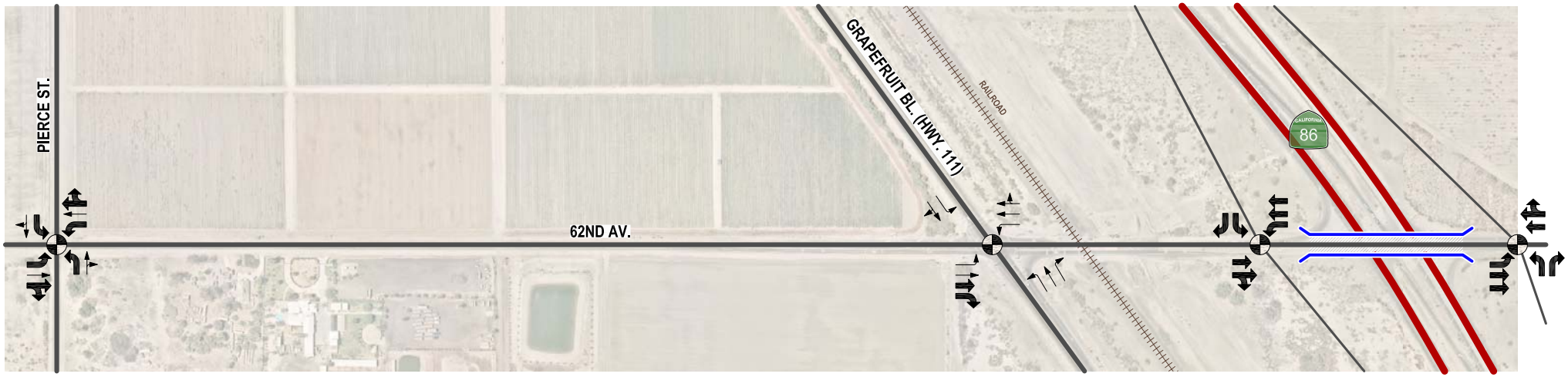
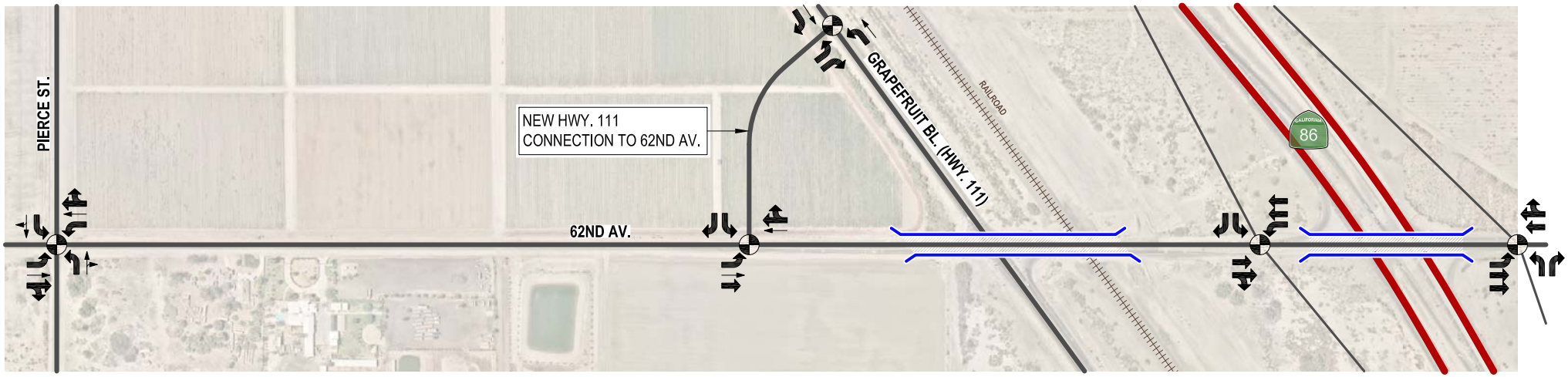
EXHIBIT 7-13: 62ND AVENUE ALTERNATIVE IMPROVEMENT CONCEPTS, BETWEEN PIERCE AND SR-86

62ND AVENUE AT GRADE CONFIGURATION AT HWY. 111 & RAILROAD, AND GRADE SEPARATION AT SR-86



62ND AVENUE WITH GRADE SEPARATION AT HWY-111, RAILROAD, AND SR-86



LEGEND:

= TRAFFIC SIGNAL
= EXISTING LANE
= LANE IMPROVEMENT

N

TABLE 7-6: WEEKDAY ROADWAY VOLUME/CAPACITY ANALYSIS FOR HORIZON YEAR (2045) WITH PROJECT CONDITIONS

Roadway	Segment	Designation	Travel	LOS E Capacity[2]	ADT[3]	Capacity	Peak Hour Segment Volumes AM	Peak Hour Segment Volumes PM
Harrison Street	South of 62nd Avenue	Expressway	6	61,300	39,300	0.64	2,278	2,936
62nd Avenue	East of Harrison Street	Expressway	4	40,900	26,100	0.64	1,572	2,019

[1] Existing Number of Through lanes; 1 = County of Riverside General Plan Buildout number of lanes
[2] Source: County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled (December 2020)
[3] Average Daily Traffic (ADT) expressed in vehicles per day

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8 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the County of Riverside are funded through a combination of improvements constructed by the Project, development impact fee programs or fair share contributions. Fee programs applicable to the Project are described below.

8.1 COUNTY OF RIVERSIDE DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The Project is located within the County's Eastern Coachella Valley Area Plan and therefore will be subject to County of Riverside DIF in an effort by the County to address development throughout its unincorporated area. The DIF program consists of two separate transportation components: the Roads, Bridges and Major Improvements component and the Traffic Signals component. Eligible facilities for funding by the County DIF program are identified on the County's Public Needs List, which currently extends through the year 2020. (6) A comprehensive review of the DIF program is now planned in order to update the nexus study. This will result in development of a revised "needs list" extending the program time horizon from 2010 to 2030.

The cost of signalizing DIF network intersections is identified under the Traffic Signals component of the DIF program. County staff generally defines DIF eligible intersections as those consisting of two intersecting general plan roadways. If the intersection meets this requirement, it is potentially eligible for up to $235,000 of credit, which is subject to negotiations with the County.

8.2 RIVERSIDE COUNTY TRANSPORTATION UNIFORM MITIGATION FEE (TUMF)

The TUMF program is administered by CVAG based upon a regional Nexus Study most recently updated in 2018 to address major changes in right of way acquisition and improvement cost factors. (3) This regional program was put into place to ensure that development pays its fair share, and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMF is a truly regional mitigation fee program and is imposed and implemented in every jurisdiction in the Coachella Valley. The TUMF Handbook was most recently updated in 2023.

8.3 MEASURE A

Measure A, Riverside County's half-cent sales tax for transportation, was adopted by voters in 1988 and extended in 2002. It will continue to fund transportation improvements through 2039. Measure A funds a wide variety of transportation projects and services throughout the County. The RCTC is responsible for administering the program. Measure A dollars are spent in accordance with a voter-approved expenditure plan that was adopted as part of the 1988 election.

8.4 FAIR SHARE CONTRIBUTION

Project improvements may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the County's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, have been provided in Table 8-1 for the applicable deficient study area intersection and for Horizon Year (2045). These fees are collected with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases.

TABLE 8-1: FAIR SHARE CALCULATIONS (WEEKDAY)

#	Intersection	Existing (2023) Traffic	HY (2045) Future Traffic	Project Only Traffic	Total New Traffic[1]	Project Fair Share (%)[2]
1	Cesar Chavez St. / 52nd Av.					
	• AM Peak Hour	1,932	3,983	62	2,051	3.0%
	• PM Peak Hour	2,387	4,948	98	2,561	**3.8%**
2	Cesar Chavez St. / 54th Av.					
	• AM Peak Hour	1,185	2,964	98	1,779	5.5%
	• PM Peak Hour	1,348	3,682	154	2,334	**6.6%**
3	Harrison St. / Airport Bl.					
	• AM Peak Hour	1,138	3,538	232	2,400	9.7%
	• PM Peak Hour	1,233	4,243	329	3,010	**10.9%**
4	Harrison St. / 58th Av.					
	• AM Peak Hour	526	2,078	253	1,552	16.3%
	• PM Peak Hour	679	2,630	359	1,951	**18.4%**
5	Harrison St. / 60th Av.					
	• AM Peak Hour	506	2,656	277	2,150	12.9%
	• PM Peak Hour	663	3,492	401	2,829	**14.2%**
6	Harrison St. / 62nd Av.					
	• AM Peak Hour	520	3,525	663	3,005	22.1%
	• PM Peak Hour	679	4,533	940	3,854	**24.4%**
7	Harrison St. / 66th Av.					
	• AM Peak Hour	621	2,720	58	2,099	2.8%
	• PM Peak Hour	886	3,583	123	2,697	**4.6%**
8	Harrison St. / Middleton St.					
	• AM Peak Hour	562	2,399	34	1,837	1.9%
	• PM Peak Hour	849	3,042	64	2,193	**2.9%**
9	Harrison St. / Desert Empire Homes					
	• AM Peak Hour	487	2,262	27	1,775	1.5%
	• PM Peak Hour	768	2,872	48	2,104	**2.3%**
10	Monroe St. / 62nd Av.					
	• AM Peak Hour	121	1,353	42	1,232	3.4%
	• PM Peak Hour	129	1,654	68	1,525	**4.5%**
11	Jackson St. / 62nd Av.					
	• AM Peak Hour	230	1,938	68	1,708	4.0%
	• PM Peak Hour	233	2,843	118	2,610	**4.5%**
12	Van Buren St. / 62nd Av.					
	• AM Peak Hour	183	1,537	93	1,354	6.9%
	• PM Peak Hour	183	2,375	168	2,192	**7.7%**
13	Tyler St. / 62nd Av.					
	• AM Peak Hour	365	2,140	613	1,775	**34.5%**
	• PM Peak Hour	288	2,483	750	2,195	34.2%
14	Polk St. / 62nd Av.					
	• AM Peak Hour	227	2,801	485	2,574	**18.8%**
	• PM Peak Hour	195	3,813	595	3,618	16.4%
15	Fillmore St. / 62nd Av.					
	• AM Peak Hour	218	2,051	421	1,833	**23.0%**
	• PM Peak Hour	189	2,714	514	2,525	20.4%
16	Pierce St. / 62nd Av.					
	• AM Peak Hour	180	1,764	400	1,584	**25.3%**
	• PM Peak Hour	182	2,342	484	2,160	22.4%
17	Highway 111 / 62nd Av.					
	• AM Peak Hour	567	2,410	385	1,843	**20.9%**
	• PM Peak Hour	785	3,415	464	2,630	17.6%
18	SR-86 / 62nd Av.					
	• AM Peak Hour	1,888	4,669	339	2,781	**12.2%**
	• PM Peak Hour	1,866	7,996	415	6,130	6.8%
20	W. Pierce St. / 66th Av.					
	• AM Peak Hour	518	1,198	85	680	12.5%
	• PM Peak Hour	440	1,289	117	849	**13.8%**
21	SR-86 / 66th Av.					
	• AM Peak Hour	1,630	3,453	65	1,823	**3.6%**
	• PM Peak Hour	1,651	6,549	92	4,898	1.9%
25	SR-86 SB Ramps / Airport Bl.					
	• AM Peak Hour	670	1,984	161	1,314	**12.3%**
	• PM Peak Hour	668	2,253	189	1,585	11.9%

[1] Total New Traffic = (Horizon Year Future Traffic - Existing Traffic)
[2] Project Fair Share % = (Project Only Traffic / Total New Traffic)

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9 REFERENCES

1. **County of Riverside.** *Transportation Analysis Guidelines.* County of Riverside : s.n., December 2020.
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4. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
5. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014, Updated March 30, 2021 (Revision 6).
6. **Willdan Financial Services.** *County of Riverside Development Impact Fee Study Update.* County of Riverside : s.n., 2013.

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