

TRAFFIC IMPACT ANALYSIS

Luiseño Village Retail Center

*Prepared for: Soboba Band of Luiseño Indians
23906 Soboba Road
San Jacinto, Ca 92583*

June 25, 2019

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1 EXECUTIVE SUMMARY

This study analyzes the forecast traffic conditions associated with the proposed Luiseño Village Retail Center project located in the City of San Jacinto. The project site occupies approximately 10 acres at the southwest corner of Ramona Expressway and East Main Street in the City of San Jacinto.

The project proposes to construct 23,940 square feet (SF) commercial retail, 3,550 SF fast food restaurant, and a 3,000 SF gas station and convenience store with a car wash. The gas station will contain 12 pump stations, or 24 vehicle fueling positions. In addition, the project proposes to construct a traffic signal at the intersection of Ramona Expressway and Donna Way.

The proposed project is forecast to generate approximately 3,418 trips per day, with approximately 240 trips occurring during the AM peak hour and approximately 266 trips occurring during the PM peak hour.

Level of Service Analysis

The results of the Existing With Project conditions show that all intersections are forecast to operate at acceptable levels of service (LOS D or better). Therefore, no significant impacts were identified under Existing With Project conditions and no mitigation measures are required for this scenario.

The results of the analysis under Existing Plus Cumulative With Project conditions show that all study intersections are forecast to operate at acceptable levels of service (LOS D or better) with the addition of project-related traffic volumes with the exception of the following intersections:

- East Main Street / Hewitt Street in both the AM & PM peak hours
- Ramona Expressway / East Main Street-Lake Park Drive in both the AM & PM peak hours

These intersections are forecast to operate at deficient levels of service both without the project and with the project. Therefore, these intersections are considered to result in a significant impact and requires mitigation. The following mitigation measures have been identified to reduce traffic impacts at the identified study intersection to a level considered less than significant:

Mitigation Measure #1: Intersection 1 – East Main Street / Hewitt Street

The project applicant shall make a fair share contribution to the construction of a traffic signal at this location.

Mitigation Measure #2: Intersection 2 – Ramona Expressway / East Main Street-Lake Park Drive

The project applicant shall be responsible for restriping the eastbound approach to provide one left turn lane, one through lane, and one shared through/right turn lane.

With the implementation of the identified mitigation measures, the impacted study intersections are expected to operate at acceptable levels of service.

2 INTRODUCTION

This study analyzes the forecast traffic conditions associated with the proposed Luiseño Village Retail Center project located in the City of San Jacinto. The project proposes to construct 23,940 square feet (SF) commercial retail, a 3,550 SF fast food restaurant, a 2,800 SF fast food restaurant, and a 3,000 SF gas station and convenience store with a car wash. The gas station will contain 12 pump stations, or 24 vehicle fueling positions.

The project site occupies approximately 10 acres at the southwest corner of Ramona Expressway and East Main Street in the City of San Jacinto. **Exhibit 1** shows the regional location of the project site.

The project proposes one right-in/right-out driveway on East Main St.; one right-in/right-out driveway on Ramona Expressway; and one full access driveway on Donna Way. **Exhibit 2** shows the proposed site plan. In addition, the project proposes to construct a new traffic signal at the intersection of Ramona Expressway and Donna Way. Ramona Expressway along the project frontage between East Main Street-Lake Park Drive and Donna Way will be widened to accommodate three southbound through lanes and a dedicated right-turn-lane at the project driveway and Donna Way.

It should be noted that the proposed site plan was revised after the analysis was completed to reduce one of the fast food restaurants from 3,550 SF to 3,200 SF. This reduced intensity would result in approximately 8 fewer trips in the AM peak hour and 6 fewer trips in the PM peak hour. Therefore, the analysis assumes the more conservative square footage and trip generation and the results of the analysis would not change with the reduced intensity.

2.1 STUDY AREA

The study evaluates the following 7 intersections in the vicinity of the project site as shown in **Exhibit 3**:

1. East Main Street / Hewitt Street
2. Ramona Expressway / East Main Street-Lake Park Drive
3. Lake Park Drive / Soboba Road
4. Ramona Expressway / Donna Way
5. East 7th Street / Las Rosas Drive
6. East 7th Street / Donna Way
7. Ramona Expressway / East 7th Street

It should be noted that the intersection of Ramona Expressway and Donna Way (Intersection 4) operates as a right-in/right-out minor street stop-controlled intersection under existing conditions. However, the project proposes to construct a full-access traffic signal at this location.

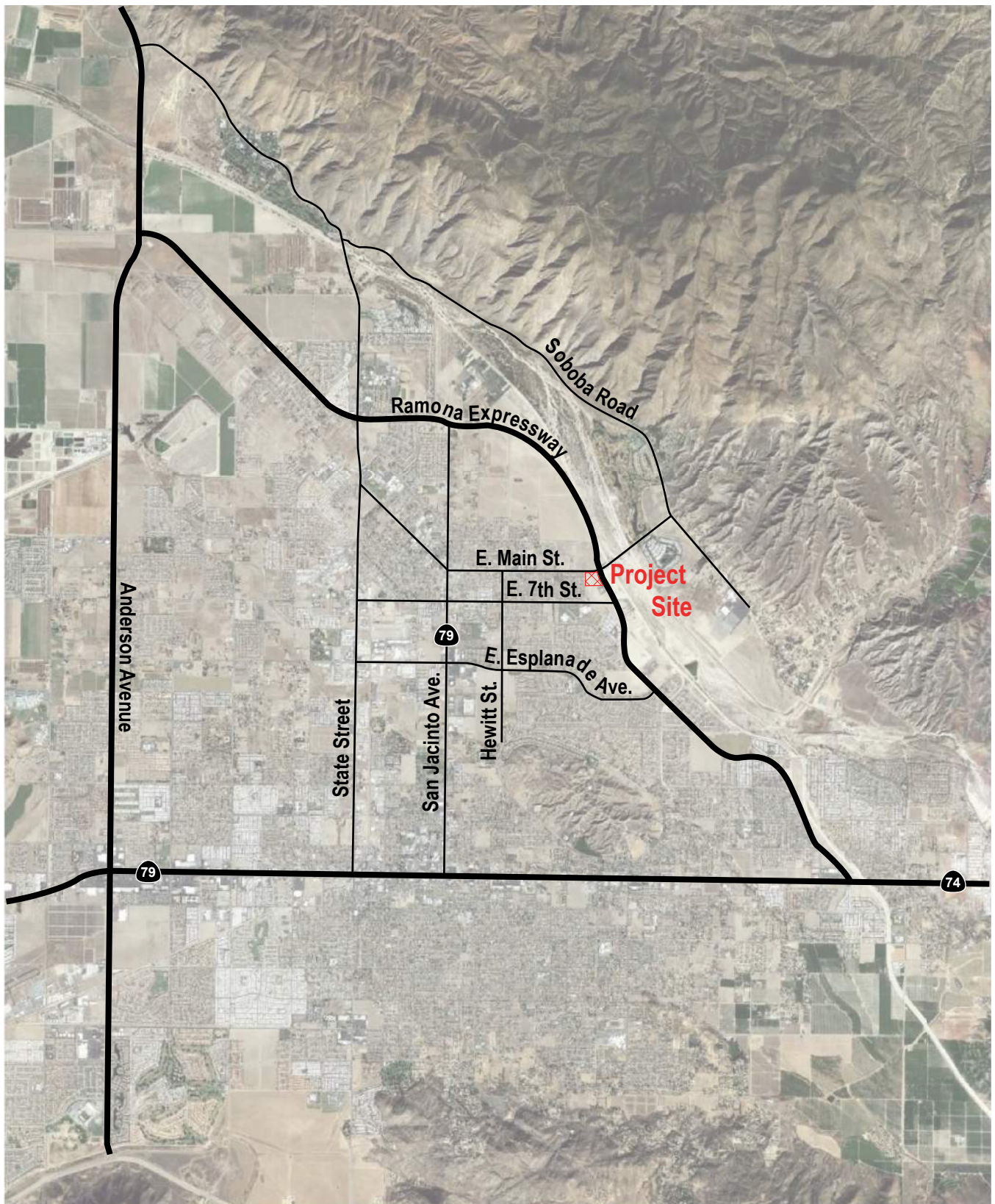
In addition, the proposed project will have a total of 3 points of vehicular access. The following project access driveways have been included as study intersection locations:

8. East Main Street / Project Driveway #1
9. Ramona Expressway / Project Driveway #2
10. Donna Way / Project Driveway #3

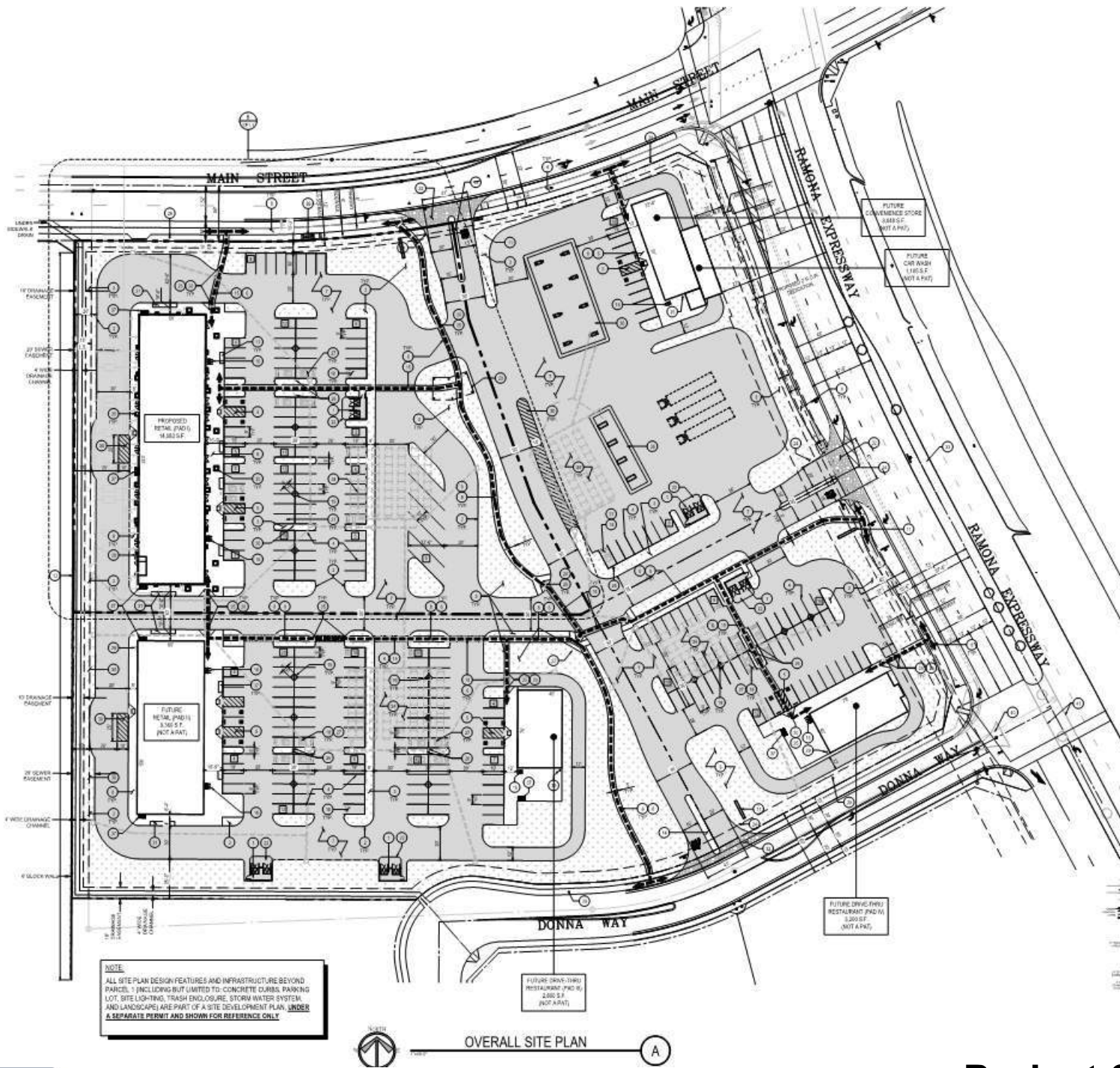
The driveways located on Main St. and Ramona Expressway will operate as a right-in/right-out only access. The driveway located on Donna Way will operate as a full access minor street stop-controlled intersection.

These study locations will be analyzed in the following study scenarios:

- Existing Conditions;
- Existing With Project Conditions;
- Existing Plus Cumulative Conditions;
- Existing Plus Cumulative With Project Conditions

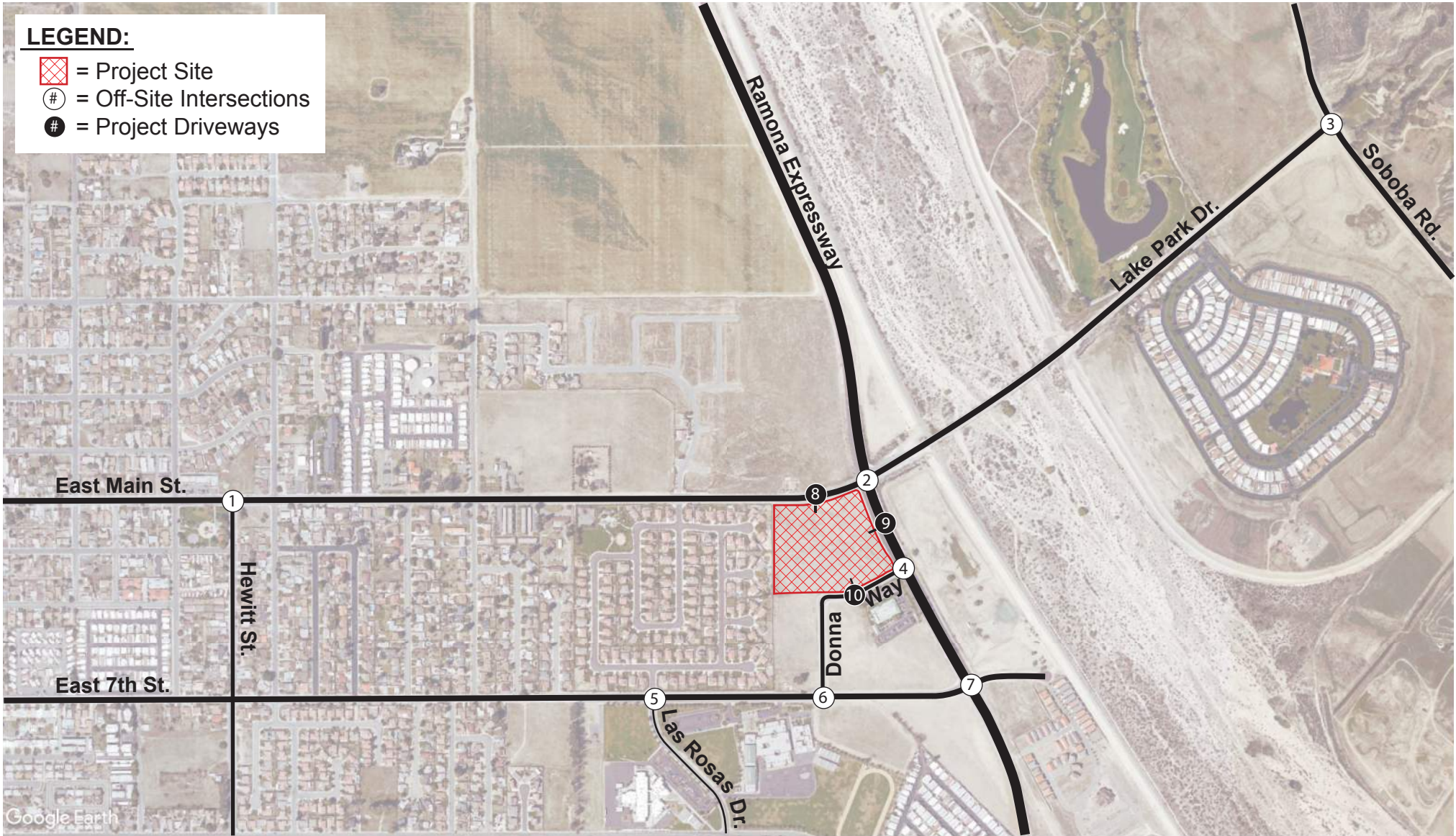


Not to Scale



LEGEND:

-  = Project Site
-  = Off-Site Intersections
-  = Project Driveways



Not to Scale

2.2 ANALYSIS METHODOLOGY

Level of Service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. The Highway Capacity Manual (HCM) 6th Edition analysis methodology is utilized to determine the operation LOS of the study intersections. The HCM analysis methodology describes the operation of an intersection using a range of level of service from LOS A (free-flow conditions) to LOS F (Severely congested conditions), based on the corresponding stopped delay experienced per vehicle for study intersections as shown in **Table 1**.

TABLE 1 - LEVEL OF SERVICE & DELAY RANGE

Control Delay (seconds/vehicle)		Level of Service
Signalized Int.	Unsignalized Int.	
Delay ≤ 10.0	Delay ≤ 10.0	A
10.1 - 20.0	10.0 < Delay ≤ 15.0	B
21.1-35.0	15.0 < Delay ≤ 25.0	C
35.1-55.0	25.0 < Delay ≤ 35.0	D
55-1-80.0	35.0 < Delay ≤ 50.0	E
Delay > 80.0	Delay > 50.0	F

SOURCE: HCM 6

Level of service is based on the average stopped delay per vehicle for all movements of signalized intersections and all-way stop-controlled intersections; for one-way or two-way stop-controlled intersections, LOS is based on the worst stop-controlled approach.

A computer software program called *Synchro* v. 10 is a direct application of HCM methodology and was used to analyze the study intersections.

2.3 THRESHOLDS OF SIGNIFICANCE

The following five (5) California Environmental Quality Act (CEQA) *Transportation Thresholds* will be addressed in this traffic impact analysis on whether the project would result in a:

1. *Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*
2. *Conflict or be inconsistent with CEQA Guidelines section 15064.3 or will conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*
3. *Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).*
4. *Result in inadequate emergency access?*

The City of San Jacinto has adopted level of service “D” or better as acceptable operating conditions for intersections during the peak hour. The following types of traffic impacts are considered to be significant under CEQA:

- When the pre-project conditions is at or better than acceptable levels of service (LOS “D” or better), and proposed project generated traffic causes deterioration to unacceptable LOS (LOS “E” or “F”), a significant direct impact is deemed to occur;
- When the pre-project conditions are already deficient, and the project is anticipated to contribute traffic to the location, the project’s contribution to the cumulative impact is considered cumulatively considerable.

2.4 ROADWAY SEGMENT ANALYSIS

Roadway segment level of service standards are generally used as long-range planning guidelines to determine the functional classification of roadways and are not always accurate indicators of roadway performance. Typically, the performance and level of service or a roadway segment is heavily influenced by the ability of intersections to accommodate peak hour volumes. Therefore, peak hour signalized and unsignalized intersections within the study area are the focus of the project traffic analysis summarized in this report since intersections control the movements of vehicles along road segments.

3 EXISTING CONDITIONS

3.1 SURROUNDING ROADWAY NETWORK

The characteristics of the roadway system in the vicinity of the project site are described below:

Ramona Expressway is a four-lane divided arterial trending in a north-south direction. South of 7th Street, Ramona Expressway becomes a two-lane undivided roadway. The only Class I bikeway in San Jacinto is found along the west side of Ramona Expressway north of Main Street. The posted speed limit on Ramona Expressway is 55 mph within the study area; on street parking is prohibited.

Main Street is a two-lane secondary roadway with two-way-left-turn-lanes in the center lane trending in an east-west direction. The posted speed limit on Main Street is 40 mph within the study area; on street parking is allowed intermittently.

Lake Park Drive is a two-lane divided secondary roadway trending in an east-west direction. In the future, Lake Park Drive is expected to be improved to four lanes between Ramona Expressway and Soboba Road with the construction of the Soboba Casino. The posted speed limit on Lake Park Drive is 40 mph within the study area; on street parking is prohibited.

7th Street is a two-lane undivided secondary roadway trending in an east-west direction. The posted speed limit is 45 mph within the study area; on street parking is allowed.

Hewitt Street is a two-lane secondary roadway trending in a north-south direction. The posted speed limit is 40 mph within the study area; on street parking is allowed.

Soboba Road is a two-lane secondary roadway trending in a north-south direction. The ultimate classification for Soboba Road is four lanes. The posted speed limit on Soboba Road is 45 mph within the study area.

3.2 SURROUNDING MULTI-MODAL NETWORK

Existing pedestrian facilities are provided on the south side of Main Street west of Ramona Expressway and both sides of Donna Way. There are no sidewalks provided on Ramona Expressway. There is a Class I bikeway on the west side of Ramona Expressway north of Main Street. There are no other bike facilities within the study area.

The project proposes an 8-foot non-contiguous Class I bike path on the project site frontage of Ramona Expressway between Main Street and Donna Way.

The City of San Jacinto is serviced by the Riverside Transit Agency (RTA). Within the study area, there are bus stops located on both sides of Las Rosas Drive approximately 400 feet south of E. 7th St. for RTA Route 32. There are also bus stops located on E. Main Street approximately 70 feet east of Miracle Dr. for RTA Route 42. These bus stops are all located within an estimated 10-minute walk of the project site.

3.3 EXISTING CITY OF SAN JACINTO CIRCULATION PLAN

Exhibit 4 shows the current City of San Jacinto General Plan Circulation Element Roadway System. This shows the classification and configuration of arterial highways planned to serve the ultimate development defined by the land use element of the General Plan.

3.4 EXISTING CONDITIONS TRAFFIC VOLUMES

To determine the existing operations of the study intersections, AM peak hour and PM peak hour intersection movement counts were collected in October 2017. AM peak period intersections counts were collected from 7:00 AM to 9:00 AM and PM peak period counts were collected from 4:00 PM to 6:00 PM. The counts used in this analysis were taken from the highest hour within the peak period counted. Detailed count data is contained in **Appendix A**.

Exhibit 5 shows the Existing conditions study intersection lane geometry. **Exhibit 6** shows the AM and PM peak hour volumes at the study intersections.

3.5 EXISTING CONDITIONS PEAK HOUR STUDY INTERSECTION LOS

Table 2 summarizes existing conditions AM and PM peak hour level of service for all study intersections. Detailed analysis sheets are contained in **Appendix B**.

TABLE 2, EXISTING CONDITIONS AM/PM PEAK HOUR INTERSECTION LOS

Study Intersection	Traffic Control	Existing Conditions			
		AM		PM	
		Delay ¹	LOS	Delay ¹	LOS
1 - E. Main St. / Hewitt St.	AWSC	10.6	B	10.0	A
2 - Ramona Expwy. / E. Main St.-Lake Park Dr.	Signal	22.3	C	41.0	D
3 - Lake Park Dr. / Soboba Rd.	Signal	18.7	B	24.2	C
4 - Ramona Expwy. / Donna Way	OWSC	10.0	B	12.5	B
5 - E. 7th St. / Las Rosas Dr.	AWSC	10.9	B	8.5	A
6 - E. 7th St. / Donna Way	OWSC	9.5	A	9.0	A
7 - Ramona Expwy. / E. 7th St.	Signal	15.4	B	12.4	B
8 - E. Main St. / Project Driveway #1	OWSC	DNE		DNE	
9 - Ramona Expwy. / Project Driveway #2	OWSC	DNE		DNE	
10 - Donna Way / Project Driveway #3	OWSC	DNE		DNE	

Note: Deficient intersection operation indicated in **bold**.

¹ Average seconds of delay per vehicle.

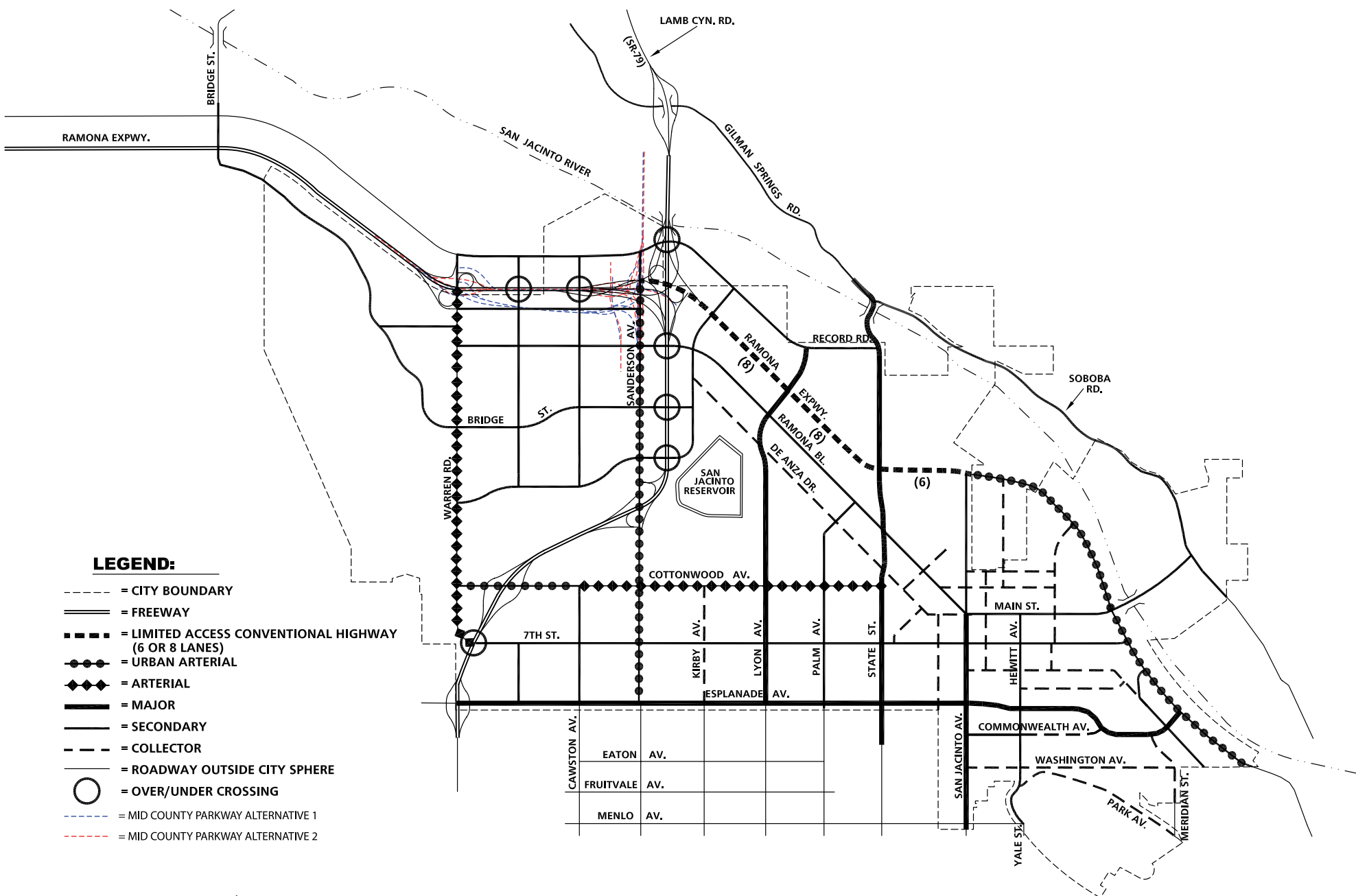
LOS = level of service.

DNE = Does Not Exist

AWSC = All-Way Stop Control

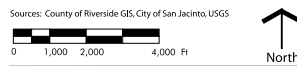
OWSC = One-Way Stop Control

As shown in **Table 2**, all study intersections are currently operating at an acceptable level of service (LOS D or better).



LEGEND:

- = CITY BOUNDARY
- == = FREEWAY
- = LIMITED ACCESS CONVENTIONAL HIGHWAY (6 OR 8 LANES)
- = URBAN ARTERIAL
- ◆◆◆◆ = ARTERIAL
- == = MAJOR
- = SECONDARY
- - - = COLLECTOR
- = ROADWAY OUTSIDE CITY SPHERE
- = OVER/UNDER CROSSING
- - - = MID COUNTY PARKWAY ALTERNATIVE 1
- - - = MID COUNTY PARKWAY ALTERNATIVE 2








San Jacinto General Plan

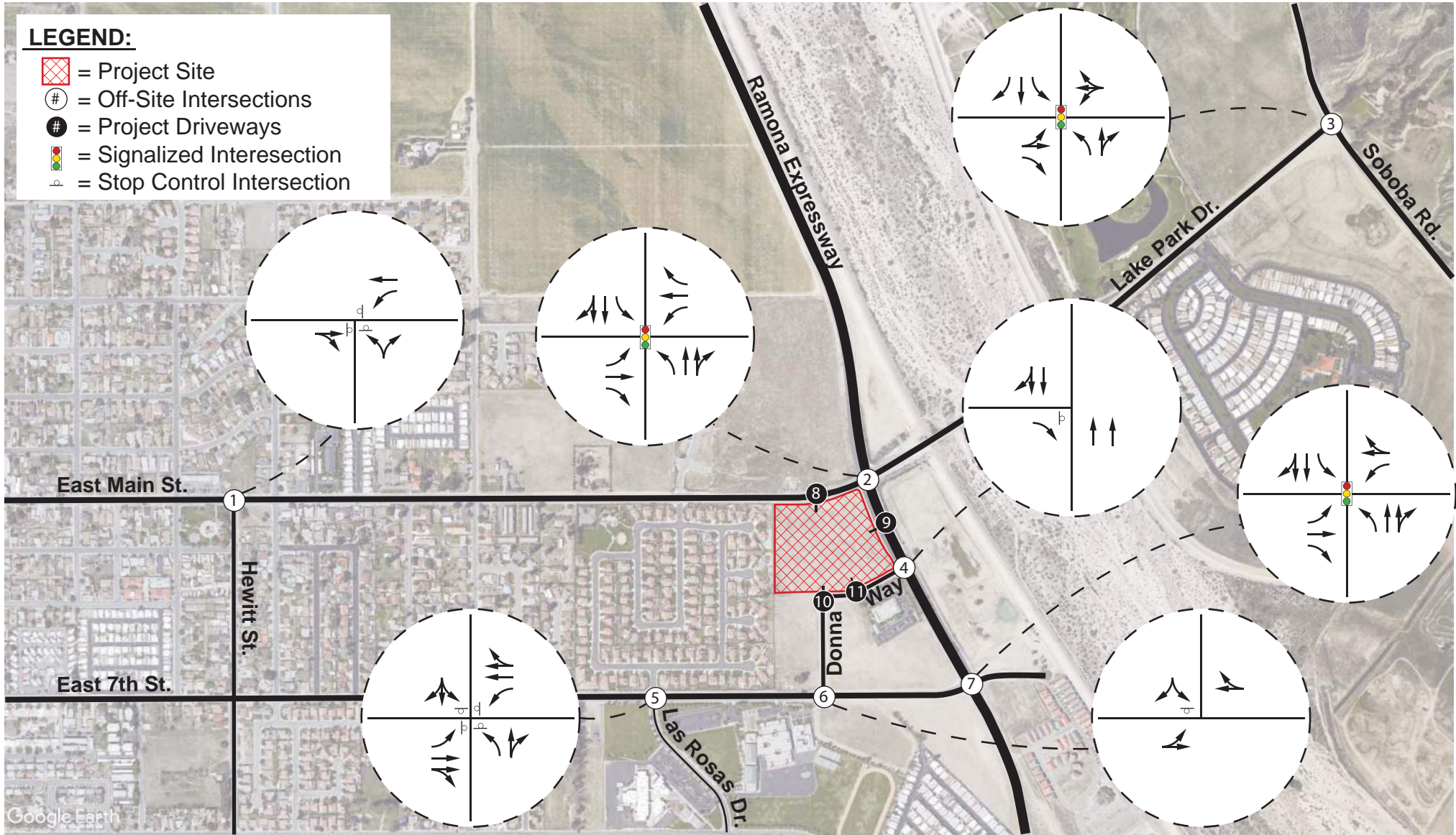
C-19

Figure C-2
 Roadway System
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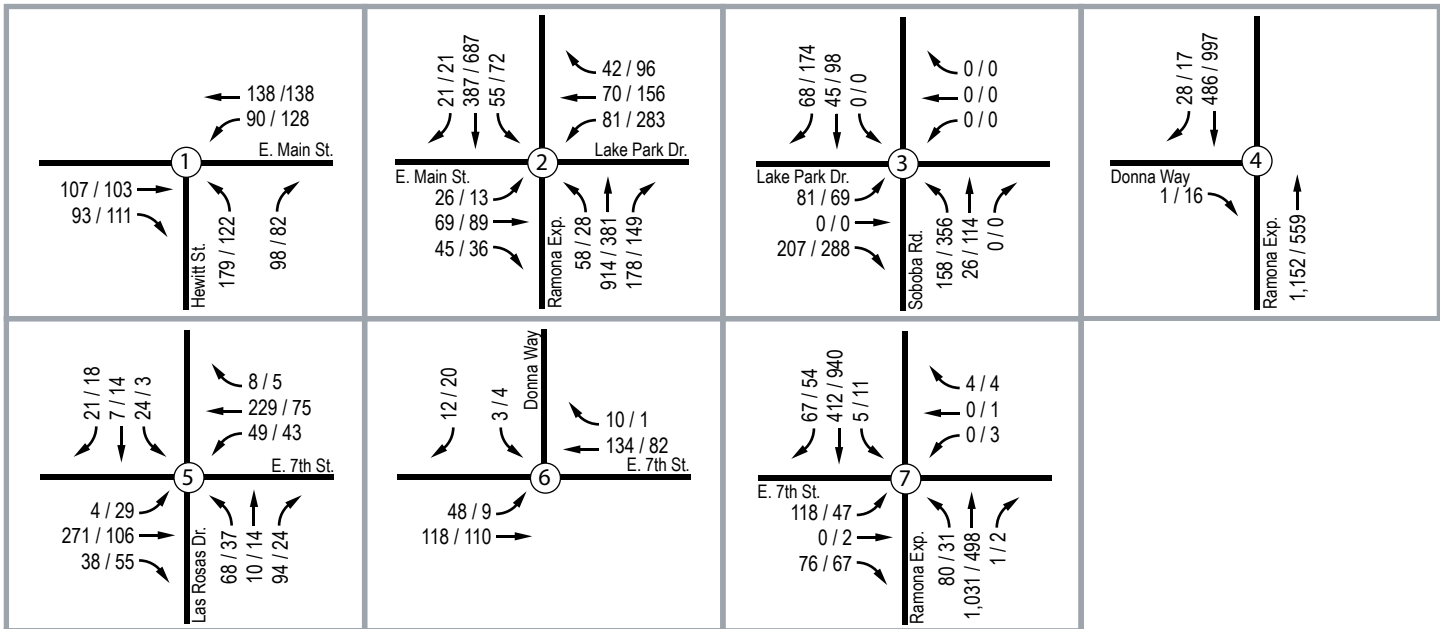
Source: City of San Jacinto Circulation Element

LEGEND:

-  = Project Site
-  = Off-Site Intersections
-  = Project Driveways
-  = Signalized Intersection
-  = Stop Control Intersection



Not to Scale



Legend:

- XX / XX = AM / PM Peak Hour Volumes
- = Project Site
- = Off-Site Intersections
- = Project Driveways



Existing AM / PM Peak Hour Turn Movement Volumes

4 PROPOSED PROJECT

The project proposes to construct two commercial retail buildings totaling 23,940 square feet (SF); a 3,550 SF drive-thru fast food restaurant; a 2,800 SF drive-thru fast food restaurant; and a 3,000 SF gas station and convenience store with a car wash. The gas station will contain 12 pump stations, or 24 vehicle fueling positions. Project Opening Day is expected to be Year 2020.

The project site occupies approximately 10 acres at the southwest corner of Ramona Expressway and East Main Street in the City of San Jacinto. The site will have a total of 3 points of vehicular access. The driveways located on Main Street and Ramona Expressway will operate as a right-in/right-out only access. The project driveway on Donna Way will provide full vehicular access. **Exhibit 2** shows the project site plan.

The project proposes to construct a new full-access traffic signal at the intersection of Ramona Expressway and Donna Way. The proposed traffic signal at Ramona Expressway and Donna Way will remove the existing “pork-chop” on Donna Way and a portion of the raised median on Ramona Expressway. The raised median would also be modified to accommodate a left-turn lane in the northbound direction. Along the project frontage, Ramona Expressway will be widened to provide a total of three through-lanes in the southbound direction and dedicated right-turn-lanes at the project driveway and at Donna Way. A total of 48 feet would be required between the median and the curb to provide the four lanes. South of the proposed traffic signal, one of the southbound through lanes would be dropped shortly after Donna Way.

Design concepts for improvements along the project frontage on Ramona Expressway are contained in **Appendix H**. These concepts also show the recommended improvements at East Main Street – Lake Park Drive as well as the proposed traffic signal at Donna Way.

The proposed traffic signal will have the following lane configuration:

- Northbound Direction
 - One 12-foot left-turn-lane
 - Two 12-foot (min.) through-lanes
- Southbound Direction
 - Three 12-foot through-lanes
 - One 12-foot right-turn-lane
- Eastbound Direction
 - One 12-foot left-turn-lane
 - One 12-foot (min.) through-lanes

4.1 PROJECT FORECAST TRIP GENERATION

In order to calculate vehicle trips forecast to be generated by the proposed project, the *Institute of Transportation Engineers (ITE) 9th Edition Trip Generation Manual* trip generation rates were utilized. **Table 3** summarizes the ITE trip generation rates used.

TABLE 3, ITE TRIP GENERATION RATES

Land Use	ITE Code	Trip Rate	AM Peak Hour Trips			PM Peak Hour Trips		
			Rate	In	Out	Rate	In	Out
Specialty Retail Center	826	44.32 / KSF	0.96 / KSF ^a	62%	38%	2.71 / KSF	44%	56%
Fast Food with Drive Thru	934	496.1 / KSF	45.4 / KSF	51%	49%	32.7 / KSF	52%	48%
Serv.Stat.w/Conv.Mkt.&Carwash	946	152.8 / Fuel Position	11.8 / Fuel Position	51%	49%	13.9 / Fuel Position	51%	49%

Source: 2012 ITE Trip Generation Manual, 9th Edition

^a Assumes the AM peak hour rate and directional split of a Shopping Center (820)

As documented in ITE’s *Trip Generation Manual (9th Edition, 2012)*, a pass-by trip reduction is applicable to retail land uses located along busy arterial highways attracting vehicle trips already on the roadway; this is particularly the case when the roadway is experiencing peak operating conditions. For example, a motorist already traveling along Ramona Expressway between destinations may stop at the proposed project site. A pass-by discount under this example would reduce/eliminate both the inbound and outbound trip from the surrounding roadway circulation system since the vehicle was already traveling on the roadway. Without the pass-by trip discount, two trips would be generated: an inbound trip to the project site, and an outbound trip from the project site. In other words, pass-by trips are existing trips deviated from the surrounding roadway network to access the project site. Therefore, some turn movements under the “with project” conditions may be lower than the “without project” scenario.

Table 4 summarizes the pass-by trip reductions applicable to the proposed project land uses that have been assumed for the purposes of this analysis.

TABLE 4, PROPOSED PROJECT PASS-BY TRIP REDUCTIONS

Project Land Use	Daily	AM Peak Hour	PM Peak Hour
Commercial Retail	25%	0%	25%
Fast Food With Drive Thru	45%	45%	45%
Service Station With Car Wash	50%	50%	50%

In addition to pass-by trip reductions, internal trip reductions were also applied to the project site in accordance with ITE’s *Trip Generation Manual (9th Edition, 2012)*. An internal trip capture reduction is applicable when a project site has more than one destination (multiple land uses), in which a person visits more than one destination onsite during the same visit. For the purpose of this analysis, a conservative internal capture of 5% has been applied to the project.

The forecast trip generation based on ITE trip generation rates after all applicable reductions is summarized in **Table 5**. As shown, the project is forecast to generate approximately 4,144 daily trips with 307 trips occurring during the AM peak hour (159 in / 148 out) and 314 trips occurring during the PM peak hour (158 in / 155 out). As discussed previously, the site plan shows a reduced intensity which would result in approximately 8 fewer trips in the AM peak hour and 6 fewer trips in the PM peak hour. Therefore, the analysis assumes the more conservative square footage and trip generation, and the results of the analysis would not change with the reduced intensity.

TABLE 5, PROPOSED PROJECT TRIP GENERATION

Land Use	Intensity	ADT	AM Peak Hour Trips			PM Peak Hour Trips		
			Total	Inbound	Outbound	Total	Inbound	Outbound
Specialty Retail Center	23.94 KSF	1,061	23	14	9	65	29	36
Pass-By Trip Reduction (25% PM & Daily) ^a		-265	0	0	0	-16	-7	-9
Specialty Retail Subtotal		796	23	14	9	49	22	27
Fast Food with Drive Thru	6.35 KSF	3,149	288	147	141	207	108	99
Pass-By Trip Reduction (45% AM, PM & Daily) ^b		-1,417	-130	-66	-63	-93	-49	-45
Fast Food Subtotal		1,732	158	81	78	114	59	54
Serv.Stat.w/Conv.Mkt.&Carwash	24 Fuel Position	3,668	284	145	139	333	170	163
Pass-By Trip Reduction (50% AM, PM & Daily) ^c		-1,834	-142	-72	-70	-167	-85	-82
Service Station Subtotal		1,834	142	73	69	167	85	82
Subtotal Project Trip Generation		4,362	323	168	156	330	166	163
Internal Capture (5%)		-218	-16	-8	-8	-17	-8	-8
Total Project Trip Generation		4,144	307	159	148	314	158	155

ADT = Average Daily Traffic; KSF = 1,000 square feet

^a Source: 2012 ITE Trip Generation Manual; Users Guide and Handbook, 9th Edition. Most similar land use code is Shopping Center (820) with an average PM pass-by of 34%

^b Source: 2012 ITE Trip Generation Manual; Users Guide and Handbook, 9th Edition. Average pass-by of 49%






^c Source: 2012 ITE Trip Generation Manual; Users Guide and Handbook, 9th Edition. Most similar land use code is Service Station w/ Conv. Market (935) with an average PM pass-by of 56%

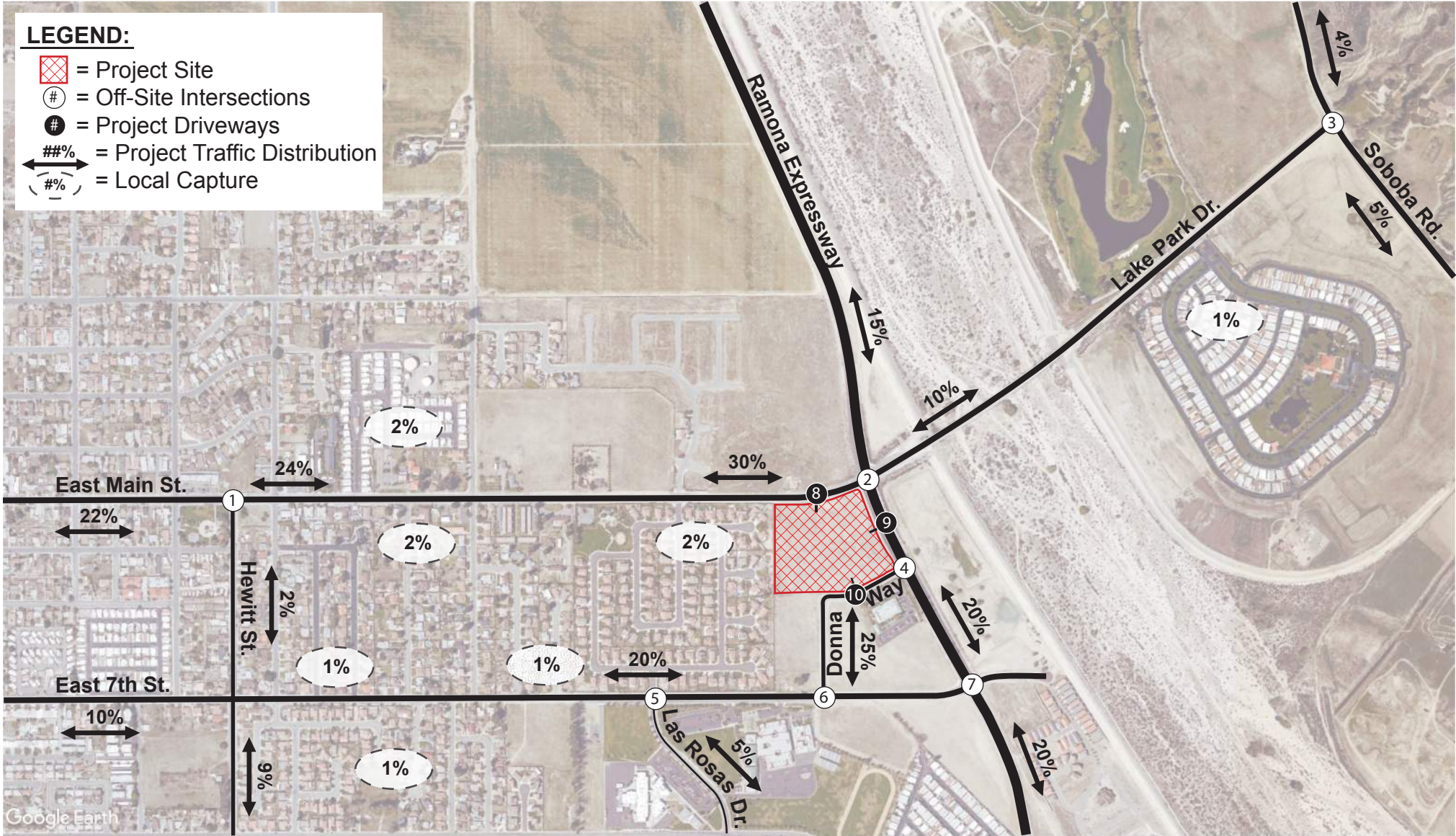
4.2 TRIP DISTRIBUTION AND TRIP ASSIGNMENT OF PROPOSED PROJECT

Exhibit 7 shows the forecast trip percent distribution of the project reviewed and approved by City staff.

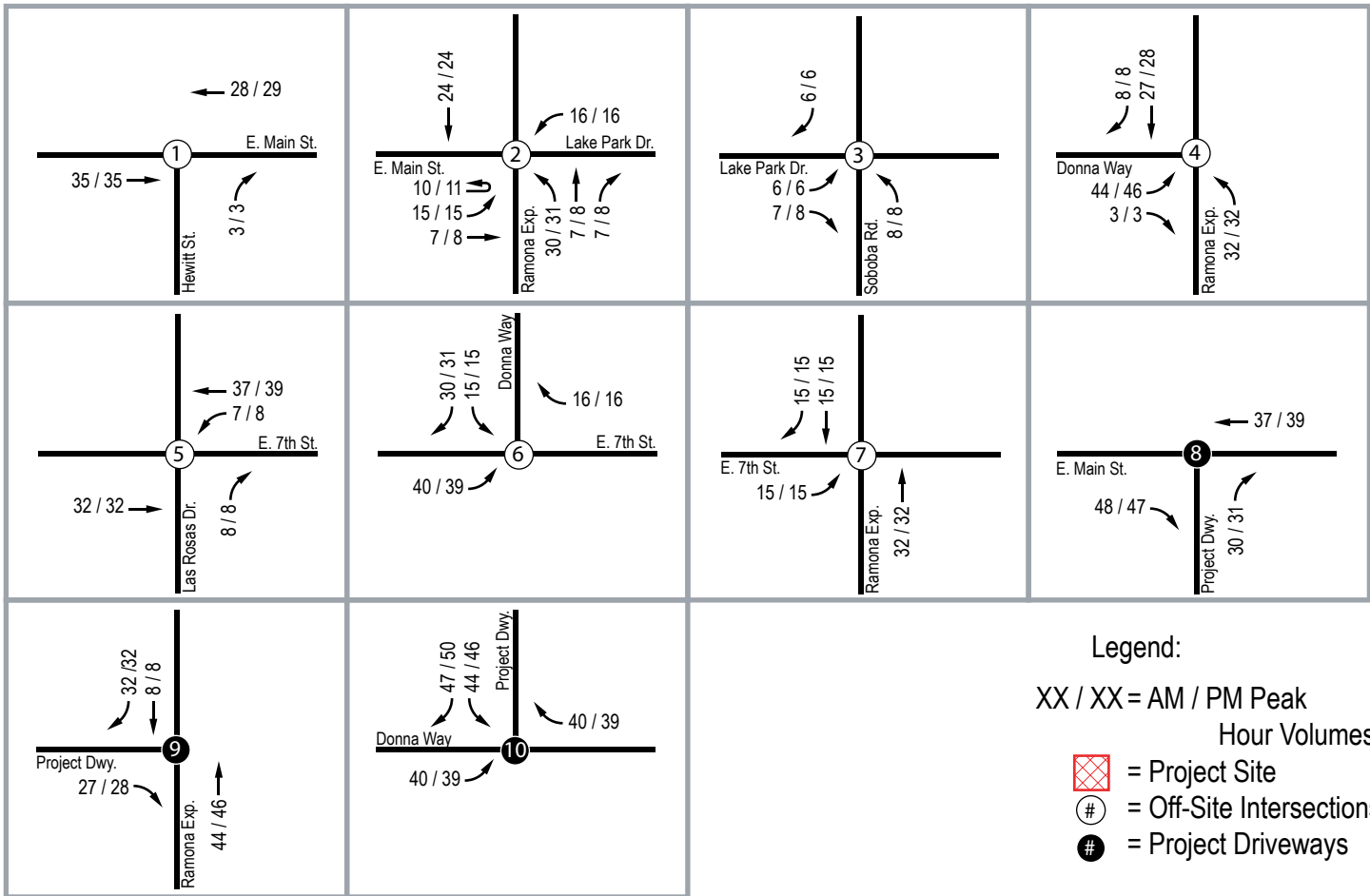
Exhibit 8 shows the corresponding forecast assignment of AM and PM peak hour project-generated trips assuming the trip percent distribution shown in **Exhibit 7**.

LEGEND:

-  = Project Site
-  = Off-Site Intersections
-  = Project Driveways
-  = Project Traffic Distribution
-  = Local Capture



Not to Scale



Project Traffic AM/PM Peak Hour Trip Assignment

Exhibit 8

5 EXISTING WITH PROJECT CONDITIONS

5.1 EXISTING WITH PROJECT CONDITIONS TRAFFIC VOLUMES

Existing With Project conditions traffic volumes are derived by adding trips forecast to be generated by the proposed project to existing conditions traffic volumes.

Exhibit 9 shows the forecast Existing With Project conditions AM and PM peak hour volumes at study intersections.

5.2 EXISTING WITH PROJECT CONDITIONS PEAK HOUR STUDY INTERSECTION LOS

Table 6 summarizes Existing With Project conditions AM and PM peak hour level of service for all study intersections. Detailed analysis sheets are contained in **Appendix C**.

TABLE 6, EXISTING WITH PROJECT CONDITIONS AM/PM PEAK HOUR INTERSECTION LOS

Study Intersection	Traffic Control	Existing Conditions		Existing With Project Conditions		Significant Impact?	
		AM	PM	AM	PM	AM	PM
		Delay ¹ - LOS	Delay ¹ - LOS	Delay ¹ - LOS	Delay ¹ - LOS		
1 - E. Main St. / Hewitt St.	AWSC	10.6 - B	10.0 - A	11.2 - B	10.5 - B	No	No
2 - Ramona Expwy. / E. Main St.-Lake Park Dr.	Signal	22.3 - C	41.0 - D	24.4 - C	48.7 - D	No	No
3 - Lake Park Dr. / Soboba Rd.	Signal	18.7 - B	24.2 - C	18.9 - B	24.9 - C	No	No
4 - Ramona Expwy. / Donna Way	Signal ²	10.0 - B	12.5 - B	12.4 - B	8.0 - A	No	No
5 - E. 7th St. / Las Rosas Dr.	AWSC	10.9 - B	8.5 - A	11.6 - B	8.8 - A	No	No
6 - E. 7th St. / Donna Way	OWSC	9.5 - A	9.0 - A	11.2 - B	10.8 - B	No	No
7 - Ramona Expwy. / E. 7th St.	Signal	15.4 - B	12.4 - B	15.5 - B	13.2 - B	No	No
8 - E. Main St. / Project Driveway #1	OWSC	DNE	DNE	9.3 - A	9.2 - A	No	No
9 - Ramona Expwy. / Project Driveway #2	OWSC	DNE	DNE	10.5 - B	14.0 - B	No	No
10 - Donna Way / Project Driveway #3	OWSC	DNE	DNE	10.7 - B	10.4 - B	No	No

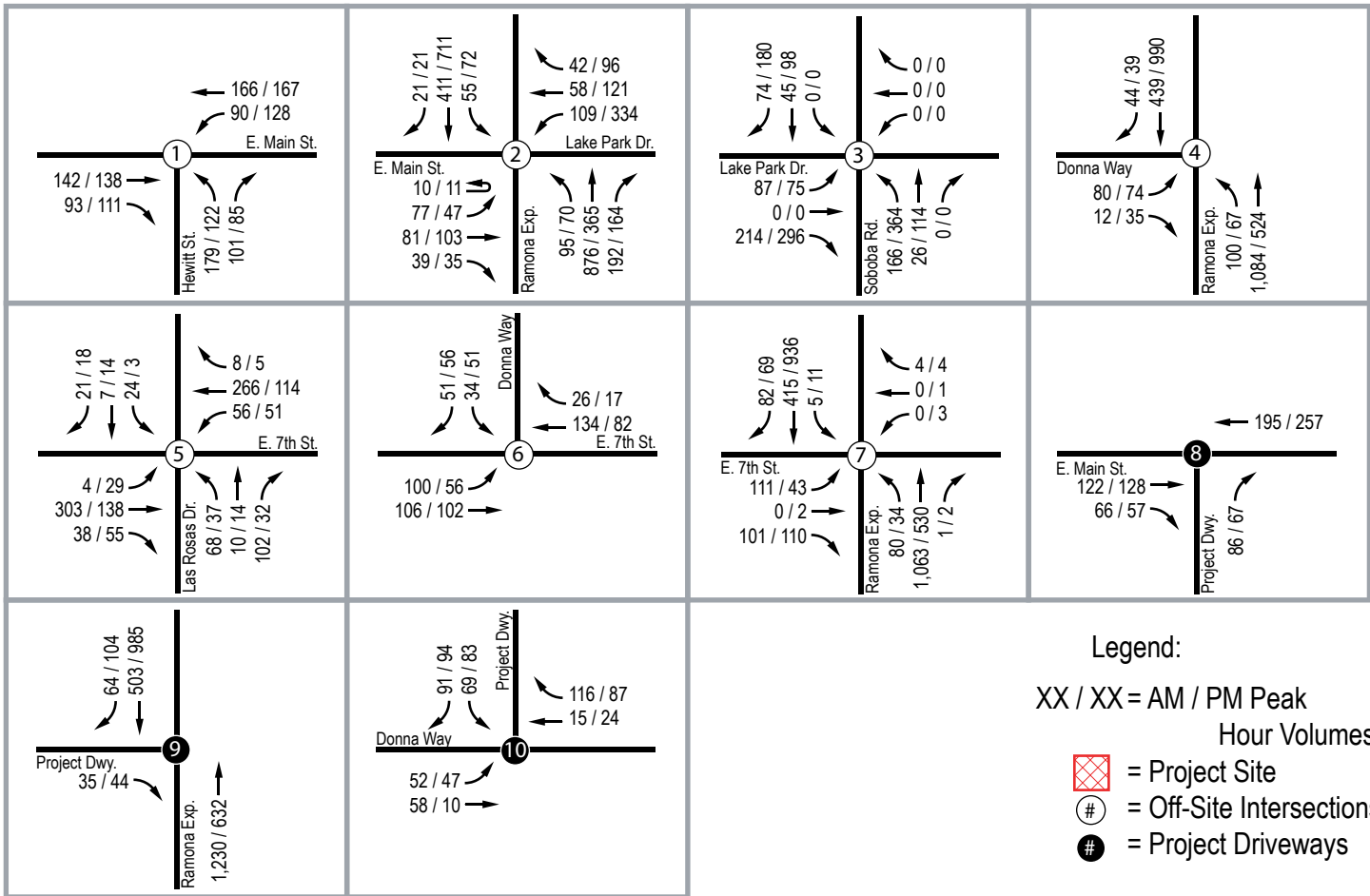
Note: Deficient intersection operation indicated in **bold**.

LOS = level of service.

¹ Seconds of delay per vehicle.

² Project proposes to construct traffic signal at Ramona Expressway/Donna Way. Therefore, analyzed as a signal with the project.

As shown in **Table 6**, consistent with existing conditions, all study intersections are forecast to operate at an acceptable level of service (LOS D or better) during the peak hours with the addition of project-related traffic to existing traffic volumes. Therefore, no significant impacts were identified under Existing With Project conditions and no mitigations measures are required.



Existing With Project AM / PM Peak Hour Turn Movement Volumes

6 EXISTING PLUS CUMULATIVE CONDITIONS

Existing Plus Cumulative conditions assumes the following improvements to Soboba Road and Lake Park Drive:

- Widening of Lake Park Drive between Ramona Expressway and Soboba Road to four lanes
- Widening of approximately ¼ mile of Soboba Road north of Lake Park Drive to four lanes
- Intersection improvements to Soboba Road/Lake Park Drive: construction of additional left turn lane in the eastbound direction.
- Intersection improvements to Ramona Expressway/East Main Street-Lake Park Drive: construction of third southbound through lane, second southbound left-turn lane, and a dedicated right-turn lane

Exhibit 10 shows the intersection improvements detailed above.

6.1 EXISTING PLUS CUMULATIVE CONDITIONS TRAFFIC VOLUMES

To derive Existing Plus Cumulative conditions traffic volumes, an annual growth rate of 2% per year was applied to existing traffic volumes within the study area from existing conditions (2017) to project opening (2020) to account for general regional growth in the vicinity of the project site.

In addition, trips related to approved or pending projects that are assumed to be constructed and occupied by 2020 were added to the study intersections. This includes traffic related to the future Soboba Casino project located on the northwest corner of Soboba Road and Lake Park Drive as well as the KPC Promenade located at the northwest corner of Ramona Expressway and East Main Street-Lake Park Drive. Because of the proximity of the KPC Promenade development to the project, all other cumulative trips assumed in the KPC Promenade TIA (TJW Engineering, 2016) were conservatively assumed in this analysis and assigned to all study intersections.

Exhibit 11 shows the forecast Existing Plus Cumulative conditions AM and PM peak hour volumes at study intersections. Cumulative projects information is provided in **Appendix D**.

6.2 EXISTING PLUS CUMULATIVE CONDITIONS PEAK HOUR STUDY INTERSECTION LOS

Table 7 summarizes existing conditions AM and PM peak hour level of service for all study intersections. Detailed analysis sheets are contained in **Appendix E**.

As shown in **Table 7**, all study intersections are forecast to operate at an acceptable level of service (LOS D or better) during the peak hours under Existing Plus Cumulative conditions with the following exceptions:

1. East Main Street / Hewitt Street – AM peak hour (LOS F) & PM peak hour (LOS F)
2. Ramona Expressway / East Main Street-Lake Park Drive – AM peak hour (LOS E) & PM peak hour (LOS F)

TABLE 7, EXISTING PLUS CUMULATIVE CONDITIONS AM/PM PEAK HOUR INTERSECTION LOS

Study Intersection	Traffic Control	Cumulative Conditions			
		AM		PM	
		Delay ¹	LOS	Delay ¹	LOS
1 - E. Main St. / Hewitt St.	AWSC	97.2	F	159.3	F
2 - Ramona Expwy. / E. Main St.-Lake Park Dr.	Signal	66.5	E	176.3	F
3 - Lake Park Dr. / Soboba Rd. 2	Signal	17.2	B	25.6	C
4 - Ramona Expwy. / Donna Way	OWSC	12.0	B	15.9	C
5 - E. 7th St. / Las Rosas Dr.	AWSC	11.4	B	8.6	A
6 - E. 7th St. / Donna Way	OWSC	9.6	A	9.1	A
7 - Ramona Expwy. / E. 7th St.	Signal	21.1	C	16.6	B
8 - E. Main St. / Project Driveway #1	OWSC	DNE		DNE	
9 - Ramona Expwy. / Project Driveway #2	OWSC	DNE		DNE	
10 - Donna Way / Project Driveway #3	OWSC	DNE		DNE	






Note: Deficient intersection operation indicated in **bold**.

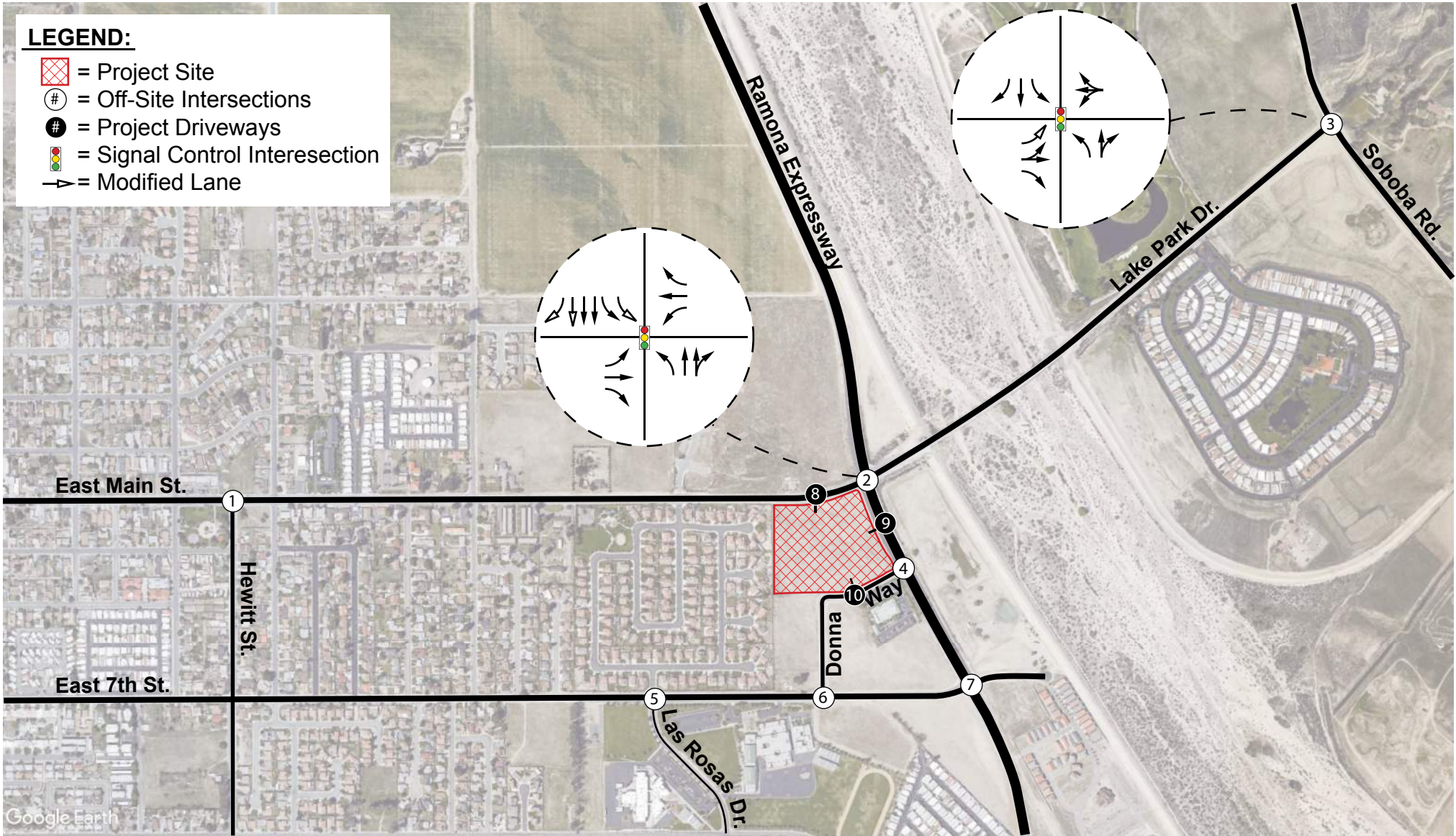
¹ Average seconds of delay per vehicle.

² Includes intersections improvements due to construction of Soboba Casino Project

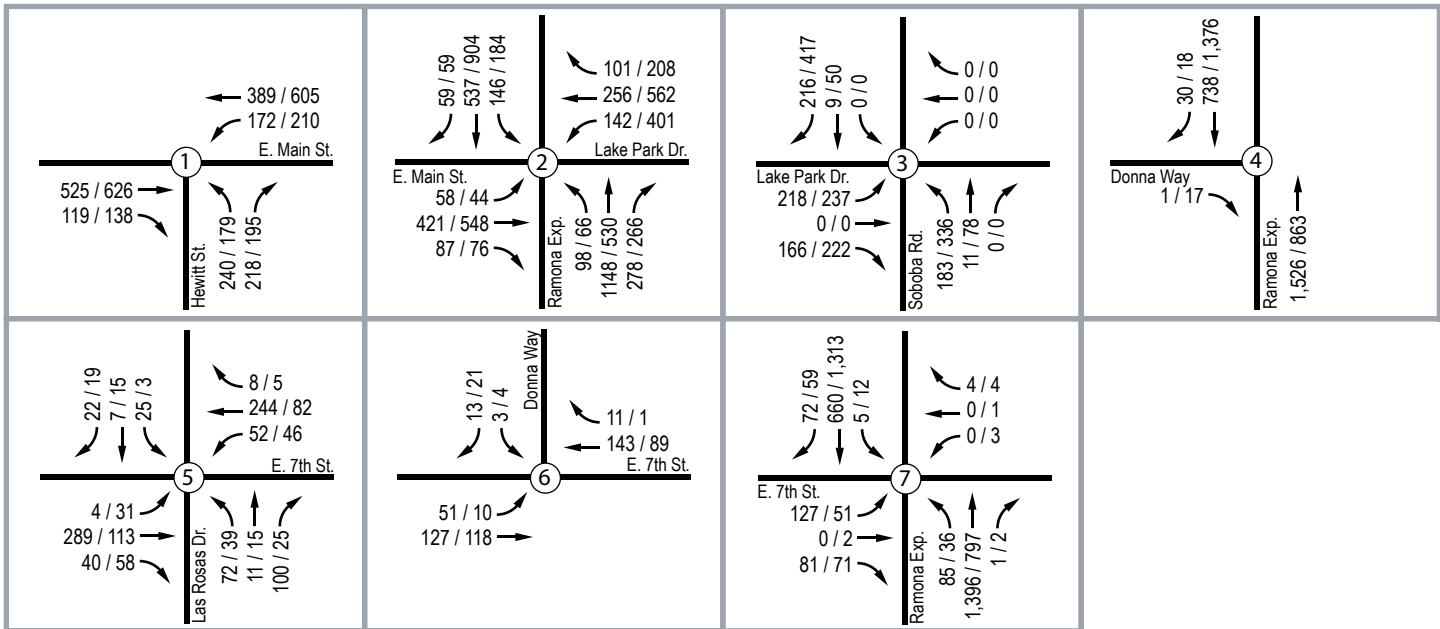
LOS = level of service; DNE = Does Not Exist; AWSC = All-Way Stop Control; OSWC = One-Way Stop Control

LEGEND:

-  = Project Site
-  = Off-Site Intersections
-  = Project Driveways
-  = Signal Control Intersection
-  = Modified Lane



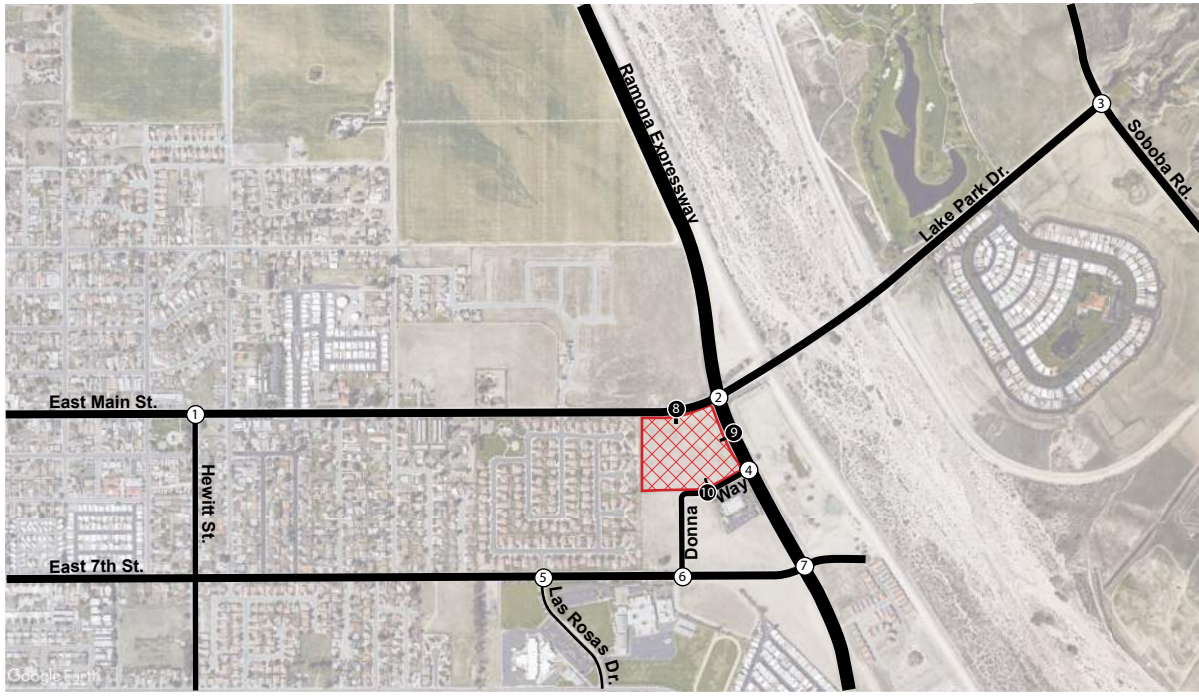
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Legend:

XX / XX = AM / PM Peak
Hour Volumes

-  = Project Site
-  = Off-Site Intersections
-  = Project Driveways



Existing Plus Cumulative AM / PM Peak Hour Turn Movement Volumes

Exhibit 11

7 EXISTING PLUS CUMULATIVE WITH PROJECT CONDITIONS

7.1 EXISTING PLUS CUMULATIVE WITH PROJECT CONDITIONS TRAFFIC VOLUMES

Existing Plus Cumulative With Project conditions traffic volumes are derived by adding trips forecast to be generated by the proposed project to Existing Plus Cumulative conditions traffic volumes.

Exhibit 12 shows the forecast Existing Plus Cumulative With Project conditions AM and PM peak hour volumes at study intersections.

7.2 EXISTING PLUS CUMULATIVE WITH PROJECT CONDITIONS PEAK HOUR STUDY INTERSECTION LOS

Table 8 summarizes Existing Plus Cumulative With Project conditions AM and PM peak hour level of service for all study intersections. Detailed analysis sheets are contained in **Appendix F**.

**TABLE 8, EXISTING PLUS CUMULATIVE WITH PROJECT CONDITIONS
AM/PM PEAK HOUR INTERSECTION LOS**

Study Intersection	Traffic Control	Cumulative Conditions		Cumulative With Project Conditions		Significant Impact?	
		AM	PM	AM	PM	AM	PM
		Delay ¹ - LOS	Delay ¹ - LOS	Delay ¹ - LOS	Delay ¹ - LOS		
1 - E. Main St. / Hewitt St.	AWSC	97.2 - F	159.3 - F	116.8 - F	182.0 - F	YES	YES
2 - Ramona Expwy. / E. Main St.-Lake Park Dr.	Signal	66.5 - E	176.3 - F	66.5 - E	176.7 - F	No	YES
3 - Lake Park Dr. / Soboba Rd. ²	Signal	17.2 - B	25.6 - C	19.8 - B	26.6 - C	No	No
4 - Ramona Expwy. / Donna Way	Signal ³	12.0 - B	15.9 - C	7.4 - A	7.1 - A	No	No
5 - E. 7th St. / Las Rosas Dr.	AWSC	11.4 - B	8.6 - A	12.1 - B	9.0 - A	No	No
6 - E. 7th St. / Donna Way	OWSC	9.6 - A	9.1 - A	11.4 - B	10.6 - B	No	No
7 - Ramona Expwy. / E. 7th St.	Signal	21.1 - C	16.6 - B	22.8 - C	17.8 - B	No	No
8 - E. Main St. / Project Driveway #1	OWSC	DNE	DNE	11.3 - B	11.7 - B	No	No
9 - Ramona Expwy. / Project Driveway #2	OWSC	DNE	DNE	11.9 - B	17.8 - C	No	No
10 - Donna Way / Project Driveway #3	OWSC	DNE	DNE	10.8 - B	10.4 - B	No	No

Note: Deficient intersection operation indicated in **bold**.

LOS = level of service.

¹ Seconds of delay per vehicle.

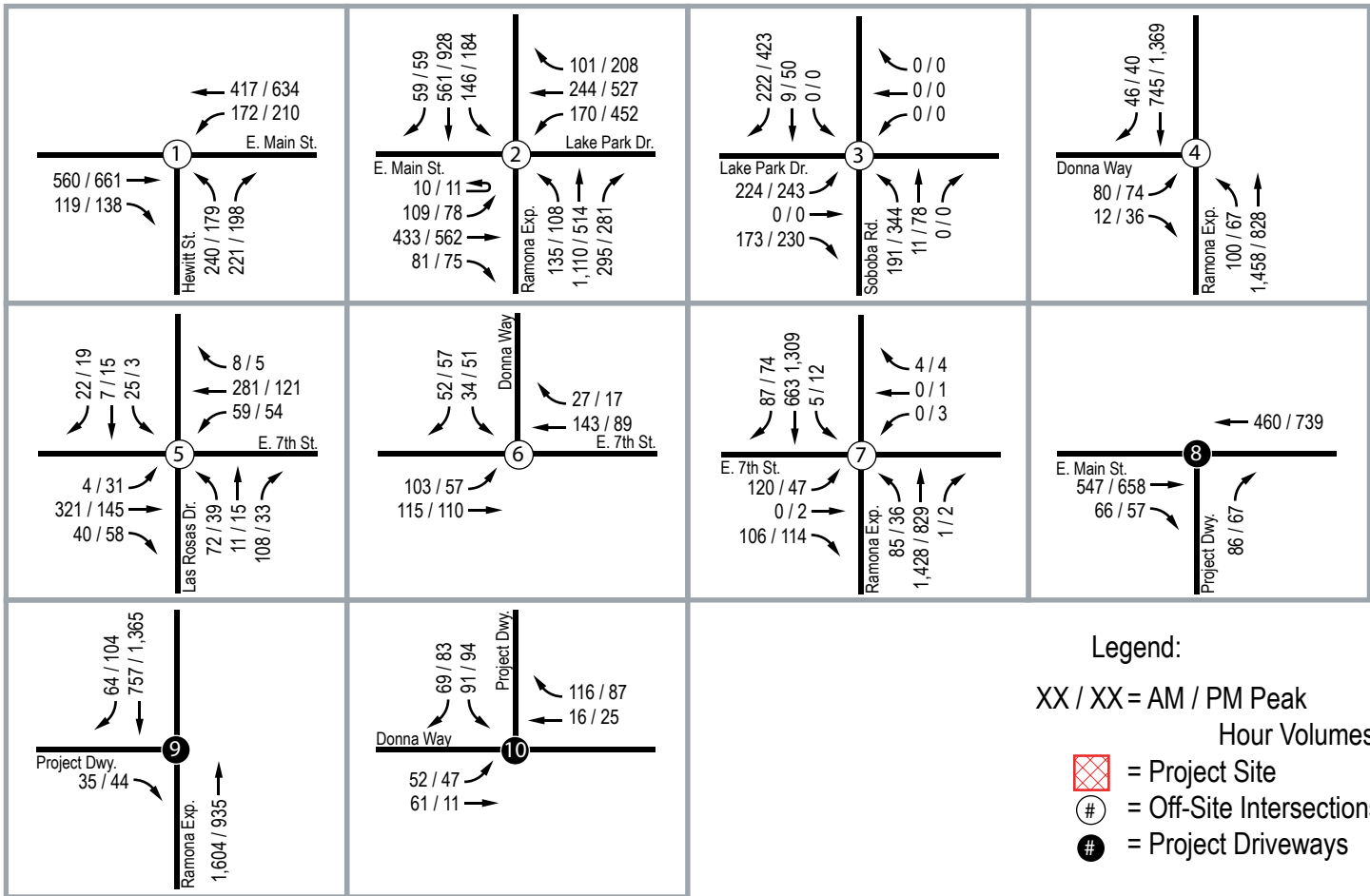
² Includes intersections improvements due to construction of Soboba Casino Project

³ Project proposes to construct traffic signal at Ramona Expressway/Donna Way. Therefore, analyzed as a signal with the project.

As shown in **Table 8**, all study intersections are forecast to operate at an acceptable level of service (LOS D or better) during the peak hours under Existing Plus Cumulative With Project conditions with the following exceptions:

1. East Main Street / Hewitt Street – AM peak hour (LOS F) & PM peak hour (LOS F)
2. Ramona Expressway / East Main Street-Lake Park Drive – AM peak hour (LOS E) & PM peak hour (LOS F)

Because these intersections do not operate at an acceptable level of service, the addition of project related traffic would result in a significant impact and requires mitigation.



Existing Plus Cumulative With Project AM / PM Peak Hour Turn Movement Volumes

Exhibit 12

7.3 EXISTING PLUS CUMULATIVE WITH PROJECT CONDITIONS STUDY INTERSECTION MITIGATION MEASURES

The following mitigation measures have been identified to reduce the traffic impacts at the identified study intersections to a level considered less than significant:

Mitigation Measure #1: Intersection 1 – East Main Street / Hewitt Street

The project applicant shall make a fair share contribution to the construction of a signal at this location.

Mitigation Measure #2: Intersection 2 – Ramona Expressway / East Main Street-Lake Park Drive

The project applicant shall be responsible for restriping of the eastbound approach to include one left turn lane, one through lane, and one shared through/right turn lane.

Refer to **Exhibit 13** for the recommended mitigated lane configurations described above.

As shown in **Table 9**, the implementation of the recommended mitigation measures improves the operations of impacted study intersections to acceptable levels of service. Detailed analysis sheets and fair share calculations are contained in **Appendix G**.

**TABLE 9, MITIGATED EXISTING PLUS CUMULATIVE WITH PROJECT CONDITIONS
AM/PM PEAK HOUR INTERSECTION LOS**

Study Intersection	Traffic Control	Existing Plus Cumulative With Project Conditions - Mitigated	
		AM	PM
		Delay ¹ - LOS	Delay ¹ - LOS
1 - E. Main St. / Hewitt St.	Signal	22.5 - C	24.7 - C
2 - Ramona Expwy. / E. Main St.-Lake Park Dr.	Signal	Not Impacted	54.6 - D

Note: Deficient intersection operation indicated in **bold**.

¹ Average seconds of delay per vehicle.






LOS = level of service.

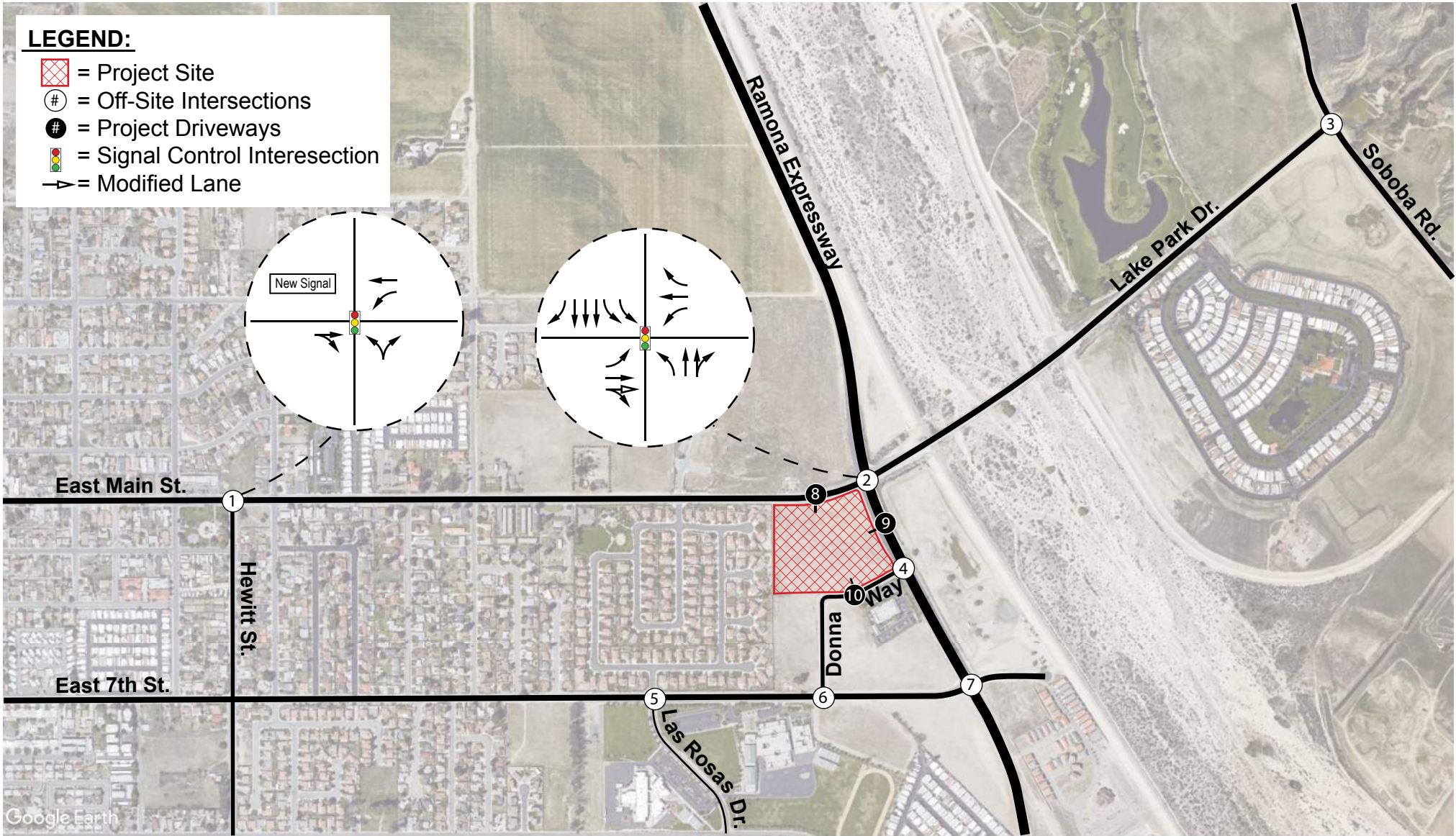
7.3.1 Traffic Signal Warrant Analysis

For each analysis scenario where mitigation is required, impacted unsignalized intersections have been evaluated for signalization based on the peak hour volume warrant “Warrant #3” in the California Manual on Traffic Control Devices (CA MUTCD), 2014 Edition.

As shown in **Table 9**, the intersection of East Main Street / Hewitt Street (Int. 1) is recommended to be signalized and passes Warrant #3 of the CA MUTCD. Detailed signal warrant analysis sheets are contained in **Appendix G**.

LEGEND:

-  = Project Site
-  = Off-Site Intersections
-  = Project Driveways
-  = Signal Control Intersection
-  = Modified Lane



Not to Scale

Michael Baker
INTERNATIONAL

June 2019
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Existing Plus Cumulative With Project Mitigated Lane Configurations

Exhibit 13

8 DONNA WAY QUEUING REQUIREMENTS

With the improvements related to the construction of the proposed traffic signal at Ramona Expressway and Donna Way, left turn lanes would be required in the northbound and eastbound directions. In addition, a dedicated southbound right-turn lane is proposed at the signal. The minimum left-turn requirements are based on the queuing analysis for the highest volumes analyzed which are associated with the Existing Plus Cumulative With Project conditions. Detailed queuing reports are contained in **Appendix F**.

As shown in **Table 10**, the Existing Plus Cumulative With Project 95th percentile queues during the AM peak hour would require the following minimum storage lengths:

- Northbound left-turn – 84 feet
- Southbound right-turn – 17 feet
- Eastbound left-turn – 71 feet

TABLE 10, DONNA WAY TRAFFIC SIGNAL TURN LANE QUEUING REQUIREMENTS

Study Scenario	Movement	AM Peak Hour		PM Peak Hour	
		VPH	95th Percentile Queue (feet)	VPH	95th Percentile Queue (feet)
Existing With Project Conditions	Northbound-Left	109	84	73	63
	Southbound-Right	48	17	42	15
	Eastbound-Left	87	71	80	67
Existing Plus Cumulative With Project Conditions	Northbound-Left	109	84	73	63
	Southbound-Right	50	17	43	15
	Eastbound-Left	87	71	80	67

VPH = vehicle per hour

Although the 95th percentile queues represent the minimum required storage lengths needed to serve the anticipated traffic volumes for Project Opening Day, it is recommended the following storage lengths be provided in order to support future development on Donna Way:

- Northbound left-turn – 115 feet
- Southbound right-turn ~ 175 feet (provide full storage available between Donna Way and Project Driveway)
- Eastbound left-turn ~ 130 feet (provide full storage available between Ramona Expressway and Project Driveway).

9 FINDINGS AND RECOMMENDATIONS

The proposed Luiseño Village Retail Center is forecast to generate a total of approximately 3,418 trips per day, with approximately 240 trips occurring during the AM peak hour and approximately 266 trips occurring during the PM peak hour.

Level of Service Analysis

The results of the traffic analysis under Existing With Project conditions show that all study intersections are forecast to operate at acceptable levels of service (LOS D or better). Therefore, no significant impacts were identified, and no mitigation measures are required for this scenario.

The results of the analysis under Existing Plus Cumulative With project conditions show that all study intersections are forecast to operate at acceptable levels of service with the exception of the intersection of East Main Street and Hewitt Street (Int. 1) and the intersection of Ramona Expressway and East Main Street/Lake Park Drive (Int. 2). These intersections operate at deficient levels of service both without and with the project.

The following mitigation measures have been identified to reduce the traffic impacts at the identified study intersection to a level considered less than significant:

Mitigation Measure #1: Intersection 1 – East Main Street / Hewitt Street

The project applicant shall make a fair share contribution to the construction of a signal at this location.

Mitigation Measure #2: Intersection 2 – Ramona Expressway / East Main Street-Lake Park Drive

The project applicant shall be responsible for restriping the eastbound approach to provide one left turn lane, one through lane, and one shared through/right turn lane.

With the implementation of the identified mitigation measures, the impacted study intersections are expected to operate at acceptable levels of service.

CEQA Transportation Thresholds

The following CEQA Transportation Thresholds have been addressed in this traffic impact analysis on whether the project would result in:

1. *Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

The proposed project will not conflict with the City's General Plan or policies. The traffic study prepared for the proposed project indicates that the increased number of trips during the peak hour would not cause a significant impact to the study area intersections. The project's impacts to the study area locations are within the City's thresholds of acceptability. Sidewalks along the project's frontage will be provided/maintained for pedestrian circulation.

2. *Conflict or be inconsistent with CEQA Guidelines section 15064.3 or will conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

CEQA section 15064.3 provisions apply beginning July 1, 2020. The City of San Jacinto has not elected to be governed by Section 15064.3 at the time this analysis was performed. Accordingly, an analysis of vehicle miles travelled (VMT) is not necessary to determine whether a proposed project will have a significant transportation impact.

The City of San Jacinto's General Plan indicates that intersections operating at LOS D or better do not require improvement measures. Those locations that operate at LOS E or worse will need to improve to LOS D or better. As identified in the traffic impact analysis, the project will mitigate any impacts to LOS D or better.

3. *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The project driveways are located along East Main Street and Donna Way which do not have sharp curves in the vicinity of the access points. The sight distance appears adequate to observe oncoming vehicles and do not appear to pose a hazardous condition. The proposed traffic signal at Ramona Expressway and Donna Way will adhere to all applicable design guidelines and will provide safer access to and from the site.

4. *Result in inadequate emergency access?*

The proposed project will provide three driveways for ingress/egress. In the event that one driveway is blocked, another driveway can be accessed for emergency vehicles.