6.9 Traffic and Transportation

6.9.1 Introduction

Riverside Public Utilities (RPU) proposes to build and operate a nominal 96-megawatt (MW) simple-cycle power plant on a 12-acre fenced site within the City of Riverside, California. This proposed facility is referred to as the Riverside Energy Resource Center (RERC) Project (Project). RPU will develop, build, own and operate the facility. RERC will supply the internal needs of the City of Riverside during summer peak electrical demands and will serve the City's minimum emergency loads in the event RPU is islanded from the external transmission system. No power from RERC will be exported outside of the city.

This section discusses potential impacts to existing traffic conditions related to the proposed Project. The RERC Project site is located at the northern terminus of Acorn Street in the City of Riverside, Riverside County, California. The Project would also require rebuilding a transmission line approximately 1.75 miles long. This analysis is intended to evaluate the potential for Project impacts during construction and operation. Presented is a summary of relevant laws, ordinances, regulations and standards (LORS), the Project's setting, potential environmental impacts and proposed mitigation measures affecting traffic conditions. Required permits and permitting agencies are identified.

6.9.1.1 Project Description

The proposed site is owned by the City of Riverside and is located adjacent to the City of Riverside's Wastewater Treatment Plant (WWTP) in a light industrial/manufacturing area. The RERC will consist of two aero-derivative combustion turbine generators with SCRs, an on-site substation, approximately 1.75 miles of 69kV transmission line, natural gas and water supply interconnection, and on-site administration building and warehouse. The power plant and associated administration building and warehouse will occupy approximately 8 of 12 acres with the additional 4 acres reserved for equipment storage and construction parking. The entire plant perimeter will be fenced with a combination of chain-link fencing and architectural block walls.

6.9.2 Laws, Ordinances, Regulations and Standards

Federal, state and local laws, ordinances, regulations and standards (LORS) applicable to traffic and transportation are summarized in Table 6.9-1.

Table 6.9-1 Laws, Ordinances, Regulations and Standards

Jurisdiction	Authority	Administering Agency	Compliance
Federal	Hazardous Materials Transportation Act of 1974; 49 Code of Federal Regulations (CFR) 397.9	U.S. Department of Transportation	Establishes criteria and regulation for safely transporting hazardous materials across interstate lines
	49 CFR Chapter II, Subchapter C and Chapter III, Subchapter B	U.S. Department of Transportation and the California Department of Transportation (Caltrans)	Contains standards for the transportation of goods, materials and substances. Requires the proper handling and storage of hazardous materials during transportation
State	California Vehicle Code Section 35780; California Streets and Highways Code, Sections 660-711; 21 CCR 1411.1-1411.6	Caltrans	Requires a permit for loads exceeding any Caltrans weight, length, or width standard for public roadways
	California Streets and Highways Code, Sections 117 and 660-711	Caltrans	Requires Caltrans permit for any roadway encroachment during truck transportation and delivery.
	California Vehicle Code Section 31300 et seq.	Caltrans	Requires transporters to meet certain storage, handling and routing standards for the transportation of hazardous materials on public roadways.
City	City of Riverside General Plan, Transportation element	City of Riverside	Specifies long term planning goals and procedures addressing the quality of City transportation infrastructure

6.9.3 Existing Condition

Streets that could be affected by the proposed Project include Payton Avenue, Jurupa Avenue, Acorn Street and Van Buren Boulevard. Figure 6.9-1 presents the existing roadway geometrics for the intersections of these roadways.

Payton Avenue

Payton Avenue is a two-lane roadway running on a north/south alignment located adjacent to and east of the Project site. It extends north from Jurupa Avenue and ends at the Project site. It provides one travel lane per direction and is an unmarked roadway. Payton Avenue becomes an unpaved roadway at the Project site. The speed limit is not posted, so a prima facie speed limit of 25 mph would apply. Land uses along this roadway in the Project vicinity are mostly industrial uses with some vacant lots. Payton Avenue is controlled by a boulevard stop sign at Payton Avenue.

Jurupa Avenue

Jurupa Avenue is a four-lane roadway running on an east/west alignment located adjacent to and south of the Project site. It extends east from Van Buren Boulevard, past the

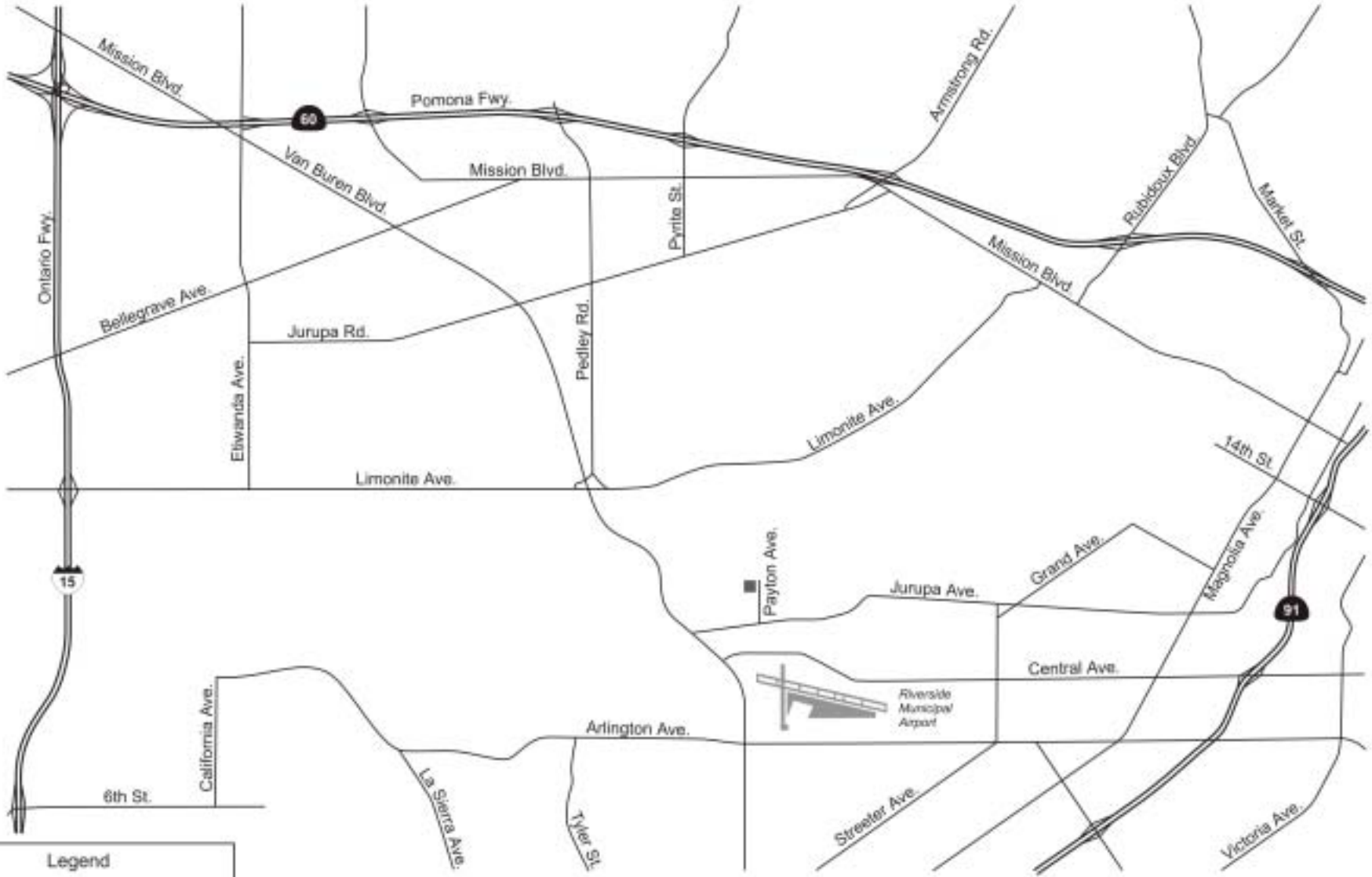

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Figure 6.9-1

Vicinity Map

Project site where it turns into Olivewood Avenue. It provides two travel lanes per direction and is divided by a two way left turn lane. The speed limit is posted at 50 mph near the intersection of Van Buren Boulevard, and then drops to 45 mph at Acorn Street. Land uses along this roadway in the Project vicinity are mostly industrial uses with some vacant lots. Jurupa Avenue is controlled by a traffic signal at Van Buren Boulevard and a four-way stop sign at Acorn Street.

Acorn Street

Acorn Street is a two-lane roadway running on a north/south alignment located approximately 500 feet to the west of the Project site. It extends from Central Avenue and ends about one quarter mile north of Jurupa Avenue. It provides one travel lane per direction, divided by a broken yellow centerline. The speed limit is posted at 40 mph. Land uses along this roadway in the Project vicinity are mostly industrial uses with some vacant lots. Acorn Street is controlled by a four-way stop sign at Jurupa Avenue.

Van Buren Boulevard

Van Buren Boulevard is a four-lane roadway running on a north/south alignment located approximately one-half mile west of the Project site. It provides two travel lanes per direction, divided by a raised median. The speed limit is posted at 55 mph in the Project vicinity. Van Buren Boulevard begins approximately 16 miles southwest of the site, at the I-215 Freeway and extends east then curves north, past the Project site, where it turns into Mission Boulevard at the SR-60 Freeway. It is controlled by a traffic signal at Jurupa Avenue. The land uses in the vicinity are mostly industrial uses with some vacant lots.

Riverside Freeway (SR-91)

State Route 91 (SR-9) is the nearest freeway to the Project site. It is located approximately four miles to the south of the Project site. It provides regional east/west throughout the region, beginning in Los Angeles and continuing east to Riverside where it ends at Interstate 215 (I-215). In the Project area, it has 3 to 4 lanes per direction. Van Buren Boulevard provides a full interchange with this freeway.

Pomona Freeway (SR-60)

State Route 60 (SR-60) is also near to the Project site. It is located approximately six miles to the north. It provides regional east/west throughout the region, beginning in Los Angeles and continuing east to Beaumont where it ends at Interstate 10 (I-10). In the Project area, it has 3 to 4 lanes per direction. Van Buren/Mission Boulevard provides a partial interchange with this freeway.

Existing Traffic Volumes

Traffic conditions along urban and suburban roadways and highways are most significant during peak hours at signalized intersections. Traffic conditions are thus normally analyzed at these intersections during these times. Morning and evening peak hour traffic volumes were obtained for the study area intersections. These traffic volumes were obtained from traffic counts taken by a traffic counting specialist firm, Southland Car Counters, located in Santa Ana, California. Figures 6.9-2 (drawing C1-2) and 6.9-3 present the existing AM and PM peak hour volumes.

Traffic conditions on most roadway facilities are analyzed using the principles or the specific analysis methods contained in the *Highway Capacity Manual*, 2000 Edition (*HCM*), a publication of the Transportation Research Board, a branch of the Federal Government. Chapter 9 of the *HCM* is devoted to analysis of signalized intersections. The methodology in this chapter is based upon measurements or forecasts of stopped delay for traffic utilizing all approaches to the intersection. Chapter 10 of the HCM provides a methodology for stop-controlled intersections.

Traffic conditions in the City of Riverside were evaluated during peak hours at intersections using the Highway Capacity Manual (HCM) Operational Analysis Method. This widely accepted analysis measures the average delay per vehicle at an intersection. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time.

All of the methodologies in the *Highway Capacity Manual* are based upon the concept of traffic "Level of Service". This concept is also fundamental to many other forms of traffic analysis. Level of service is a report card scale ranging from A to F, which describes the varying conditions on a roadway during a specific time interval of study. Brief definitions of level of service are found in Table 6.9-2.

Table 6.9-2 Level of Service Descriptions

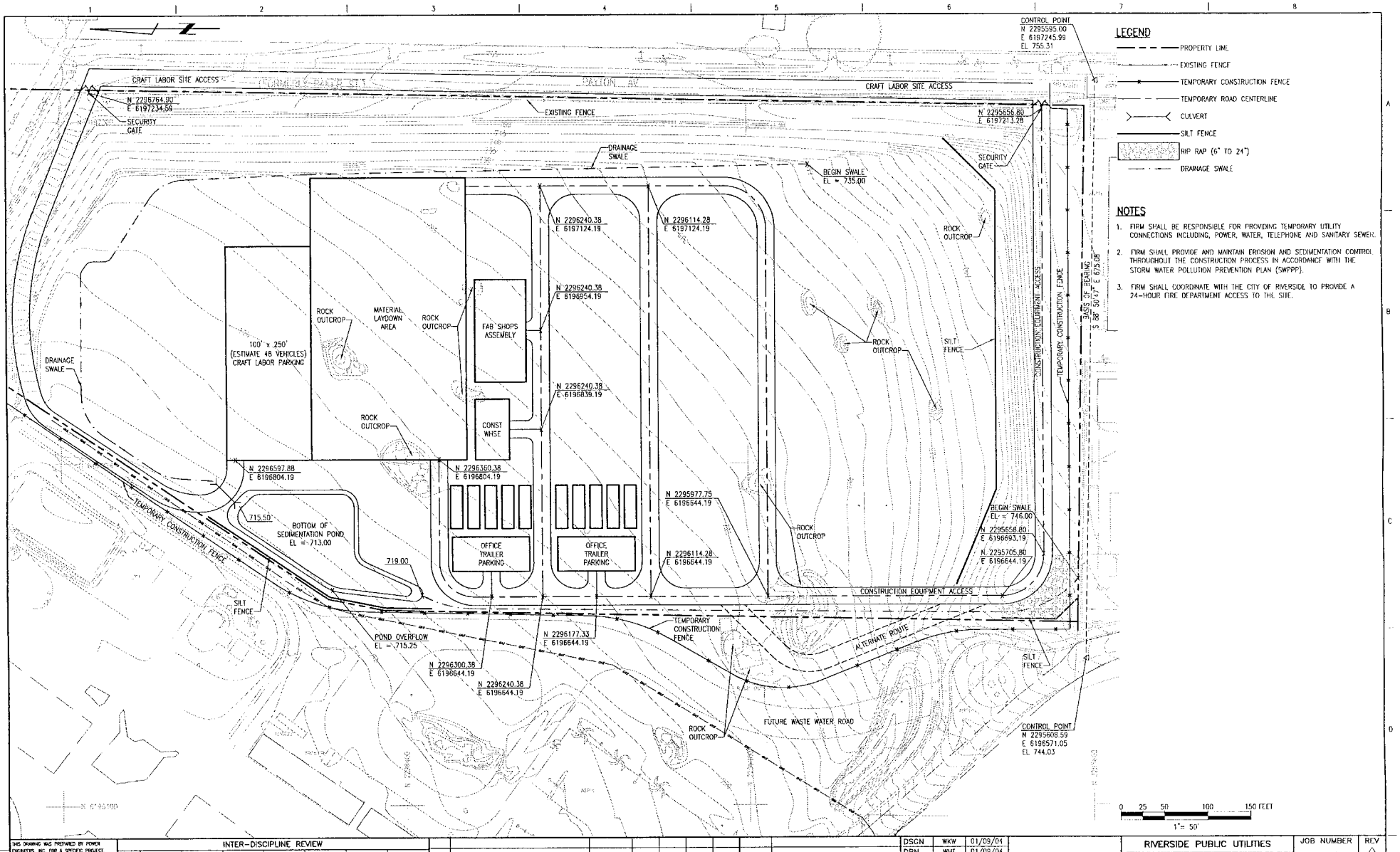
Level of Service	Traffic Description
A	Excellent, Light Traffic
B	Good, Light to Moderate Traffic
C	Moderate Traffic, with Insignificant Delay
D	Heavy Traffic, with Significant Delay
E	Severe Congestion and Delay
F	Failed, Indicated Levels Cannot Be Handled

Table 6.9-3 shows the relationship between level of service and the performance measures for signalized intersections.

Table 6.9-3 Levels of Service for Intersections

Level of Service	Signalized Intersection Control Delay (in sec/veh)	Unsignalized Intersection Control Delay (in sec/veh)
A	0 – 10	0 – 10
B	10.1 – 20	10 – 15
C	20.1 – 35	15 – 25
D	35.1 – 55	25 – 35
E	55.1 – 80	35 – 50
F	80 or more	50 or more

Level of Service D is frequently identified as the minimum allowable "Standard" service level during peak hours at intersections. Most arriving traffic will clear the intersection on the first allowable green cycle under this level of service. Mitigation measures should be considered when traffic conditions are forecasted to decline to poorer levels of service.



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INTER-DISCIPLINE REVIEW							
DISC	ARCH	CIVIL	ELECT	HVAC	I&C	MECH	STRUCT
DATE	01/22/04	01/22/04	01/22/04		01/22/04	01/22/04	
INT	SD	WKW	LT		MAC	PR	

REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD
2	ISSUED FOR BID	02/12/04	WMT	WKW	WKW	JPB
1	ISSUED FOR REVIEW	01/27/04	WMT	WKW	WKW	JPB

REFERENCE DRAWINGS	
C1-4	UTILITY INTERFACE PLAN
C1-3	GRADING AND DRAINAGE PLAN
C1-1	SITE SURFACING PLAN

DSGN	WKW	01/09/04
DRN	WMT	01/09/04
CKD	WKW	01/16/04

SCALE: 1" = 50'
FOR 22x34 DWG ONLY

POWER ENGINEERS

RIVERSIDE PUBLIC UTILITIES
RIVERSIDE ENERGY RESOURCE CENTER
CONSTRUCTION LAYOUT AND EROSION CONTROL PLAN

JOB NUMBER 101414
REV 2
DRAWING NUMBER C1-2

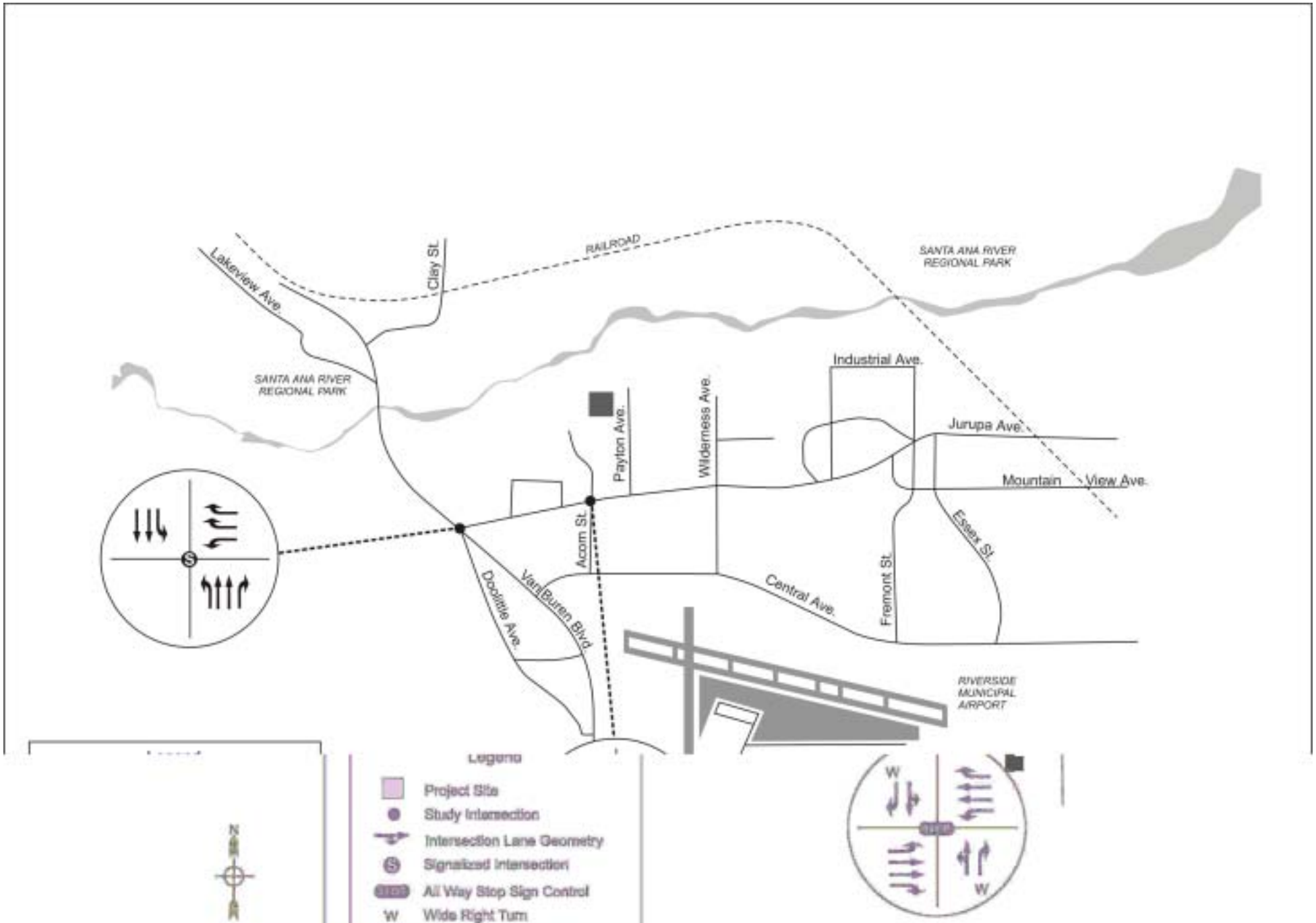

Figure 6.9-3
Existing Geometries

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Traffic impacts are usually identified if the proposed Project will result in a significant change in traffic conditions on a roadway or intersection. A significant impact is normally defined when future traffic forecasts project level of service to deteriorate below the acceptable level.

Existing traffic conditions for all study area intersections were analyzed using the *Highway Capacity Manual* method. The study area was observed during both the morning and the evening peak hours. The indicated Levels of Service shown in Table 6.9-4 are representative of observed traffic conditions in the study area.

Table 6.9-4 Existing Traffic Conditions

Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
Unsignalized Intersections				
Jurupa Avenue at Acorn Street	11.2	B	14.2	B
Signalized Intersections				
Jurupa Avenue at Van Buren Boulevard	19.1	B	28.0	C

Note: Delay based on seconds per vehicle average. LOS = Level of Service

All of the study intersections are currently operating at acceptable Levels of Service D or better.

6.9.4 Future Traffic Conditions without the Proposed Project

It is normally necessary to evaluate future traffic conditions for the scenario where the Project is not constructed, but other local and regional traffic growth continues in the area. This Project is planned for completion in approximately two years.

Future traffic increases are frequently forecasted by applying annual growth factors to existing traffic volumes. An annual growth factor of 2 percent is representative of the study area, an area partially developed with normal urban traffic volumes. The City has confirmed that this 2 percent growth rate is realistic.

Future traffic increases are also forecast by considering additional traffic that may be generated by other developments that have been approved. The City identified some relevant projects near the site, which will add traffic to the intersections analyzed in the study. The trips generated by these cumulative projects are included in the future forecast. The trip generation and distribution for these projects is shown in Appendix 6.9-A.

Table 6.9-5 shows the results of traffic analysis for the study intersections and roadways, two years into the future with the cumulative traffic from these developments and ambient traffic growth of 4 percent (2 percent per year for two years). Figures 6.9-4 and 6.9-5 illustrate the future traffic conditions without the proposed Project.

Table 6.9-5 Future Traffic Conditions - Without the Proposed Project

Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
Unsignalized Intersections				
Jurupa Avenue at Acorn Street	11.5	B	15.0	B
Signalized Intersections				
Jurupa Avenue at Van Buren Boulevard	20.6	C	31.9	C

Note: Delay based on seconds per vehicle average. LOS = Level of Service

Both of the study intersections will operate at acceptable Levels of Service D or better in the future without the proposed Project.

6.9.5 Project-Related Traffic

Project-related traffic consists of trips on any portion of the street system that will begin or end on the Project site because of the development of the proposed Project. Project-related traffic is a function of the extent and type of development proposed for the site. This information is used to establish traffic generation for the site.

The site for the proposed Project is currently vacant. No traffic is currently generated from the site; therefore, the current level of traffic for the Project site is zero.

6.9.5.1 Trip Generation

Trip generation is a measure or forecast of the number of trips that will be made to or from the Project. It is generally equal to the traffic volume expected at the project entrances.

Trip generation characteristics for projects are normally estimated based on rates published in *Trip Generation, Seventh Edition*, published by the Institute of Transportation Engineers (ITE). This report is widely used in Southern California and indicates the probable traffic generation rates for various land uses based upon studies of existing developments in comparable settings. However, it does not provide rates for small power plants.

Trip Generation Rates were calculated using office building rates and warehouse rates from the *Manual* as shown in Table 6.9-6, because the power plant buildings will be operating primarily as office building and warehouse uses. However, RPU has indicated that no more than five personnel will be working at the site and any given time during operation. Up to 10 trips per day (for arriving to and leaving from work only) are attributed to commuting by these employees. Additional vehicle trips per day will be generated by employees leaving for short periods, and additional standard office uses, such as deliveries, visitors, mailmen, etc.

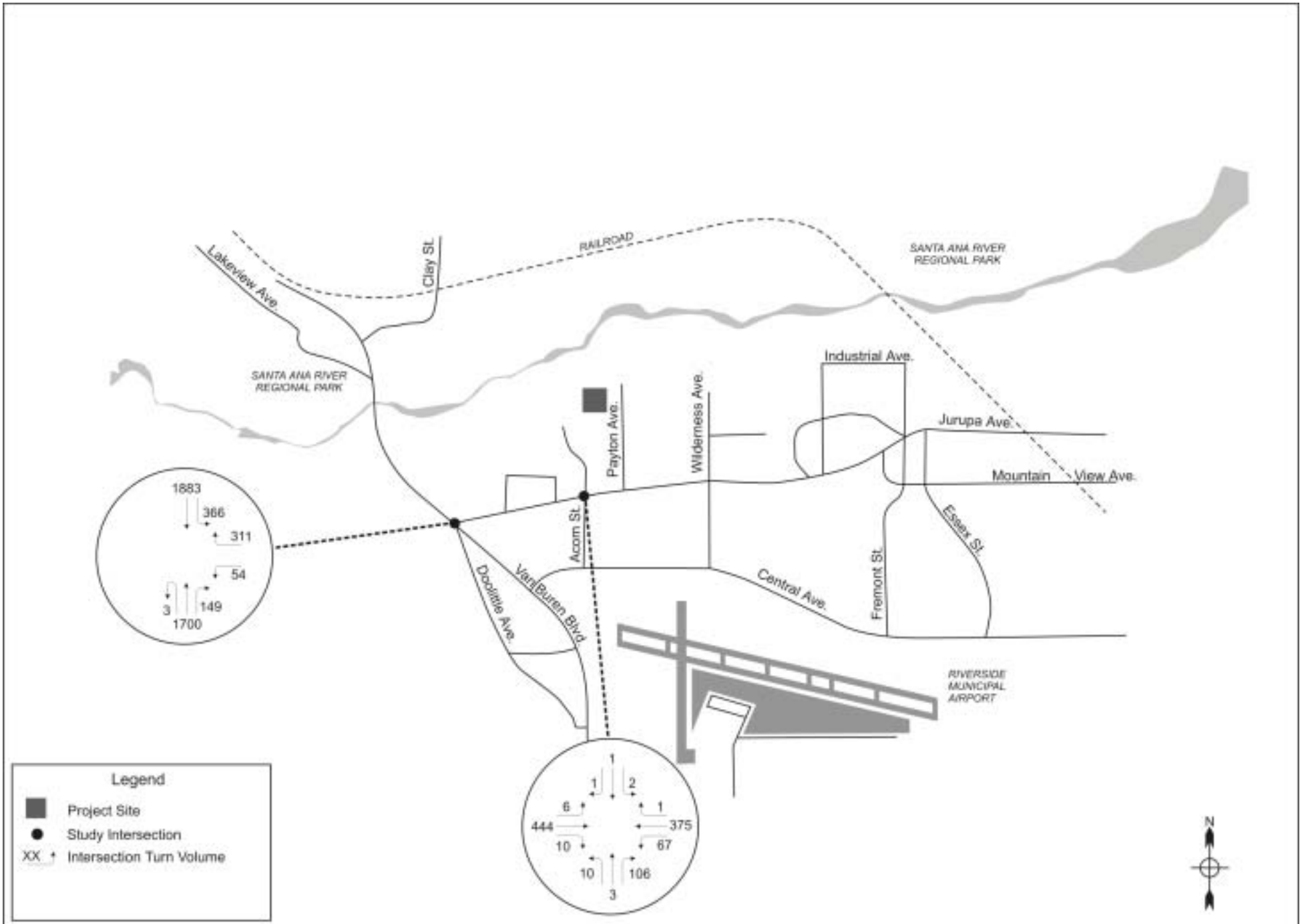

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Figure 6.9-4

Existing Traffic Volumes - AM Peak Hour

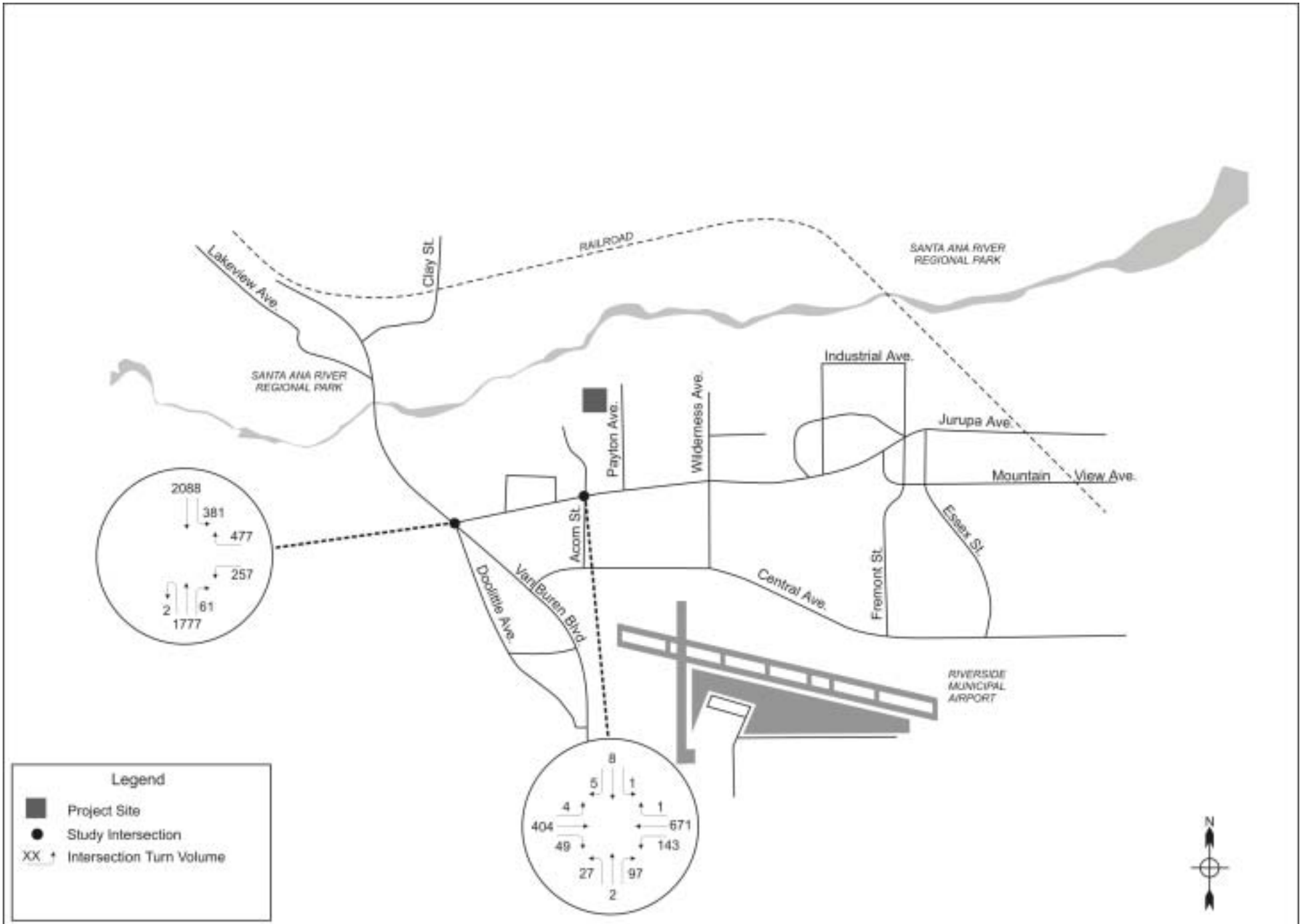

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Figure 6.9-5

Existing Traffic Volumes - PM Peak Hour

Table 6.9-6 Trip Generation Rates

Use		Trip Generation Rates AM Peak Hour			(trips per 1,000 SF) PM Peak Hour		
	Daily	Total	In	Out	Total	In	Out
Office Building	11.01	1.56	1.37	0.19	1.49	0.25	1.24
Warehouse	4.96	0.45	0.37	0.08	0.51	0.12	0.39

Note: SF = square feet.

Table 6.9-6 summarizes the traffic generation expected from the Project, based on the generation rates shown in Table 6.9-7.

Table 6.9-7 Project-Related Traffic Volumes

		AM Peak Hour			PM Peak Hour		
Use	Daily	Total	In	Out	Total	In	Out
6,326 sf Office Building	70	10	9	1	10	2	8
5,400 sf Warehouse	27	3	2	1	3	1	2
Total Trips	**97**	**13**	**11**	**2**	**13**	**3**	**10**

The Project will create 13 trips during the AM and 13 trips during the PM peak hours.

6.9.5.2 Construction Traffic

There will be additional traffic during construction. This will consist of construction equipment, construction employee vehicles and construction material deliveries in trucks. RPU indicates that peak truck deliveries will be ten per day throughout the construction period. This is about the same as the trips indicated for the daily use above (therefore, it can be assumed that delivery traffic during construction will not exceed what is already forecast in this study). Additional information on construction traffic is provided in the impacts section of this report.

There will also be construction to upgrade an existing 69kV transmission line along Jurupa Avenue. This will require traffic control to divert traffic. One of the roadway lanes along Jurupa Avenue will need to be closed during construction of the transmission line. This should not significantly affect any of the roadway traffic conditions, and it is discussed in further detail in the impact section of the report.

6.9.5.3 Trip Distribution

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by project traffic. The potential interaction between the proposed Project and surrounding regional access routes is considered to identify the route where the project traffic will distribute.

The anticipated trip distribution for the proposed Project is presented on Figure 6.9-6. This figure indicates the proportion of project traffic that will use the street segments and turning movements indicated.

Figures 6.9-7 and 6.9-8 indicate the project related traffic volumes expected at locations within the study area, including use of driveways and local access routes. This figure shows the direction of all traffic related to the Project.

6.9.6 Future Traffic Conditions with the Proposed Project

Figures 6.9-9 and 6.9-10 show the future AM and PM traffic volumes expected upon completion of the proposed Project. The volumes are anticipated to occur approximately 2 years into the future. Table 6.9-8 evaluates forecasted traffic conditions for the proposed Project.

Table 6.9-8 Future Traffic Conditions - With the Proposed Project

Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
Unsignalized Intersections				
Jurupa Avenue at Acorn Street	11.6	B	15.2	B
Signalized Intersections				
Jurupa Avenue at Van Buren Boulevard	20.8	C	32.3	C

Note: Delay based on seconds per vehicle average. LOS = Level of Service

Both of the study intersections will operate at acceptable Levels of Service D or better in the future with the proposed Project.

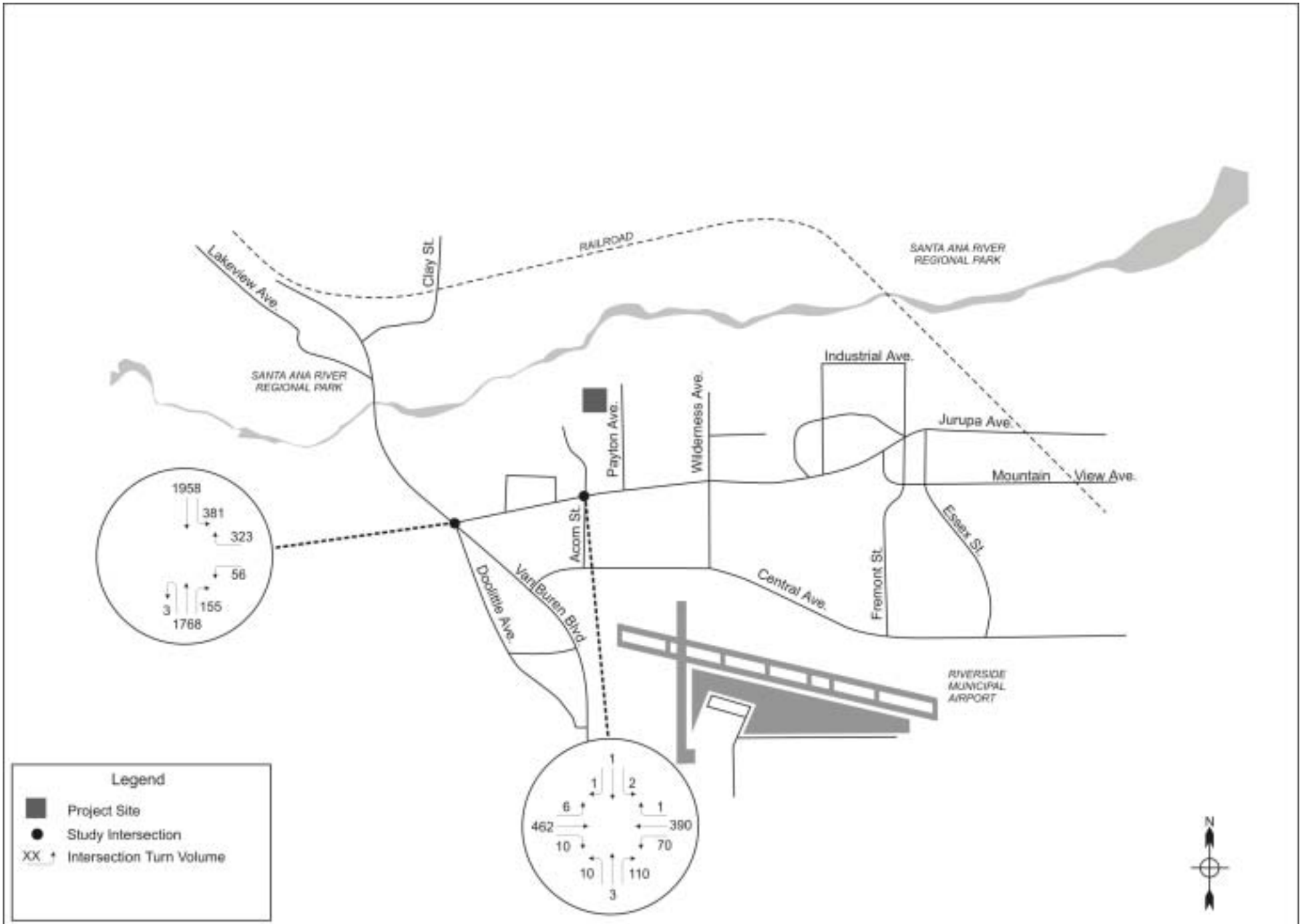

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Figure 6.9-6

Future Traffic Volumes Without Project Traffic - AM Peak Hour

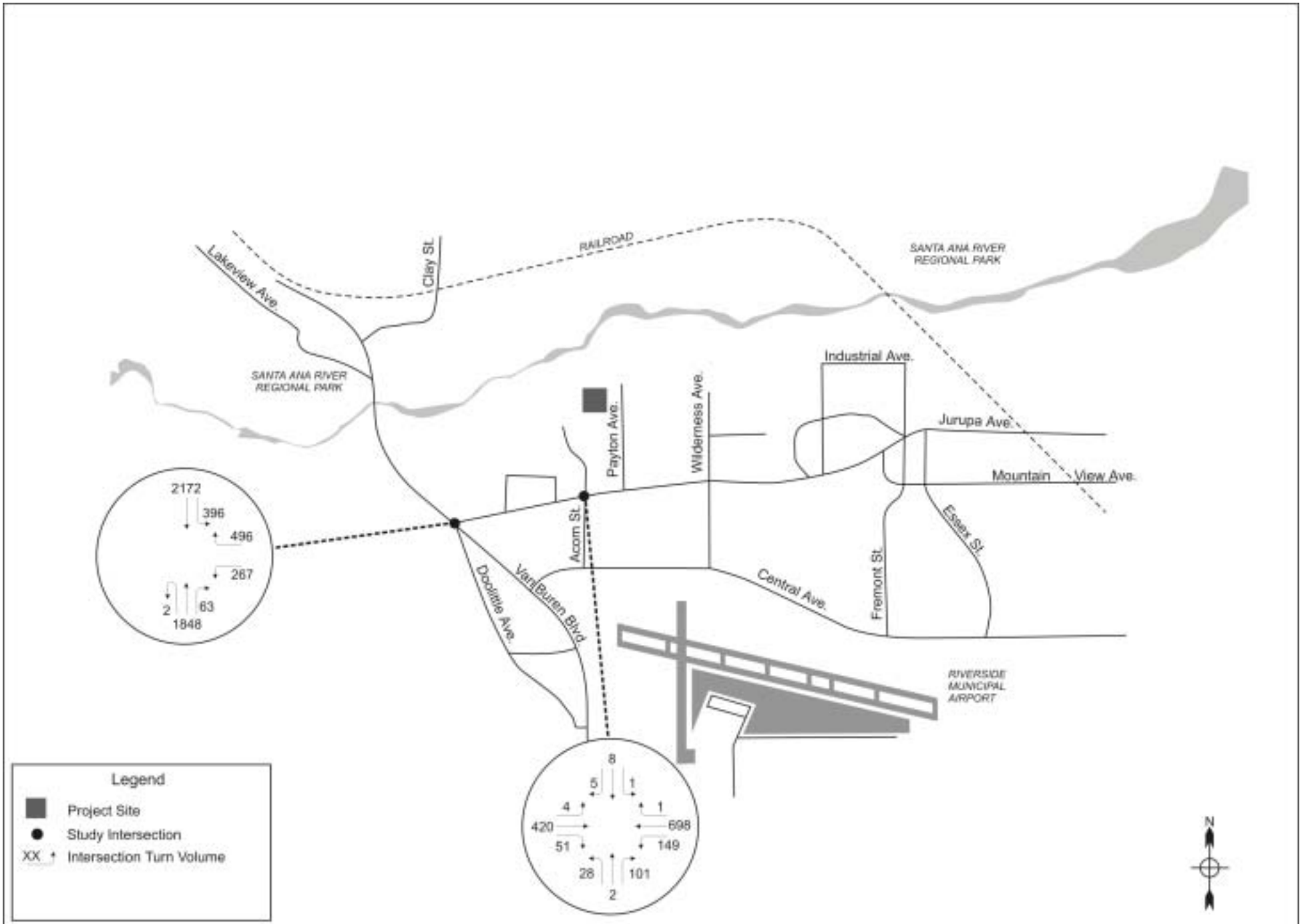

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Figure 6.9-7

Future Traffic Volumes Without Project Traffic - PM Peak Hour

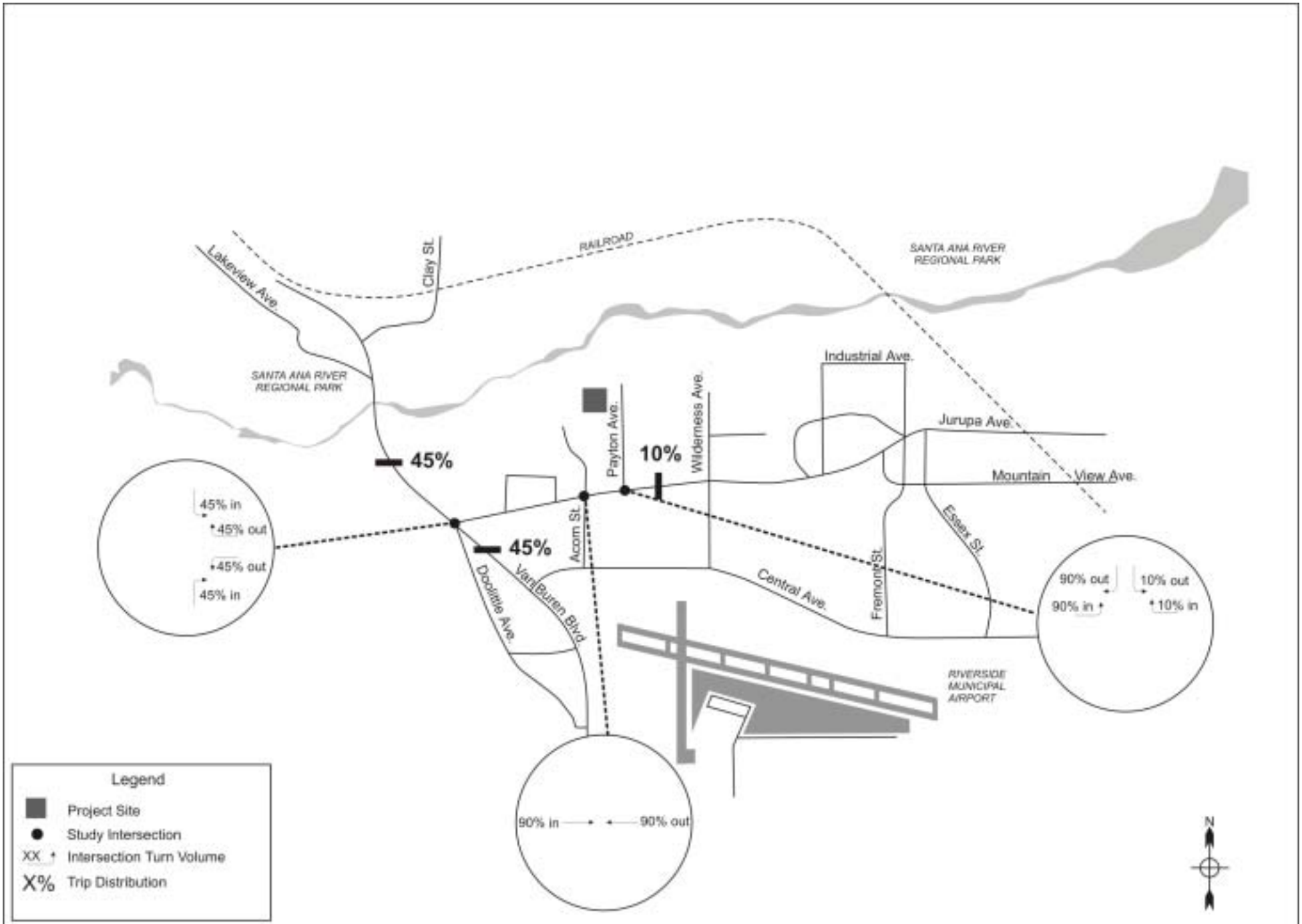

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Figure 6.9-8

Project Trip Distribution

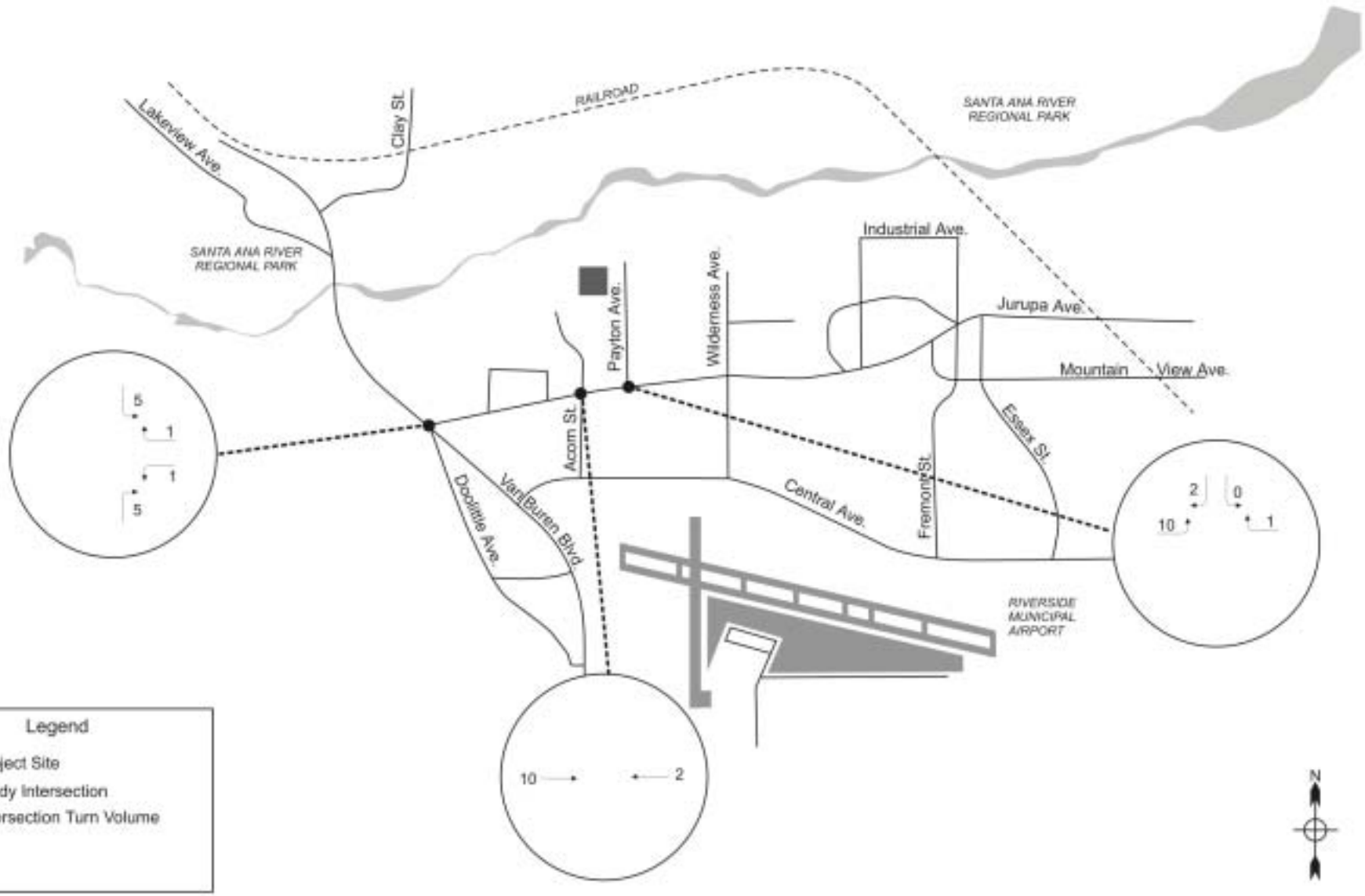

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Figure 6.9-9

Total Project-Related Traffic Volumes - AM Peak Hour

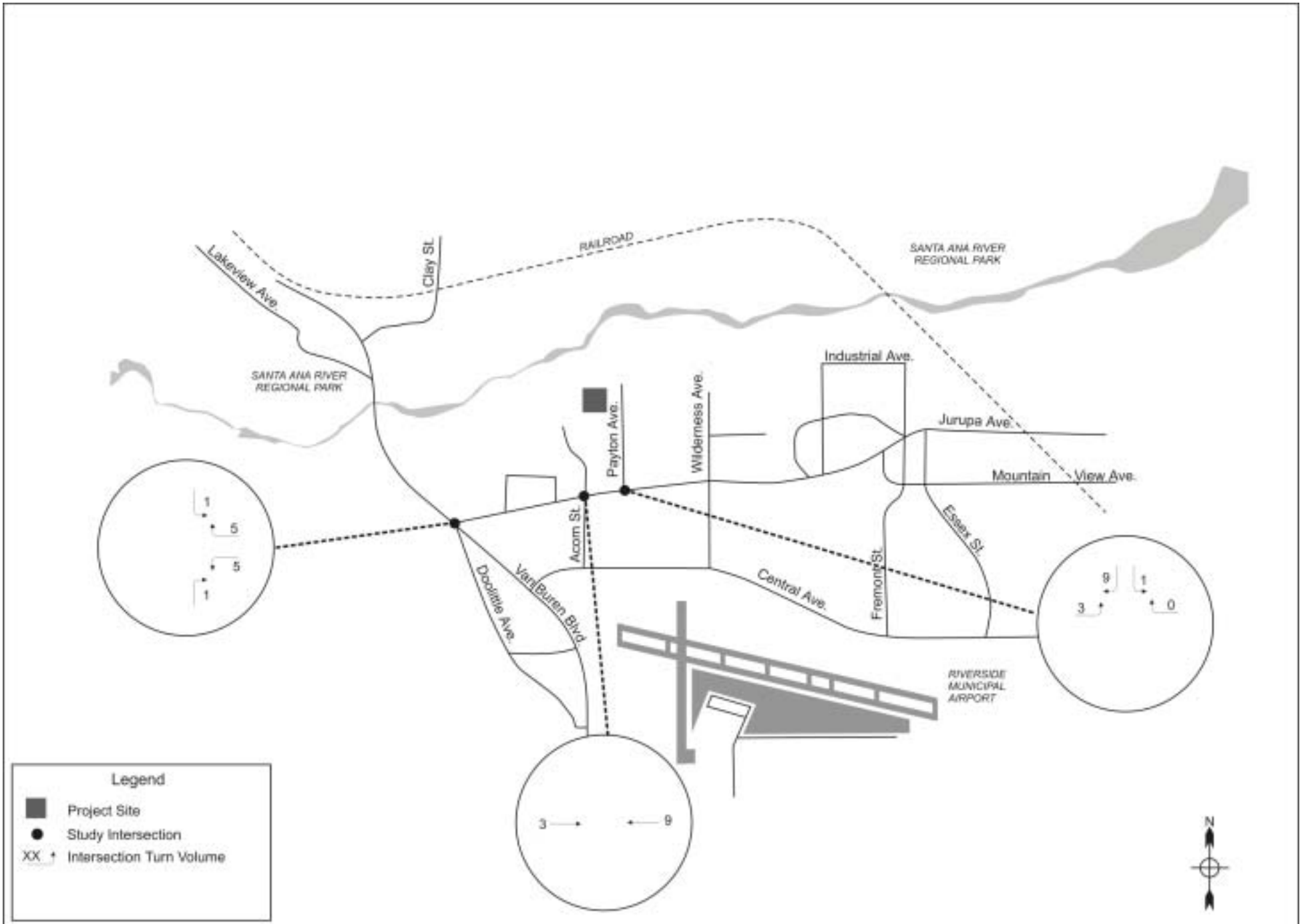

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Figure 6.9-10

Total Project-Related Traffic Volumes - PM Peak Hour

6.9.7 Impacts

6.9.7.1 Traffic

Traffic impacts would be identified if the proposed Project results in a significant change in traffic conditions on a roadway or intersection. A significant impact is normally defined when project related traffic would cause level of service to deteriorate to below the minimum acceptable level by a measurable amount. Impacts may also be significant if the location is already below the minimum acceptable level and project related traffic causes a further decline.

Level of Service "D" is the minimum allowable "Standard" level of service during peak hours for this study. Impacts would be considered significant if traffic related to the proposed Project would result in conditions worse than Level of Service D or if locations already beyond Level of Service D are degraded further by a significant amount.

Table 6.9-9 summarizes the increase in Level of Service at the study area intersections.

Table 6.9-9 Project Impacts

Intersection	Existing Without Project	Future Without Project	Future With Project	Increase	Impact?
Weekday AM Peak Hour (delay LOS)					
Jurupa Avenue at Acorn Street	11.2 A	11.5 B	11.6 B	0.1	No
Jurupa Avenue at Van Buren Boulevard	19.1 B	20.6 C	20.8	0.2	No
Weekday PM Peak Hour (delay LOS)					
Jurupa Avenue at Acorn Street	14.2 B	15.0 B	15.2 C	0.2	0.2
Jurupa Avenue at Van Buren Boulevard	28.0 C	31.9 C	32.3 C	0.4	0.4

Note: Delay is seconds per vehicle; LOS = Level of Service.

Both of the intersections will operate at acceptable levels of service in the future both with and without the proposed Project.

6.9.7.2 Schools

It is understood that the potential impacts of traffic, namely construction truck traffic may have some impact on school children in the area (children being picked up or dropped off on local roads near the proposed Project site). The following indicates schools, their location, distance from Project site, and bus routes designated by the school district as follows:

Arizona Intermediate (La Sierra Avenue at Arizona Avenue) Approx. 6 miles south of the Project site. Bus Routes 10, 11, 12, 13, 15 & 23

Villegas Intermediate (Harvill Lane at Magnolia Avenue) Approx. 7 miles south of the Project site. Bus Routes 12, 13, 15, 19 & 20

Loma Vista Intermediate (La Sierra Avenue at Arlington Avenue) Approx. 5.5 miles west of the Project site. Bus Routes 9, 11, 12 & 13

Terrance Elementary (Rutland Avenue, North of Arlington Avenue) Approx. 3 miles west of the Project site. Bus Route 1

Alvord High School (Pierce Street, South of Magnolia Avenue) Approx. 5.5 miles south of the Project site. Bus Route 1

Foothill Elementary (Well Avenue, West of Van Buren Boulevard) Approx. 3 miles southwest of the Project site. Bus Route 2

Myra Linn Elementary (Meredith Street at Brannigan Court) Approx. 3.5 miles southwest of the Project site. Bus Routes 2 & 7

Rosemary Kennedy Elementary (Mitchell Avenue at Arlington Avenue) Approx. 4 miles west of the Project site. Bus Routes 3, 4 & 5

Norte Vista High School (Arlington Avenue at Tyler Street) Approx. 3 miles west of the Project site. Bus Route 7

Twinnhill Elementary (La Sierra Avenue at Campbell Avenue) Approx. 4 miles southwest of the Project site. Bus Route 7

Valley View Elementary (Gramercy Plane at Peacock Lane) Approx. 5 miles southwest of the Project site. Bus Route 7

None of these schools would experience significant traffic changes due to the Project. They are all remote from the Project and not located along roadways with project related traffic. The bus routes designated by the school district do not run along Jurupa Avenue within the Project vicinity; therefore, no school bus routes or bus stops would be affected by the Project.

6.9.7.3 Vapor Plume and Traffic Safety

Vapor plumes may be created by heat generated on the Project site. Katz, Okitsu & Associates understands that these vapors are transparent. It is likely that the plumes, if they were to reach ground level would create the same level of visual impairment as standard pavement does when it is heated, creating gradients and variations in air temperature and density that make the air above the distant roadway appear wavy. This does not appear to have any impact on traffic safety or operations, based upon the location of the site and proximity to heavily used roadways.

6.9.7.4 Emergency Services

Neither the daily traffic nor the construction traffic will be significant enough to cause delays, increase congestion, or inhibit access for emergency vehicles. Potential impacts on emergency services related to transmission line construction would be less than significant with the effective implementati0n of mitigation in the form of a traffic control plan.

6.9.7.5 Public Transportation

Several types of public transportation are available in the City of Riverside. The Riverside Transit Agency (RTA) provides transit services available to all citizens in western Riverside County. RTA provides scheduled, fixed routes and on demand service through their Dial-A-Ride program. Regionally linked ground transportation providers include Amtrak and Greyhound. The nearest Amtrak station is in San Bernardino approximately nine miles north of Riverside. Greyhound has a bus terminal on University Avenue in Riverside. Impacts to public transportation would be less than significant.

6.9.7.6 Bicycle Facilities

Bicyclists use roadways and bicycle paths in the City of Riverside. The closest designated bicycle path to the proposed Project is associated with the Santa Ana River Trail (Riverside County Class 1 Bicycle trail). It is located on the north side of the wastewater treatment plant and the proposed plant site along the Santa Ana River. Impacts to bicycle facilities would be less than significant.

6.9.7.7 Railroad Operation

A single-track railroad alignment is located approximately one mile east of the Project site where it crosses the Santa Ana River. The Union Pacific Railroad owns the rail line. Metrolink commuter rail service also runs on this rail line. Metrolink has a station located in downtown Riverside. RERC facility operation is not anticipated to include any routine or periodic deliveries via local or regional railroads. No adverse impacts to rail services will occur because any such deliveries would be non-routine and limited, Additionally, no impacts to Metrolink rail services are anticipated.

6.9.7.8 Facility Construction

Construction of the Project will take approximately nine months. The Project will require an average construction workforce of 40 workers and a peak of 53 workers in the 4th and 5th months of construction. The workforce vehicle trips associated with construction were calculated based upon these assumptions. If the average daily workforce is assumed to be 40 workers, it is assumed that 20-25 percent, or approximately 10 workers, will carpool. Therefore, 30 workers are assumed to drive to the site alone, with an additional 5 vehicles containing more than 1 worker. This creates 35 trips to the Project site.

Construction workforce traffic would generally occur between 5:30 a.m. and 8 a.m. and between 3:30 p.m. and 5:30 p.m. During the peak construction period (estimated to occur during the fifth and sixth months of construction), construction-related traffic would increase on state routes by less than one tenth of one percent. The traffic impact is not considered significant because the site would not lower the level of service of any of the affected roadways. In addition, the construction-related increases would be short-term, occurring mostly during the peak construction period.

On local roadways, the existing level of service on nearby roadways is good. Traffic is generally free flowing on these roadways during all hours of the day. Based on the project traffic volumes and projected construction traffic volume levels, construction of the Project is not expected to contribute to delays on the roadways. However, some minor

delays may occur, but the temporary nature of these impacts, combined with the mitigation measures, would keep impacts to a level less than significant.

Construction of the Project will require the use and installation of heavy equipment and associated systems. Heavy equipment will be delivered via truck, using Van Buren Avenue from State Route 60 to the north. The number of trucks expected during construction is small. Approximately five trucks are estimated to be used daily during construction.

The vehicles used to transport heavy equipment and construction materials will require transportation permits when they exceed the size, weight, width or length thresholds set forth in Section 35780 of the California Vehicle Code, Sections 117 and 660-711 of the California Streets and Highways Code, and Sections 1411.1 to 1411.6 of the California Code of Regulations. Affected vehicles will be required to obtain transportation permits from the City of Riverside and Caltrans.

Only a small percent of the truck trips during construction are estimated to be consumable material deliveries including some small amounts of hazardous materials (solvents, lube oils, paint, paint thinners, adhesives, batteries, construction gases, etc) in their original manufacturer containers. Of the estimated truck deliveries with hazardous materials, total quantities of hazardous materials and subsequent public risk should be relatively low. It is anticipated that hazardous wastes would be sent from the site to treatment storage or disposal facilities on a biweekly or monthly basis. Proper containers and transportation procedures that conform to applicable Caltrans requirements will be used for all material and waste shipments (i.e. 49 CFR Chapters II, III; California Vehicle code Section 31300, et seq.). No acutely hazardous materials will be used or stored on-site during construction. Because of the small quantities of hazardous materials involved, separate truck deliveries of hazardous materials during construction are unlikely. Delivery of hazardous materials during operation of the proposed Project are discussed in the Hazardous Materials and Waste section of this report and potential impacts to the public are further discussed in the Public Health section of this report.

The average increase of five additional daily truck trips (with 10 truck trips as a worst case scenario) on state routes in the Project area is minor compared with existing truck traffic on these routes and will represent a minimal increase in truck traffic along the proposed routes of travel. Therefore, the impact of truck traffic on state routes is considered less than significant.

The average increase of five additional daily truck trips (with 10 truck trips as a worst case scenario) on state routes in the Project area is minor compared with existing truck traffic on these routes and will represent a minimal increase in truck traffic along the proposed routes of travel. Due to the size and weight of these trucks, the increase in truck traffic will contribute to wear on the roads and will increase the need for regular roadway maintenance. However, the increase in project-related roadway wear and tear is considered less than significant.

Construction debris and small quantities of hazardous wastes will be generated during construction (see Section 6.14, Hazardous Materials and Wastes). During construction, a minimal number of truck trips per month will be required to haul waste for disposal.

Transportation of hazardous materials to and from the Project site will be conducted in accordance with California Vehicle Code Section 31300. Because the transportation of hazardous wastes will be conducted in accordance with the relevant transportation regulations, less than significant impact is expected.

The proposed laydown area would be located in the southwest portion of the Project site. Construction equipment and materials would be stored within the proposed laydown area. Construction and safety measures for moving equipment and materials to the construction areas from the laydown area would be implemented.

Proposed linear facilities consist of an approximately 1.75 mile 69kV transmission line rebuild and on-site potable and non-potable waterlines, sewer lines, storm water lines and a gas pipeline. The proposed rebuild of the approximately 1.75 mile 69kV transmission line would provide electrical connection to the RERC facility. Construction activities associated with the transmission line are not expected to significantly impact traffic on Jurupa Avenue given the implementation of the Traffic Control Plan. Potential traffic impacts associated with construction of the other linear facilities discussed above would be minimal.

Access during transmission line construction would be along existing roads and right of way. Damage to existing roads by construction activity will be repaired to the original condition or as near as possible to the original condition. Access and construction staging issues will be addressed in the Traffic Control Plan prepared for the Project by the transmission line contractor.

The operation of the Project will require up to five additional full-time personnel. Therefore, only minor additional vehicle trips per day will be generated as a result of the Project. In addition, potential long-term traffic impacts are expected to be less than significant with the delivery of materials to the Project site and hauling of generated waste.

A minimal number of hazardous materials deliveries will be made to the Project during the operation phase (see Section 6.14, Hazardous Materials and Waste). The anticipated travel routes for hazardous materials deliveries will be along State Route 60, Van Buren Boulevard and Jurupa Avenue.

Traffic associated with operation of the linear facilities would be minimal and generally limited to maintenance or repair vehicles required for the continued safe and reliable operation of those facilities. The traffic generated by operations and maintenance of the Project's linear facilities will be less than significant.

6.9.8 Findings

6.9.8.1 Site Access

The Project will take access to Payton Avenue, which will connect to Jurupa Avenue.

Driveways should be placed at planned locations and should not be less than 150 feet from existing intersections, if possible. Parking stalls should be located an appropriate distance from entrance driveways based on City Standards, in order to allow unobstructed access to the project site. It is recommend that a sufficient amount of parking be provided

to meet the requirements of the City of Riverside based upon office and warehouse space. Additionally, this parking should meet the American with Disabilities Act (ADA) requirements for access and designated handicap parking spaces.

The proposed Project configuration will be submitted to the City of Riverside, who will review the plan for compliance with applicable City standards. We anticipate that any minor internal circulation or parking issues will be addressed in conjunction with this review.

6.9.8.2 Traffic Impacts

Any impacts to traffic conditions associated with the construction or operation of the Project would be less than significant. The existing conditions peak hour intersection analysis found all of the study area intersections are currently operating at acceptable levels of service. For future conditions, with an ambient growth rate and cumulative traffic from planned nearby developments, all of the signalized intersections analyzed in this study will continue to operate at acceptable levels of service in the future, with or without the proposed Project.

6.9.8.3 Need for Any Improvements

Improvements would be required if approval and construction of the Project results in or significantly increases unacceptable traffic conditions. These conditions will not occur for any intersections in the Project study area and thus no need for improvements has been identified.

There will be a need for mitigation in the form of traffic control for a one-lane closure during construction related to the 69kv transmission line along Jurupa Avenue. During construction, one of the roadway lanes along Jurupa Avenue will need to be closed, while the other one will continue to allow traffic. The construction contractor will be required to prepare a Traffic Control Plan that addresses timing of equipment and material deliveries, lighting, signing, traffic control device placement, and work hours outside of peak traffic periods.

Methods for mitigating potential construction impacts may include such activities as stationing flag persons at the access road and into the site, and placing advance warning flashers, flag persons and signage along the roadways that will experience construction activities. Damage to any roadway opened during construction of the transmission line will be repaired to or near its preexisting condition. The construction contractor will work with the City of Riverside's Engineer to prepare a schedule and mitigation plan for the roadways along the construction routes.

Due to the temporary nature of this construction project and the low traffic volumes on this roadway in the construction area, this is not considered a significant impact.

6.9.8.4 CEQA Checklist

The California Environmental Quality Act requires that specific qualities be examined to determine if the Project has a potentially significant impact on the surrounding system. The tests for traffic-related issues are included in Table 6.9-10 below.

Table 6.9-10 CEQA Checklist - Traffic-Related Issues

Would the Project	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant	No Impact
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?		X		
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels, or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?		X		
f) Result in inadequate parking supply?				X
g) Create a significant hazard to the public or the environment through the routine transportation of hazardous materials?			X	

6.9.9 Conclusions

The Project will create 97 daily trips, including 13 trips during the AM and 13 trips during the PM peak hour.

No traffic impacts were found on any of the area intersections. The project traffic impact was found to be insignificant at all locations.

Potential impacts related to transmission line construction would be less than significant with the effective implementation of mitigation in the form of a Traffic Control Plan.