

5.12 Traffic and Transportation

5.12.1 Introduction

This section addresses the potential effects of the Turlock Irrigation District's (TID) Almond 2 Power Plant (A2PP) on traffic and transportation. Section 5.12.2 describes the affected environment of the local and regional traffic and transportation routes surrounding the project site. Section 5.12.3 evaluates the project's environmental effects on local traffic volumes and patterns. Section 5.12.4 evaluates potential cumulative effects on traffic and transportation due to other simultaneous projects. Section 5.12.5 describes mitigation measures for the project. Section 5.12.6 lists the applicable regulatory agency contacts. Section 5.12.7 discusses traffic and transportation permits required. Section 5.12.8 describes applicable laws, ordinances, regulations, and standards (LORS) and Section 5.12.9 lists the references used to prepare this section.

5.12.2 Affected Environment

The proposed A2PP project site is located along Crows Landing Road approximately 3 miles south of State Route (SR) 99 in Ceres, Stanislaus County. The site is bounded by the existing TID Almond Power Plant to the south, a WinCo distribution warehouse to the west, a farm supply facility to the north, and a modular building distributor and drilling equipment storage facility to the east. The total area of the site parcel is approximately 4.6 acres.

5.12.2.1 Existing Regional and Local Transportation Facilities

The surrounding regional and local roadway networks are shown in Figures 5.12-1 and 5.12-2. Regional access to the site is provided from the north and south via SR 99, and to the east and west via SR 132. Local access to the project site is mainly provided by Crows Landing Road, Service Road, Whitmore Avenue, Hatch Road, and Mitchell Road. The construction traffic accessing the project site may affect the roadways described below.

5.12.2.1.1 State Route 99

SR 99 is a six-lane, limited access, north-south freeway that serves as the main regional route through Ceres and throughout the Central Valley. According to traffic counts published by the California Department of Transportation (Caltrans) in 2007, the average daily traffic volume on SR 99 is 118,000 vehicles per day north of Crows Landing Road and 108,000 vehicles per day south of Mitchell Road.

5.12.2.1.2 State Route 132

SR 132 (Maze Boulevard, L Street, 9th Street, and Yosemite Boulevard near the project site) is a two- to four-lane, east-west highway that connects Interstate 580 (I-580) and SR 49 in Coulterville. SR 132 connects to SR 99 north of the project site. Near the project site, Maze Boulevard is a two-lane roadway with signalized intersections at some crossings. East of SR 99, L Street, 9th Street, and Yosemite Boulevard are four lanes. According to traffic counts published by Caltrans in 2007, the average daily traffic volume on SR 132 is 24,400 vehicles per day east of El Vista Avenue; 26,600 vehicles per day west of El Vista Avenue; and 14,400 vehicles per day west of Carpenter Road.

5.12.2.1.3 Crows Landing Road

Crows Landing Road is a two- to four-lane, north-south roadway between I-5 and SR 99 and serves the cities of Modesto and Ceres. It provides local access to the project site for traffic coming southbound on SR 99. The City of Ceres General Plan classifies this roadway as an Arterial.

5.12.2.1.4 Service Road

Service Road is a 13-mile-long, east-west roadway through Ceres that starts west of Carpenter Road and ends east of Geer Road. It provides local access to the project site for northbound traffic on SR 99. Near the project site, Service Road has two lanes. The City of Ceres General Plan classifies this roadway as a Class B Expressway from Faith Home Road to Carpenter Road.

5.12.2.1.5 Whitmore Avenue

Whitmore Avenue is a two-lane, east-west undivided roadway through downtown Ceres and unincorporated parts of Stanislaus County. It starts west of Carpenter Road and ends at Montpelier Road. The City of Ceres General Plan classifies this roadway as an Arterial.

5.12.2.1.6 Hatch Road

Hatch Road is a two- to four-lane, east-west roadway through downtown Ceres and unincorporated parts of Stanislaus County. It starts west of Carpenter Road and ends at Geer Road. Near the project site, this roadway has two lanes from Crows Landing Road to SR 99 and four lanes from SR 99 to Mitchell Road. The City of Ceres General Plan classifies this roadway as a Class C Expressway from Faith Home Road to Carpenter Road.

5.12.2.1.7 Mitchell Road

Mitchell Road/El Vista Avenue/Oakdale Road is a two- to four-lane north-south roadway between SR 108 and SR 99. Near the project site, this roadway has four lanes. It provides local access to the site for traffic coming from Modesto. The City of Ceres General Plan classifies Mitchell Road as an Arterial.

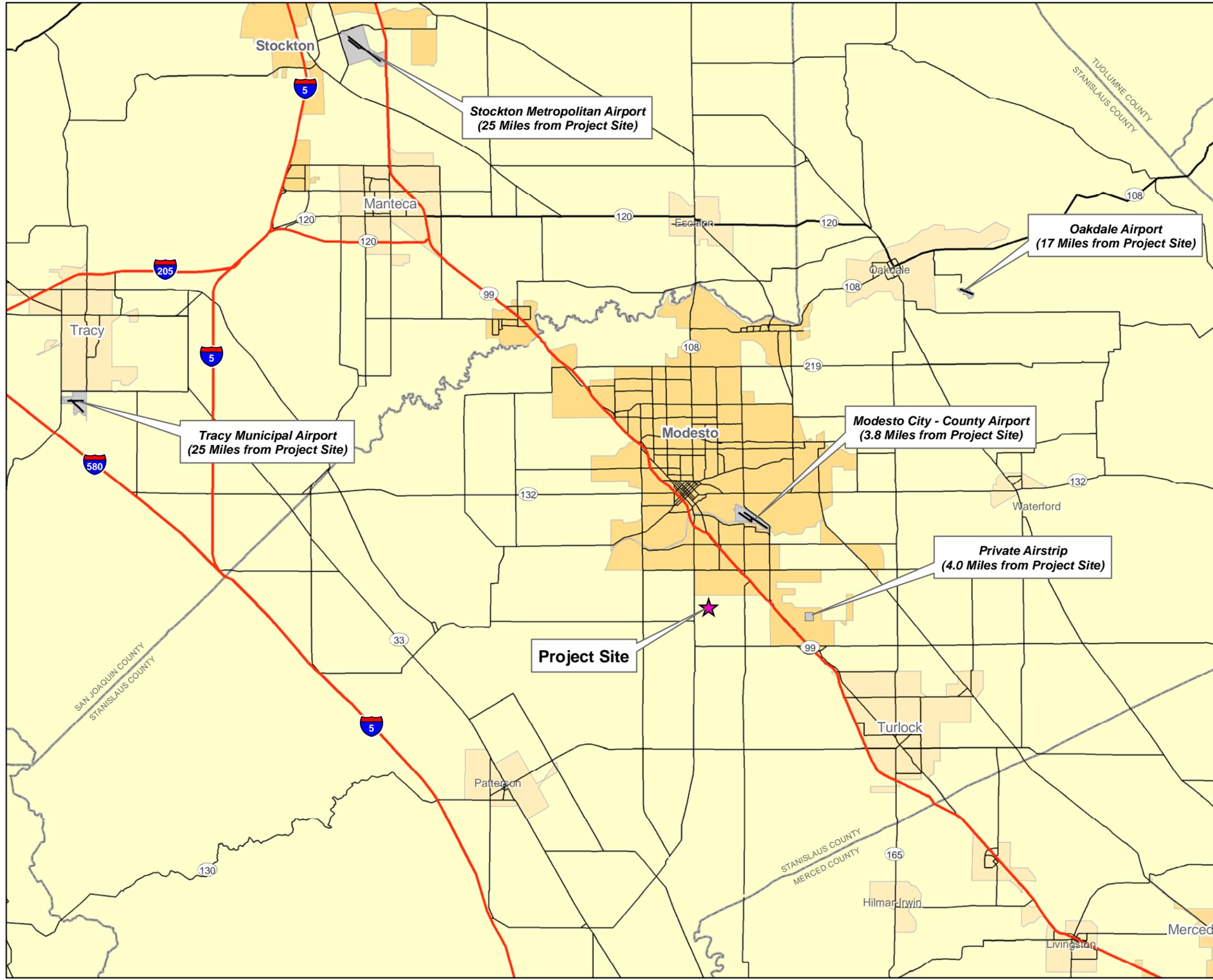
5.12.2.2 Existing Traffic Conditions and Level of Service Analysis

The traffic analysis was conducted according to the methodologies and procedures outlined in the 2000 Highway Capacity Manual (HCM) published by the Transportation Research Board, and applicable provisions from the California Environmental Quality Act (CEQA). Average daily traffic for the study area local streets and state facilities were used in the analysis. Morning and evening peak period turning movement counts were used to assess intersection operations.

5.12.2.2.1 Existing Intersection Operations

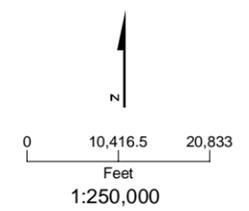
The following 14 intersections, which are near the project site and will be affected by construction traffic, were analyzed:

- Crows Landing Road / Service Road
- Crows Landing Road / Hackett Road
- Crows Landing Road / Whitmore Avenue
- Crows Landing Road / Hatch Road
- Crows Landing Road / Northbound SR 99 Ramps
- Carpenter Road / Service Road

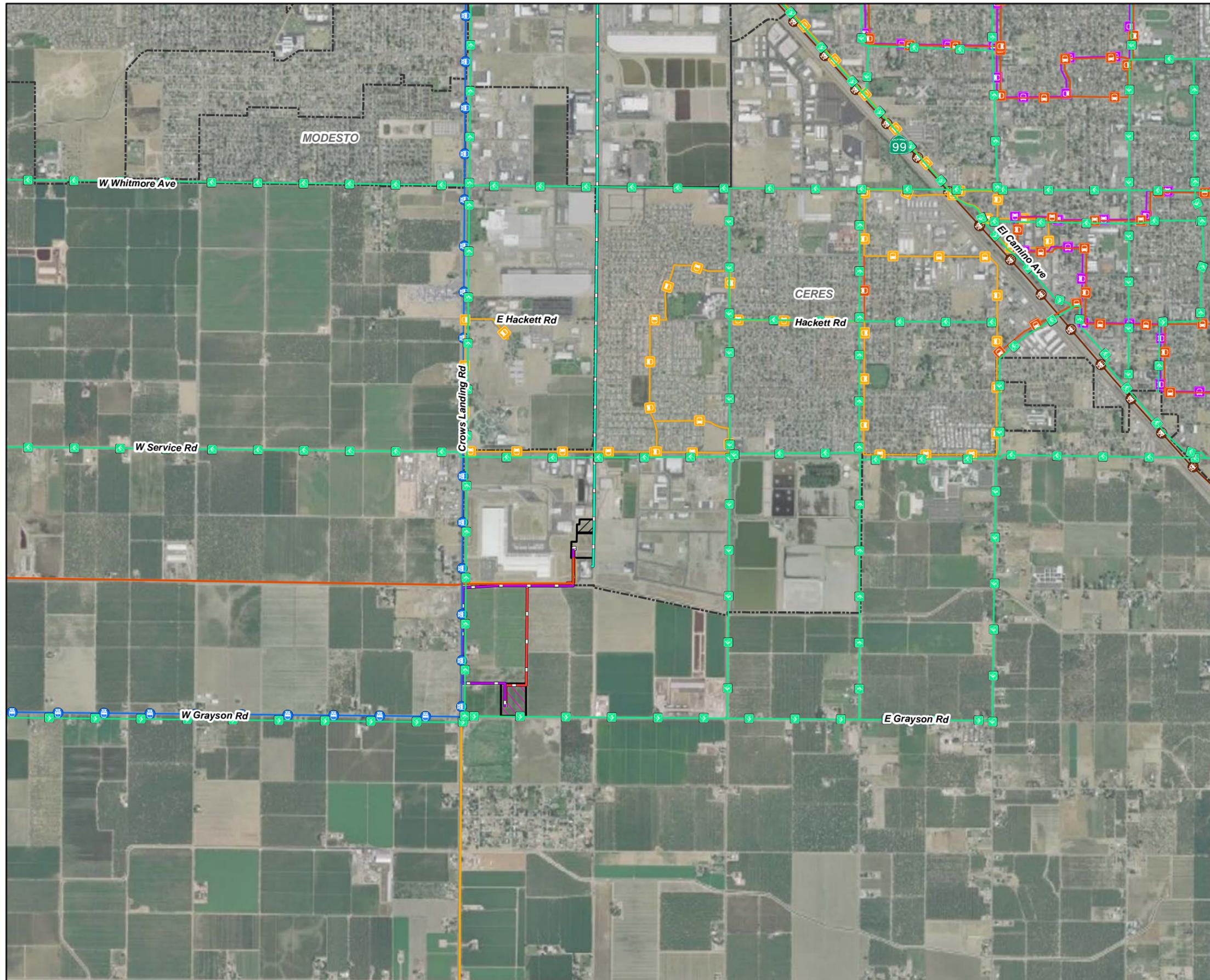


- LEGEND**
- ★ Project Site
 - Freeway
 - Highway
 - Major Road
 - Local Road
 - - - Minor Road
 - - - Other Road
 - Airport Area

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.



**FIGURE 5.12-1
REGIONAL TRANSPORTATION
NETWORK**
ALMOND 2 POWER PLANT
CERES, CALIFORNIA

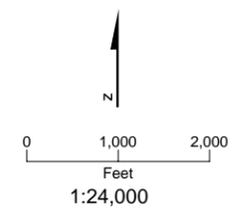


LEGEND

- Class II and III Bikeways
- Ceres Area Transit Route A
- Ceres Area Transit Route B
- Ceres Area Transit Route C
- Stanislaus Regional Transit Route 10, 15 and 70
- Stanislaus Regional Transit Route 40
- Natural Gas Pipeline (Alternate A)
- Natural Gas Pipeline (Alternate B)
- 115-kV Circuit 1 Line (Corridor 1)
- 115-kV Circuit 2 Line (Corridor 2)
- Reconductored 69kV Sub-Transmission Line
- City Boundaries
- Proposed Grayson Substation
- Laydown Area
- Project Site

Note:
 1. Source - City of Ceres General Plan, Ceres Area Transit Maps, and Stanislaus Regional Transit Route Maps.
 2. The Grayson Substation is being developed as a separate Project

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.



**FIGURE 5.12-2
 LOCAL TRANSPORTATION
 NETWORK**
 ALMOND 2 POWER PLANT
 CERES, CALIFORNIA

- Service Road / Morgan Road
- Service Road / Blaker Road
- Service Road / Central Avenue
- Mitchell Road / Service Road
- Carpenter Road / Whitmore Avenue
- Whitmore Avenue / Morgan Road
- Whitmore Avenue / Blaker Road
- Whitmore Avenue / Ustick Road

Existing morning peak period (7:00 a.m. to 9:00 a.m.) and evening peak period (4:00 p.m. to 6:00 p.m.) turning movement volumes at the study intersections were obtained from the West Ceres Specific Plan Opportunities and Constraints Analysis Report, May 2008 and are illustrated in Figure 5.12-3.

Intersection operating conditions were evaluated using the TRAFFIX simulation software (version 7.7). TRAFFIX is a traffic operations analysis tool that incorporates 2000 HCM methodologies. For intersections, the resulting delay is expressed using level of service (LOS), where LOS A represents free-flow activity and LOS F represents overcapacity operation. The relationship of delay and LOS at signalized intersections is summarized in Table 5.12-1.

TABLE 5.12-1
Intersection Level of Service Criteria

LOS	Unsignalized Intersection Delay per Vehicle (seconds)	Signalized Intersection Delay Per Vehicle (seconds)
A	≤10.0	≤ 10.0
B	>10.0 and ≤15.0	>10.0 and ≤20.0
C	>15.0 and ≤25.0	>20.0 and ≤35.0
D	>25.0 and ≤35.0	>35.0 and ≤55.0
E	>35.0 and ≤50.0	>55.0 and ≤80.0
F	>50.0	>80.0

Source: Highway Capacity Manual, 2000

According to Caltrans policy, LOS D is acceptable for planning purposes on highways and intersections that are located within the Caltrans jurisdiction. The City of Ceres General Plan identifies LOS D as a threshold on primary collectors, arterials, expressways, and freeways. LOS C is the threshold on secondary collectors and local streets.

Delay and LOS values of the study intersections are presented in Table 5.12-2. Average delay per vehicle and corresponding LOS value of the entire intersection are presented for signalized and all-way-stop-controlled intersections. The delay and LOS values of the worst operating approach are presented for two-way stop controlled intersections.

TABLE 5.12-2
Study Intersection Operations – Existing Conditions

#	Study Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Crows Landing Road/Service Road	Signal	28	C	27	C
2	Crows Landing Road/Hackett Road	Signal	25	C	26	C
3	Crows Landing Road/Whitmore Avenue	Signal	30	C	43	D
4	Crows Landing Road/Hatch Road	Signal	28	C	33	C
5	Crows Landing Road/Northbound SR 99 Ramps	TWSC	28 (EB)	D	43 (EB)	E
6	Carpenter Road/Service Road	AWSC	9	A	9	A
7	Service Road/Morgan Road	AWSC	10	A	11	B
8	Service Road/Blaker Road	AWSC	10	B	16	C
9	Service Road/Central Avenue	Signal	25	C	25	C
10	Mitchell Road/Service Road	Signal	26	C	32	C
11	Carpenter Road/Whitmore Avenue	AWSC	10	B	15	B
12	Whitmore Avenue/Morgan Road	Signal	24	C	29	C
13	Whitmore Avenue/Blaker Road	Signal	19	B	27	C
14	Whitmore Avenue/Ustick Road	TWSC	11 (NB)	B	13 (NB)	B

TWSC – Two-way Stop Control, AWSC – All-way Stop Control

NB – Northbound, EB – Eastbound

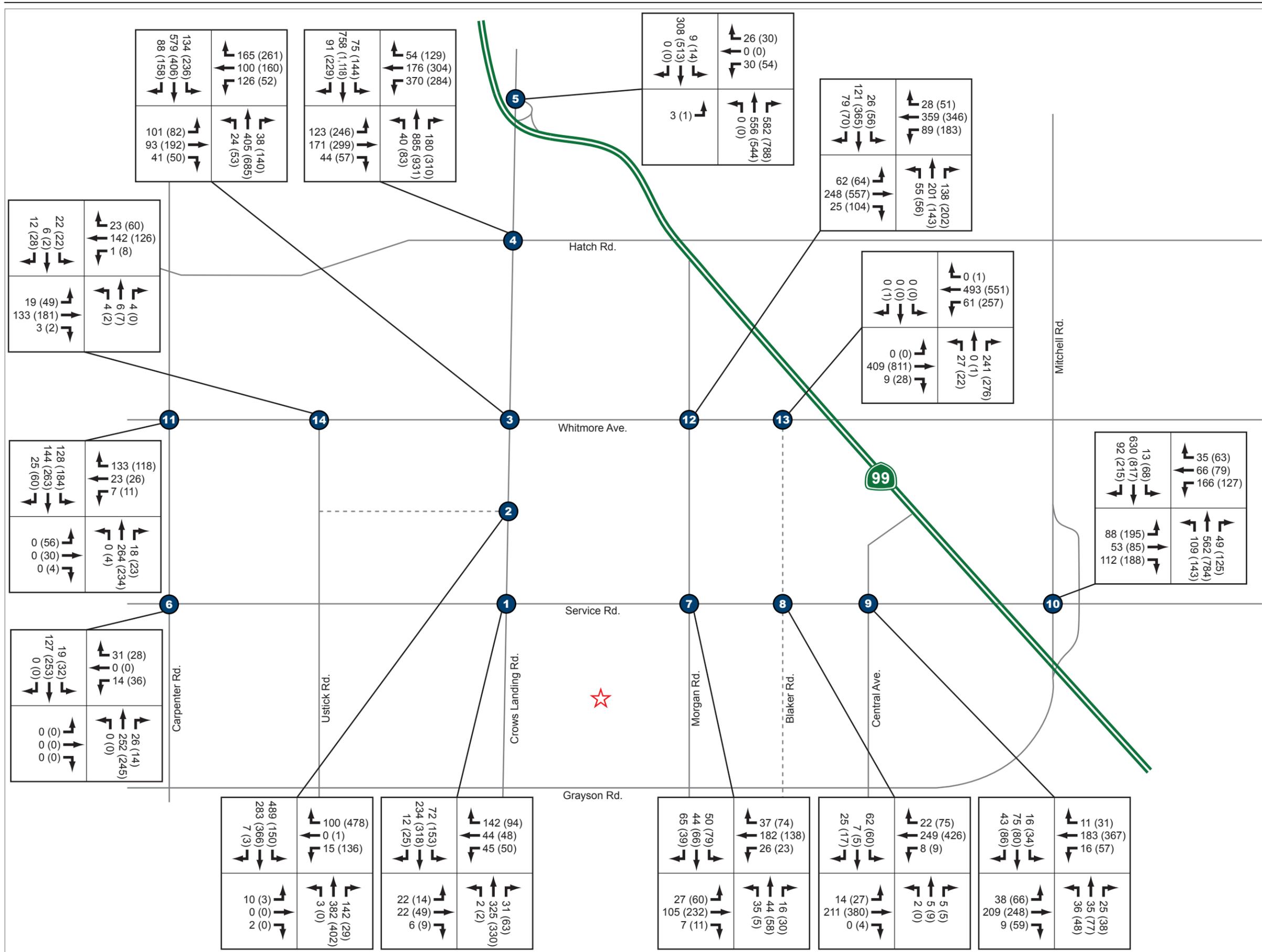
Delay and LOS presented for worst approach at two-way-stop-controlled intersections.

All the study intersections operate under acceptable conditions (LOS D or better), except the intersection of Crows Landing Road and northbound SR 99 ramps. This intersection operates at LOS E during PM peak hour.

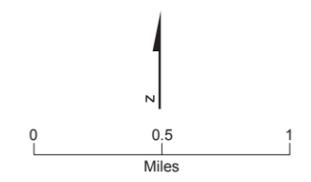
5.12.2.2 Existing Roadway Operations

The 2000 HCM includes a set of criteria for assessing the performance of street and highway systems and the capacity of roadways by measuring the flow of traffic. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. For highways, the traffic flow characteristics for different LOS are described in Table 5.12-3.

The analysis for state facilities is based on daily two-way volumes. Using planning-level estimate of state highways' capacity, the following volumes were assumed: 2,000 vehicles/lane/hour on freeways, 1,000 vehicles/lane/hour on two-lane arterials, and 900 vehicles/lane/hour on multi-lane arterials. Average Daily Traffic (ADT) volumes were obtained from year 2007 Caltrans traffic counts.



VICINITY MAP



LEGEND

- # (#) AM(PM) Peak Hour Volume
- ★ Project Location
- 6 Study Intersection

FIGURE 5.12-3
EXISTING PEAK HOUR
INTERSECTION VOLUMES
 ALMOND 2 POWER PLANT
 CERES, CALIFORNIA

TABLE 5.12-3
Level of Service Criteria for Highways

LOS	V/C Ratio	Traffic Flow Characteristics
A	0.00 – 0.60	Free flow; insignificant delays
B	0.61 – 0.70	Stable operation; minimal delays
C	0.71 – 0.80	Stable operation; acceptable delays
D	0.81 – 0.90	Approaching unstable flow; queues develop rapidly but no excessive delays
E	0.91 – 1.00	Unstable operation; significant delays
F	> 1.00	Forced flow; jammed conditions

Source: Highway Capacity Manual, 2000

The analysis of local roadways was based on morning and evening peak hour two-way volumes. LOS values for local roadways were estimated using a planning methodology that is based on 2000 HCM guidelines. The relationship of peak hour bi-directional volumes and corresponding LOS values is shown in Table 5.12-4.

TABLE 5.12-4
Level of Service Criteria for Local Roadways

Lanes	Roadway Type	Maximum Bidirectional Volume				
		LOS A	LOS B	LOS C	LOS D	LOS E
Class I (>0.00 to 1.99 signalized intersections per mile)						
2	Undivided	-	400	1,310	1,560	1,610
4	Divided	460	2,780	3,300	3,390	-
6	Divided	700	4,240	4,950	5,080	-
8	Divided	890	5,510	6,280	6,440	-
Class II (2.00 to 4.50 signalized intersections per mile)						
2	Undivided	-	180	1,070	1,460	1,550
4	Divided	-	390	2,470	3,110	3,270
6	Divided	-	620	3,830	4,680	4,920
8	Divided	-	800	5,060	6,060	6,360
Class III (> 4.50 signalized intersections per mile and not located within City Central Business District)						
2	Undivided	-	-	500	1,200	1,470
4	Divided	-	-	1,180	2,750	3,120
6	Divided	-	-	1,850	4,240	4,690
8	Divided	-	-	2,450	5,580	6,060
Class IV (> 4.50 signalized intersections per mile and located within City Central Business District)						
2	Undivided	-	-	490	1,310	1,420
4	Divided	-	-	1,170	2,880	3,010
6	Divided	-	-	1,810	4,350	4,520
8	Divided	-	-	2,460	5,690	5,910

Source: Florida Department of Transportation, Generalized LOS Tables

Table 5.12-5 summarizes the daily traffic volumes and V/C ratios for study state highway segments under existing conditions. All study highway corridors operate at an acceptable LOS, with the exception of SR 99 located north of Crows Landing Road. This study corridor operates at LOS E.

The peak hour volumes and capacities of local roadways were obtained from the West Ceres Specific Plan Opportunities and Constraints Analysis Report, May 2008. Table 5.12-6 provides a summary of the morning and evening peak hour traffic volumes and corresponding LOS values for local roadway segments under existing conditions. All local roadway corridors operate at an acceptable LOS.

5.12.2.3 Truck Routes—Weight and Load Limitations

Caltrans weight and load limitations for state highways apply to all state and local roadways. The weight and load limitations are specified in the California Vehicle Code Sections 35550 to 35559. The following provisions, from the California Vehicle Code, apply to all roadways and, therefore, are applicable to this project.

General Provisions:

- The gross weight imposed upon the highway by the wheels on any axle of a vehicle shall not exceed 20,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle, and resting upon the roadway, shall not exceed 10,500 pounds.
- The maximum wheel load is the lesser of the following: a) the load limit established by the tire manufacturer; or b) a load of 620 pounds per lateral inch of tire width, as determined by the manufacturer's rated tire width.

Vehicles with Trailers or Semi-trailers:

- The gross weight imposed upon the highway by the wheels on any one axle of a vehicle shall not exceed 18,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle and resting upon the roadway, shall not exceed 9,500 pounds, except that the gross weight imposed upon the highway by the wheels on any front steering axle of a motor vehicle shall not exceed 12,500 pounds.

TABLE 5.12-5
Study Highway Segment Operations – Existing Conditions

Highway	Location	Roadway Classification	Number of Lanes	ADT ^c	K-Factor ^c	Daily Capacity	Daily V/C Ratio	LOS	Acceptable LOS Threshold
SR 99	North of Crows Landing Road	Freeway ^a	6	118,000	10.3	123,600	0.95	E	D
SR 99	South of Mitchell Road	Freeway ^a	6	108,000	11.9	142,800	0.76	C	D
SR 132	East of El Vista Avenue	Principal Arterial ^b	4	24,400	9.8	35,300	0.69	B	D
SR 132	West of El Vista Avenue	Principal Arterial ^b	4	26,600	10	36,000	0.74	C	D
SR 132	West of Carpenter Road	Minor Arterial ^b	2	14,400	9.6	19,200	0.75	C	D
I-205	West of I-5	Freeway	4	101,000	14.6	116,800	0.86	D	D
I-5	North of I-205	Freeway	10	160,000	13.9	278,000	0.58	A	D
SR 120	West of SR 99	Freeway	4	70,000	14	112,000	0.63	B	D
I-580	North of SR 132	Freeway	4	37,000	10	80,000	0.46	A	D

^aSource: City of Ceres General Plan

^bSource: City of Modesto General Plan

^cSource: 2007 Caltrans Traffic Counts

TABLE 5.12-6
Study Local Roadway Segment Operations – Existing Conditions

Roadway	Location	Roadway Classification	AM Peak Hour			PM Peak Hour			Acceptable LOS Threshold
			Volume	V/C	LOS	Volume	V/C	LOS	
Crows Landing Road	North of Hatch Road	Arterial	1,986	0.64	C	2,795	0.90	D	D
Crows Landing Road	North of Whitmore Avenue	Arterial	1,472	0.47	C	1,828	0.59	C	D
Crows Landing Road	South of Whitmore Avenue	Arterial	1,213	0.39	C	1,386	0.45	C	D
Whitmore Avenue	East of Crows Landing Road	Arterial	656	0.42	C	1,041	0.67	C	D
Service Road	East of Central Avenue	Class B Expressway	460	0.30	C	775	0.50	C	D

Source: City of Ceres and Wood Rodgers, 2008

5.12.2.4 Other Projects

5.12.2.4.1 Future Plans and Projects

West Ceres Specific Plan – The City of Ceres is planning a new mixed-use development on approximately 960 acres located at its western edge. The proposed development might include residential, detail, office, and industrial land uses. The project site is bounded by Whitmore Avenue to the north, Service Road to the south, Ustick Road to the west, and the Union Pacific railroad (UPRR) tracks to the east. Currently, this project is in the planning phase.

5.12.2.4.2 Local Comprehensive Transportation Plans

The 2007 Regional Transportation Plan (RTP), prepared by Stanislaus County Council of Governments (STANCOG), provides a general description of transportation improvements in the Stanislaus County. According to the 2007 RTP, the following long-range improvements are planned for the regional transportation system in and around Ceres:

- SR 99 from Ceres to Kiernan (SR 219) – Widen to eight lanes; expected to be completed by year 2010.
- SR 99 at Whitmore Avenue – Reconstruct interchange at overpass; expected to be completed by year 2010.
- SR 99 at Service and Mitchell roads – Reconstruct interchange; expected to be completed by year 2015.
- SR 99 at Hatch Road – Reconstruct interchange
- Crows Landing Road from Service Road to West Main Street – Construct a new six-lane expressway; expected to be completed by year 2010.
- Crows Landing Road from Whitmore Avenue to SR 99 – Widen to four- to six-lanes; expected to be completed by 2025.

- Carpenter Road from SR 132 to Service Road – Construct a new six-lane expressway; expected to be completed by year 2010.
- Hatch Road from Crows Landing Road to SR 99 – Widen to four-lane expressway; expected to be completed by year 2025.
- Service Road from Ustick Road to Faith Home Road – Widen from two- to four-lane expressway.
- Whitmore Avenue from Ustick Road to Central Avenue – Widen from two- to four-lane road.

5.12.2.5 Pedestrian/Bicycle Facilities

According to the City of Ceres General Plan, three types of bikeways are present in Ceres: Class I bikeways (bike paths), Class II bikeways (bike lanes), and Class III bikeways (signed routes). The following bicycle facilities exist near the A2PP site:

- Lower TID Lateral 2 – Class I bikeway located south of Service Road and Grayson Road.
- Class II and III bikeways along Whitmore Avenue, Service Road, Crows Landing Road, Morgan Road, Blaker Road, and Central Avenue.

5.12.2.6 Public Transportation

Public transit in Ceres consists of local and inter-city bus service that provides the following services:

- Ceres Area Transit (CAT) – provides fixed-route bus service in Ceres and Modesto.
- Ceres Dial-A-Ride – provides shared public transportation in Ceres and nearby unincorporated Stanislaus County areas.
- Stanislaus Regional Transit (StaRT) – provides inter-city fixed route and dial-a-ride services for passengers traveling within Stanislaus County.

5.12.2.7 Rail Traffic

The UPRR tracks are located east of the project site. These rail lines do not provide passenger service.

5.12.2.8 Air Traffic

There are five airports in Stanislaus County: Modesto City-County Airport, Oakdale Municipal Airport, Patterson Airport, Turlock Airport, and Crows Landing Naval Auxiliary Landing Field (Stanislaus County, 2004). There is also a private airstrip for crop dusters off Redwood Road, between Washington Road and Faith Home Road. All of these airports are well over 20,000 feet from the A2PP project site, except the Modesto City-County Airport, which is located approximately 20,000 feet northeast of the project site. In 2007, there was an average of 235 aircraft operations per day at Modesto City-County Airport.

5.12.3 Environmental Analysis

This section assesses the traffic and transportation impacts associated with the construction and operation of the A2PP project. This analysis primarily examines impacts on roadway LOS. Potential traffic impacts during construction, as well as plant operation after construction, have been considered and analyzed.

Construction is anticipated to begin in the third quarter of 2010 and last 12 months, while commercial operation will start in the fourth quarter of 2011. It is anticipated that workers will be drawn from the labor pool in Stanislaus and San Joaquin counties.

A quantitative traffic analysis was not conducted for the long-term operations phase because it would generate only eight trips per day. Thus, operational traffic will not have a measurable impact on the study area roadways; only the impacts of construction traffic were analyzed.

5.12.3.1 Significance Criteria

The significance criteria have been developed using guidance provided in the CEQA, Appendix G (Title 14 California Code of Regulations 15000 et seq.) and relevant local policies. Impacts of the proposed project to transportation and circulation will be considered significant if the following criteria are met:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system
- Exceed, either individually or cumulatively, a LOS standard established by the county congestion management agency for designated roads or highways
- 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
- Substantially increase hazards due to a design feature or incompatible uses
- Result in inadequate emergency access
- Result in inadequate parking capacity
- Conflict with adopted policies, plans, or programs supporting alternative transportation

For LOS requirements, the City's requirements will be the standard used in this study.

5.12.3.2 "With Project" Traffic Conditions and Level of Service Analysis

5.12.3.2.1 Construction Traffic Generation

Estimates of construction traffic during the onsite construction period were provided by TID. During the peak construction phase (month 6), construction will require a workforce of 149 workers and a maximum of 42 delivery/haul trucks each day. The construction will occur 8 hours a day between 7:00 a.m. and 3:30 p.m. Therefore, the inbound worker trips will occur before the morning peak hour for existing traffic and the outbound worker trips will occur before the evening peak hour. For analysis purposes, a conservative approach was followed and the construction trips were assumed to occur during morning and

evening peak periods. The truck trips were assumed to be distributed evenly throughout the day.

For purposes of this analysis, the truck trips were converted to passenger car equivalent units (PCEs) at a ratio of 1.5 passenger cars for each truck, consistent with the 2000 HCM guidelines. Based on experience with similar projects, it is estimated that 20 percent of the workforce will carpool and the average vehicle occupancy will be two persons per vehicle for carpools. Using these assumptions, the A2PP project will generate 394 daily passenger car-equivalent trips, with 156 trips occurring during morning and evening peak hours. The construction trip estimates are presented in Table 5.12-7.

TABLE 5.12-7
Construction Trip Generation Estimate

Trip Type	Workforce	Daily	Total Trips Added			
			AM Peak Hour		PM Peak Hour	
			In	Out	In	Out
Delivery/Haul Trucks	42	84	7	7	7	7
PCE (1.5)	—	126	11	11	11	11
Workers	149					
Carpooling	30	30	15	—	—	15
Not Carpooling	119	238	119	—	—	119
Total Construction Traffic		394	145	11	11	145

PCE = Passenger Car Equivalent

5.12.3.2.2 Construction Traffic Distribution

The following assumptions were used to distribute construction traffic over the study area network:

- 10% of trips will originate from Stockton using southbound SR 99
- 5% of trips will originate from Tracy using eastbound I-205, eastbound SR 120, and southbound SR 99
- 5% of trips will originate from Tracy using southbound I-580 and eastbound SR 132
- 10% of trips will originate from Merced and Turlock using northbound SR 99
- 30% of trips will originate from within Modesto and Ceres using southbound SR 99
- 20% of trips will originate from within Modesto and Ceres using Mitchell Road, East Hatch Road, and Crows Landing Road
- 20% of trips will originate from within Modesto and Ceres using East Whitmore Avenue and Crows Landing Road

5.12.3.2.3 Intersection Operations with Construction Traffic

The peak hour traffic generated during the construction period was added to the existing turning movement counts at the study intersections. The results of the existing plus construction traffic peak-hour intersection analysis are summarized in Table 5.12-8.

Comparing Tables 5.12-2 and 5.12-8, all of the study intersections will operate at the same LOS as existing conditions. Therefore, the addition of construction traffic will not cause significant impacts on traffic operations at intersections.

TABLE 5.12-8
Study Intersection Operations – Existing plus Construction Traffic Conditions

#	Study Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Crows Landing Road/Service Road	27	C	26	C
2	Crows Landing Road/Hackett Road	23	C	27	C
3	Crows Landing Road/Whitmore Avenue	29	C	45	D
4	Crows Landing Road/Hatch Road	28	C	34	C
5	Crows Landing Road/Northbound SR 99 Ramps	28 (EB)	D	46 (EB)	E
6	Carpenter Road/Service Road	9	A	9	A
7	Service Road/Morgan Road	10	A	11	B
8	Service Road/Blaker Road	10	B	16	C
9	Service Road/Central Avenue	25	C	25	C
10	Mitchell Road/Service Road	28	C	33	C
11	Carpenter Road/Whitmore Avenue	10	B	15	B
12	Whitmore Avenue/Morgan Road	24	C	29	C
13	Whitmore Avenue/Blaker Road	19	B	28	C
14	Whitmore Avenue/Ustick Road	11 (NB)	B	13 (NB)	B

NB – Northbound, EB – Eastbound

Delay and LOS presented for worst approach at two-way stop controlled intersections.

5.12.3.2.4 Roadway LOS with Construction Traffic

Average peak hour traffic generated during the construction period was added to the existing traffic volumes on each roadway segment. The peak hour operations of study highway and local roadway segments under existing plus construction traffic conditions are summarized in Tables 5.12-9 and 5.12-10. Based on the analysis, the study roadway segments are forecasted to operate at the same LOS as existing conditions (see Tables 5.12-5 and 5.12-6). There will be no significant impacts from the construction traffic: all the study segments will continue to operate at an acceptable LOS, with the exception of SR-99 north of Crows Landing Road, which will continue to operate at LOS E.

TABLE 5.12-9
Study Highway Segment Operations – Existing plus Construction Traffic Conditions

Highway	Location	ADT	Project Trips Added		Projected Daily V/C Ratio	Projected Daily LOS
			Daily	Percent of ADT		
SR 99	North of Crows Landing Road	118,000	178	<1%	0.96	E
SR 99	South of Mitchell Road	108,000	40	<1%	0.76	C
SR 132	East of El Vista Avenue	24,400	20	<1%	0.69	B
SR 132	West of El Vista Avenue	26,600	20	<1%	0.74	C
SR 132	West of Carpenter Road	14,400	20	<1%	0.75	C
I-205	West of I-5	101,000	20	<1%	0.86	D
I-5	North of I-205	160,000	20	<1%	0.58	A
SR 120	West of SR 99	70,000	20	<1%	0.63	B
I-580	North of SR 132	37,000	20	<1%	0.46	A

TABLE 5.12-10
Study Local Roadway Segment Operations – Existing plus Construction Traffic Conditions

Roadway	Location	AM Peak Hour				PM Peak Hour			
		Volume	Trips Added	V/C	LOS	Volume	Trips Added	V/C	LOS
Crows Landing Road	North of Hatch Road	1,986	71	0.66	C	2,795	71	0.92	D
Crows Landing Road	North of Whitmore Avenue	1,472	102	0.51	C	1,828	102	0.62	C
Crows Landing Road	South of Whitmore Avenue	1,213	133	0.43	C	1,386	133	0.49	C
Whitmore Avenue	East of Crows Landing Road	656	32	0.44	C	1,041	32	0.69	C
Service Road	East of Central Avenue	460	16	0.31	C	775	16	0.51	C

5.12.3.3 Heavy Haul Routes

The A2PP proposes to use the following heavy haul routes:

- Route 1 (from SR 99) – Crows Landing Road and Almond Power Plant access road
- Route 2 (from I-5) – Crows Landing Road and Almond Power Plant access road

Figure 5.12-4 is an illustration of the proposed heavy haul routes. Neither route will require any new construction.

5.12.3.4 Transportation of Hazardous Materials

The quantity of hazardous materials used on site during construction is usually small compared to the quantity used during operation. Hazardous materials used during construction include petroleum products such as diesel and oils, paints, and solvents.

Hazardous materials used during project operation include anhydrous ammonia, cleaning chemicals, lubricating oil, lubricating oil filters, oily rags, oil absorbents, water-treatment chemicals, diesel, and welding gases. Two to three deliveries of hazardous materials are expected per week.

These materials would be transported as hazardous materials or hazardous waste. Transport route arrangements will be required with Caltrans for permitting and escorting, as applicable. Because the transport of hazardous wastes will be conducted according to the relevant transportation regulations, no significant impact is expected.

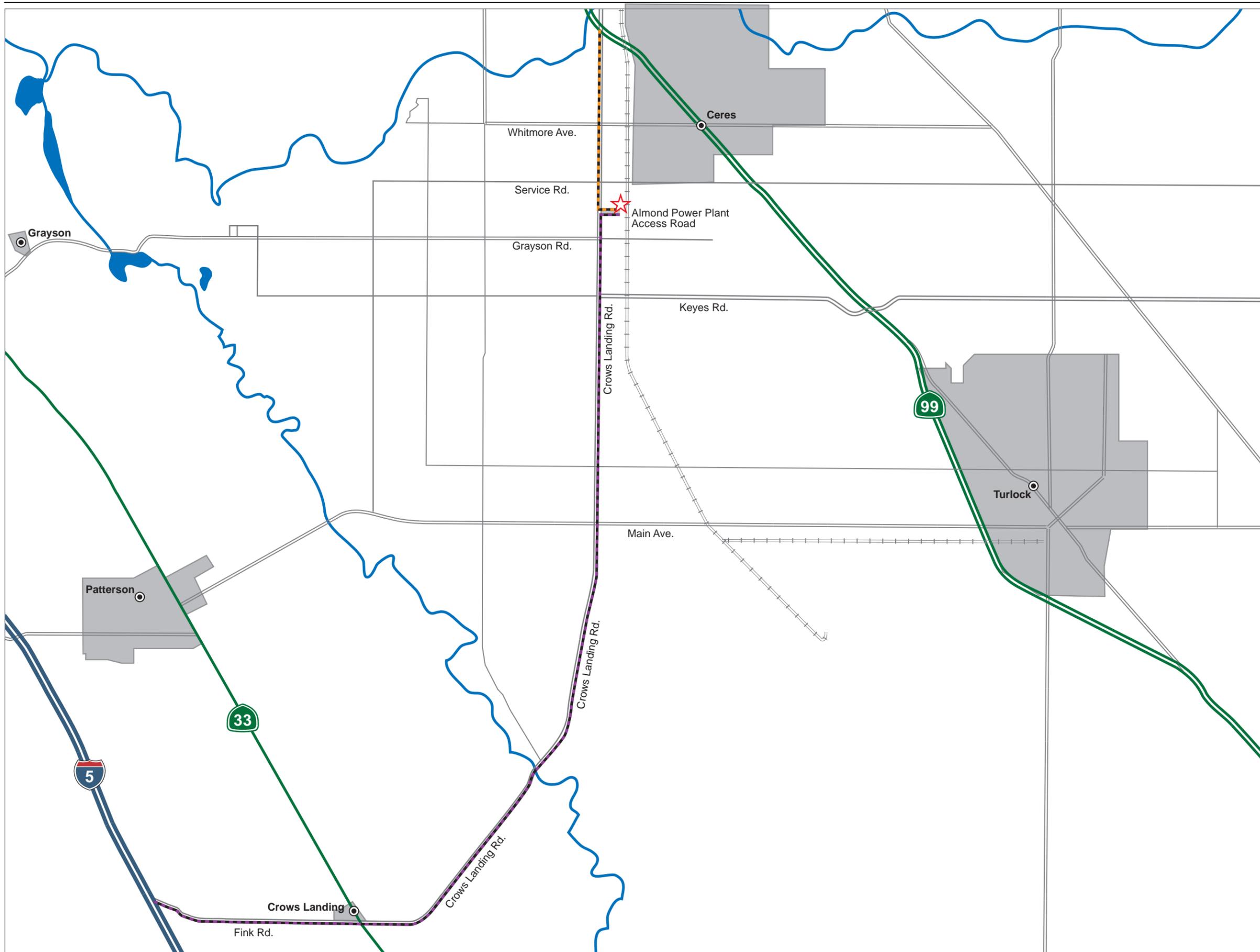
Standards for the transportation of hazardous materials are contained in the Code of Federal Regulations (CFR), Title 49 and enforced by the U.S. Department of Transportation. Additionally, the State of California has promulgated rules for hazardous waste transport that can be found in the California Code of Regulations, Title 26. Additional regulations for the transportation of hazardous materials are outlined in the California Vehicle Code (CVC) (Sections 2500–505, 12804–804.5, 31300, 3400, and 34500–501). The two state agencies with primary responsibility for enforcing federal and state regulations governing the transportation of hazardous wastes are the California Highway Patrol (CHP) and Caltrans. Transportation of hazardous materials to and from the project site will comply with all applicable requirements.

According to Division 13 Section 31303 of the CVC, the transportation of regulated substances and hazardous materials will be on the state or interstate highways that offer the shortest overall transit time possible. Transporters of hazardous or explosive materials must contact the CHP and apply for a Hazardous Material Transportation License. Upon receiving this license, the shipper will obtain a handbook that will specify the routes approved to ship inhalation hazardous or explosive materials. The exact route of the inhalation or explosive material shipment will not be determined until the shipper contacts the CHP and applies for a license. Transportation impacts related to hazardous materials associated with the project operations will not be significant because deliveries of hazardous materials will be limited. Delivery of these materials will occur over prearranged routes and will be in compliance with all LORS governing the safe transportation of hazardous materials.

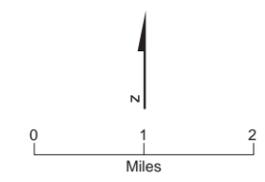
Hauling would be carried out in accordance with local, state, and federal regulations that include the Resource Conservation and Recovery Act (42 U.S. Code 6901 et seq.) and the California Integrated Waste Management Act (Public Resources Code Sections 40000 et seq.).

The current routes for hazardous materials delivery to the Almond Power Plant, which were subject to Caltrans approval, are as follows:

- Route 1 (from SR 99) – Crows Landing Road and Almond Power Plant access road
- Route 2 (from I-5) – Crows Landing Road and Almond Power Plant access road



VICINITY MAP



LEGEND

-  Project Location
-  Route 1
-  Route 2

FIGURE 5.12-4
HEAVY HAUL ROUTES
 ALMOND 2 POWER PLANT
 CERES, CALIFORNIA

5.12.3.5 Public Safety

Truck trips, including delivery of hazardous materials and removal of wastes, are potentially a hazard for the public due to their nature. However, as stated earlier, the transporter will be required to obtain a Hazardous Material Transportation License in accordance with CVC Section 32105 and will be required to follow appropriate safety procedures when transporting and handling such materials. Therefore, public safety is not jeopardized.

5.12.3.6 Potential Impacts on Aircraft Operations

The following subsections address potential impacts of the A2PP on aircraft operations in the area. As discussed in Section 5.12.2.8, there is one airport within approximately 20,000 feet of the project site, the Modesto City-County Airport (Harry Sham Field, MOD), which has a runway length in excess of 3,200 feet. Information regarding the airport is summarized in Table 5.12-11. The location of the airport relative to the A2PP site, along with the airport zones of influence, is shown in Figure 5.12-5.

TABLE 5.12-11
Characteristics of the Modesto City-County Airport

Parameter	Modesto City-County Airport*
Federal Aviation Administration (FAA) Identifier	MOD
Location (Lat/Long)	37.6258172 / -120.9544214
Elevation (amsl)	97 ft (29.6 m)
Number of runways	2 (bidirectional)
Runway Length	
Runway 10L/28R	5,911 ft (1,802 m)
Runway 10R/28L	3,459 ft (1,054 m)
Aircraft Operations, avg	235/day

*AirNav, 2009 average operations for 12-month period ending December 31, 2007.
amsl = above mean sea level

5.12.3.6.1 Air Traffic Patterns at the Modesto City-County Airport

Modesto City-County Airport's primary activity is general aviation and the airport is home base for over 200 general aviation aircraft, including corporate jets, twin- and single-engine aircraft, helicopters, and ultralights. SkyWest Airlines operates regularly scheduled commercial flights between MOD and San Francisco International Airport. Of the aircraft based at the field, 148 are single-engine planes, one is a jet and eight are helicopters. The remainder are multi-engine aircraft (AirNav, 2009).

The Modesto City-County Airport runways are approximately 97 feet amsl. Runway 10/28R is oriented in a general northwest-southeast direction, and is designed for aircraft to land in either direction. Runway 10/28 refers to its landing directions of 100 degrees and 280 degrees, respectively.

The A2PP site is located approximately 20,000 feet southwest of runway 10/28 at 80 feet amsl. The A2PP project site is well outside the airport-related zones of influence.

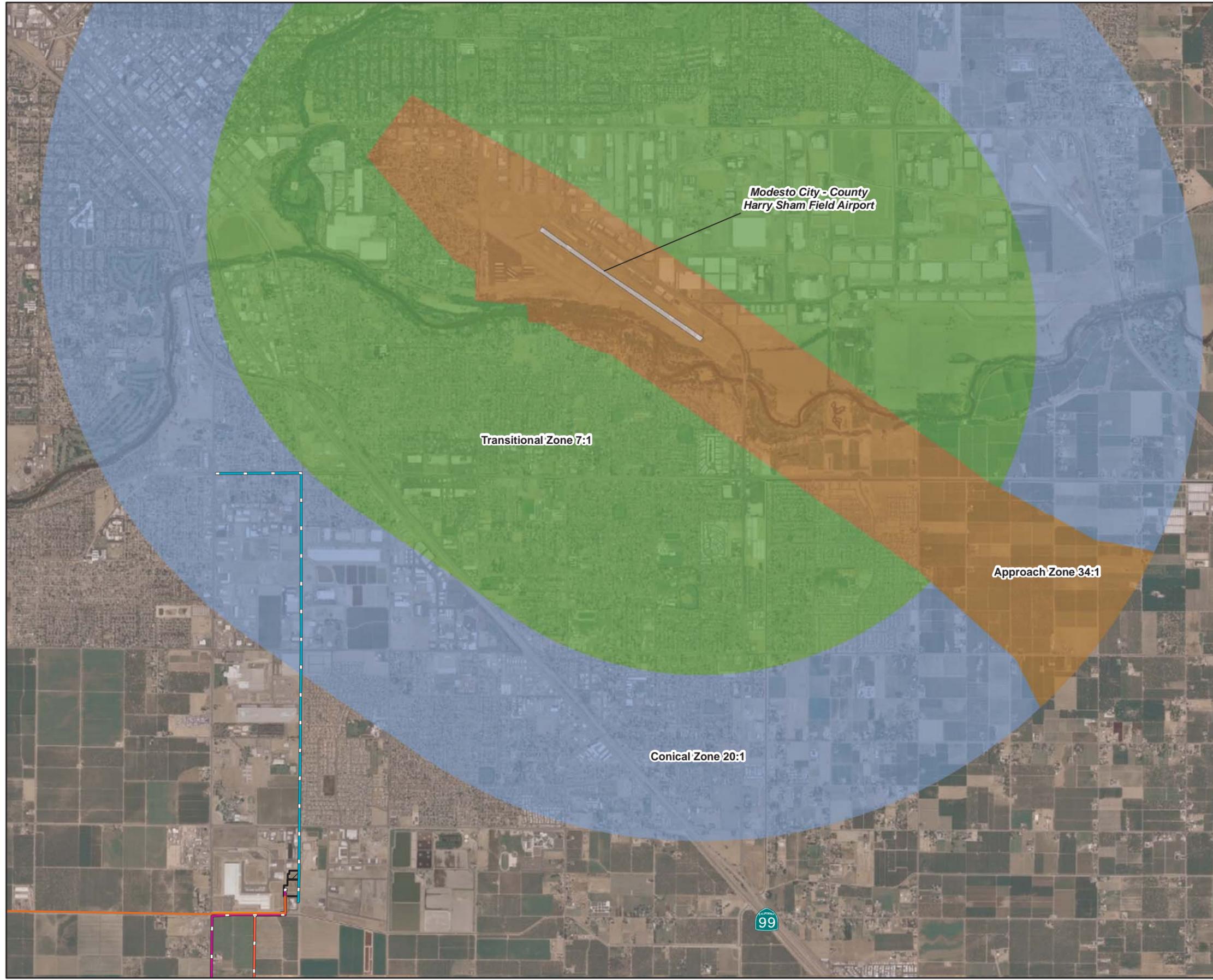
TID currently operates a combustion turbine and a cooling tower immediately adjacent to the A2PP site. The existing combustion turbine generator / heat recovery steam generator (CTG/HRSG) stack is 92 feet tall, compared with the 80-foot heights of the proposed A2PP turbine stacks. The airport manager has indicated that the recommended flight pattern over the existing Almond Power Plant and the A2PP site and all populated areas is 1,500 feet. Therefore, it is unlikely that the CTG stacks will produce a hazard to low-flying aircraft.

The Stanislaus County Airport Land Use Commission Plan indicates that electrical plants are compatible uses when they are outside the approach and transitional surface zones (Stanislaus County, 2004).

The A2PP is 20,000 feet from the Modesto City-County Airport's nearest runway, is not located within any airport flight patterns, is not located within any approach or transitional surface zones, and is not located in congested airspace. In addition, according to the Stanislaus County Airport Land Use Commission Plan, the A2PP is beyond the restricted air space of this air park. The A2PP is a compatible use as it is located outside the critical zones. Therefore, no impacts to aviation are expected.

Compliance with FAA Height Restrictions. Federal Acquisition Regulations (FAR) Part 77 establishes standards for determining obstructions to air navigation. It applies to existing and proposed man-made obstacles, objects of natural growth, and terrain. FAR Part 77.13 identifies notification requirements for proposed construction. In general, notification is required for:

- Construction or alteration of more than 200 feet above the ground level at the site
- Construction or alteration of greater height than an imaginary surface extending outward and upward at the following slopes:
 - 100 to 1 for horizontal distance of 20,000 feet from the nearest point of the nearest runway at airports with at least one runway greater than 3,200 feet in length (excluding heliports).
 - 50 to 1 for a horizontal distance of 10,000 feet from the nearest point on the nearest runway of each airport with its longest runway no more than 3,200 feet in length.
 - 25 to 1 for a horizontal distance of 5,000 feet from the nearest landing and takeoff area of a heliport.
- Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted by 17 feet for an Interstate, 15 feet for local road, or 23 feet for a railroad, would exceed the standards in A or B of this section
- When requested by FAA
- Any construction on an airport or heliport



- LEGEND**
- Natural Gas Pipeline (Alternate A)
 - Natural Gas Pipeline (Alternate B)
 - 115-kV Circuit 1 Line (Corridor 1)
 - 115-kV Circuit 2 Line (Corridor 2)
 - Reconductored 69kV Sub-Transmission Line
 - ▭ Proposed Grayson Substation
 - ▨ Laydown Area
 - ▭ Project Site
- MODESTO AIRPORT SURFACE USE**
- ▭ Approach Zone 34:1
 - ▭ Conical Zone 20:1
 - ▭ Runway
 - ▭ Transitional Zone 7:1

Note:
 1. Source: Stanislaus County Airport Land Use Commission Plan, 2004.

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

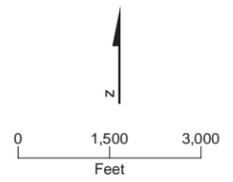


FIGURE 5.12-5
AIRPORT LAND USE ZONES
 ALMOND 2 POWER PLANT
 CERES, CALIFORNIA

TID used the FAA Notice Criteria Tool¹ to determine whether the A2PP met any of the FAR §77.13 requirements for notification of construction. The criteria tool indicated that the proposed stacks would not penetrate the 100-to-1 surface for the Modesto City-County Airport, and thus notification is not required through the filing of a 7460-1 Notice of Proposed Construction form to the FAA (Appendix 3A).

5.12.3.7 Transmission Line and Gas Pipeline Construction Impacts

The proposed project will include the construction of a natural gas pipeline,² two 115-kV transmission line corridors, and the reconductoring of a 69-kV sub-transmission line, as illustrated in Figure 5.12-2. At most, the natural gas pipeline construction will employ 36 workers, and the transmission line construction would employ 20 workers. During construction of the lines, workers would first meet at TID's and PG&E's corporate yards, then travel together in crew trucks and park adjacent to the corridors.

The construction of the natural gas pipelines and transmission line Corridor 2 may impact the intersections and roadway segments located along the routes. However, these traffic impacts will be site-specific and temporary. Only relatively short (less than 1,000 feet) sections are typically under construction at any one time during transmission line projects. Where portions of the transmission lines are constructed along roads, a traffic control plan will be prepared to ensure that both directions of travel are maintained along the affected roadways. Because transmission line construction typically requires a cross section of 10 to 15 feet to be closed, there is a potential for traffic impacts. Therefore, the traffic control plan will address ways to minimize traffic impacts during construction of these segments.

To mitigate the potential impacts, the traffic control plan will be prepared in accordance with the Caltrans Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook (WATCH Manual). After construction is complete, no permanent alterations to the area roadways are proposed. Implementation of a traffic control plan for the affected area for the short duration of construction in that area is adequate to minimize the traffic impacts to an acceptable level.

5.12.4 Cumulative Effects

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the proposed project (Public Resources Code §21083; California Code of Regulations, Title 14, §§15064(h), 15065(c), 15130, and 15355).

For 2008–2009, the City of Ceres has 19 public works projects, five commercial/industrial projects, and 10 city-related plans or programs either planned or currently under way. Of these projects, three are within a 1-mile radius of the project site and/or transmission routes, and include:

¹ Available at <https://oeaaa.faa.gov/oeaaa>

² Pacific Gas & Electric Company (PG&E) is currently examining the relative strengths of the two alignments. In order to allow the AFC to proceed, the two possible alternatives are presented in this AFC with same level of detail to allow complete evaluation of both alternatives. TID anticipates that PG&E will select a preferred route in late spring or early summer 2009. At that time, the route not selected will provide information for the California Energy Commission's Alternatives analysis.

- **Crows Landing (Flea Market) and Ceres Lions Park Wells** – Addition of a 650 to 725-gallon per minute (gpm) well at the Crows Landing Flea Market and second 650-gpm well at Ceres Lions Park. Design of the pumps is under way.
- **Lagoon Cleaning Project** – As part of the City of Ceres’ effort to improve the treatment system, percolation ponds east of Morgan Avenue and south of E. Service Road are being dredged, with completion expected in early 2009.
- **Larger Stand-by Power at Blaker Reservoir** – The City of Ceres plans to either replace the existing stand-by power unit currently capable of powering two of the six booster pumps, with a power unit capable of running four booster pumps, or add a second unit to power the two additional pumps. This project is currently in the planning phase.

In addition to these capital projects, the City of Ceres has an additional 30 project applications approved and five pending within the Planning Department. Of the 30 approved projects, three are industrial and are within the Service Road Industrial Master Plan area, two are residential within the Brown Annexation Master Plan area, and one residential project is within the Westpoint Master Plan area; these projects are within approximately 1 mile of the project site. The pending applications include one residential project (34 units) and three commercial projects (a total of 410,000 square feet). These projects range between 2.5 to 3 miles away from the A2PP.

In December 2008, 29 projects applications were under review with the Stanislaus County Planning Division, including general plan amendments and rezonings, and applications to develop residential, office, commercial, and industrial uses as well as religious, educational, and health institutions; agricultural-related uses; and natural resource extraction (Stanislaus County, 2008 and 2009). These projects were located elsewhere in the County in the areas of Salida, Waterford, Oakdale, Patterson, Keyes, Knights Ferry, Denaire, Turlock, Empire, Hughson, Newman, and Modesto.

Additionally, TID is preparing an Environmental Impact Report (EIR) for the TID Hughson-Grayson 115-kV Transmission Line and Substation Project, which includes the proposed Grayson Substation (State Clearinghouse Number 2009012075). In addition to the substation, the Hughson-Grayson project consists of an approximately 10-mile-long, 115-kV transmission line; a 0.5-mile-long, 69-kV transmission line from the existing TID Almond Power Plant; a new bus and breaker within the existing TID Almond Power Plant switchyard; and a second 69-kV transmission line that extends 0.8 mile east from the proposed substation. The Notice of Preparation was issued on January 26, 2009, and reissued February 10, 2009. The Draft EIR is anticipated to be issued in July 2009.

The projects that would likely impact the routes A2PP staff and construction workers use are the TID Hughson-Grayson 115-kV Transmission Line and Substation Project, the Ceres West Specific Plan Annexation, and the Copper Trail Annexation. Construction on the TID Hughson-Grayson 115-kV Transmission Line and Substation Project is anticipated to begin in late fall 2010. The specific construction schedule for this project has not yet been finalized, so it is unknown which portions of the TID Hughson-Grayson 115kV transmission line and substation will be constructed first. The Ceres West Specific Plan Annexation’s entitlement process should not take place until the end of 2009; the annexation would be effective in

2010 at the earliest, but no construction is planned at this time. The Copper Trail Annexation is under way, but no construction has been scheduled yet.

Therefore, at this time, it is not possible to determine if these projects would add to the roads used by the A2PP or result in cumulative significant impacts. Additionally, because the A2PP site is in a primarily agricultural area of the county, it is unlikely the A2PP's project impacts would combine with those of projects occurring elsewhere in the county to result in significant cumulative impacts.

5.12.5 Mitigation Measures

5.12.5.1 Construction Impacts

Construction of the A2PP will add a moderate amount of traffic to state routes and local roadways during the peak construction period. However, because the volume of traffic added is small compared to existing traffic volumes, these project-related traffic increases will not result in significant impacts. Additionally, as the construction-related trips would occur during the off-peak hours, they will not affect the peak period traffic operations.

The construction contractor will prepare a construction traffic control plan and construction management plan, also known as a Transportation Management Plan (TMP). The TMP should address construction hours, timing of heavy equipment and building material deliveries, potential street and/or lane closures, signing, lighting, and traffic control device placement. Damage to any roadway caused by project construction traffic will be restored to or near its pre-existing condition.

The project will not:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system
- 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
- Cause unannounced traffic delays greater than 15 minutes during construction within or adjacent to public roadways

No new design feature or incompatible uses that would substantially increase hazards have been identified.

Specific construction worker parking areas have been designated on site, so the project will not result in inadequate parking capacity. The project will not result in inadequate emergency vehicle access. No conflict with adopted policies, plans, or programs supporting alternative transportation has been found.

5.12.5.2 Operations Impacts

The operations-related and maintenance-related traffic associated with the project is minimal and insignificant when added to major movements on freeways and local roadways (the additional eight daily trips represent less than one percent of the daily demand on surrounding streets). Consequently, no operations-related impacts require mitigation measures.

5.12.6 Agencies and Agency Contacts

Table 5.12-12 lists the agency contacts related to traffic and transportation.

TABLE 5.12-12
Agency Contacts for Traffic and Transportation

Issue	Agency	Contact
Transportation Permit for Oversized Loads	Caltrans	Caltrans North Region Transportation Permits Office 1823 14th Street Sacramento, CA 95814 Officer on Duty (909) 383-4637
Transportation Permit for Oversized Loads	Stanislaus County	Stanislaus County Public Works 1010 10 th Street, Suite 3500 Modesto, CA 95354 David Gin (209) 525-6550
Transportation Permit for Oversized Loads	City of Ceres	City of Ceres Public Works 2720 Second Street Ceres, CA 95307 Officer on Duty (209) 538-5732
Hazardous Material Transportation License	California Highway Patrol	Accounting Section (HM Licensing Program) P.O. Box 942902 Sacramento, CA 94298-2902 (916) 327-5039 Email form available at: http://www.chp.ca.gov/prog/email.cgi
Safety Permits	Federal Motor Carrier Safety Administration	California Field Office 1325 J Street, Suite 1540 Sacramento, CA 95814 (916) 930-2760 Fax: (916) 930-2770 Email contact depends on the nature of the hazardous material hauled.

5.12.7 Permits and Permit Schedule

Table 5.12-13 lists the permits related to traffic and transportation and the permit schedule. 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 CVC, Sections 117 and 660-711 of the California State Highway Code, and Sections 1411.1 to 1411.6 of the California Code of Regulations. Affected vehicles will be required to obtain transportation permits from Caltrans, Stanislaus County, and the City of Ceres.

Transport route arrangements would be required with Caltrans and CHP officials for permitting and escort, as applicable. Transportation of hazardous materials to and from the A2PP will be conducted in accordance with CVC Section 31303.

TABLE 5.12-13
Permits and Permit Schedule for Traffic and Transportation

Permit	Administering Agency	Schedule
Single/annual-trip transportation permit for oversized loads and oversized vehicles	Caltrans North Region Transportation Permits Office 1823 14th Street Sacramento, CA 95814 Officer on Duty (909) 383-4637	Obtain when necessary, 2-hour processing time (single trip) to 2 weeks (annual trip).
Hazardous materials transportation license	California Highway Patrol HM Licensing Program (916) 327-5039	Obtain when necessary, approximately 2-week processing time.
Transportation Permit for Oversized Loads in Stanislaus County	Stanislaus County Public Works 1010 10th Street, Suite 3500 Modesto, CA 95354 David Gin (209) 525-6550	Usually 1-day processing time for either a single trip permit or an annual (blanket) permit.
Encroachment Permit for Stanislaus County	Stanislaus County Public Works 1010 10th Street, Suite 3500 Modesto, CA 95354 David Gin (209) 525-6550	Obtain when necessary, issuance varies depending on the complexity of the work; usually issued within 1 to 3 days, up to a year.
Transportation permit for the transportation of oversize and overweight loads through the City of Ceres	City of Ceres Public Works 2720 Second Street Ceres, CA 95307 Officer on Duty (209) 538-5732	Obtain when necessary, issuance within 1 business day.
Encroachment Permit for the City of Ceres	City of Ceres Public Works 2720 Second Street Ceres, CA 95307 Officer on Duty (209) 538-5732	Obtain when necessary, issuance within 1 business day.

5.12.8 Laws, Ordinances, Regulations, and Standards

LORS related to traffic and transportation are summarized in Table 5.12-14 and the following subsections.

5.12.8.1 Federal LORS

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
- 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.
- 14 CFR 77.13(2)(i) requires an applicant to notify the FAA of the construction of structures within 20,000 feet of the nearest point of the nearest runway of an airport with at least one runway longer than 3,200 feet. Modesto City-County Airport is the closest airport to the site and is located approximately 20,000 feet northeast of the site; therefore, this requirement is applicable. TID has prepared an FAA Notice Criteria evaluation for the 80-foot-tall exhaust stacks (provided in Appendix 3A). Based on the results of this evaluation, a FAA Form 7460-1, Notice of Proposed Construction or Alteration is not necessary because the exhaust stacks do not exceed the Notice Criteria.
- 14 CFR 77.17 requires an applicant to submit a Notice of Proposed Construction or Alteration (FAA Form No. 7460-1) to the FAA for construction within 20,000 feet of the nearest runway of an airport with at least one runway longer than 3,200 feet. An FAA Notice Criteria evaluation has been prepared and is provided in Appendix 3A. Based on the results of this evaluation, an FAA Form 7460-1, Notice of Proposed Construction or Alteration is not necessary because the exhaust stacks do not exceed the Notice Criteria.
- 14 CFR 77.21, 77.23, and 77.25 outlines the criteria used by the FAA to determine obstructions to air navigation. The A2PP is approximately 3.3 nautical miles from the nearest airport, therefore, the plant's geometrical characteristics are subject to review and approval by the FAA. An FAA Notice Criteria evaluation has been prepared and is provided in Appendix 3A. Based on the results of this evaluation, an FAA Form 7460-1, Notice of Proposed Construction or Alteration is not necessary because the exhaust stacks do not exceed the Notice Criteria.

5.12.8.2 State LORS

- CVC Sections 13369, 15275, and 15278 address the licensing of drivers and classifications of licenses required to operate particular types of vehicles. In addition, certificates permitting the operation of vehicles transporting hazardous materials are addressed.
- CVC Sections 25160 et seq. address the safe transport of hazardous materials.
- CVC Sections 2500-2505 authorize the issuance of licenses by the Commissioner of the CHP to transport hazardous materials, including explosives.
- CVC Sections 31300 et seq. regulate the highway transportation of hazardous materials, routes used, and restrictions.

- CVC Section 31303 requires hazardous materials to be transported on state or interstate highways that offer the shortest overall transit time possible.
- CVC Sections 31600-31620 regulate the transportation of explosive materials.
- CVC Sections 32000-32053 regulate the licensing of carriers of hazardous materials and include noticing requirements.
- CVC Sections 32100-32109 establish special requirements for the transportation of substances presenting inhalation hazards and poisonous gases. CVC Section 32105 requires shippers of inhalation or explosive materials to contact the CHP and apply for a Hazardous Material Transportation License. Upon receiving this license, the shipper will obtain a handbook specifying approved routes.
- CVC Sections 34000-34121 establish special requirements for transporting flammable and combustible liquids over public roads and highways.
- CVC Sections 34500, 34501, 34501.2, 34501.3, 34501.4, 34501.10, 34505.5-7, 34506, 34507.5, and 34510-11 regulate the safe operation of vehicles, including those used to transport hazardous materials.
- California Street and Highways Code (S&HC), Sections 660, 670, 1450, 1460 et seq. 1470, and 1480, regulate right-of-way encroachment and granting of permits for encroachments on state and county roads.
- S&HC, Sections 117 and 660-711, and CVC, Sections 35780 et seq., require permits to transport oversized loads on county roads. California S&HC Sections 117 and 660 to 711 require permits for any construction, maintenance, or repair involving encroachment on state highway rights-of-way. CVC Section 35780 requires approval for a permit to transport oversized or excessive loads over state highways.
- Caltrans weight and load limitations for state highways apply to all state and local roadways. The weight and load limitations are specified in the CVC Sections 35550 to 35559. The following provisions, from the CVC, apply to all roadways and are therefore applicable to this project.

General Provisions:

- The gross weight imposed upon the highway by the wheels on any axle of a vehicle shall not exceed 20,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle, and resting upon the roadway, shall not exceed 10,500 pounds.
- The maximum wheel load is the lesser of the following: a) the load limit established by the tire manufacturer, or b) a load of 620 pounds per lateral inch of tire width, as determined by the manufacturer's rated tire width.

Vehicles with Trailers or Semi-trailers:

- The gross weight imposed upon the highway by the wheels on any one axle of a vehicle shall not exceed 18,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle and resting upon the roadway, shall not

exceed 9,500 pounds, except that the gross weight imposed upon the highway by the wheels on any front steering axle of a motor vehicle shall not exceed 12,500 pounds.

- California State Planning Law, Government Code Section 65302, requires each city and county to adopt a General Plan, consisting of seven mandatory elements, to guide its physical development. Section 65302(b) requires that a circulation element be one of the mandatory elements.
- All construction in the public right-of-way will need to comply with the *Manual on Uniform Traffic Control Devices* (Caltrans, 2003; FHWA, 2003).

5.12.8.3 Local LORS

This section reviews compliance with all relevant local LORS without regard to their applicability as a matter of law. These LORS include the following:

- The Stanislaus County RTP, administered by STANCOG, establishes regional transportation goals, policies, objectives and actions for various modes of transportation. In the 2007 RTP, the following five goals have been identified:
 - Improve mobility for people and freight
 - Operate the regional transportation system safely and efficiently
 - Preserve and enhance environmental quality
 - Support the economic and community vitality of the region
 - Promote equity for system users
- The Stanislaus County General Plan Circulation Element establishes policies and implementation measures regarding the assessment and mitigation of traffic impacts of new development. As defined in the General Plan, "The County shall maintain LOS C or better for all County roadways and intersections, except, within the sphere of influence of a city that has adopted a lower level of service standard, the City standard shall apply. The County may adopt either a higher or lower level of service standard for roadways and intersections within urban areas such as Community Plan areas, but in no case shall the adopted LOS fall below LOS D."
- Stanislaus County Hazardous Waste Management Plan contains various policies regarding the transport of hazardous waste to ensure safe and effective management and transport of hazardous waste within the county.
- The City of Ceres General Plan Circulation Element presents the goals, objectives, policies and actions to guide the development of the City's transportation system. Among other policies, the City strives to maintain at least a LOS C on secondary collectors and local streets and at least a LOS D on primary collectors, arterials, expressways, and freeways.

5.12.8.4 Compliance with Laws, Ordinances, Regulations, and Standards

Table 5.12-14 summarizes all applicable federal, state and local LORS and administering agencies, and describes how the A2PP will comply with all LORS pertaining to traffic and transportation impacts.

TABLE 5.12-14
Laws, Ordinances, Regulations, and Standards for Traffic and Transportation

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
49 CFR, Section 171–177 and 350-399	Requires proper handling and storage of hazardous materials during transportation.	U.S. Department of Transportation and Caltrans	Project and transportation will comply with all standards for the transportation of hazardous materials. (Sections 5.12.2.3 and 5.12.5.1)
14 CFR, Section 77.13(2)(i), 77.17, 77.21, 77.23, and 77.25	Requires an applicant to notify the FAA of the construction or alterations of structures within certain distance from an airport, in order to avoid air navigation conflicts.	U.S. Department of Transportation and Federal Aviation Administration	The Modesto City-County Airport is located approximately 20,000 feet from the project site. A Notice Criteria Tool application has been prepared. (Section 5.12.8.1)
CVC §§13369, 15275, and 15278	Addresses the licensing of drivers and classifications of licenses required for the operation of particular types of vehicles. In addition, certificates permitting the operation of vehicles transporting hazardous materials are required.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.5.2)
CVC §§25160 et seq.	Addresses the safe transport of hazardous materials.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.5.2)
CVC §§2500-2505	Authorizes the issuance of licenses by the Commissioner of the CHP for the transportation of hazardous materials including explosives.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.5.2)
CVC §31300 et seq.	Requires transporters to meet proper storage and handling standards for transporting hazardous materials on public roads.	Caltrans	Transporters will comply with standards for transportation of hazardous materials on state highways during construction and operations. The project will conform to CVC §31303 by requiring that shippers of hazardous materials use the shortest route possible to and from the site. (Section 5.12.5.2)
CVC §§31600–31620	Regulates the transportation of explosive materials.	Caltrans	The project will conform to CVC 31600–31620. (Section 5.12.5.2)
CVC §§32000–32053	Regulates the licensing of carriers of hazardous materials and includes noticing requirements.	Caltrans	The project will conform to CVC 32000–32053. (Section 5.12.5.2)
CVC §§32100–32109 and 32105	Establishes special requirements for the transportation of substances presenting inhalation hazards and poisonous gases. Requires that shippers of inhalation or explosive materials contact the CHP and apply for a Hazardous Material Transportation License.	Caltrans	The project will conform by requiring shippers of inhalation or explosive materials to contact the CHP and obtain a Hazardous Materials Transportation License. (Section 5.12.2.3 and Section 5.12.5.2)

TABLE 5.12-14
Laws, Ordinances, Regulations, and Standards for Traffic and Transportation

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
CVC §§34000–34121	Establishes special requirements for the transportation of flammable and combustible liquids over public roads and highways.	Caltrans	The project will conform to CVC §§34000–34121. (Section 5.12.2.3 and Section 5.12.5.2)
CVC §§34500, 34501, 34501.2, 34501.3, 34501.4, 34501.10, 34505.5-7, 34506, 34507.5 and 34510-11	Regulates the safe operation of vehicles, including those used to transport hazardous materials.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.2.3 and Section 5.12.5.2)
S&HC §§660, 670, 1450, 1460 et seq., 1470, and 1480	Regulates right-of-way encroachment and the granting of permits for encroachments on state and county roads.	Caltrans	The project will conform to these sections in the S&HC. (Section 5.12.5.2)
S&HC §§117, 660–711	Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery.	Caltrans	Encroachment permits will be obtained by transporters, as required. (Section 5.12.6)
CVC §35780; S&HC §660–711	Requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.	Caltrans	Transportation permits will be obtained by transporters for all overloads, as required. (Section 5.12.6)
CVC §§35550–35559	Regulates weight and load limitations.	Caltrans	The project will conform to these sections in the CVC. (Section 5.12.6)
California State Planning Law, Government Code Section 65302	Project must conform to the General Plan.	Caltrans	Project will comply with the City of Ceres and Stanislaus County General Plans. (Section 5.12.5.3)
Transportation Element of the City of Ceres and Stanislaus County General Plan	Specifies long-term planning goals and procedures for transportation infrastructure system quality in the City of Ceres.	City of Ceres; Stanislaus County	Project will comply with goals and policies for City and County transportation and traffic systems. (Section 5.12.5.3)

5.12.9 References

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- City of Ceres and Wood Rodgers. 2008. West Ceres Specific Plan Opportunities and Constraints Analysis Report. May. Accessed at <http://www.ci.ceres.ca.us/40634.html#WestCeresSpecificPlan>
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- State of California Business, Transportation, and Housing Agency. 2006. California Manual on Uniform Traffic Control Devices. Accessed at http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm
- American Public Works Association. 2006. Work Area Traffic Control Handbook.