5.12 Traffic and Transportation

5.12.1 Introduction

On August 16, 2001, GWF Energy LLC filed an Application for Certification (AFC) with the California Energy Commission (CEC) for the Tracy Peaker Project (TPP). The CEC found the AFC data adequate on October 17, 2001. The CEC released a staff assessment on December 28, 2001, and a supplemental staff assessment on February 1, 2002. The CEC published its Presiding Member's Proposed Decision on May 31, 2002, with the project receiving its Final Decision on July 17, 2002. These documents are incorporated by reference into this AFC and are presented in electronic form in Appendix 1A.

This section assesses the traffic and transportation system impacts associated with the GWF Tracy Combined Cycle Power Plant (GWF Tracy) construction and operation. This section is organized as follows. Section 5.12.2 describes applicable laws, ordinances, regulations, and standards (LORS). Section 5.12.3 describes the local and regional traffic and transportation routes surrounding the project site. Section 5.12.4 evaluates the project's impact on local traffic volumes and patterns. Section 5.12.5 evaluates potential cumulative effects to traffic and transportation due to other simultaneous projects. Section 5.12.6 describes mitigation measures for the project. Section 5.12.7 lists the agency contacts used to address traffic and transportation issues, and Section 5.12.8 discusses traffic and transportation permits required. Section 5.12.9 lists the references used to prepare this section.

5.12.2 Laws, Ordinances, Regulations, and Standards

Table 5.12-1 lists the federal, state, and local LORS that apply to traffic and transportation. Additional information concerning these LORS is presented below.

TABLE 5.12-1
Laws, Ordinances, Regulations, and Standards for Traffic and Transportation

LORS	Requirements/ Applicability	Administering Agency	AFC Section Explaining Conformance
Federal			
49 Code of Federal Regulations (CFR) 171-177	Govern the transportation of hazardous materials, including the marking of the transportation vehicles.	U.S. Department of Transportation (DOT) and California Department of Transportation (Caltrans)	5.12.2.1
49 CFR 350-399 and Appendices A-G	Address safety considerations for the transport of goods, materials, and substances over public highways.	DOT and Caltrans	5.12.2.1 and 5.12.5
49 CFR 397.9	Establishes criteria and regulations for the safe transportation of hazardous materials.	DOT	5.12.2.1

TABLE 5.12-1
Laws, Ordinances, Regulations, and Standards for Traffic and Transportation

LORS	Requirements/ Applicability	Administering Agency	AFC Section Explaining Conformance
14 CFR 77.13(2)(i)	Requires applicants to notify Federal Aviation Administration (FAA) of construction, within 20,000 feet of an airport, of greater height than an imaginary surface as defined by the FAA.	DOT and FAA	5.12.2.1
14 CFR 77.17	Requires applicant for construction within 20,000 feet of an airport to submit Form 7460-1 to the FAA.	DOT and FAA	5.12.2.1
14 CFR 77.21, 77.23, and 77.25	Outline the obstruction standards that the FAA uses to determine whether an air navigation conflict exists for structures within 3 nautical miles of an airport.	DOT and FAA	5.12.2.1
State			
California Vehicle Code (CVC), Sections 13369, 15275, and 15278	Address the licensing of drivers and classifications of licenses required to operate particular types of vehicles, including certificates permitting the operation of vehicles transporting hazardous materials.	Caltrans	5.12.2.2
CVC, Sections 25160 et seq.	Address the safe transport of hazardous materials.	Caltrans	5.12.2.2
CVC, Sections 2500-2505	Authorize the issuance of licenses by the Commissioner of the California Highway Patrol (CHP) to transport hazardous materials, including explosives.	Caltrans	5.12.2.2
CVC, Section 31303	Requires transporters of hazardous materials to use the shortest route possible.	Caltrans	5.12.2.2 and 5.12.4.3.2
CVC, Sections 31600-31620	Regulate the transportation of explosive materials.	Caltrans	5.12.2.2
CVC, Sections 32100-32109	Requires transporters of inhalation hazardous materials or explosive materials to obtain a Hazardous Materials Transportation License.	Caltrans	5.12.2.2 and 5.12.4.3.2
CVC, Sections 34000-34121	Establish special requirements for transporting flammable and combustible liquids over public roads and highways.	Caltrans	5.12.2.2
CVC, Sections 34500, 34501, 34505, 34506, 34507, and 34510	Regulate the safe operation of vehicles, including those used to transport hazardous materials.	Caltrans	5.12.2.2
CVC, Section 35100 et seq.	Specifies limits for vehicle width.	Caltrans	5.12.2.2

TABLE 5.12-1
Laws, Ordinances, Regulations, and Standards for Traffic and Transportation

LORS	Requirements/ Applicability	Administering Agency	AFC Section Explaining Conformance
CVC, Section 35250 et seq.	Specifies limits for vehicle height.	Caltrans	5.12.2.2
CVC, Section 35400 et seq.	Specifies limits for vehicle length.	Caltrans	5.12.2.2
CVC, Section 35780	Requires a Single-Trip Transportation Permit to transport oversized or excessive loads over state highways.	Caltrans	5.12.2.2
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, including a circulation element.	Caltrans	5.12.2.2
California Street and Highway Code §§117, 660-711	Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery.	Caltrans	5.12.2.2
California Street and Highway Code §§660-711	Requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.	Caltrans	5.12.2.2
Local			
San Joaquin County Regional Transportation Plan	Sets forth 8 goals and 36 objectives to improve transportation in San Joaquin County.	San Joaquin Council of Governments	5.12.2.3
San Joaquin County General Plan Transportation Element	Specifies long-term planning goals and procedures for transportation infrastructure system quality in San Joaquin County.	San Joaquin County	5.12.2.3
San Joaquin County Hazardous Waste Management Plan	Specifies goals for the safe and effective transfer of hazardous wastes through the county.	San Joaquin County	5.12.2.3

5.12.2.1 Federal LORS

- Title 49 CFR Sections 171-177 govern the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles. The project will conform to this law by requiring that shippers of hazardous materials use the required markings on their transportation vehicles.
- Title 49 CFR Sections 350 through 399, and Appendices A through G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways. The project will comply with all standards for the transportation of goods, materials, and substances over public highways.

- Title 49 CFR Section 397.9, the Hazardous Materials Transportation Act of 1974, directs the United States Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials. The project will comply with all standards for the transportation of hazardous materials.
- Title 14 CFR Section 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. Tracy Municipal Airport is about 10,600 feet from the project site and has one runway of approximately 4,000 feet. For such case, the following criterion applies:
  - "Any construction or alteration of greater height than imaginary surface extending outward and upward at one of the following slopes: (i) 100 to 1 for horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport specified in this section with at least one runway more than 3,200 feet in actual length, excluding heliports."
  - At a distance of 10,600 feet, the maximum allowable height for which no notice needs to be filed is about 106 feet. The proposed combustion turbine exhaust is expected to exceed a maximum height of 140 feet; therefore, the Applicant must prepare the requisite Notice of Proposed Construction or Alteration.
- Title 14 CFR Section 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.
- Title 14 CFR Sections 77.21, 77.23, and 77.25 outline the criteria used by the FAA to determine whether an obstruction will create an air navigation conflict. The project will comply with this requirement by determining if any of the structures will create an air navigation conflict.

5.12.2.2 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. The project will conform to this law by requiring shippers to obtain required licenses and certificates.
- CVC Sections 25160 et seq. addresses the safe transport of hazardous materials. The project will comply with safety requirements.
- CVC Sections 2500 through 2505 authorize the issuance of licenses by the Commissioner of the CHP to transport hazardous materials, including explosives. The project will comply with licensing requirements.
- CVC Section 31303 requires that hazardous materials be transported on the state or interstate highway that offers the shortest overall transit time possible. The project will conform to this law by requiring shippers of hazardous materials to use the shortest route feasible to and from the project site.

- CVC Sections 31600 through 31620 regulate the transportation of explosive materials. The project will comply with these regulations.
- CVC Sections 32100 through 32109 establish special requirements for the transportation of substances presenting inhalation hazards and poisonous gases. CVC Section 32105 requires that shippers of inhalation hazardous or explosive materials contact the CHP and apply for a Hazardous Material Transportation License. The project will conform to this law by requiring shippers of these types of material to obtain the Hazardous Material Transportation License.
- CVC Sections 34000 through 34121 establish special requirements for transporting flammable and combustible liquids over public roads and highways. The project will comply with these requirements.
- 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. The project will comply with these regulations.
- CVC Sections 35100 through 35559 specify limits for vehicle width, height, length, and gross weight. 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: (1) the load limit established by the tire manufacturer, or (2) 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.
- CVC Section 35780 requires a Single-Trip Transportation Permit to transport oversized or excessive loads over state highways. The permit can be acquired through Caltrans. This law is enforced by the CHP. The project will conform to this law by requiring that shippers obtain a Single-Trip Transportation Permit for oversized loads for each vehicle.
- 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. The scope of a circulation element consists of the "general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

- California Street and Highways Code (S&HC), Sections 660, 670, 1450, 1460 et seq., 1470, and 1480, regulates right-of-way encroachment and granting of permits for encroachments on state and county roads.
- S&HC, Sections 117 and 660 through 711, and CVC, Sections 35780 et seq., require permits to transport oversized loads on county roads. California S&HC Sections 117 and 660 through 711 requires 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.

5.12.2.3 Local LORS

Local LORS include the following:

- The San Joaquin County Regional Transportation Plan (RTP), administered by San Joaquin Council of Governments (SJCOG), establishes regional transportation goals, policies, objectives and actions for various modes of transportation. In the 2007 RTP, eight goals have been identified. These are:
  - Improve safety and security
  - Improve system maintenance and operations
  - Promote interagency coordination, public participation and citizen involvement
  - Improve quality of life
  - Improve goods movement
  - Improve mobility and accessibility
  - Enhance the environment
  - Maximize cost effectiveness
- The County of San Joaquin 2010 General Plan Transportation Element establishes policies and implementation measures regarding the assessment and mitigation of traffic impacts of new development. As defined in the General Plan, "all county roadways shall operate at a Level of Service (LOS) C or better (except in a City sphere of influence where the City has adopted LOS D[1]); intersections shall operate at an overall LOS D or better on minor arterials and roadways of higher classification; and LOS C on all other roads; all freeways and state highways shall operate at a LOS D."
- San Joaquin County Hazardous Waste Management Plan establishes various policies regarding the transport of hazardous waste to ensure safe and effective management and transport of hazardous waste within the county.

5.12.3 Affected Environment

The project will be located at the existing TPP site. The project site is located in the southwest quarter of Section 36, Township 2 South, Range 4 East Mount Diablo Base Meridian on Assessor's Parcel Number 799-000-45, as shown on Figure 5.6-2A. The property is bounded by the Delta-Mendota Canal to the southwest, agricultural property to the south and east, and the Union Pacific Railroad to the north. Immediately north of the railroad are

[1] The City of Tracy 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 for LOC C on all streets and intersections, except within 1/4 mile of any freeway, where LOS D is acceptable.

the Owens-Brockway glass container manufacturing plant and the Nutting-Rice warehouse. The Tracy Biomass power plant is approximately 0.6 mile to the northwest. A construction parking area will be located on a piece of property, inside a construction fence, located on the southwest corner of the overall 40-acre property. Construction laydown areas will be located on the west side of the property on an area north of the existing gas line easement, which bisects the property from east to west.

The power plant area would be accessed via an existing 3,300-foot, asphalt-paved service road southward from West Schulte Road to the site. Figures 1.1-1 and 1.1-2 present a site location map and an aerial photograph of the project site.

5.12.3.1 Existing Regional and Local Transportation Facilities

The surrounding regional and local roadway networks are shown in Figures 5.12-1 and 5.12-2, respectively. The location of the project site is shown on both figures. Regional access to the project site is provided from the north and south via Interstate 5 (I-5), which is east of the project site. West of the site, Interstate 580 (I-580) provides regional access to the project site from Alameda County. Interstate 205 (I-205) is an east-west freeway north of the project site. I-205 connects to I-5 northeast of the project site, and to I-580 northwest of the project site. Local access to the project site is mainly provided by West Schulte Road.

5.12.3.1.1 Interstate 5

I-5, east of the project site, is a major north-south freeway that extends from the Mexican border to the Canadian border, through California, Oregon, and Washington. I-5 is a major north-south regional transportation route through San Joaquin County. It is a four-lane freeway immediately south of its interchange with I-580 and six lanes wide immediately north of its interchange with I-205. According to traffic counts published by Caltrans in 2006, I-5 carries approximately 23,200 daily vehicles near the junction with Route 33. Truck traffic accounts for approximately 34 percent of all trips on I-5 in the vicinity of Route 33.

5.12.3.1.2 Interstate 205

I-205, north of the project site, is bounded by I-580 in Alameda County to the west and by I-5 in San Joaquin County to the east. Within San Joaquin County, I-205 is a four-lane freeway, and in Alameda County, between I-580 and the San Joaquin County border, I-205 is five lanes (three lanes westbound to I-580). According to traffic counts published by Caltrans in 2006, I-205 carries approximately 112,000 daily vehicles near the junction with I-580. Truck traffic accounts for approximately 12 percent of all trips on I-205 in the vicinity of I-580.

5.12.3.1.3 Interstate 580

I-580, west of the project site, is a predominantly east-west freeway. I-580 runs diagonally in a northwest-southeast direction south of the project site in San Joaquin County. I-580 is a four-lane freeway extending from I-5 in San Joaquin County (north of the Stanislaus County border) to Alameda County, where it connects with I-205 west of the San Joaquin County border. At the junction with I-205, I-580 widens to an eight-lane freeway and shifts to an east-west direction continuing through Alameda County. According to traffic counts published by Caltrans in 2006, I-580 carries approximately 152,000 daily vehicles near the junction with I-205. Truck traffic accounts for approximately 13 percent of all trips on I-580 in the vicinity of I-205.

5.12.3.1.4 West Schulte Road

West Schulte Road is an east-west undivided arterial with two to four lanes and bicycle lanes and sidewalks on some sections. The roadway has two lanes near the site entrance and four lanes west of MacArthur Drive. The section that extends from Central to Corral Hollow Road has on-street bicycle lanes. West Schulte Road is classified as a major arterial in the City of Tracy General Plan.

5.12.3.1.5 Access Routes

The following are the most likely access routes for construction traffic:

- From the San Francisco Bay Area, vehicles would travel eastbound on I-580 through Alameda County. At the I-580/I-205 interchange, traffic would either use I-205 and the Mountain House Parkway interchange to West Schulte Road or remain on I-580 and exit at the Patterson Pass Road interchange and turn onto Schulte Road.
- From the Stockton and Sacramento areas, traffic would travel on I-5 then on I-205, then use the Mountain House Parkway interchange to turn onto West Schulte Road.
- From Modesto/Stanislaus County and Merced County, traffic would travel on I-5 then merge onto I-580, and exit at the Corral Hollow interchange to turn into Valpico Road, Lammers Road and West Schulte Road.

5.12.3.2 Existing Traffic Conditions and Level of Service Analysis

Traffic analysis was conducted according to the 2000 *Highway Capacity Manual* (HCM) published by the Transportation Research Board (2000), and consistent with standard practices for California Environmental Quality Act (CEQA) analysis.

5.12.3.3 Existing Roadway Conditions

To evaluate the operational characteristics of a roadway segment, a simple grading system is used to compare the traffic volume carried by a road with the capacity of that road. The ratio of the volume to the capacity (V/C) is an indicator of traffic conditions, speeds, and driver maneuverability.

Roadway traffic flow characteristics for different LOS are reported in Table 5.12-2. Caltrans considers LOS D or better on state highway segments to be acceptable for planning purposes. For local county-maintained roadways in the project vicinity, San Joaquin County uses LOS C as a threshold.

This analysis focuses on the freeway segments in the vicinity of the project site (I-205 and I-580) during a typical weekday. Volumes along state freeways obtained from Caltrans (Caltrans, 2006), and adjusted by two percent per year to reflect 2008 conditions. The characteristics of the segments studied are presented in Table 5.12-3.

The morning peak hour has been identified as starting at 6:00 AM and ending at 7:00 AM; the evening peak hour has been identified as starting at 5:00 PM and ending at 6:00 PM. Because directional peak hour volumes were not available, Annual Average Daily Traffic on freeway segments was adjusted using Caltrans' Freeway Performance Measurement System (PeMS) to assess the proportion of the daily traffic that would be circulating during the peak hours. Using PeMS mainline volume counts, the ratio of the peak traffic to daily traffic is

compiled in Table 5.12-4. These volumes were then divided by 2 to obtain the one-way, peak hour demand volumes.

TABLE 5.12-2
Level of Service Criteria for Roadways

LOS	V/C	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

Notes:

The San Joaquin County 2010 General Plan, adopted July 1992, indicates a different grading system. However, based on the San Joaquin County Traffic Impact Study Guidelines published in June 2002, 'the methods contained in the "Transportation Research Board, 1997 Highway Capacity Manual" (or latest edition) shall be used to determine the LOS'.

V/C = traffic volume (demand) / roadway capacity ratio

Source: Transportation Research Board. 2000. Highway Capacity Manual.

For purposes of this analysis, it was assumed that the peak hour capacity is 2,000 vehicles per hour per lane on freeway segments. Truck percentages were provided by Caltrans (2006). Table 5.12-4 summarizes the existing (2008) peak hour traffic volumes and V/C ratios for the area's roadway segments. As shown in Table 5.12-4, all roadway segments currently operate at an acceptable level, with the exception of segments along I-205, which operate at LOS F in the westbound direction during the morning peak and in the eastbound direction during the evening peak.

5.12.3.3.1 Existing Intersection Conditions

The HCM 2000 methodology has been used to determine the intersection LOS at intersections within the study area. The resulting delay is expressed using 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 5.12-5. San Joaquin County uses LOS D as a threshold at intersections on minor arterials and roadways of higher classification; otherwise, LOS C is used as a threshold.

The study area analyzed in this report includes the following intersections:

- Lammers Road and West Schulte Road
- Corral Hollow Road and I-580 westbound ramps
- Corral Hollow Road and I-580 eastbound ramps
- Mountain House Parkway/Patterson Pass Road and I-580 westbound ramps
- Mountain House Parkway/Patterson Pass Road and I-580 eastbound ramps
- Mountain House Parkway and I-205 westbound ramps
- Mountain House Parkway and I-205 eastbound ramps

TABLE 5.12-3
Roadway Segment Characteristics

Roadway Segment #	Roadway Name	Segment Begins At	Segment Ends At	Median	Roadway Classification	Number of Lanes	Peak Hour Capacity	Truck Percentages	Daily Demand
1	I-580 eastbound	San Joaquin/Alameda County line	Patterson Pass Road	Divided	Freeway	2	4,000	16.1%	23,572
2	I-580 eastbound	Corral Hollow Road	Junction Route 132	Divided	Freeway	2	4,000	12.5%	22,366
3	I-205 eastbound	San Joaquin/Alameda County line	Mountain House Parkway	Divided	Freeway	2	4,000	10.3%	59,001
4	I-205 eastbound	Mountain House Parkway	Old Route 50	Divided	Freeway	2	4,000	10.3%	59,264
5	I-580 westbound	Patterson Pass Road	San Joaquin/Alameda County line	Divided	Freeway	2	4,000	16.1%	23,572
6	I-580 westbound	Junction Route 132	Corral Hollow Road	Divided	Freeway	2	4,000	12.5%	22,366
7	I-205 westbound	Mountain House Parkway	San Joaquin/Alameda County line	Divided	Freeway	2	4,000	10.3%	59,001
8	I-205 westbound	Old Route 50	Mountain House Parkway	Divided	Freeway	2	4,000	10.3%	59,264

TABLE 5.12-4
Existing Roadway Segment Peak Hour LOS Analysis Summary

Roadway Segment #	AM Peak Hour Adjustment Factor	AM Peak Hour Demand	AM Peak V/C	AM Peak LOS	PM Peak Hour Adjustment Factor	PM Peak Hour Demand	PM Peak V/C	PM Peak LOS
1	3%	707	0.18	A	8%	1,886	0.47	A
2	3%	671	0.17	A	8%	1,789	0.45	A
3	3%	1,770	0.44	A	8%	4,720	1.18	**F**
4	3%	1,778	0.44	A	8%	4,741	1.19	**F**
5	7%	1,650	0.41	A	4%	943	0.24	A
6	7%	1,566	0.39	A	4%	895	0.22	A
7	7%	4,130	1.03	**F**	4%	2,360	0.59	A
8	7%	4,148	1.04	**F**	4%	2,371	0.59	A

BOLD = Segment operates at an unacceptable level of service.

TABLE 5.12-5
Intersection LOS 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, Chapters 16 and 17

All existing PM peak turning movements were taken from the City of Tracy General Plan Draft Environmental Impact Report (City of Tracy, 2005a). No counts were available for the AM peak period for the Lammers Road/West Schulte Road intersection. Therefore, PM peak hour turning movement counts were reversed to obtain the AM peak hour turning movements. Similarly, no traffic count data were available at the I-205 ramp terminals; therefore, the same patterns observed at the I-580 ramp terminals and Patterson Pass Road were applied to I-205 ramp counts (Caltrans, 2005).

With the same growth factor applied as previously, existing morning and evening turning movements used are illustrated in Figures 5.12-3 and 5.12-4. The results of the existing LOS analysis for the study area intersections are summarized in Table 5.12-6. All study area intersections operate at an acceptable LOS (LOS C or better), with the exception of the West

Schulte Road/Lammers Road intersection (LOS F during both peak periods), the I-580 southbound ramps/Patterson Pass Road intersection (LOS E during the PM peak) and the I-205 eastbound ramps/ Mountain House Parkway (LOS E during the PM peak).

TABLE 5.12-6
Existing Intersection LOS Analysis Summary

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
I-580 northbound ramps/Patterson Pass Road-Mountain House Parkway[a]	13	B	13	B
I-580 southbound ramps/Patterson Pass Road-Mountain House Parkway[b]	15	B	49	**E**
West Schulte Road/Lammers Road[c]	51	**F**	51	**F**
I-205 westbound ramps/Mountain House Parkway[d]	14	B	13	B
I-205 eastbound ramps/Mountain House Parkway[e]	15	B	40	**E**
I-580 westbound ramps/Corral Hollow Road[f]	13	B	11	B
I-580 eastbound ramps/Corral Hollow Road[g]	13	B	20	C

BOLD = Intersection operates at an unacceptable level of service.
[a]Unsignalized intersection; delay and LOS reported for the northbound shared left and through movements only.
[b]Unsignalized intersection; delay and LOS reported for the southbound shared left and through movements only.
[c]Unsignalized intersection, all way stop-controlled.
[d]Unsignalized intersection; delay and LOS reported for the westbound shared left and through movements only.
[e]Unsignalized intersection; delay and LOS reported for the eastbound left-turn movement only.
[f]Unsignalized intersection; delay and LOS reported for the westbound left-turn movement only.
[g]Unsignalized intersection; delay and LOS reported for the eastbound shared left and through movements only.

5.12.3.4 Truck Routes—Weight and Load Limitations

In addition to CVC Sections 35550-35559, the City of Tracy Municipal Code Chapters 3.08.300 and 3.08.310 establish truck routes and load limitations for city roads. The use of all streets by commercial vehicles within the city is prohibited for vehicles exceeding a maximum gross vehicle weight rating of five tons, except on designated truck routes. As defined in the Municipal Code, “through truck traffic route” means a route that allows any vehicle entering the city of Tracy from any point outside the city and destined for any other point located outside the city to proceed entirely through without unloading or loading freight within the city of Tracy. “Local truck traffic route” means a route that may not be used by any truck to move from any point outside of the city of Tracy continuously to any other point located outside of the city of Tracy without unloading or loading within the city of Tracy. All local truck traffic trips must use the shortest local truck traffic route between connecting or through truck traffic routes and the originating or destination address within the city of Tracy. “Temporary truck traffic route” means a route that shall cease to be considered as a truck route when future truck traffic routes are constructed and open to traffic. “Future truck traffic route” means intended designations for streets and roads that are not yet constructed and open to traffic. Future truck traffic routes will be in effect after such streets and roads are constructed and open to traffic.

- Through Truck Traffic Routes:
  (1) Arbor Road (MacArthur Drive to Holly Drive)
  (2) Byron Road (west City limits to Lammers Road)
  (3) Corral Hollow Road (Larch Road to Grant Line Road)
  (4) Corral Hollow Road (Linne Road to I-580)
  (5) Chrisman Road (North of Valpico Road portion of Chrisman Road within City limits)
  (6) Eleventh Street (Lammers Road to the west City limits)
  (7) Eleventh Street (MacArthur Drive to east City limits)
  (8) Grant Line Road (West City limits to Corral Hollow Road)
  (9) Grant Line Road (MacArthur Drive to East City limits)
  (10) Holly Drive (Arbor Road to Larch Road)
  (11) Lammers Road (Byron Road to Eleventh Street)
  (12) Larch Road (Holly Drive to Corral Hollow Road)
  (13) Linne Road (East City limits to West City limits)
  (14) MacArthur Drive (Arbor Road to Eleventh Street)
  (15) Tracy Boulevard (Larch Road to I-205)
  (16) Tracy Boulevard (Linne Road to South City limits)

- Local Truck Traffic Routes:
  (1) Eleventh Street (Lammers Road to Tracy Boulevard)
  (2) Eleventh Street (north leg MacArthur Drive to south leg MacArthur Drive)
  (3) Lammers Road (Eleventh Street to 0.5 mile south of Eleventh Street) City portion
  (4) MacArthur Drive (Eleventh Street to Sixth Street)
  (5) MacArthur Drive (Valpico Road to Mount Diablo Avenue)
  (6) Sixth Street (MacArthur Drive to Central Avenue)
  (7) Tracy Boulevard (Linne Road to Valpico Road)
  (8) Valpico Road (Tracy Boulevard to MacArthur Drive)

- Temporary Truck Traffic Routes:
  (1) MacArthur Drive (Mount Diablo Avenue to Sixth Street). This will be replaced by the MacArthur Drive Extension from Mount Diablo Avenue to Eleventh Street connecting at the overpass.

- Future Truck Traffic Routes:
  (1) MacArthur Drive (Mount Diablo Avenue to Eleventh Street connecting at the overpass). This will replace the temporary truck traffic route from Mount Diablo Avenue to Sixth Street as a local truck traffic route.

As indicated by county staff, San Joaquin County also has its own restrictions on county roads. In 35 mile per hour (mph) zones, the weight limitation is seven tons, and in 25 mph zones, the restriction drops to five tons. No map or list of roads is available.

5.12.3.5 Cumulative Projects

5.12.3.5.1 Future Plans and Projects

Based on the review of the area around the GWF Tracy site, various types of projects where approved in 2007 to be built near the project site. These include:

- The Pastor of St. Bernard's Church at 12100 Valpico Road, approximately 3 miles from the project site. A definitive construction schedule is not available at this time.

- The Gateway Business Park, located just over 1 mile north of the project site, south of I-205 and north of Schulte Road. A definitive construction schedule is not available at this time.
- Winco grocery store, located about 2 miles northeast of the project site, southeast of Lammers Road and Grant Line Road. A definitive construction schedule is not available at this time.
- Mountain House housing project, located 6 miles northwest of the project site; a portion of the project lies north of Byron and east of Mountain Road Parkway. While construction of the houses is almost completed, complete build out is estimated to be 2015 to 2025.

Details on these projects are provided in Section 5.6, Land Use.

5.12.3.5.2 Local Comprehensive Transportation Plans

The 2007 RTP, prepared by San Joaquin County Council of Governments, provides a general description of transportation improvements in the San Joaquin region. Short range plan (2007–2019) action items include the addition of auxiliary lanes between Tracy Boulevard and Mountain House Parkway on I-205, as well as widening I-205 between I-5 and Eleventh Street in Tracy. Long-range plan (2020–2030) action items include the modification of freeway-to-freeway connectors at I-5 and Route 4, Highway 99 and Route 4, Route 120 at I-5, and SR-99.

5.12.3.6 Pedestrian/Bicycle Facilities

The City of Tracy 2005 Bikeways Master Plan (City of Tracy, 2005b) identifies existing and planned facilities throughout the City. The document is consistent with the City's General Plan Open Space Element and Circulation Element. It also supports the recommendations formulated in the 2002 Unincorporated San Joaquin County Bikeway Plan to upgrade Schulte Road to a Class III Bikeway. An existing Class I bike path runs along the California Aqueduct. A future canal trail will run along West Schulte Road near South Lammers Road to I-205.

The July 2002 Unincorporated San Joaquin County Bikeway Plan provides a blueprint for developing a bikeway system that includes both on-street as well as support facilities and programs throughout the unincorporated parts of San Joaquin County.

No existing or planned facilities are located in the vicinity of the project site.

5.12.3.7 Public Transportation

Public transportation available in the area is described in the 2007 San Joaquin Council of Governments' RTP. All cities and unincorporated areas in San Joaquin County are served by a public transit system.

- The San Joaquin Regional Transit District (RTD) operates 161 buses throughout the county, and allows the passengers to transfer to local bus services at hub points.
- The Amtrak "San Joaquin" intercity rail service includes six daily round trips with two trains stopping daily at the Cabral Station and Lodi Station (to/from Sacramento)

and four trains stopping at the Burlington Northern Santa Fe (BNSF) station on San Joaquin Street (to/from the Bay Area).

- The Altamont Commuter Express (ACE) provides easy access to Silicon Valley and the Livermore/Almaden Valley with four trains daily between Stockton and San Jose. Two trains depart from Stockton in the morning and two from San Jose return in the evening. The ACE stops in Lathrop/Manteca, Tracy, Livermore, Pleasanton, Fremont and Santa Clara and ends at the San Jose Diridon Station. The Tracy ACE station is located at Tracy Boulevard and Linne Road.
- The "Tracer" fixed route and paratransit bus service runs all day from 7:00 AM to 7:00 PM. Two buses running in opposite directions allow passengers to board RTD intercity buses at transfer points.

Bus lines operating in the project's vicinity are illustrated in Figure 5.12-2.

5.12.3.8 Rail Traffic

Besides passenger rail service, rail traffic is made up by the BNSF, Western Pacific Railway and Union Pacific Railroad (UPRR) activities. A UPRR line runs along the northern side of the project site. Rail lines near the project are illustrated in Figure 5.12-2.

5.12.3.9 Air Traffic

The project site is approximately 2 miles northwest of the Tracy Municipal Airport (TCY). TCY is owned by the City of Tracy, and serves as an alternative to Stockton Metropolitan Airport (about 20 miles away from the project site) for business-related aviation, and serves agricultural and other general aviation activities. For a 12-month period ending July 17, 2005, there was an average of 164 aircraft operations per day. All airports in the project vicinity are shown on Figure 5.12-1. Buildings and structures on the project site are not expected to pose a hazard to air navigation, due to their size and distance to surrounding airports.

5.12.4 Environmental Analysis

This section assesses the traffic and transportation system impacts associated with the construction and operation of the project. This analysis primarily examines impacts on roadway and intersection LOS expected during construction and operation of the project.

Potential traffic impacts during construction of the project, as well as the project operation after construction, have been considered and analyzed. Significance criteria were developed based on Appendix G of the CEQA Guidelines, which identifies significant impacts to be caused by a project if it results in an increase in traffic that is substantial relative to the existing traffic volumes and the capacity of the surrounding roadway network.

The construction mobilization is scheduled in August 2011, and construction activities are expected to last 22 months, ending in March 2013. During the peak construction phase, in Month 17 (approximately December 2012), the project is expected to require 398 construction workers and 224 truck deliveries; no heavy haul truck deliveries are expected during this phase. Although construction activities will typically occur between

6:00 AM and 6:00 PM, Monday through Saturday, there is also a potential need for a second shift, probably between 3:00 PM and 11:00 PM.

When completed, the operations of the project would require additional staff and would generate, on average, approximately 11 delivery trips per month. To analyze the worst-case scenario, traffic impacts associated with peak construction traffic were analyzed.
A quantitative traffic analysis was not conducted for the long-term operations phase because it would generate a very low volume of trips. Thus, operational traffic will not have a measurable impact on the study area roadways; only the impacts of construction traffic were analyzed.

5.12.4.1 Significance Criteria

Impacts of the proposed project to transportation and circulation will be considered significant if the project would:

- 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
- 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

In any case where additional project traffic causes a change greater than the thresholds discussed previously, a project applicant is responsible for its proportional share of the improvements required to mitigate the site traffic to and acceptable LOS.

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

As discussed above, the analysis of the "with project" traffic scenario was conducted for the peak month construction traffic, where 398 construction workers will be on site during daytime activity.

5.12.4.2.1 Construction Traffic Generation

To determine the construction traffic for the project, the Applicant provided construction data that included the anticipated number of delivery vehicles, haul vehicles, and construction workers. Appropriate construction parking and laydown areas are allocated for construction workers and materials staging, respectively, in the property. Materials and equipment will be delivered by both rail and truck. Rail deliveries will use the existing rail corridor bordering the site to the north and truck deliveries will use the access road to the north of the site.

The peak construction workforce level is expected to last from Month 16 through Month 20 of the construction period, with the peak being Month 17.

Based on the construction data provided, the average and peak month daily construction workers are approximately 171 and 398, respectively. The average and peak daily truck deliveries are approximately 145 and 224, respectively. Month 17 is the critical construction period when the highest total number of daily trips is anticipated. Construction workers will arrive before 6:00 AM and leave the project site after 6:00 PM. Therefore, construction worker traffic travels outside of the peak hours, but to consider the worst-case scenario, will be assumed to arrive and leave during peak hours. It is expected that 20 percent of the workers will carpool, at a rate of two workers per vehicle.

Deliveries will typically occur between 6:00 AM and 6:00 PM. Of the peak daily 224 delivery/haul truck trips anticipated in Month 17, 19 hourly truck trips are assumed to access the site during the AM and PM peak hours. The remaining 186 delivery/haul truck trips are assumed to occur outside of the peak periods (from 8:00 AM to 4:00 PM). For purposes of this analysis, the truck trips were converted to passenger car equivalent (PCE) trips at a ratio of 1.5 passenger cars for each truck, consistent with the HCM 2000 guidelines.

The construction trip estimates are presented in Table 5.12-7.

TABLE 5.12-7
Peak Construction Trip Generation Estimate

		AM Peak Hour			PM Peak Hour		
Trip Type	**ADT**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Delivery/Haul Trucks	448	19	19	38	19	19	38
PCE (1.5)	672	29	29	58	29	29	58
Workers Carpooling	80 x 2	80	0	80	0	80	80
Number of Vehicles	40 x 2	40	0	40	0	40	40
Workers Not Carpooling	318 x 2	318	0	318	0	318	318
Number of Vehicles	318 x 2	318	0	318	0	318	318
Total Construction Traffic in PCE	1,388	387	29	416	29	387	416

ADT = average daily trips

5.12.4.2.2 Construction Traffic Distribution

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

- 50 percent of the construction traffic originates from the San Francisco Bay Area; of these vehicles, half will use the Patterson Pass interchange on I-580 and the other half will use the Mountain House Parkway interchange on I-205.
- 25 percent of the construction traffic originates from the Stockton and Sacramento areas, using the Mountain House Parkway interchange on I-205.
- 25 percent of the construction traffic originates from Modesto/Stanislaus County and Merced County, using the Corral Hollow interchange on I-580.

5.12.4.2.3 Roadway LOS with Construction Traffic

Peak hour traffic generated during the construction period has been added to the existing traffic volumes on each freeway segment. Then, the traffic impacts were assessed based on the 2000 HCM guidelines. The projected traffic volumes and V/C ratios for the study area freeway segments with the addition of construction traffic are summarized in Table 5.12-8. Based on the analysis, the local freeway segments are forecast to operate at an acceptable level when construction traffic is added to existing conditions, with the exception of the following segments during the AM peak:

- Westbound I-205 between Mountain House Parkway and the San Joaquin/Alameda county line
- Westbound I-205 between Old Route 50 and Mountain House Parkway
- and the following segments during the PM peak:
- Eastbound I-205 between San Joaquin/Alameda county line and Mountain House Parkway
- Eastbound I-205 between Mountain House Pkwy and Old Route 50

Note that these segments were already at LOS F before the addition of construction traffic.

5.12.4.3 Intersection LOS with Construction Traffic

The AM and PM peak hour traffic generated during the peak construction period were added to the existing turning movement counts on the analyzed intersection within the study corridor. Then, the traffic impacts were assessed based on the 2000 HCM guidelines. Projected turning movements are illustrated in Figures 5.12-5 and 5.12-6, for the AM peak hour and PM peak hour, respectively. The results of the "with project" AM and PM peak-hour LOS analysis for all study area intersections are summarized in Table 5.12-9.

As shown in the table, all study area intersections will continue to operate at the same LOS as during the existing conditions with the addition of the project's peak construction traffic, except at the I-580 eastbound ramps/Corral Hollow Road intersection, where the LOS is projected to change from C to E during the PM peak period. The I-580 southbound ramps/ Patterson Pass Road and the I-205 eastbound ramps/ Mountain House Parkway intersections are projected to operate at LOS F, but these two intersections were already operating at an unacceptable LOS without the construction traffic.

TABLE 5.12-8
Roadway Segment LOS With Construction Traffic Analysis Summary

					Construction							Construction		
Roadway Segment #	**Existing AM Peak V/C**	**Existing AM Peak LOS**	**Vehicles Added in the AM Peak**	**Percentage of Existing AM Peak Demand**	**AM Peak Hour Demand**	**AM Peak V/C**	**AM Peak LOS**	**Existing PM Peak V/C**	**Existing PM Peak LOS**	**Vehicles Added in the PM Peak**	**Percentage of Existing PM Peak Demand**	**PM Peak Hour Demand**	**PM Peak V/C**	**PM Peak LOS**
1	0.18	A	97	14%	804	0.20	A	0.47	A	7	0%	1,893	0.47	A
2	0.17	A	7	1%	678	0.17	A	0.45	A	97	5%	1,886	0.47	A
3	0.44	A	97	5%	1,867	0.47	A	1.18	**F**	7	0%	4,727	1.18	**F**
4	0.44	A	7	0%	1,785	0.45	A	1.19	**F**	97	2%	4,838	1.21	**F**
5	0.41	A	7	0%	1,657	0.41	A	0.24	A	97	10%	1,040	0.26	A
6	0.39	A	97	6%	1,663	0.42	A	0.22	A	7	1%	902	0.23	A
7	1.03	F	7	0%	4,137	1.03	**F**	0.59	A	97	4%	2,457	0.61	B*
8	1.04	F	97	2%	4,245	1.06	**F**	0.59	A	7	0%	2,378	0.59	A

* = Degradation in the level of service.
BOLD = Segment operates at an unacceptable level of service.

TABLE 5.12-9
Intersection LOS Analysis With Project Construction Traffic

Intersection	Existing Conditions				Construction Conditions			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
I-580 northbound ramps/Patterson Pass Road-Mountain House Parkway[a]	13	B	13	B	15	B	13	B
I-580 southbound ramps/Patterson Pass Road-Mountain House Parkway[b]	15	B	49	**E**	20	C*	52	**F***
Schulte Road/Lammers Road[c]	51	**F**	51	**F**	69	**F**	72	**F**
I-205 westbound ramps/Mountain House Parkway[d]	14	B	13	B	19	C*	15	C
I-205 eastbound ramps/Mountain House Parkway[e]	15	B	40	**E**	15	C*	87	**F***
I-580 westbound ramps/Corral Hollow Road[f]	13	B	11	B	12	B	11	B
I-580 eastbound ramps/Corral Hollow Road[g]	13	B	20	C	13	B	44	**E***

* = Degradation in the level of service.
BOLD = Intersection operates at an unacceptable level of service.
[a]Unsignalized intersection; delay and LOS reported for the northbound shared left and through movements only.
[b]Unsignalized intersection; delay and LOS reported for the southbound shared left and through movements only.
[c]Unsignalized intersection, all way stop-controlled.
[d]Unsignalized intersection; delay and LOS reported for the westbound shared left and through movements only.
[e]Unsignalized intersection; delay and LOS reported for the eastbound left-turn movement only.
[f]Unsignalized intersection; delay and LOS reported for the westbound left-turn movement only.
[g]Unsignalized intersection; delay and LOS reported for the eastbound shared left and through movements only.

5.12.4.4 Transmission Line Construction Impacts

The System Impact Study (electrical interconnection study) shows that interconnecting GWF Tracy into the PG&E system will require the reconductoring of several segments of the transmission line. The exact number of work crews needed is unknown at this time, but expected to be approximately four workers per crew. The duration of the work is expected to be one to two weeks per site. The first segment is adjacent to the project site, and crews working there will park with the other construction workers on the main site. The two other segments are located near the I-5/I-205 interchange, northeast of the main site, as illustrated in Figure 5.6-1A.

Intersections and roadway segments along the transmission line routes may be affected during construction. However, traffic impacts at intersections will be site-specific and temporary in duration. Only relatively short (under 1,000-foot) sections are typically under construction at any one time during transmission line projects. Also, the affected areas shift as construction proceeds. Where portions of the transmission lines are constructed along

roads, a traffic control plan will be need to ensure that both directions of travel must be maintained along the affected roadways. Since the transmission line construction typically requires a cross section of 10 to 15 feet to be closed, there is a potential for traffic impacts. Therefore, it will be necessary for the traffic control plan to address ways to minimize traffic impacts during construction of these segments.

To mitigate the potential impacts, the traffic control plan must be prepared in accordance with Caltrans Manual on Uniform Traffic Control Devices and the 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.

5.12.4.5 Transport of Hazardous Materials

Any hazardous materials generated during the construction phase would be transported as hazardous materials or hazardous waste. Transport route arrangements would be required with Caltrans officials for permitting and escort, as applicable. Generally, only small quantities of hazardous materials will be used during the construction period. They may include gasoline, diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paint, and paint thinner. Because of the small quantities of hazardous materials involved, shipments will likely be consolidated. Multiple truck deliveries of hazardous materials during construction are unlikely. During construction, a minimal number of truck trips per month will be required to haul waste for disposal. Because the transport of hazardous wastes will be conducted in accordance with the relevant transportation regulations, no significant impact is expected.

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 California Highway Patrol (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's 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.

Standards for the transport of hazardous materials are contained in CFR Title 49 and enforced by DOT. 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 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 CHP and Caltrans. Transport of hazardous materials to and from the project site will comply with all applicable requirements.

In addition, the federal government prescribes regulations for transporting hazardous materials. These regulations are described in the CFR, Title 49, Section 171. These laws and ordinances place requirements on various aspects of hazardous waste hauling, from materials handling to vehicle signs, to ensure public safety. Transporting and handling of chemicals and wastes are discussed in Section 5.5, Hazardous Materials Handling.

The route approved by Caltrans for hazardous materials delivery to the TPP is from I-580 to Patterson Pass Road and West Schulte Road, or I-205 to Mountain House Parkway to Schulte Road.

5.12.4.6 Public Safety

Construction-related traffic is not expected to result in safety impacts to the general public because it will not be routed through residential areas. An anticipated increase in traffic during project construction and operation will be truck trips, including delivery of hazardous materials and removal of wastes. As stated in Section 5.5 and Section 5.12.4.5, 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 at railroad crossings.

One road feature with the potential for resulting in a safety hazard is an at-grade railroad crossing. An at-grade crossing is located north of the project site entrance. However, it is protected and does not represent a danger to the public or vehicles.

5.12.5 Cumulative Effects

A cumulative impact refers to a proposed project's unmitigated 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 (Pub. Resources Code § 21083; Cal. Code Regs., tit. 14, §§ 15064(h), 15065(c), 15130, and 15355). Cumulative traffic impacts may occur when more than one project has an overlapping construction schedule that generates excessive construction-related traffic.

Based on the information available at this time, no approved project in the vicinity of the project site has a definite construction schedule; therefore, cumulative effects were not assessed.

5.12.6 Mitigation Measures

5.12.6.1 Construction Impacts

Construction-related traffic associated with the project is considered to be minimal because the trips generated during this phase will not adversely affect surrounding roadway segments level; only one intersection went from operating at an acceptable to an unacceptable LOS with the addition of the construction traffic. At the I-580 eastbound ramps/Corral Hollow Road intersection, the LOS is expected to change from C to E during the PM peak period for the eastbound left-turn movement only. The LOS was not assessed for the entire intersection, because this is a stop-controlled intersection (for the off-ramp only), and overall intersection delays are not meaningful for one- or two-way stop controlled intersections. Therefore, this change in delay (for one movement only) was not judged to be significant.

Consequently, 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
- Exceed, either individually or cumulatively, an 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
- 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. The implementation of a proper safety plan will address the hazards due to the crossing of the onsite rail line.

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

5.12.6.2 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 11 monthly deliveries scheduled represent less than one percent of the daily demand on surrounding streets). Consequently, no operations-related mitigation measures are required.

5.12.7 Agencies and Agency Contacts

Table 5.12-10 lists the agency contacts related to traffic and transportation.

TABLE 5.12-10
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	San Joaquin County	San Joaquin County Public Works 1810 East Hazelton Avenue Stockton, CA 95205 Scott Cooper (209) 468-3058

TABLE 5.12-10
Agency Contacts for Traffic and Transportation

Issue	Agency	Contact
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.

5.12.8 Permits and Permit Schedule

Table 5.12-11 presents the permits and permit schedule for the project. 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 S&HC, and Sections 1411.1 to 1411.6 of the California Code of Regulations. Affected vehicles will be required to obtain transportation permits from Caltrans, San Joaquin County, and the City of Tracy.

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 project will be conducted in accordance with CVC Section 31303.

TABLE 5.12-11
Permits and Permit Schedule for Traffic and Transportation

Permit	Contact 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
Overweight Transportation Permit	San Joaquin County Department of Public Works Scott Cooper (209) 468-3058	Usually two-day processing time for either a single trip permit or an annual (blanket) permit.

5.12.9 References

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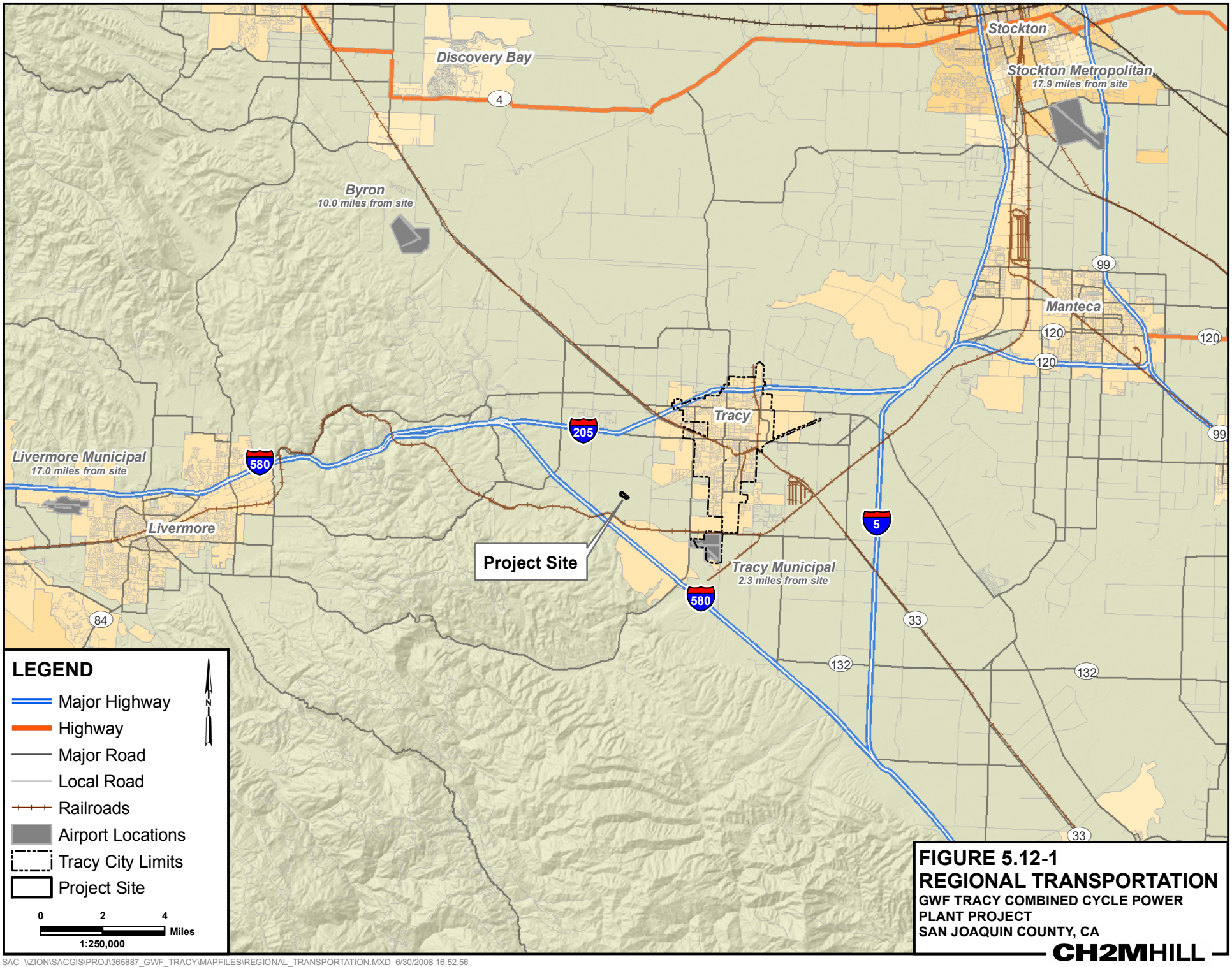

FIGURE 5.12-1
REGIONAL TRANSPORTATION
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

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FIGURE 5.12-2
LOCAL TRANSPORTATION
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

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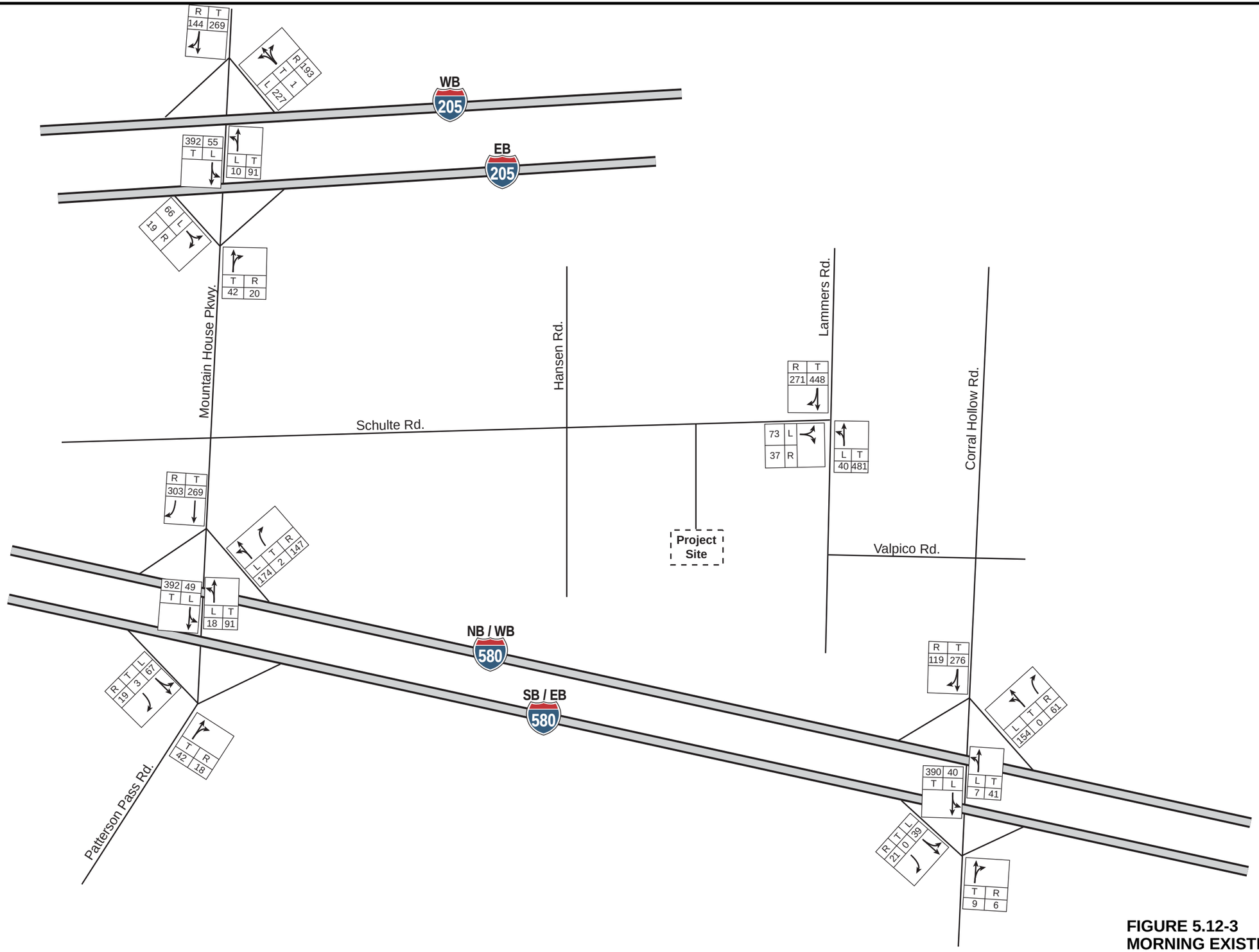

NOT TO SCALE

FIGURE 5.12-3
MORNING EXISTING CONDITIONS
TURNING MOVEMENTS
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

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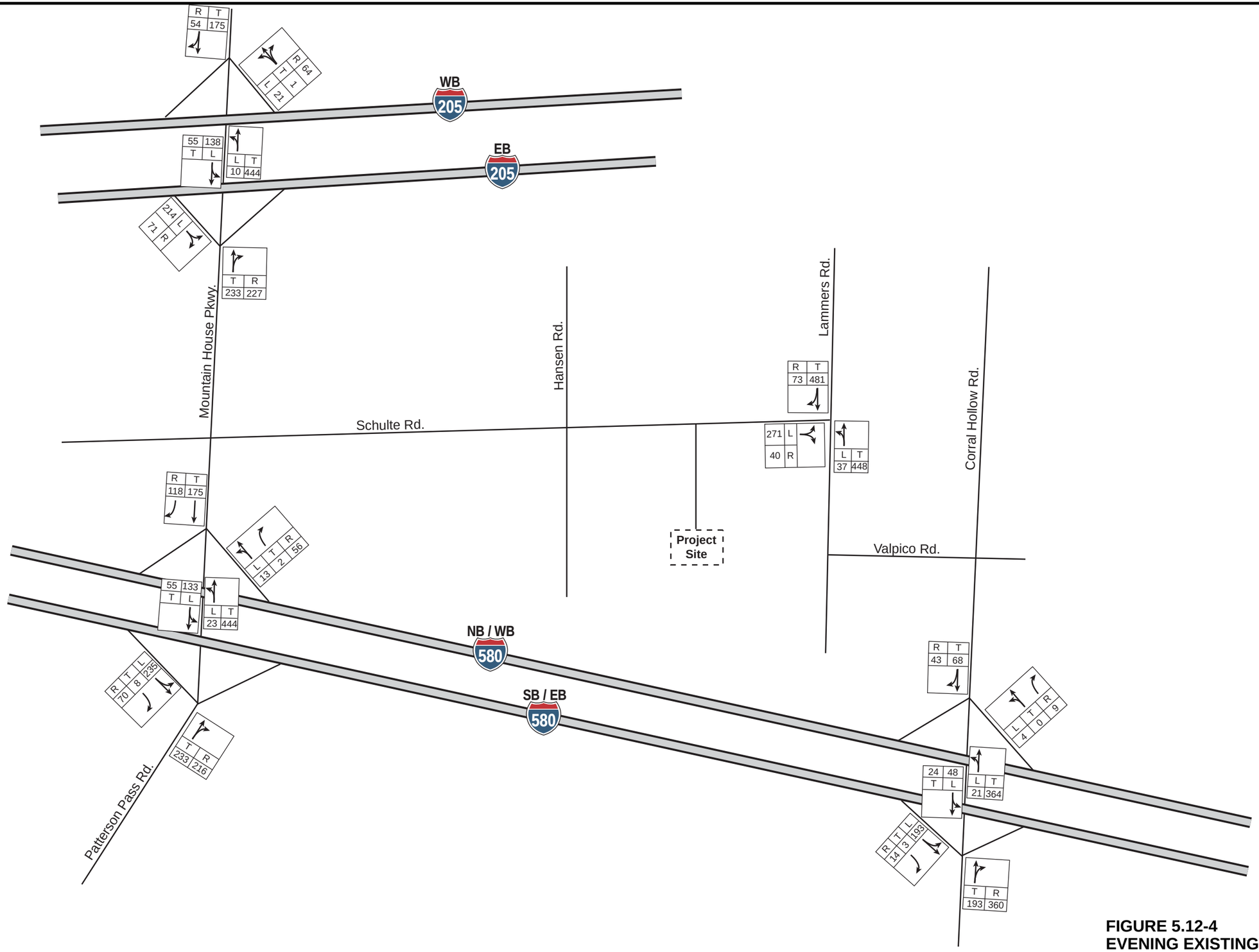

NOT TO SCALE

FIGURE 5.12-4
EVENING EXISTING CONDITIONS
TURNING MOVEMENTS
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

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EY012008001BAO Tracy_GWF_figure_5_12_4.ai 02-19-08 dash

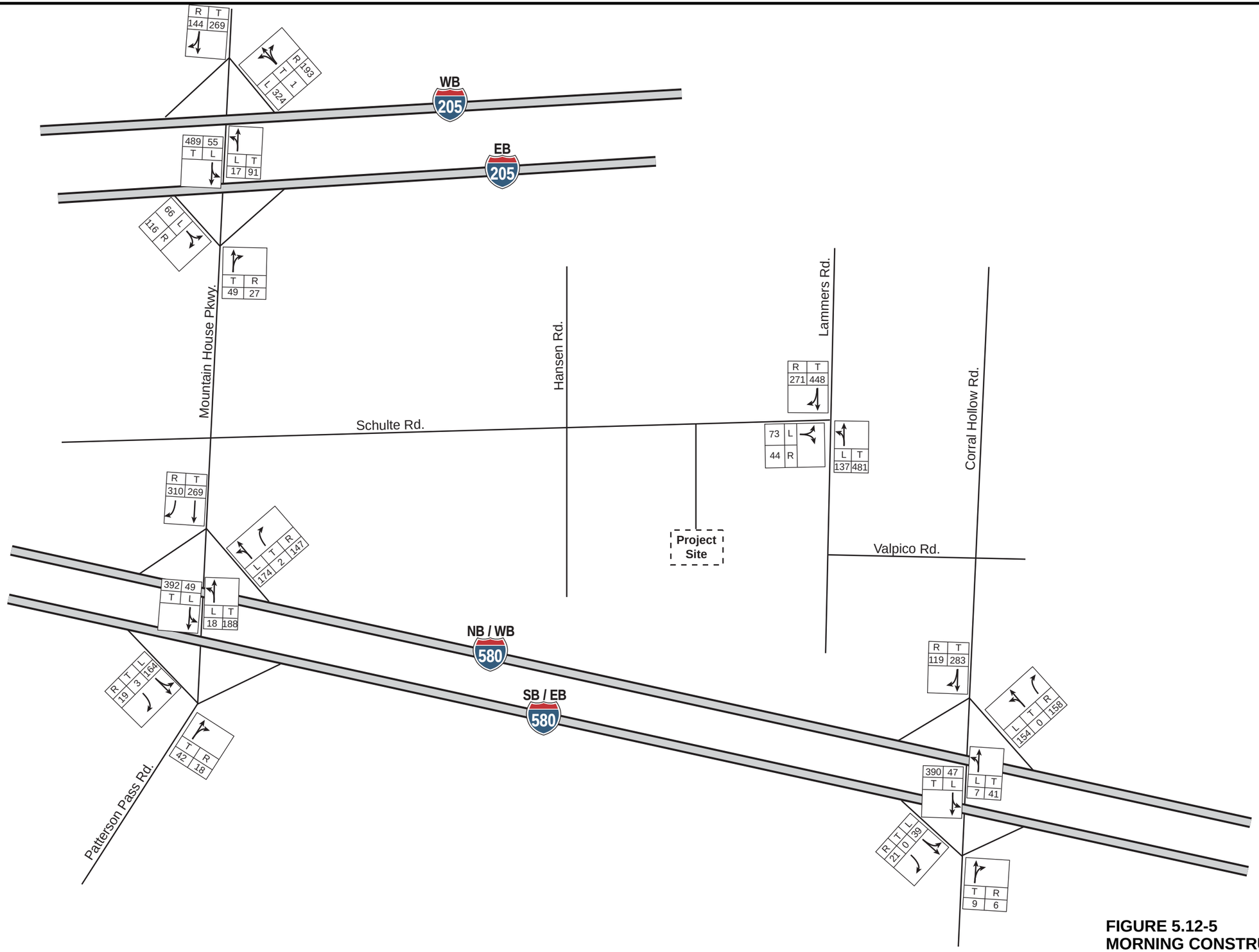

FIGURE 5.12-5
MORNING CONSTRUCTION CONDITIONS
TURNING MOVEMENTS
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

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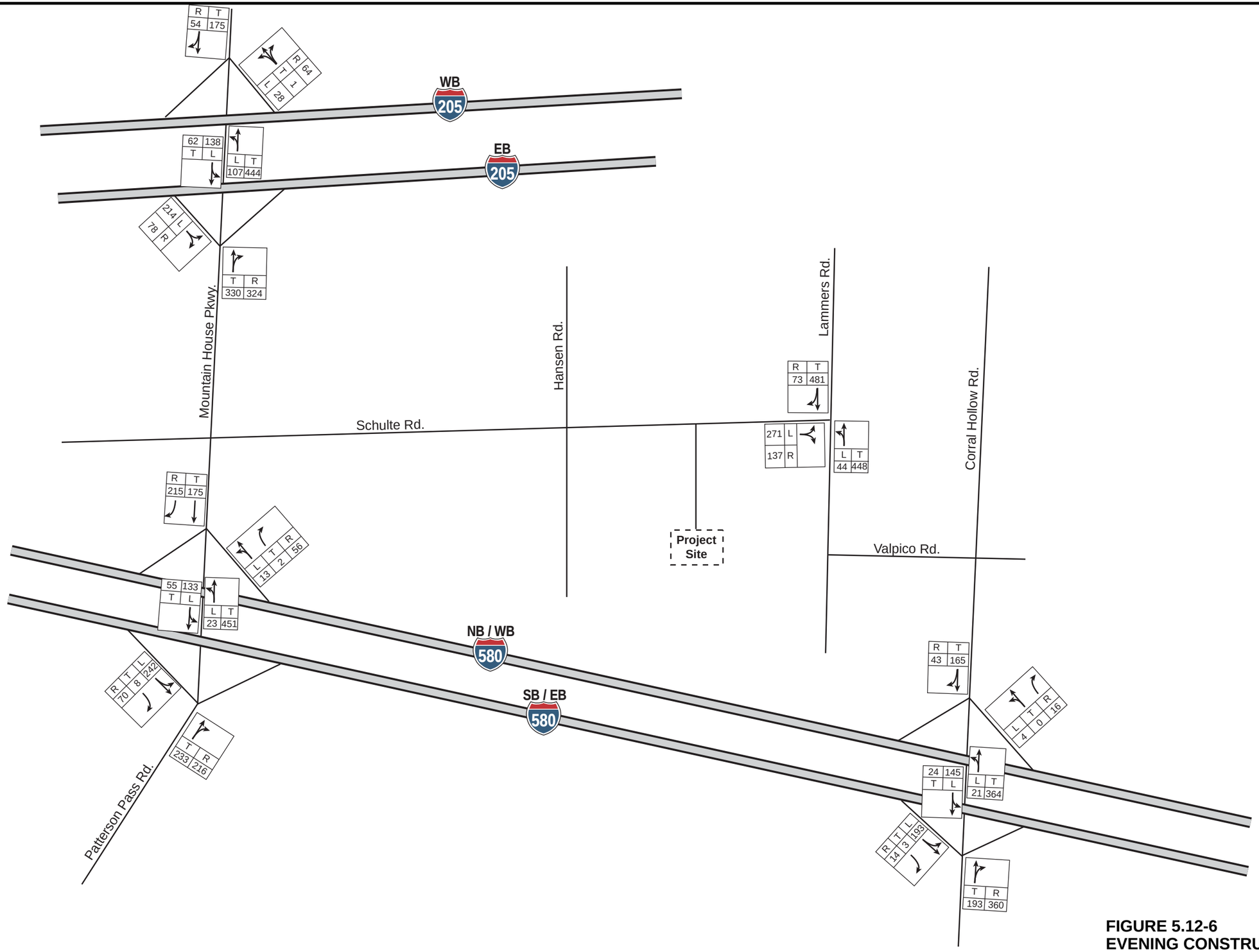

NOT TO SCALE

FIGURE 5.12-6
EVENING CONSTRUCTION CONDITIONS
TURNING MOVEMENTS
GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
SAN JOAQUIN COUNTY, CA

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