15.0 LAND TRANSPORTATION

This chapter describes the existing land transportation system and the project's potential effects on land transportation and traffic that may occur with the implementation of the proposed project. Additional, related discussion is presented in Chapter 16.0: Marine Transportation and Marine Terminal Operations.

Guidelines and key sources of data used in the preparation of this chapter include the following:

- Contra Costa Transportation Authority's *Technical Procedure Update*
- California Department of Transportation's (Caltrans) *Guide for the Preparation of Traffic Impact Studies*
- Transportation Research Board's *Highway Capacity Manual 2000*
- *City of Pittsburg General Plan*

15.1 ENVIRONMENTAL SETTING

15.1.1 Regulatory Context

All applicable laws, ordinances, regulations, and standards (LORS) and their conformance measures are detailed in the text below and in Table 15-1.

Table 15-1: Potentially Applicable Laws, Ordinances, Regulations, and Standards

Laws, Regulations, Ordinances, and Standards	Applicability	Enforcing Agency
Federal		
Hazardous Materials Transportation Act of 1974	Requires transporters of hazardous materials to adhere to established regulations.	U.S. Department of Transportation
State		
California Vehicle Code Section 35780	Requires a permit to transport oversized or excessive loads over State highways.	California Department of Transportation (Caltrans) / California Highway Patrol (CHP)

Laws, Regulations, Ordinances, and Standards	Applicability	Enforcing Agency
California Vehicle Code Section 31303(b)	Requires that the transportation of hazardous materials be on State or interstate highways that offer the shortest overall transit time possible.	Caltrans/CHP
California Vehicle Code Section 31303(c)	Requires that the transportation of hazardous materials avoid, whenever practicable, places where crowds are assembled and residential districts.	Caltrans/CHP
California Vehicle Code Section 32000.5	Requires that transporters of hazardous materials apply for and receive a Hazardous Material Transportation License from the California Highway Patrol.	Caltrans/CHP
California Vehicle Code Sections 35780-35796, 35550-35558, 35550-35559, 35250-35252, 35100-35111, and 35400-35414	Places maximum limits on gross weight; wheel load; and vehicle height, width, and length.	Caltrans/CHP
California Streets and Highway Code, Division 2, Chapter 5.5, Sections 1460-1470	Requires an encroachment permit to make an opening or excavation in a roadway for any purpose.	City of Pittsburg
Local		
City of Pittsburg General Plan, Transportation Element	Goal to complete arterial roadway improvements required to mitigate traffic impacts of an approved project before the project is fully occupied. Policies require development projects to mitigate traffic effects and pay fees.	City of Pittsburg
Transplan, East County Action Plan for Routes of Regional Significance	Goal for each Regional Transportation Planning Committee to work cooperatively to establish overall goals; set performance measures (called Multi-modal Transportation Service Objectives) for designated Routes of Regional Significance; and outline a set of projects, programs, measures, and actions that will support achievement of the objectives.	Transplan/City of Pittsburg/Contra Costa County Transportation Authority

15.1.1.1 Federal Regulations

Hazardous Materials Transportation Act of 1974

The Hazardous Materials Transportation Act of 1974, 49 Code of Federal Regulations 397.9 directs the U.S. Department of Transportation (DOT) to establish criteria and regulations for the safe transportation of hazardous materials. There are no specific conformance measures required under this law.

15.1.1.2 State Regulations

California Vehicle Code

- Section 35780 requires approval for a permit to transport oversized or excessive loads over State highways. The proposed project would conform to Section 35780 by requiring that shippers obtain a Single Trip Transportation Permit for oversized loads, as required by Caltrans, for each vehicle.

- Section 31303(b) requires that the transportation of hazardous materials occur on State or interstate highways offering the shortest overall transit time possible. The proposed project would conform to Section 31303(b) by requiring that shippers of hazardous materials use the shortest route possible to and from the project site.

- Section 31303(c) requires that the transporters of hazardous materials avoid, whenever practicable, congested thoroughfares, places where crowds are assembled, and residential districts. The proposed project would conform to Section 31303(c) by requiring transporters to use routes that avoid these areas, if possible.

- Section 32000.5 requires that shippers of hazardous materials apply for and receive a Hazardous Material Transportation License from the California Highway Patrol. The proposed project would conform to Section 32000.5 by requiring hazardous materials transporters to be licensed when transporting to and from the project site.

- Weight/load restrictions imposed by the California Vehicle Code are provided below. These provisions would not apply to the proposed project if the City of Pittsburg (City) permitted the operation and transport of vehicles and loads on City roadways in excess of the maximum gross limits specified in the California Vehicle Code (Section 35780-35796).

  – 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 (Section 35550-35558).

- 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 (Section 35550-35558).

- 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; the maximum allowable gross combination weight is 80,000 pounds (Section 35550-35559).

- The maximum allowable vehicle height is 14 feet (Section 35250-35252).

- The maximum allowable vehicle width is 102 inches (Section 35100-35111).

- The maximum allowable length for a single vehicle is 40 feet, and the maximum allowable length for a combination of vehicles is 65 feet (Section 35400-35414).

- The maximum allowable length for a combination of vehicles consisting of a truck tractor and two trailers is 75 feet, provided each individual trailer length does not exceed 28 feet 6 inches (Section 35400-35414).

California Streets and Highways Code

The California Streets and Highways Code, Division 2, Chapter 5.5, Sections 1460-1470 requires an encroachment permit if there is an opening or excavation for any purpose in any city streets. The project would conform to Sections 1460-1470 by obtaining an encroachment permit from the City's Public Works Department, and from BNSF Railway Company (BNSF) to bore under the tracks.

15.1.1.3 Local Regulations

City of Pittsburg General Plan

Most local governments stipulate LORS that specifically affect the traffic/transportation conditions associated with local projects. The Transportation Element of the *City of Pittsburg General Plan* (2004) sets forth goals, policies, and implementation programs related to traffic issues in the City. The proposed project would be consistent with the *City of Pittsburg General Plan* Transportation Element goals and policies due to the minimal amounts of construction and operations traffic that would be generated by the proposed project.

The relevant goal and policies for land transportation include:

Goal: Street System and Traffic Standards

7-G-7 Complete arterial roadway improvements required to mitigate traffic impacts of an approved project before the project is fully occupied. Arterial improvements should be completed by creating funding sources, which include but are not limited to Traffic Mitigation Fees, Development Agreements, and Assessment Districts.

Policies: Street System and Traffic Standards

7-P-1 Require mitigation for development proposals that are not part of the Traffic Mitigation Fee program and that contribute more than 1 percent of the volume to an existing roadway or intersections with inadequate capacity to meet cumulative demand.

7-P-2 Use the adopted Regional and Local Transportation Impact Mitigation Fee ordinances to ensure that all new development pays an equitable pro-rata share of the cost of transportation improvements. Review the Traffic Impact Mitigation Fee schedule annually and update every five years at a minimum.

7-P-24 Continue to designate appropriate truck routes, and discourage unnecessary through traffic in residential areas.

15.1.2 Existing Conditions

15.1.2.1 Regional Setting

The proposed project site is located in the City of Pittsburg in Contra Costa County (County), which is situated in the East Bay subregion of the San Francisco Bay Area in California. The East Bay is served by an extensive transportation system, including major freeway, highway, and rail facilities. Figure 15-1: Regional Transportation Network illustrates the regional transportation setting. The primary transportation corridors in or near the City include Interstate Highway 680 and State Routes 4, 160, and 242. The closest of these major highways to the proposed project site is State Route 4, which runs east-west through the City of Pittsburg. The City's general plan describes freeways such as State Route 4 as "limited-access, high-speed travelways included in the State and federal highway systems whose purpose is to carry regional through traffic." Within the City, State Route 4 has four lanes in each direction, including a High Occupancy Vehicle lane in each direction, and accommodates an average of approximately 90,000 vehicles daily (City of Pittsburg, 2004). In general, freeways are under the jurisdiction of Caltrans, while local roadways, collectors, and arterials fall under the jurisdiction of the City of Pittsburg. The Metropolitan Transportation Commission is responsible for regional transportation planning and coordination between all levels of government with jurisdiction over transportation development and maintenance in the greater San Francisco Bay

Area. The Contra Costa Transportation Authority (CCTA) is a public agency responsible for managing the County's transportation sales tax program and countywide transportation planning. The CCTA is also the County's designated congestion management agency, responsible for putting programs in place to keep traffic levels manageable.

15.1.2.2 Local Setting

Vehicle Traffic

The local transportation network in the vicinity of the proposed project is illustrated on Figure 15-2: Local Transportation Network. The project site can be accessed from State Route 4 and then along a variety of local access routes. All local access routes are designated by the Transportation Element of the City's general plan as major arterials (i.e., Bailey Road, Willow Pass Road, West 10th Street, East 10th Street, and Railroad Avenue). Within the City, major arterials are generally multi-lane facilities with signalized traffic control at major intersections that primarily serve through traffic. Major arterials are typically divided facilities (with raised medians) that provide limited access to abutting development sites. The shortest access routes from State Route 4 to the proposed project site are as follows.

- From State Route 4, exit Bailey Road northbound, turn right onto Willow Pass Road (an east-west major arterial), then turn left into the entrance to the NRG Energy, LLC (NRG) Pittsburg Generating Station; or

- From State Route 4, exit Railroad Avenue northbound (if traveling eastbound, the exit connects directly to Railroad Avenue; however, if traveling westbound, the Railroad Avenue exit connects directly to California Avenue, in which a left turn must be made to reach Railroad Avenue, and then a right turn on Railroad Avenue would result in northbound travel), from Railroad Avenue turn left onto West 10th Street, and then turn right into the entrance to the NRG Pittsburg Generating Station.

Level of Service (LOS) is a measure of traffic conditions on a road or intersection, expressed in ratings from "A" to "F," with "A" representing free-flow traffic conditions and "F" signifying long delays and stop-and-go conditions. LOS is measured as a comparison between the amount of traffic on a road and the capacity for which the road or intersection was designed. Traffic LOS definitions are explained in Table 15-2.

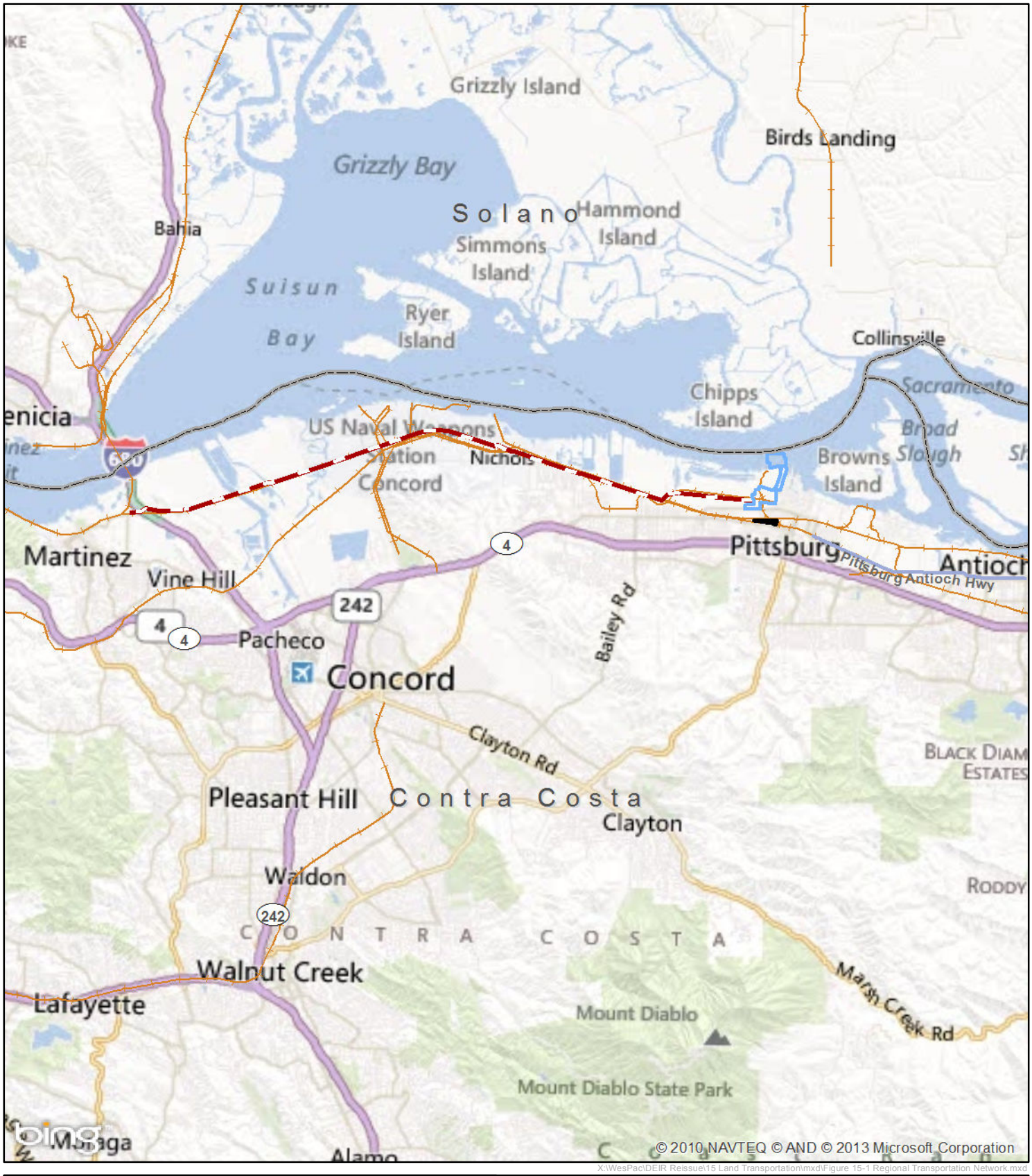


Figure 15-1
Regional Transportation Network
City of Pittsburg
WesPac Pittsburg Energy Infrastructure Project

TRC

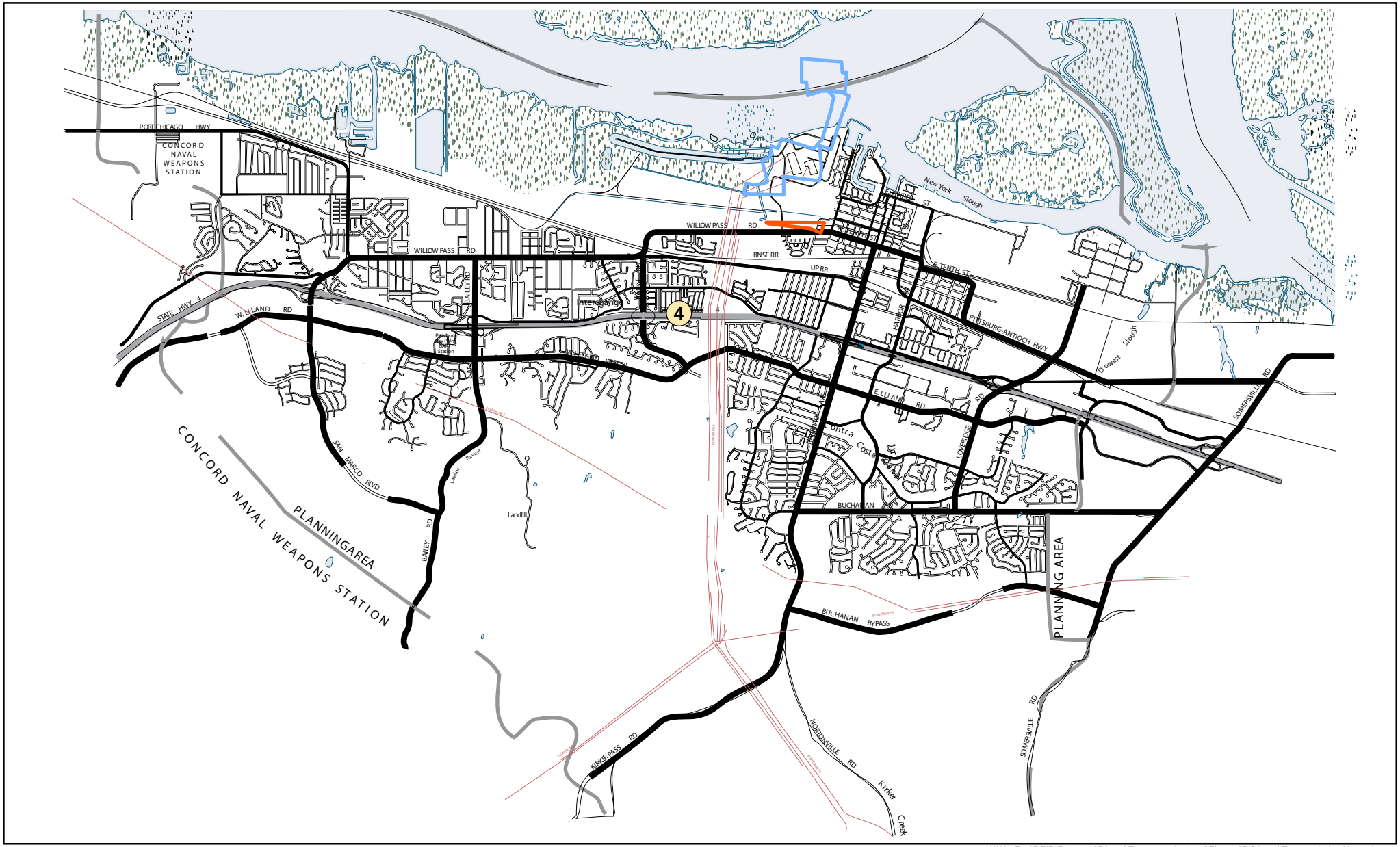
7/18/2013

- Railroad
- Existing San Pablo Bay Pipeline
- Terminal Boundary
- Rail Transload Facility
- County Boundary

1:160,000

1 inch = 2.5 miles

0 1 2 mi



X:\WesPac\DEIR Reissue\15 Land Transportation\mxd\Figure 15-2 Local Transportation Network.mxd

Figure 15-2
Local Transportation Network
City of Pittsburg
WesPac Pittsburg Energy Infrastructure Project

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7/18/2013

- Freeway
- Existing Major Arterial
- Proposed Major Arterial
- Existing Minor Arterial
- Proposed Minor Arterial
- Existing Collector
- Proposed Collector

- Terminal Boundary
- Rail Transload Facility
- Pittsburg Planning Area

Source: City of Pittsburg General Plan

N

1:65,000

1 in = 1 miles

0 3,000 6,000 ft

Table 15-2: Summary of Levels of Service for Intersections

Level of Service	Type of Flow	Delay	Maneuverability	Volume/Capacity Ratio	Average Stop Delay/Vehicle (seconds)
A	Stable flow	Very slight or no delay. If signalized, conditions are such that no approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.	Turning movements are easily made, and nearly all drivers find freedom of operation.	0.00–0.60	Less than 5.0
B	Stable flow	Slight delay. If signalized, an occasional approach phase is fully utilized.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	0.61–0.70	5.1 to 15.0
C	Stable flow	Acceptable delay. If signalized, a few drivers arriving at the end of a queue may occasionally have to wait through one signal cycle.	Backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	0.71–0.80	15.1 to 25.0
D	Approaching unstable flow	Tolerable delay. Delays may be substantial during short periods, but excessive backups do not occur.	Maneuverability is severely limited during short periods due to temporary backups.	0.81–0.90	25.1 to 40.0
E	Unstable flow	Intolerable delay. Delay may be considerable (up to several signal cycles).	There are typically long queues of vehicles waiting upstream of the intersection.	0.91–1.00	40.1 to 60.0
F	Forced	Excessive delay.	Jammed conditions. Backups from other locations restrict or prevent movement. Volumes may vary widely, depending on the downstream backup conditions.	Varies	Greater than 60.0

Source: Transportation Research Board, 2000

According to the City of Pittsburg *Local Transportation Mitigation Fee Program Update* (2007), West 10th Street, a major arterial that provides primary access to the proposed project site, was operating at an LOS rating of "A" to "B" at the nearby intersection of Herb White Way and West 10th Street. This roadway is expected to provide stable flow into 2030, according to the TransCad traffic model developed by the Contra Costa Transportation Authority. The term "stable flow" can be interpreted as LOS "B" or "C." Levels of service on City intersections selected for impact analysis are at or above the acceptable LOS "D" or "E" as specified by the City's general plan. All roadway segments within the traffic impact study area currently operate at a LOS classification of between B and E.

Truck traffic on surface streets near the project site represents less than 1 percent of all vehicle traffic (see Appendix M: McTrans Traffic Model Results). Truck traffic is a common daily contributor to localized traffic in the industrial sector of the City. The project site is located in close proximity to interstate freeways and State highways that allow easy access to the project site for truck traffic and large loads. All roadways leading to the project site off of State Route 4 are designated as truck routes for delivery and services purposes.

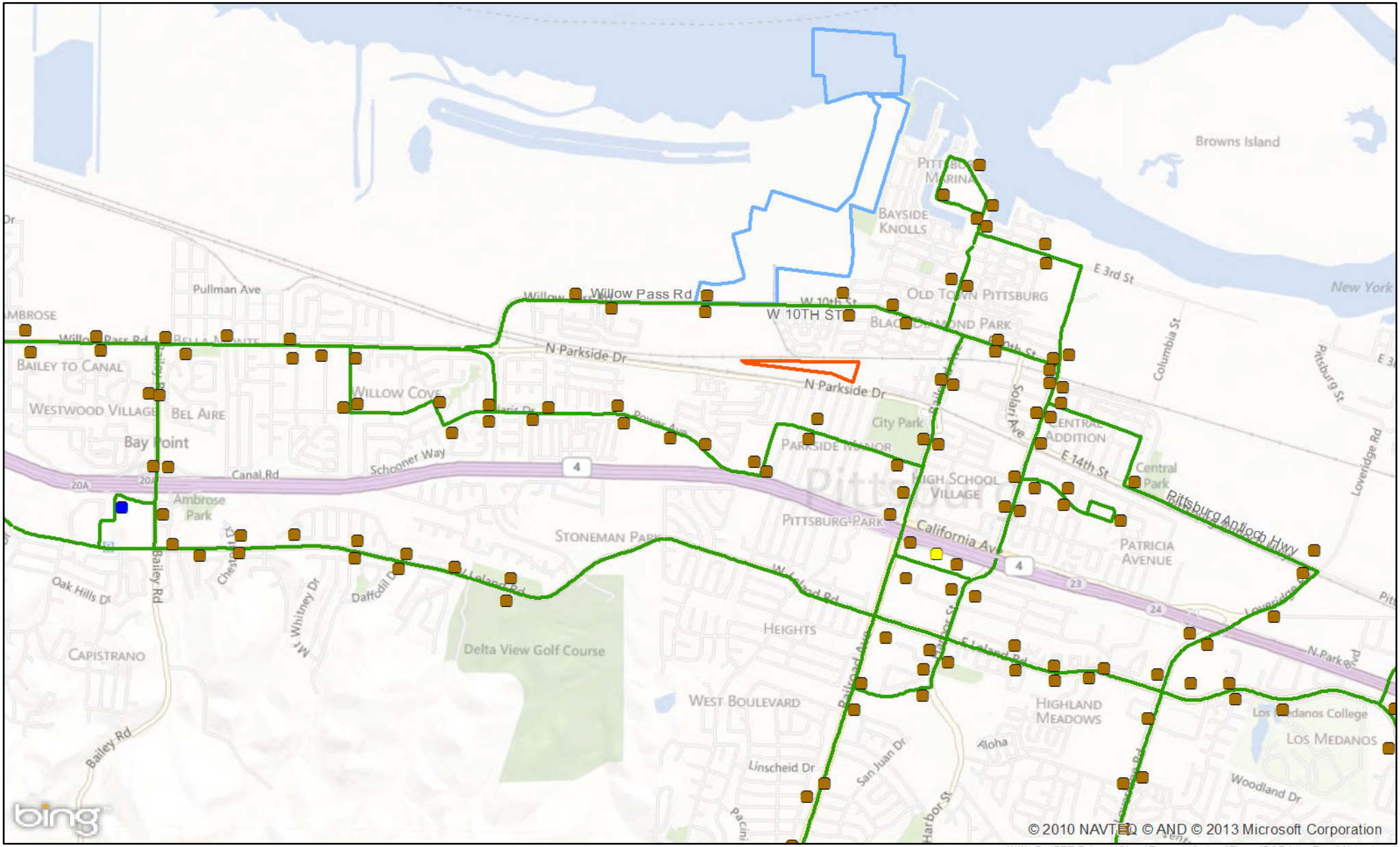
Public Transportation

The City of Pittsburg and the surrounding area have an extensive public transportation system in place, consisting of an integrated air, bus, rail, and bike network. The existing bus routes and closest Bay Area Rapid Transit (BART) station are shown on Figure 15-3: Existing Transit Network. Air service is provided by the Buchanan Field Airport for charter, freight, and general aviation services. The Buchanan Field Airport is located approximately 10 miles from the project site.

Tri Delta Transit provides local, express commuter, 49ers shuttle, and paratransit bus service within eastern Contra Costa County. Tri Delta Transit buses connect to the BART Pittsburg/Bay Point Station at Bailey Road and State Route 4. The closest bus stop to the proposed project site is at Polaris Drive and Range Road, approximately 1.4 miles away. BART provides train service to and from Pittsburg with over 80 outbound/inbound trips from the Pittsburg/Bay Point Station during weekdays. The San Francisco to Pittsburg/Bay Point BART line provides direct service to and from San Francisco. There are no bicycle lanes in the vicinity of the proposed project.

Railroad Transportation

Amtrak travels through Pittsburg along the BNSF tracks just north of and adjacent to the Rail Transload Operations Facility (Rail Transload Facility) project site. The closest Amtrak station is the Antioch Station east of Pittsburg. In addition, BNSF and the Union Pacific Railroad (UPRR) tracks run in an east/west direction through the City.



X:\WesPac\DEIR Reissue\15 Land Transportation\mxd\Figure 15-3 Existing Transit Network.mxd

Figure 15-3
Existing Transit Network
City of Pittsburg
WesPac Pittsburg Energy Infrastructure Project

TRC

7/18/2013

- Bus Stop
- BART Station
- Park and Ride
- Bus Routes
- Terminal Boundary
- Rail Transload Facility

N

1:32,000

1 inch = 2,667 feet

0 1,500 3,000 ft

Transportation Planning

The Federal Transportation Improvement Program and the State Transportation Improvement Program are planning several transportation improvement projects within the City of Pittsburg and the immediate area that would increase capacity and mitigate traffic congestion on local streets and roadways (FTIP, 2010; MTC, 2009). In addition, the Contra Costa Transportation Authority Strategic Plan provides funding for City of Pittsburg transportation improvements to meet the traffic demands. The City also implements the Mitigation Fee Act (California Government Code Section 6600, *et seq*.) to extract fees from new developments to mitigate traffic impacts. The impact fees finance a list of local transportation improvements to maintain the transportation network performance standards as adopted in the City's general plan. The City is within the jurisdiction of the East Contra Costa Regional Fee and Financing Authority, which administers a regional transportation impact fee for the purpose of generating funds to support the provision of regional transportation infrastructure necessary to serve the future travel demand.

15.2 IMPACT ANALYSIS

15.2.1 Methodology for Impact Analysis

To assess the potential of project-related traffic to impact local traffic congestion, the number of project-related trips through each key intersection were calculated and the intersection LOS were estimated for conditions before project construction, during construction, and during project operation. The trip-estimating methodology is based on the Planning Method in the *Highway Capacity Manual 2000*, which provides a general discussion of intersection operations that is used to define the existing LOS at a signalized intersection given existing traffic volumes, and the projected project-related traffic. The Planning Method calculates a "sum of critical volumes" for the critical traffic-control phases of an intersection (phases for which there might be significant delay or obstruction), and a corresponding LOS rating. A phase is the portion of a signal cycle allocated to any single combination of one or more traffic movements simultaneously receiving the right-of-way. A critical volume is a volume of traffic that causes a significant conflict with opposing traffic. This occurs where left-turning traffic obstructs through traffic at an intersection. The critical volume for an intersection is calculated as the number of vehicles turning left plus the number of through vehicles at a given intersection for each flow direction possible at that intersection.

TRC Solutions, Inc. collected peak-hour critical turning movement counts in September 2011 at intersections with the potential to be impacted by the proposed project. The City of Pittsburg provided information about the various combinations of signal phases (left-turn permissive, left-turn protected, etc.) for each key signalized intersection. Project-related impacts were not evaluated by

roadway segment because current Average Daily Traffic data was not available for several key roadways.

In consultation with the City's traffic engineer, the following intersections within the City's transportation system were identified for analysis (see Figure 15-4: Traffic Study Intersections):

- Willow Pass Road (east/west) and Bailey Road (north/south)
- East 10th Street (east/west) and Railroad Avenue (north/south)
- West 10th Street (east/west) and NRG entrance (north/south)

After observing the project site and based on discussions with the City, the geometry and traffic in the vicinity of the proposed project (i.e., vehicle headways, lane widths, truck percentages, effects of parking and pedestrians, etc.) were determined to be average, which is a level of traffic performance typical of the City of Pittsburg. The Planning Method does not explicitly deal with signal timing and does not necessarily relate to the amount of timing associated with vehicle delay. The procedure assumes a random arrival of vehicles on all approaches (rather than the vehicle platoons that are usually created by coordinated signal systems).

In cases where signal-protected left-turn phases are not provided at an intersection (i.e., a permissive left-turn intersection), the filtering left-turn capacity for permissive left-turn movements during the green-signal phase is calculated as follows:

Capacity = (1200 - Vo) x G/C

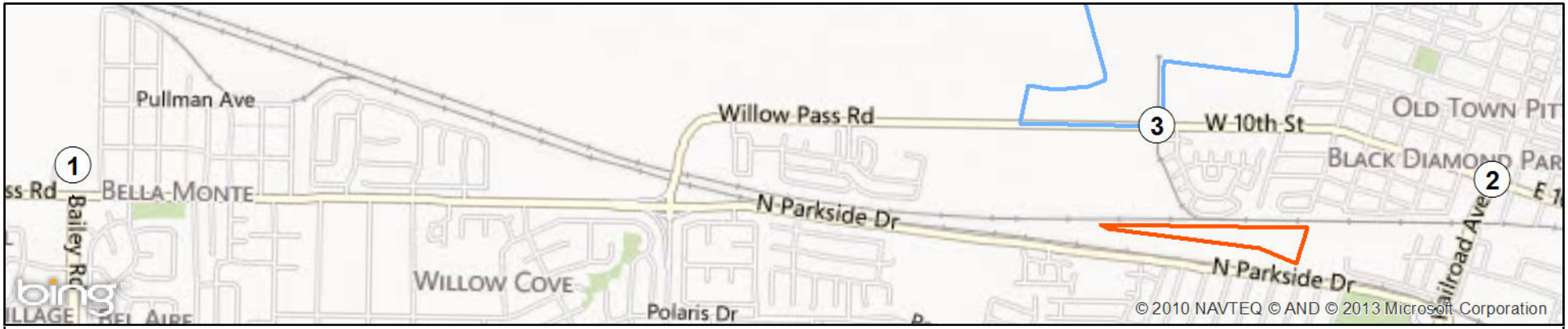
Where:

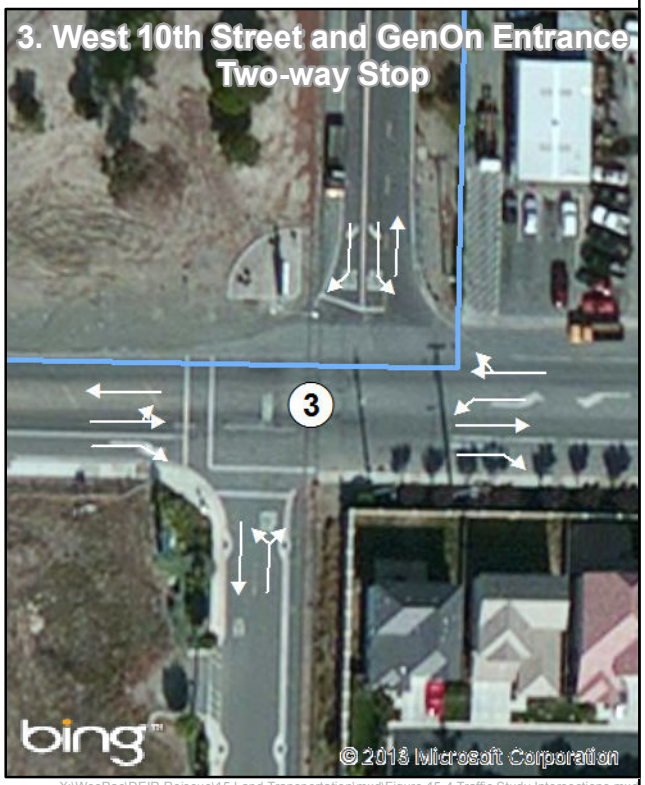
Capacity = filtering left-turn capacity in vehicles per hour for permissive left-turn movements during the green light

Vo = volume in vehicles per hour of opposing traffic, including through and right-turning vehicles

G/C = proportion of signal cycle during which the left turns and the opposing traffic have a green light (G = green time, C = total cycle time)

On single-lane approaches, estimates of the critical volumes and protected/permissive phasing (i.e., whether there is a left-turn signal) are sometimes problematic due to the variable permissive left-turn capacity and the sometimes-varying lane use during one cycle at a signalized intersection. At narrow, single-lane approaches, however, one or a few left-turn vehicles may block the entire approach. Thus, the critical volume for a single-lane approach would depend on the width of the approach, presence and location of on-street parking, length of the green-light phase, opposing traffic volume, and proportion of left-turn vehicles in the traffic stream. For this analysis, it was assumed that all





X:\WesPac\DEIR Reissue\15 Land Transportation\mxd\Figure 15-4 Traffic Study Intersections.mxd

Figure 15-4
Traffic Study Intersections
City of Pittsburg
WesPac Pittsburg Energy Infrastructure Project

TRC

7/18/2013

Terminal Boundary
Rail Transload Facility

1:1,000

1 inch = 83 feet

0 75 150 ft

intersections with a single-lane approach would be wide enough to allow right-hand turns at the same time as left-hand turns. On multi-lane approaches with permissive left-turn phasing (i.e., no left-turn signal), through and right-turn vehicles generally tend to shift to the right lane(s) to avoid being blocked by same-direction left-turn vehicles that are waiting for gaps in the opposing traffic stream. This shift is accounted for in the methodology by a factor that adjusts the proportion of vehicles blocked or stopped at the intersection.

The lowest critical volume (best LOS classification) for a single-lane approach is calculated as the highest combination of the through and right-turn volumes summed with the opposing left-turn volume. The highest critical volume (worst LOS classification) for a single-lane approach is calculated as the total of the approach volumes for both approaches. The volume of vehicles turning right is not considered in the critical volume calculation since right-turn movements, in exclusive right turn-lanes, are seldom a critical movement (where right turns on red are allowed).

The guidelines used to identify LOS and the volume to capacity (V/C) ratio, based on the sum of intersection critical volumes, is illustrated in Table 15-3, which shows critical volume thresholds for LOS "A" through "F" (the V/C ratio that a given intersection remains at, or below, for a given LOS). To define the LOS of an intersection with a two-phase signal sequence, given actual hourly traffic counts for the daily peak period of travel, the left-turn volume is added to the opposing direction's through volume for all applicable travel directions at that intersection (for example, east-west, west-east, north-south, south-north). If the resulting sum of critical volumes were less than 900 cars, the LOS classification would be "A." If a project were to add a volume of traffic to an intersection that would increase this sum of critical volumes to more than 900 cars, it would cause a change in LOS from "A" to "B."

For this analysis, the traffic generated by the project within the local and regional transportation network during construction and operation was assigned to the surrounding street system for a hypothetical commute. The resulting trip numbers were then added to the existing critical volumes (based on the critical turning movement counts taken in September 2011) for each key intersection and compared with the LOS thresholds listed in Table 15-3.

Table 15-3: Critical Intersection Threshold Volume/Capacity Ratios by Level of Service

Level of Service	Critical Volume			Typical Volume to Capacity Ratio
	Two-phase Control	Three-phase Control	Four or More Phases	
A	900	855	825	0.00-0.60
B	1,050	1,000	965	0.61-0.70
C	1,200	1,140	1,100	0.71-0.80
D	1,350	1,275	1,225	0.81-0.90
E	1,500	1,425	1,375	0.91-1.00
F	N/A	N/A	N/A	Varies

Source: Transportation Research Board, 2000

To be conservative, the analysis assumes that all construction traffic would occur during the peak traffic periods. The peak construction workforce at the WesPac Energy–Pittsburg Terminal (Terminal) project site would be 225 persons (not including the workforce at the proposed Rail Transload Facility and the pipelines), which is expected to generate approximately 206 vehicle trips to the Terminal project site per day. The 206 construction worker vehicles was chosen as the most extreme worst-case scenario of peak-hour trips that the project could generate. The key assumptions for the analysis were as follows:

- Eleven percent of the cars arriving at the project site would have more than one occupant during commute time in accordance to Contra Costa County averages as reported by the CCTA
- No public transit would occur to the project site
- All construction traffic would arrive during the peak a.m. and p.m. traffic periods

The daily peak hour for traffic can vary by intersection; however, the following peak hours were applicable to the three intersections analyzed:

- East 10th Street/Railroad Avenue: 7:15 a.m. to 8:15 a.m. and 4:15 p.m. to 5:15 p.m.
- West 10th Street/NRG entrance: 7 a.m. to 8 a.m. and 5 p.m. to 6 p.m.
- Willow Pass Road/Bailey Road: 6:15 a.m. to 7:15 a.m. and 5 p.m. to 6 p.m.

Based on an analysis of the local roadways, workers commuting from outside the local area, and historical traffic data, it was assumed that traffic coming out of the project site in the afternoon would split 50 percent heading east on West 10th

Street and 50 percent heading west on West 10th Street/Willow Pass Road. At Willow Pass Road and Bailey Road, it was assumed that 50 percent of the traffic would turn left on Bailey Road going to State Route 4 and 50 percent would continue to travel west on Willow Pass Road. Construction traffic heading east on West 10th Street from the proposed project site was assumed to split 40 percent turning right at Railroad Avenue going to State Route 4 and 60 percent would proceed through the Railroad Avenue intersection travelling east on East 10th Street. It is also assumed that much of the construction workforce would arrive from outside the immediate area and would thus want to access State Route 4 to disperse through the freeway system. McTrans model outputs with assumptions are provided in Appendix M.

15.2.2 Significance Criteria

For the purposes of this analysis, an impact was considered to be significant and to require mitigation if it would result in any of the following:

- 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 level of service established by the county congestion-management agency for designated roads or highways
- Result in a change in traffic patterns, including 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

15.2.3 Impacts and Mitigation Measures

15.2.3.1 Proposed Project

Construction-related Impacts

Impact Land Transportation (LT)-1: Substantially increase traffic in relation to the existing traffic load and capacity of the street system. (Less than significant.) The project proponent intends to engage in a Project Labor Agreement with the Contra Costa Building and Construction Trades Council to use union workers for the completion of construction efforts required for the project. Given the presence of multiple union halls in the local and regional area, workers would most likely reside within 20 to 30 miles of the project site. It is estimated that the average daily construction workforce for Terminal construction would be approximately 114 persons, based on previous tank farm projects of similar nature and size. A total of approximately 225 construction personnel would be employed at the Terminal portion of the project during peak phases. The construction workforce of 225 persons is estimated to generate 206 vehicle trips

to the Terminal project site assuming approximately 11 percent of the vehicles would have more than one occupant as reported by the CCTA.

A conservative approach was incorporated into the analysis, whereby it was assumed that all vehicle trips generated by construction workers would arrive and depart during peak traffic hours, as defined in Section 15.2.1. However, in reality, construction personnel would arrive at the project site at or near 6 a.m., before the morning peak hour (7 a.m. to 8 a.m.), and would depart the project site between 3 p.m. and 4 p.m., avoiding the evening peak hour (5 p.m. to 6 p.m.). In addition, the traffic model uses the estimated number of workers during peak construction, rather than the average number of workers. Trip-generation data used in this analysis are based on WesPac Energy–Pittsburg LLC's (WesPac) extensive experience with the planning and construction phases of a variety of pipeline and tank farm projects. This approach illustrates the worst-case scenario for traffic at all potentially affected intersections. Therefore, this study incorporates very conservative assumptions for planning and impact analysis purposes.

Table 15-4 lists the existing peak traffic and projected construction-related traffic (existing plus project) for the proposed project at each key intersection. Key intersections that were analyzed are identified on Figure 15-4. Traffic associated with project construction was distributed throughout the local and regional street and highway system as explained in Section 15.2.1 (see Appendix M). The resulting traffic volumes were added to the existing critical volumes for each intersection to determine whether the project would cause a change in the existing LOS classification.

The primary roadways that would be used for travel to and from the proposed Terminal project site are West 10th Street, Willow Pass Road, Bailey Road, and Railroad Avenue. West 10th Street and Willow Pass Road would experience the greatest volume of construction traffic. The estimated amount of additional traffic on each street due to project construction activities is shown on Figure 15-5: Projected Additional Traffic Volumes.

The proposed Rail Transload Facility construction workforce of 20 persons is estimated to generate 15 to 20 vehicle trips to the project site per day. As with the Terminal component, construction personnel would arrive at the Rail Transload Facility project site at or near 6 a.m., before the morning peak hour (7 a.m. to 8 a.m.), and would depart the project site between 3 p.m. and 4 p.m., avoiding the evening peak hour (5 p.m. to 6 p.m.). The primary roadway that would be used for travel to and from the proposed Rail Transload Facility project site is Railroad Avenue.

Projected traffic impacts that would affect the LOS classification for selected roadway intersections during construction are summarized in Table 15-5. The only LOS classification that would change negatively as a result of the proposed project's construction activities would be the morning peak at East 10th Street and

Table 15-4: Existing Peak Hourly Traffic* Compared with Peak Construction Traffic

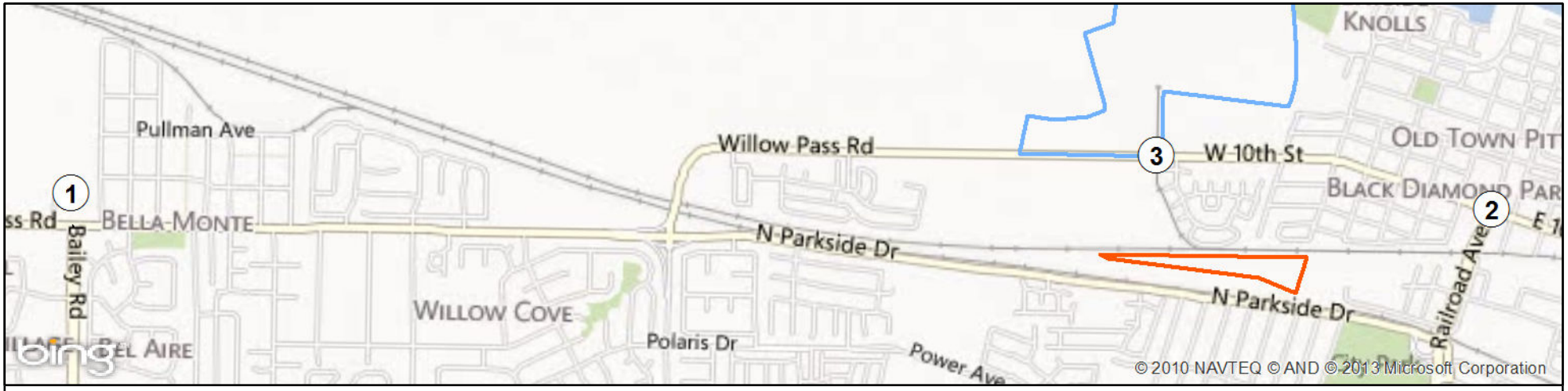
	Eastbound			Westbound			Northbound			Southbound		
	Left	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
Willow Pass (east/west) and Bailey Road/Walgreens Parking Lot (north/south) — Signalized — Morning Peak												
Existing conditions	7	270	183	309	685	1	290	7	207	1	1	6
Existing + peak construction	7	325	183	309	685	1	290	7	255	1	1	6
Willow Pass (east/west) and Bailey Road/Walgreens Parking Lot (north/south) — Signalized — Evening Peak												
Existing conditions	8	568	171	215	240	7	235	22	416	8	4	16
Existing + peak construction	8	568	171	263	295	7	235	22	416	8	4	16
East 10th Street (east/west) and Railroad Avenue (north/south) — Signalized — Morning Peak												
Existing conditions	8	147	208	62	251	25	163	154	47	72	248	20
Existing + peak construction	8	147	208	62	314	25	203	154	47	72	248	20
East 10th Street (east/west) and Railroad Avenue (north/south) — Signalized — Evening Peak												
Existing conditions	27	224	150	96	197	46	134	227	99	32	152	20
Existing + peak construction	27	287	190	96	197	46	134	227	99	32	152	20
West 10th Street (east/west) NRG Entrance (north/south) — Two-way Stop — Morning Peak												
Existing conditions	9	175	1	3	367	8	1	0	1	0	0	3
Existing + peak construction	112	175	1	3	367	111	1	0	1	0	0	3
West 10th Street (east/west) NRG Entrance (north/south) — Two-way Stop — Evening Peak												
Existing conditions	0	385	1	0	187	3	0	0	1	4	0	8
Existing + peak construction	0	385	1	0	187	3	0	0	1	107	0	111

*Actual critical turning movement traffic counts were performed on September 1, 2011. The weather was clear and dry.

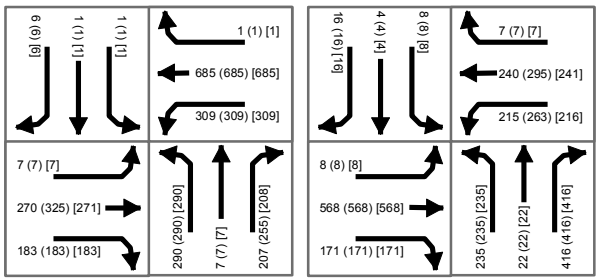
Table 15-5: Existing and Projected Construction-related LOS for Key Intersections

Intersection	Existing*		Construction Phase	
	Total Peak-hour In/Out Vehicle Trips at Intersection	**Level of Service**	**Total Peak-hour In/Out Vehicle Trips at Intersection**	**Level of Service**
Willow Pass Road at Bailey Road (a.m.)	1,967	D	2,070	D
Willow Pass Road at Bailey Road (p.m.)	1,910	E	2,013	E
East 10th Street at Railroad Avenue (a.m.)	1,405	C	1,508	D
East 10th Street at Railroad Avenue (p.m.)	1,404	B	1,507	B
West 10th Street at NRG entrance (a.m.)	568	B	774	B
West 10th Street at NRG entrance (p.m.)	589	B	795	B

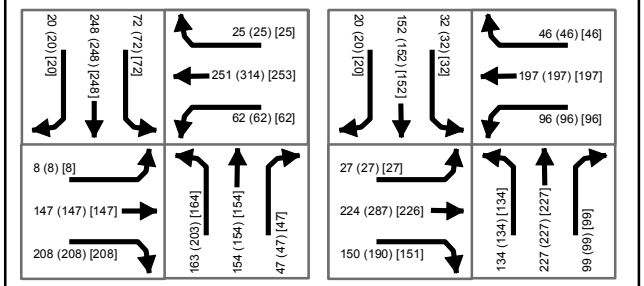
*Traffic counts performed on September 1, 2011



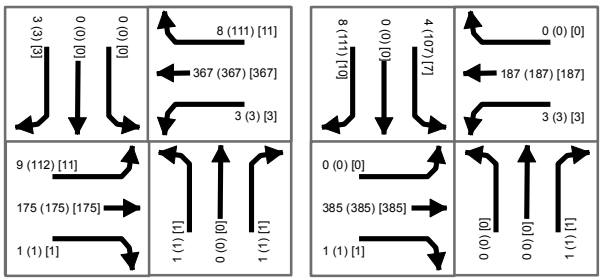
1. Willow Pass Rd and Bailey Rd Signalized



2. East 10th Street and Railroad Avenue Signalized



3. West 10th Street and GenOn Entrance Two-way Stop



X:\WesPac\DEIR Reissue\15 Land Transportation\mxd\Figure 15-5 Projected Additional Traffic Volumes.mxd

Figure 15-5
Projected Additional Traffic Volumes
City of Pittsburg
WesPac Pittsburg Energy Infrastructure Project

TRC

7/18/2013

12 (21) [14]
Current Car Volume
Car Volume During Construction
Car Volume During Operation

Terminal Boundary
Rail Transload Facility

1:1,000

1 inch = 83 feet

0 75 150 ft

Railroad Avenue, where the model predicts the LOS would be "D" during construction (the intersection is currently rated LOS "C"). This temporary increase in traffic, and decrease in the LOS rating, at East 10th Street and Railroad Avenue would be less than significant, as it would be short-term and temporary.

For the other two key intersections, the project's effect on traffic conditions, indicated by the LOS classification and V/C ratio, would be minor and would not cause a decrease in LOS rating. Farther away from the key intersections, the project's effect on traffic conditions, indicated by LOS rating and V/C ratio, would be barely perceptible.

Increased construction traffic would include deliveries of tank farm pumps, valves, piping, and various equipment and construction materials by truck such as asphalt, concrete, steel, and lumber. Truck deliveries would occur between 7 a.m. and 4:30 p.m. on weekdays. In total, approximately 2,160 truck deliveries of materials and supplies are expected to the Terminal over the duration of construction activities, an average of approximately six deliveries per weekday. At various times during peak construction, the number of daily deliveries would increase to as many as 25 per day. Approximately two truck deliveries per day of materials and supplies are expected to the proposed Rail Transload Facility site during construction. This would not significantly affect the traffic/truck mix along State highways, but it may increase the ratio of trucks to passenger vehicles on City streets for short durations of time.

All deliveries to the proposed Rail Transload Facility would enter the site from Railroad Avenue via the Railroad Lane/Leslie Drive entrance. All deliveries to the proposed Terminal project site would enter at the NRG entrance, utilizing West 10th Street. Based on the City truck routes, the following routes would be used for truck deliveries to the proposed Terminal project site:

- From State Route 4 westbound, exit at Railroad Avenue/California Avenue, and proceed west on California Avenue to Railroad Avenue. Turn right on Railroad Avenue and proceed to the intersection of East 10th Street. Turn left on East 10th Street and proceed west to the intersection of West 10th Street and the NRG entrance. Turn right onto the NRG entrance.

- From State Route 4 eastbound, exit the Bailey Road northbound loop exit onto Bailey Road, and proceed to the intersection of Willow Pass Road and Bailey Road. Turn right on Willow Pass Road and merge to the right at North Parkside Drive and Range Road. Turn left on Range Road and proceed under the overpass of North Parkside Drive and the train trestles to Willow Pass Road. Proceed east on Willow Pass Road to the intersection with the NRG entrance. Turn left onto the NRG entrance.

Any noticeable impact in traffic composition due to truck traffic would be limited to a relatively small number of days, as most deliveries would be spread over the entire construction period. Therefore, impacts from construction-related truck traffic would be less than significant.

Mitigation Measure: No mitigation required.

Impact LT-2: Exceed level of service standards on city roads or state highways. (Less than significant.) The basic performance standard for intersections on a regional route (including all major arterials utilized to access the proposed project site from State Route 4) is LOS "D," with the exception of intersections on Bailey Road, which have a performance standard of LOS "E" (City of Pittsburg, 2004). The CCTA, which is the local congestion management agency for Contra Costa County, defines the basic LOS standard as LOS "E" (CCTA, 2011). Levels of service on existing City intersections selected for impact analysis are now at or above the acceptable LOS "D" or "E" as specified by the City's general plan. All roadway segments and intersections within the traffic impact study area currently operate at a LOS classification of between "B" and "E." The traffic model concludes that morning peak traffic at East 10th Street and Railroad Avenue would decline from LOS "C" to LOS "D" during construction of the proposed project due to conflicting turning movements (see Appendix M). However, it is likely this scenario would not occur since the peak hour for the intersection occurs between 7:15 a.m. and 8:15 a.m., and construction traffic would typically occur around 6 a.m. Furthermore, a change in the LOS is acceptable as long as it does not exceed LOS "D." Given the low volume of existing traffic on roads in the project vicinity, additional project traffic during construction would not cause an exceedance of LOS "D" on City roadways. Implementation of the proposed project would have a less-than-significant impact on LOS standards established by the City of Pittsburg and CCTA.

Mitigation Measure: No mitigation required.

Impact LT-3: Result in substantial safety risks resulting from a change in traffic patterns. (Less than significant.) Construction of the proposed project would not result in a change in traffic patterns. Existing traffic would continue to use the same routes. While there would be a slight increase in traffic on the primary roadways that would be used by construction personnel for travel to and from the proposed project site (e.g., West 10th Street, Willow Pass Road, Bailey Road, and Railroad Avenue), this increase in traffic would not result in substantial safety risks.

Mitigation Measure: No mitigation required.

Impact LT-4: Substantially increase hazards caused by a design feature or incompatible uses. (Less than significant with mitigation.) Only small quantities of hazardous materials would be used during construction, and would be shipped by truck. Environmental Commitment LT-1, described in Chapter 2.0: Proposed Project and Alternatives, commits the project to utilizing the City-designated truck route for all deliveries, which offers the shortest overall transit time possible and avoids congested thoroughfares, places where crowds are assembled, and residential districts. All other applicable requirements would be met, as described in this chapter and Chapter 10.0: Hazards and Hazardous Materials. For more detailed information about hazardous materials refer to Chapter 10.0.

Certain components of the facility are of such dimension and weight that special delivery may be required during construction. Oversized and/or overweight shipments are anticipated to be transported by heavy-load truck delivery. According to the City of Pittsburg, there are no substandard bridges along any City roadways. Environmental Commitment LT-2, described in Chapter 2.0: Proposed Project and Alternatives, commits the project to obtaining a Single Trip Transportation Permit for ground shipments exceeding the size and/or weight/load limits, as required by the State of California Vehicle Code, Sections 35780-35796.

The KLM Pipeline connection and the pipeline between the Terminal and the Rail Transload Facility (Rail Pipeline) alignments runs south from the NRG facility entrance road, across West 10th Street, and through private property to the BNSF property line, where the Rail Pipeline terminates. The KLM Pipeline connection continues through the BNSF property, across N. Parkside Drive, and terminates at a residential street. Access during pipeline construction would occur along existing roads and rights-of-way. Environmental Commitment LT-3, described in Chapter 2.0: Proposed Project and Alternatives, commits the project to obtaining encroachment permits prior to construction from the City of Pittsburg Engineering Department for both pipelines, and from BNSF and UPRR to bore under tracks for the KLM Pipeline connection. Construction damage to existing roads would be repaired to original or as near original conditions as possible. Environmental Commitment LT-4, described in Chapter 2.0: Proposed Project and Alternatives, commits the project to filing a Traffic Management Plan with the City of Pittsburg as part of the encroachment permit approval process.

There is a potential for minor, short-term increases in motor vehicle hazards due to the nature of pipeline construction and operation of construction equipment. Additionally, there may be temporary lane closures on streets adjacent to Railroad Avenue during construction of the proposed Rail Transload Facility, and detours would be necessary. Environmental Commitment LT-5, described in Chapter 2.0: Proposed Project and Alternatives, commits the project to ensuring the construction contractor prepares a Construction Traffic Control Plan and Implementation Program to address timing of heavy equipment and building materials deliveries; signage, lighting, and traffic control device placement; and

the establishment of delivery/work hours outside of peak traffic periods. Impacts to transportation resulting from construction of the proposed pipelines and Rail Transload Facility would be temporary, and would be less than significant with the implementation of the Traffic Management Plan.

During project construction, heavy construction equipment would be operated on major arterials and local roadways. Heavy construction equipment can damage roads, which may increase hazards for the public. There also would be the potential to track dust, soils, and other materials from graded construction sites onto public roads, which could increase hazards. This impact would be less than significant with the implementation of the following mitigation measure.

> **Mitigation Measure LT-1: Minimize damage to existing roads.** To minimize damage to existing roads WesPac shall:
>
> - use regulation-sized vehicles, except for specific construction equipment, which may haul oversized loads;
>
> - enter into a secured agreement with the City of Pittsburg to ensure that any City roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the City; and
>
> - post a security bond to cover the costs of road maintenance during construction.

Impact LT-5: Result in inadequate emergency access. (Less than significant.) The proposed project would not alter any existing emergency access routes or change existing patterns of emergency access. While temporary lane closures along streets adjacent to Railway Avenue may be required during construction of the proposed Rail Transload Facility, the proposed project would not require closures of public roads, which could inhibit access by emergency vehicles. Increased project construction-related traffic would not cause a significant increase in congestion or affect the existing LOS classification on roads, which could indirectly affect emergency access. The proposed project circulation design includes local access streets to all elements of the proposed project and paved access to all points within the proposed Terminal project site, which would facilitate emergency access in the event of an emergency at the proposed project site during project construction. Therefore, this impact would be less than significant.

> **Mitigation Measure:** No mitigation required.

Impact LT-6: Result in inadequate parking. (Less than significant.) The proposed project would not result in the physical displacement of existing parking. The proposed project would involve an increase in demand for parking at the Terminal during construction activities for construction equipment and personnel vehicles. With a peak construction force of 225 employees at the Terminal project site, which would produce approximately 206 construction employee vehicles, it is estimated that approximately 1.7 acres of land would be required to accommodate the projected vehicles for construction personnel. Construction employee parking would be provided on available space at the proposed Terminal project site and staging areas 1 and 2, which each exceed 1.7 acres. The proposed Rail Transload Facility project site can accommodate all construction-related parking in the on-site staging area. Therefore, all parking would be accommodated within the proposed project sites and staging areas, and thus would not impact on-street parking in the surrounding industrial areas. Therefore, construction of the proposed project would not result in inadequate parking capacity.

Mitigation Measure: No mitigation required.

Operational Impacts

Impact LT-7: Substantially increase traffic in relation to the existing traffic load and capacity of the street system. (Less than significant.) The Terminal would be operated by a maximum staff of approximately five or six on any given shift during the standard eight-hour workday. Based on similar oil terminal projects, it is anticipated an additional one or two non-peak-hour trips per day would be made to the facility by trades people, vendors, consultants, and management personnel. The five trips generated by operations personnel during a shift represent an increase of 0.0025 percent of the 1,967 peak-hour traffic volume at the Willow Pass Road and Bailey Road intersection near the proposed project site. This is a negligible amount, which would not impact traffic conditions resulting in a change in the LOS classifications of the affected roadways. Table 15-6 lists the existing peak traffic and operations-related traffic (existing plus project) for the proposed project at each key intersection. Key intersections are identified on Figure 15-4. Projected impacts to the LOS rating of selected roadway intersections during construction are summarized in Table 15-7. There would be no changes to LOS as a result of project operations.

Trucks would periodically deliver/pickup replacement parts, lubricants, cleaning chemicals, liquid fuels, trash, and other consumables. On average, there would be one or fewer truck deliveries to the project site per day. Environmental Commitment LT-6, described in Chapter 2.0: Proposed Project and Alternatives, commits that all transporters of hazardous materials to the project site would be required to have a Hazardous Materials Transportation License. All shipments would follow the City-designated hazardous materials truck routes.

Table 15-6: Existing and Peak Hourly Traffic* Compared with Operations Traffic

	Eastbound			Westbound			Northbound			Southbound		
	Left	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
Willow Pass (east/west) and Bailey Road/Walgreens Parking Lot (north/south) — Signalized — Morning Peak												
Existing conditions	7	270	183	309	685	1	290	7	207	1	1	6
Existing + peak operation	7	271	183	309	685	1	290	7	208	1	1	6
Willow Pass (east/west) and Bailey Road/Walgreens Parking Lot (north/south) — Signalized — Evening Peak												
Existing conditions	8	568	171	215	240	7	235	22	416	8	4	16
Existing + peak operation	8	568	171	216	241	7	235	22	416	8	4	16
East 10th Street (east/west) and Railroad Avenue (north/south) — Signalized — Morning Peak												
Existing conditions	8	147	208	62	251	25	163	154	47	72	248	20
Existing + peak operation	8	147	208	62	253	25	164	154	47	72	248	20
East 10th Street (east/west) and Railroad Avenue (north/south) — Signalized — Evening Peak												
Existing conditions	27	224	150	96	197	46	134	227	99	32	152	20
Existing + peak operation	27	226	151	96	197	46	134	227	99	32	152	20
West 10th Street (east/west) NRG Entrance (north/south) — Two-way Stop — Morning Peak												
Existing conditions	9	175	1	3	367	8	1	0	1	0	0	3
Existing + peak operation	11	175	1	3	367	11	1	0	1	0	0	3
West 10th Street (east/west) NRG Entrance (north/south) — Two-way Stop — Evening Peak												
Existing conditions	0	385	1	0	187	3	0	0	1	4	0	8
Existing + peak operation	0	385	1	0	187	3	0	0	1	7	0	10

*Actual critical turning movement traffic counts were performed on September 1, 2011. The weather was clear and dry.

Table 15-7: Existing, Construction, and Operation-phase LOS for Key Intersections

Intersection	Existing*		Construction Phase		Operation Phase	
	Total Peak-hour In/Out Vehicle Trips at Intersection	**LOS**	**Total Peak-hour In/Out Vehicle Trips at Intersection**	**LOS**	**Total Peak-hour In/Out Vehicle Trips at Intersection**	**LOS**
Willow Pass Road at Bailey Road (a.m.)	1,967	D	2,070	D	1,969	D
Willow Pass Road at Bailey Road (p.m.)	1,910	E	2,013	E	1,912	E
East 10th Street at Railroad Avenue (a.m.)	1,405	C	1,508	D	1,408	C
East 10th Street at Railroad Avenue (p.m.)	1,404	B	1,507	B	1,407	B
West 10th Street at NRG entrance (a.m.)	568	B	774	B	573	B
West 10th Street at NRG entrance (p.m.)	589	B	795	B	594	B
*Traffic counts performed on September 1, 2011						

Transportation impacts associated with project operations would not be significant for the following reasons:

- Even if the five peak-hour trips generated by the operations workforce would occur during the peak commute hour periods (7 a.m. to 8 a.m. and 5 p.m. to 6 p.m.), the LOS classifications of potentially affected roadway intersections would not change. Visits by trades people, vendors, and other non-facility personnel would be limited and would occur during non-peak commute periods.

- Deliveries of hazardous materials would occur approximately once per month. Delivery of these materials would occur over pre-arranged routes and would be in compliance with all LORS governing the safe transportation of hazardous materials.

Traffic associated with the operation of the KLM Pipeline connection, Rail Pipeline, and San Pablo Bay Pipeline would consist of occasional preventative maintenance or repair vehicles, and the increase in traffic would be negligible.

Mitigation Measure: No mitigation required.

Impact LT-8: Result in substantial safety risks resulting from a change in traffic patterns. (Less than significant.) Project operations would not result in a change in traffic patterns. The increase in traffic resulting from operations personnel traveling to and from the project site would be negligible, and would not result in substantial safety risks. This impact would be less than significant.

Railroad traffic would increase during project operations, as the proposed Rail Transload Facility would allow for the arrival, transloading, and departure of up to one 104-car crude oil unit train per day. However, traffic on the existing BNSF and UPRR railroads is highly variable and would remain so with or without the project; therefore, the addition of one train per day would be a negligible impact.

Mitigation Measure: No mitigation required.

Impact LT-9: Substantially increase hazards caused by a design feature or incompatible uses. (Less than significant.) There are no road features or characteristics in the project vicinity that would affect public safety, nor are there any substandard bridges along the potential access routes. In addition, there are no City roadways that are subject to normal weather-related closures such as localized flooding or fog.

The NRG entrance is a straight access road with sight distance the entire length of the access road due to the slightly sloping terrain. To provide tractor-trailer access to the entire site, a 20-foot-long roadway with a minimum radius of 30 feet currently exists, which provides access to all areas of the existing Terminal. The

access road crosses over a private rail spur, which historically serviced the NRG Pittsburg Generating Station. According to the California Public Utilities Commission (CPUC), the spur line has been closed. The BNSF railroad notified the Federal Rail Authority that the crossing was closed in August 2007. The rail crossing of the spur across West 10th Street was identified as CPUC #002-1156.75-CX, DOT #029758A. Due to the abandonment and closure of the spur line crossing, there would be no vehicle and rail conflicts along the access road. The access road to the Rail Transload Facility is also a straight access road with adequate sight distance for the entire length. Impacts would be less than significant.

Mitigation Measure: No mitigation required.

Impact LT-10: Result in inadequate parking. (Less than significant.) A total of seven parking spaces, with one space designated as an American Disability Act-compliant parking space, are planned for the office and control building at the Terminal. It is anticipated that the seven parking spaces would be adequate to handle all on-site parking needs at the project site. A small parking lot would be constructed adjacent to the administration building at the Rail Transload Facility project site. The parking lot would have 29 standard parking spaces and two American Disability Act-compliant parking spaces. No on-street parking would be required for the operational phase of the facilities.

Mitigation Measure: No mitigation required.

Impact LT-11: Conflict with adopted policies or programs within the City of Pittsburg General Plan or regional transportation plans. (Less than significant.) The proposed project would be consistent with the goals and policies of the City's general plan. The proposed project would contribute less than 0.0025 percent of the total volume of traffic at nearby intersections. In addition, the proposed project would restore operations at an existing storage and marine terminal facility, which exempts the project from industrial traffic impact fees adopted by the City of Pittsburg. The Transportation Element of the general plan calls for maintaining a minimum LOS on all regional routes of significance of "D" or "E," and the proposed project would not degrade any regional routes of significance beyond the adopted LOS standard. Furthermore, the Transportation Element calls for limited driveways on all major arterials and the proposed project has limited ingress/egress to the project site off the NRG entrance in compliance with the access limitation on major arterials.

Mitigation Measure: No mitigation required.

15.2.3.2 Alternative 1: Reduced Onshore Storage Capacity

Construction-related Impacts

Impact LT-12: Substantially increase traffic in relation to the existing traffic load and capacity of the street system, exceed the level of service standards on city roads or state highways, or result in a change in traffic patterns that results in substantial safety risks. (Less than significant.) Under Alternative 1, all impacts resulting from the proposed project would remain the same. The trip-generation characteristics would be identical to the proposed project. It is assumed that reducing the number of storage tanks that would be rehabilitated would not reduce the number of construction workers at the proposed project site.

Projected impacts to the LOS classification of selected roadway intersections during construction are summarized in Table 15-5. The only LOS classification that would change negatively as a result of construction activities under Alternative 1 would be the morning peak at East 10th Street and Railroad Avenue, where the model predicts the LOS would operate at "D" during construction (the intersection is currently operating at LOS "C"). This increase in traffic, and decrease of LOS rating, at East 10th Street and Railroad Avenue would be short-term and temporary; therefore, it would be less than significant. For the other two key intersections, the effect on the V/C ratio is very minor and would not be substantial enough to cause a decrease in LOS rating. Farther away from the key intersections, the effect of construction traffic under Alternative 1 would be barely perceptible.

Similar to the proposed project, approximately 2,160 truck deliveries of materials and supplies are expected over the duration of construction activities under Alternative 1, an average of approximately six deliveries per weekday. At various times during peak construction, the number of daily deliveries would increase to as many as 25 per day. This would not significantly affect the traffic/truck mix along State highways, but it may increase the ratio of trucks to passenger vehicles on City streets for short durations of time. Any noticeable impact in traffic composition due to truck traffic would be limited to a relatively small number of days as most deliveries would be spread over the construction period. Therefore, impacts from construction-related truck traffic would be less than significant.

Construction of Alternative 1 would not result in a change in traffic patterns, as existing traffic would continue to use the same routes. While there would be a slight increase in traffic on the primary roadways that would be used by construction personnel for travel to and from the proposed project site, this increase in traffic would not result in substantial safety risks. This impact would be less than significant.

Mitigation Measure: No mitigation required.

Impact LT-13: Substantially increase hazards caused by a design feature or incompatible uses. (Less than significant with mitigation.) Because it is assumed that Alternative 1 would require the same number of construction workers as the proposed project, impacts would be the same as the proposed project. Only small quantities of hazardous materials would be used during construction, and would be shipped by truck. Refer to Chapter 10.0: Hazards and Hazardous Materials for more detailed information about hazardous materials.

There is a potential for minor, short-term increases in motor vehicle hazards due to the nature of pipeline construction and operation of construction equipment. Additionally, there may be temporary lane closures on streets adjacent to Railroad Avenue during construction of the proposed Rail Transload Facility, and detours would be necessary. The construction contractor would prepare a construction Traffic Control Plan and implementation program to address timing of heavy equipment and building materials deliveries; signage, lighting, and traffic control device placement; and the establishment of delivery/work hours outside of peak traffic periods. Impacts to transportation resulting from construction of the proposed Rail Pipeline and Rail Transload Facility under Alternative 1 would be temporary, and would be less than significant with the implementation of the Traffic Management Plan.

During construction of Alternative 1, heavy construction equipment would be operated on major arterials and local roadways. Heavy construction equipment can damage roads, which may increase hazards for the public. There also would be the potential to track dust, soils, and other materials from graded construction sites onto public roads, which could increase hazards. This impact would be less than significant with the implementation of the following mitigation measure.

> **Mitigation Measure LT-2: Minimize damage to existing roads.** Refer to Mitigation Measure LT-1.

Impact LT-14: Result in inadequate emergency access or parking capacity. (Less than significant.) Alternative 1 would not alter any existing emergency access routes or change existing patterns of emergency access. While temporary lane closures may be required along streets adjacent to Railroad Avenue during construction of the proposed Rail Transload Facility, there would be no closures of public roads, which could inhibit access by emergency vehicles. Refer to Impact LT-5 for more detail. This impact would be less than significant.

Construction of Alternative 1 would not result in the physical displacement of existing parking. All parking would be accommodated within the project sites, and thus would not impact on-street parking in the surrounding industrial areas. Therefore, construction would not result in inadequate parking capacity. This impact would be less than significant.

> **Mitigation Measure:** No mitigation required.

Operational Impacts

Impact LT-15: Substantially increase traffic in relation to the existing traffic load and capacity of the street system, or result in a change in traffic patterns that results in substantial safety risks. (Less than significant.) Similar to the proposed project, under Alternative 1 the Terminal would be operated by a maximum of five or six staff members on any given shift during the standard eight-hour workday. It is anticipated an additional one or two non-peak-hour trips per day would be made to the facility by trades people, vendors, consultants, and management personnel. The five trips generated by operations personnel represent an increase of 0.0025 percent to the 1,967 peak-hour traffic volume at the Willow Pass Road and Bailey Road intersection near the proposed project site. This is a negligible amount, which would not result in any change in LOS classification of the affected roadways.

During Terminal operations, trucks would periodically deliver/pickup replacement parts, lubricants, cleaning chemicals, liquid fuels, trash, and other consumables. On average, there would be one or fewer truck deliveries to the project site per day. The increase in traffic resulting from project operations under Alternative 1 would be less than significant.

Traffic associated with the operation of the KLM Pipeline connection, Rail Pipeline, and San Pablo Bay Pipeline would consist of occasional preventative maintenance or repair vehicles, and the increase in traffic would be negligible.

Railroad traffic would increase during project operations, as the proposed Rail Transload Facility would allow for the arrival, transloading, and departure of up to one 104-car crude oil unit train per day. However, traffic on the existing BNSF and UPRR railroads is highly variable and would remain so with or without the project; therefore, the addition of one train per day would be a negligible impact.

Operations under Alternative 1 would not result in a change in traffic patterns. The increase in traffic resulting from operations personnel traveling to and from the project site would be negligible, and would not result in substantial safety risks. This impact would be less than significant.

Mitigation Measure: No mitigation required.

Impact LT-16: Substantially increase hazards caused by a design feature or incompatible uses. (Less than significant.) There are no road features or characteristics in the project vicinity that would affect public safety, nor are there any substandard bridges along the potential access routes. In addition, there are no City roadways that are subject to normal weather-related closures such as localized flooding or fog.

Identical to the proposed project, the NRG entrance is a straight access road with sight distance the entire length of the access road due to the slightly sloping terrain. To provide tractor-trailer access to the entire site, a 20-foot-long roadway with a minimum radius of 30 feet currently exists, which provides access to all areas of the existing Terminal. The access road crosses over a private rail spur, which is closed. Refer to Impact LT-9 for details. Due to the abandonment and closure of the spur line crossing there would be no vehicle and rail conflicts along the access road. The access road to the Rail Transload Facility is also a straight access road with adequate sight distance for the entire length. Impacts would be less than significant.

Mitigation Measure: No mitigation required.

Impact LT-17: Result in inadequate parking capacity. (Less than significant.) Similar to the proposed project, under Alternative 1 a total of seven parking spaces, with one space designated as an American Disability Act parking space, would be designed for the office and control building at the Terminal. It is anticipated that the seven parking spaces would be adequate to handle all on-site parking needs at the project site. A small parking lot would be constructed adjacent to the administration building at the Rail Transload Facility project site. The parking lot would have 29 standard parking spaces and two American Disability Act-compliant parking spaces. No on-street parking would be required during Terminal and Rail Transload Facility operations.

Mitigation Measure: No mitigation required.

Impact LT-18: Conflict with adopted policies or programs within the City of Pittsburg General Plan or regional transportation plans. (Less than significant.) Alternative 1 would be consistent with the goals and policies of the City's general plan and would contribute less than 0.0025 percent of the total volume of traffic at nearby intersections. The Transportation Element of the general plan calls for maintaining a minimum LOS on all regional routes of significance of "D" or "E," and Alternative 1 would not degrade any regional routes of significance beyond the adopted LOS standard.

Mitigation Measure: No mitigation required.

15.2.3.3 Alternative 2: No Project

Impact LT-19: Substantially increase traffic in relation to the existing traffic load and capacity of the street system; exceed the level of service standards on city roads or state highways; result in a change in traffic patterns that results in substantial safety risks; substantially increase hazards caused by a design feature or incompatible uses; result in inadequate emergency access or parking capacity; or conflict with adopted policies, plans, or programs. (No impact.) Since no construction or operational activities would occur at the proposed project sites under Alternative 2, there would be no impact to land transportation. The Terminal project site would remain as it is today in a caretaker status, and daily trips to and from the site would remain the same until such time a new project is proposed that meets the requirements of the general plan and zoning of the project area. Alternative 2 would not avoid potential significant ground transportation impacts in the future, and could result in greater impacts than the proposed project, since the general plan industrial land use designation and zoning classification of the project site would allow a more intense industrial activity than with the proposed project.

Mitigation Measure: No mitigation required.

15.3 REFERENCES

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