

4.3 Transportation and Circulation

This section is based on a transportation impact study prepared by Overland Traffic Consultants and Central Coast Transportation Consulting. Refer to Appendix D for the full transportation impact study.

4.3.1 Environmental Setting

4.3.1.1 Existing Roadway Network

The Project is within the County of San Luis Obispo (County), with the potential to be annexed to the City of San Luis Obispo (City). Affected roadways in the region are within both the City and County and also include state highways. In addition, off-site materials hauling associated with remediation activities would affect Highway 41 in Kings County and Highway 33 and Lokern Road in Kern County. Figure 4.3-1 shows the roadways and intersections in the vicinity of the Project. The following are the existing local and regional freeways, highways, and roadways likely to be influenced by the Project traffic.

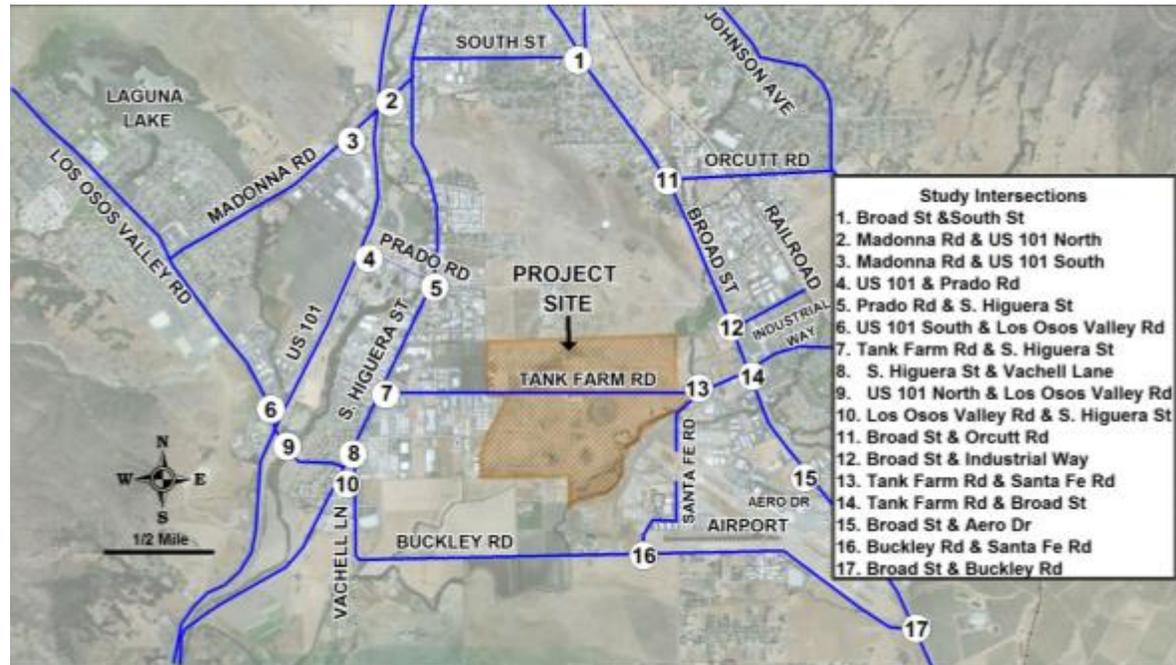
U.S. Highway 101 operates in the north-south direction and is located west of the Project Site. This highway provides two lanes in each direction in the Project vicinity. Freeway ramps are located at South Higuera Street, Los Osos Valley Road, Prado Road, and Madonna Road. The California Department of Transportation (Caltrans) reports that U.S. Highway 101 carried approximately 56,000 vehicles per day (VPD) and 5,600 vehicles per hour (VPH) during the peak hours between Madonna Road and Los Osos Valley Road in 2008. U.S. Highway 101 spans from Los Angeles through California, Oregon and Washington to the north with parts of the highway along the coastline.

Broad Street operates in the north-south direction and is located east of the Project Site. Broad Street provides two lanes in each direction in the Project vicinity. Turn lanes are provided at most major intersections. Caltrans reports that Broad Street (previously designated as State Route 227) carried approximately 22,800 VPD and 2,700 VPH during the peak hours at Tank Farm Road during 2008. Broad Street is designated as a truck route. It is designated as a road of high or moderate scenic value. South Street is also designated as a truck route, and a road of moderate scenic value. State Route 227 continues south through Price Canyon to connect with U.S. Highway 101 in Arroyo Grande.

Aero Drive is designated as a local commercial street by the City. Local commercial streets are described as roadways which directly serve non-residential developments and carry traffic to commercial collector streets. Aero Drive operates in generally the east-west direction and provides access to San Luis Obispo County Regional Airport. Currently one lane in each direction is provided.

4.3 Transportation and Circulation

Figure 4.3-1 Study Area Intersections



Source: MRS 2012

Buckley Road is designated as an Arterial Street by the City (Collector by the County). Arterial Streets are described as roadways which provide circulation between activity centers and residential streets with two to four travel lanes. Buckley Road operates predominately in the east-west direction and currently has one lane in each direction. It is designated as a road of high or moderate scenic value.

Elks Lane is designated as a Local Commercial Street by the City. Local Commercial Streets are described by the City as streets which directly service non-residential development and channel traffic to commercial collector streets. Elks Lane provides one lane in each direction in the Project vicinity.

South Higuera Street is a generally north-south roadway designated as an Arterial Street by the City and County. South Higuera Street is part of the City's truck route system and provides connection between downtown San Luis Obispo (where it is named Higuera Street) and U.S. Highway 101. It is designated as a road of high scenic value between Prado Road and Los Osos Valley Road, a road of moderate scenic value north of Prado Road, and a road of high or moderate scenic value south of Los Osos Valley Road.

Industrial Way is designated as a Commercial Collector Street. Commercial Collector Streets collect traffic from commercial areas and distribute them to the commercial arterials. Industrial Way operates in the east-west direction with one lane in each direction with on-street parking. Industrial Way spans from Broad Street to the railroad tracks in the Project vicinity.

Los Osos Valley Road is an east-west roadway designated as an Arterial Street from South Higuera Street to the southbound U.S. 101 Freeway ramps and again from west of Madonna

Road. Between this span the roadway is designated as a Parkway Arterial. Portions of the roadway are designated as a high or moderate scenic route outside of the City limits and portions are designated as a high scenic route. Los Osos Valley Road provides one to two lanes in each direction in the Project vicinity. The roadway extends from South Higuera Street to the coast in Los Osos.

Madonna Road operates in the northeast-southwest direction and is designated as an Arterial Street by the City. It is part of the truck route system and designated as high or moderate scenic route outside of the City limits. Madonna Road provides two to three lanes in each direction and spans for the U.S. 101 Freeway to Los Osos Valley Road.

Orcutt Road is designated as an Arterial Street by the City and County. Orcutt Road provides a single lane in each direction but widens between Broad Street and Laurel Lane to provide two lanes. Orcutt Road operates from Broad Street to Johnson Avenue in the Project vicinity. It is designated as a road of moderate scenic value within the City limits and a road of high or moderate scenic value outside of the City limits.

Prado Road is a planned Regional Route which will span between Madonna Road and Broad Street. One lane in each direction is currently provided between the east side of U.S. Highway 101 and the 400 block of Prado Road where the roadway terminates. Prado Road is designated as an existing and future truck route. Prado Road is also designated as a road of moderate scenic value between U.S. Highway 101 and South Higuera Street.

Santa Fe Road is designated as a Commercial Collector Street from Buckley Road to Prado Road. Currently Santa Fe road provides one lane in each direction between Buckley Road and Tank Farm Road where the roadway currently terminates.

Tank Farm Road is designated as a Parkway Arterial, part of the City's truck route system and provides high or moderate scenic value outside of the City limit. Currently one lane in each direction is provided. However the roadway expands at South Higuera Street and Broad Street to provide turn lanes and two lanes of travel are provided in each direction between Broad Street and the railroad tracks.

Other Highways State Routes 166, 33, 41, and 46 could also be used as part of the alternative routes related to contaminated soils hauling. Hydrocarbon-affected soils would be disposed of at the City of Santa Maria Landfill, reached via U.S. Highway 101, Betteravia Road, and Philbric Road.

4.3.1.2 Existing Pedestrian & Bicycle Facilities

Bicycle facilities are provided throughout the City and County (see Figure 2-18). Bicycle paths, which are right-of-way reserved for bicycles and pedestrians that are completely separate from the streets (i.e., Class I Bike Paths), are provided through Meadow Park providing a connection between Bridge and Meadow Streets. Bicycle lanes, which are striped lanes for one-way bicycle travel (i.e., Class II Bike Paths), are provided along a majority of Broad Street, Los Osos Valley Road, Madonna Road, Tank Farm Road, Orcutt Road, and South Higuera Street. Bicycle routes,

4.3 Transportation and Circulation

which are lightly traveled streets where bicycles share the road with vehicles without delineating lines, are provided at various locations throughout the community (i.e., Class III Bike Paths).

Portions of Tank Farm Road are designated future Bicycle Paths by the City's Bicycle Transportation Plan (City of San Luis Obispo, 2007). Buckley Road and Prado Road are also designated for future bike lanes.

4.3.1.3 Existing Transit Services

Local transit services are provided in the area by, San Luis Obispo Transit (SLO Transit) and Regional Transit Authority (RTA) and would alleviate automobile traffic impacts (as opposed to the Airport, for example, which is a regional transit service).

AMTRAK provides two services in the area including the Coast Starlight and Pacific Surfliner routes. The train station is located at 1011 Railroad Avenue north east of Broad Street and Santa Barbara Avenue which is north of the Project Site. The Coast Starlight travels between Seattle and Los Angeles daily. The Pacific Surfliner travels between San Diego and San Luis Obispo with three daily trips in each direction.

SLO Transit provides services throughout the City including the Project area along South Street, Madonna Road, South Higuera Street, Broad Street, Orcutt Road, portions of Tank Farm Road (east of Broad Street), Prado Road, and Santa Barbara Avenue. Routes 1, 2, 3, 4-A, 5-A and 5-B, and 6A-B service the greater San Luis Obispo area with headways as short as 30 minutes during the university calendar. On weekends and during the summer months, the service is significantly scaled back with some routes discontinued, headways lengthened and evening service reduced.

RTA provides intercity services in the Project area with Route 10 along South Higuera Street, as well as ADA paratransit services throughout the County.

Currently there is no fixed-route bus service along the Project frontage of Tank Farm Road. The closest transit stop to the Project Site is located on Broad Street near the Marigold Center serviced by SLO Transit, approximately 2,000 feet away from the eastern edge of the Project Site. To the west, the SLO Transit services the shopping center on South Higuera Street south of Tank Farm Road, approximately 3,000 feet from the western edge of the Project Site.

4.3.1.4 Intersections

Existing traffic conditions at the following 17 study intersections were evaluated to determine baseline conditions in the study area (refer to Figure 4.3-1):

1. Broad Street and South Street/Santa Barbara Street;
2. Madonna Road and Northbound U.S.-101 On/Off Ramps;
3. Madonna Road and Southbound U.S.-101 On/Off Ramps;
4. Northbound U.S. 101 Off Ramp/Elks Lane and NB U.S.-101 On Ramp/Prado Road;
5. Prado Road and South Higuera Street;
6. Los Osos Valley Road and Northbound U.S.-101 On/Off Ramps;

7. Los Osos Valley Road and Southbound U.S.-101 On/Off Ramps;
8. Los Osos Valley Road and South Higuera Road;
9. South Higuera Road and Tank Farm Road;
10. South Higuera Road and Vachell Lane;
11. Broad Street and Orcutt Road;
12. Broad Street and Industrial Way;
13. Tank Farm Road and Santa Fe Road;
14. Broad Street and Tank Farm Road;
15. Broad Street and Aero Drive;
16. Buckley Road and Santa Fe Road; and
17. Broad Street and Buckley Road/Hidden Springs.

The existing traffic volumes at the study intersections are shown on Figures 4.3-2 and 4.3-3. Traffic counts were conducted by an independent count company during October 2009 on three typical weekdays when schools were in session and on one Saturday at a single intersection. These existing counts were incorporated and compared to City model counts. The analysis is based on a combination of the traffic counts conducted in 2009 and City model information for existing conditions.

4.3.1.5 Intersection, Corridor, and Freeway Evaluation Methodology

Due to the possibility that the Project would be processed in either jurisdiction, traffic conditions have been evaluated based upon City and County standards. The operations of intersections are described using a lettering system called level of service (LOS). The LOS ranges from LOS A, which is the best operating conditions, to LOS F, signifying failure.

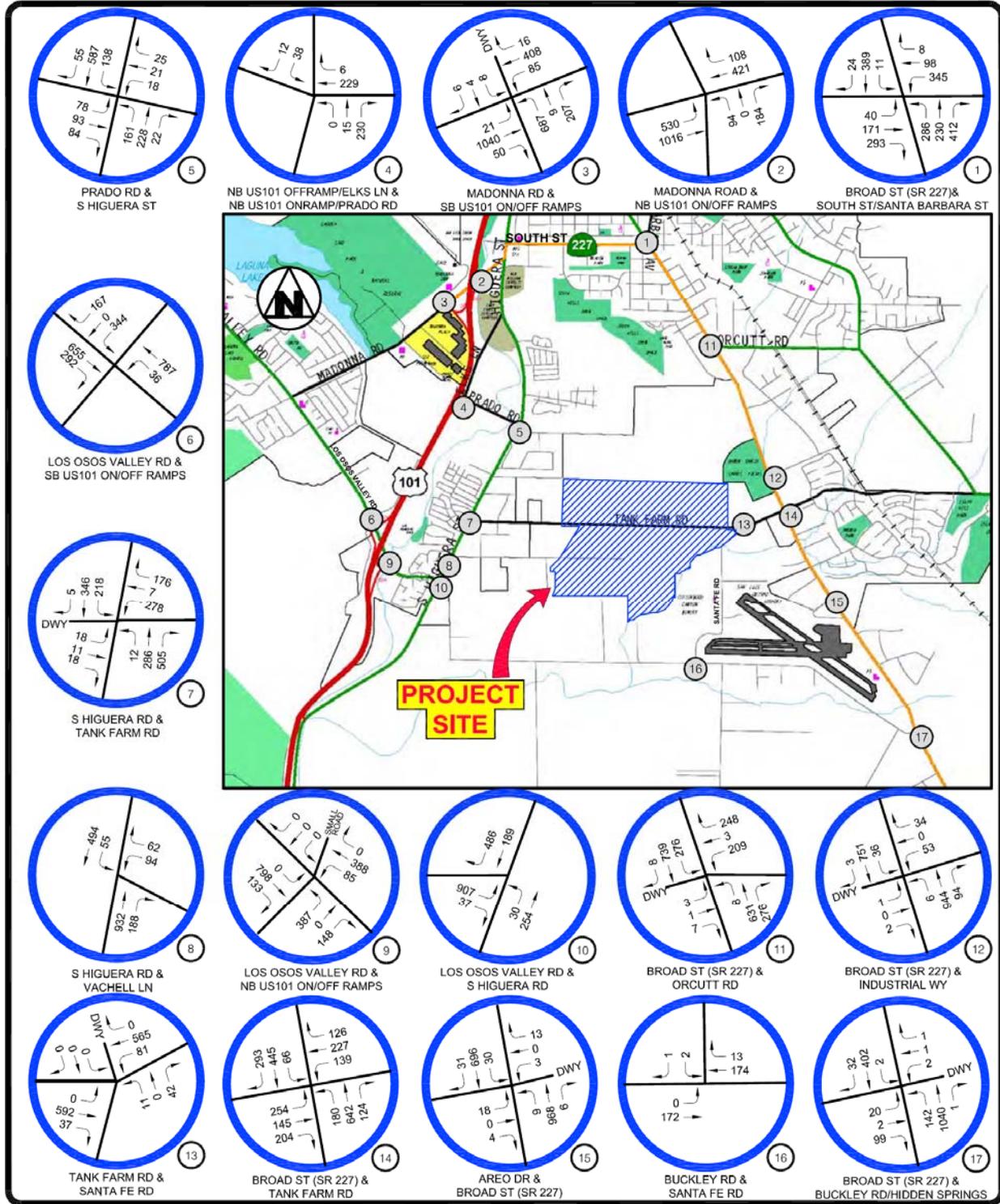
The intersections which are signalized are analyzed based upon average control delay per vehicle which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. Average control delay includes deceleration, queue movement, stopped time, and start up acceleration time. The Highway Capacity Manual (HCM), 2000 provides an industry-standard method for calculating average control delay. The Synchro 8 software package implements the HCM methods to calculate the LOS at intersections during the peak hours of travel.

The intersections which are not signalized are analyzed based upon average control vehicular delay. Control delay is the increased time of travel for a vehicle approaching and going through a stopped intersection. This is also calculated using the Synchro 8 software based upon the Highway Capacity Manual (HCM), 2000. LOS descriptions and average control delay are summarized in Table 4.3-1.

The LOS definition for corridors is based on the average travel speed along the corridor as calculated by the Synchro 8 software package. The LOS thresholds for corridors are presented in Table 4.3-2.

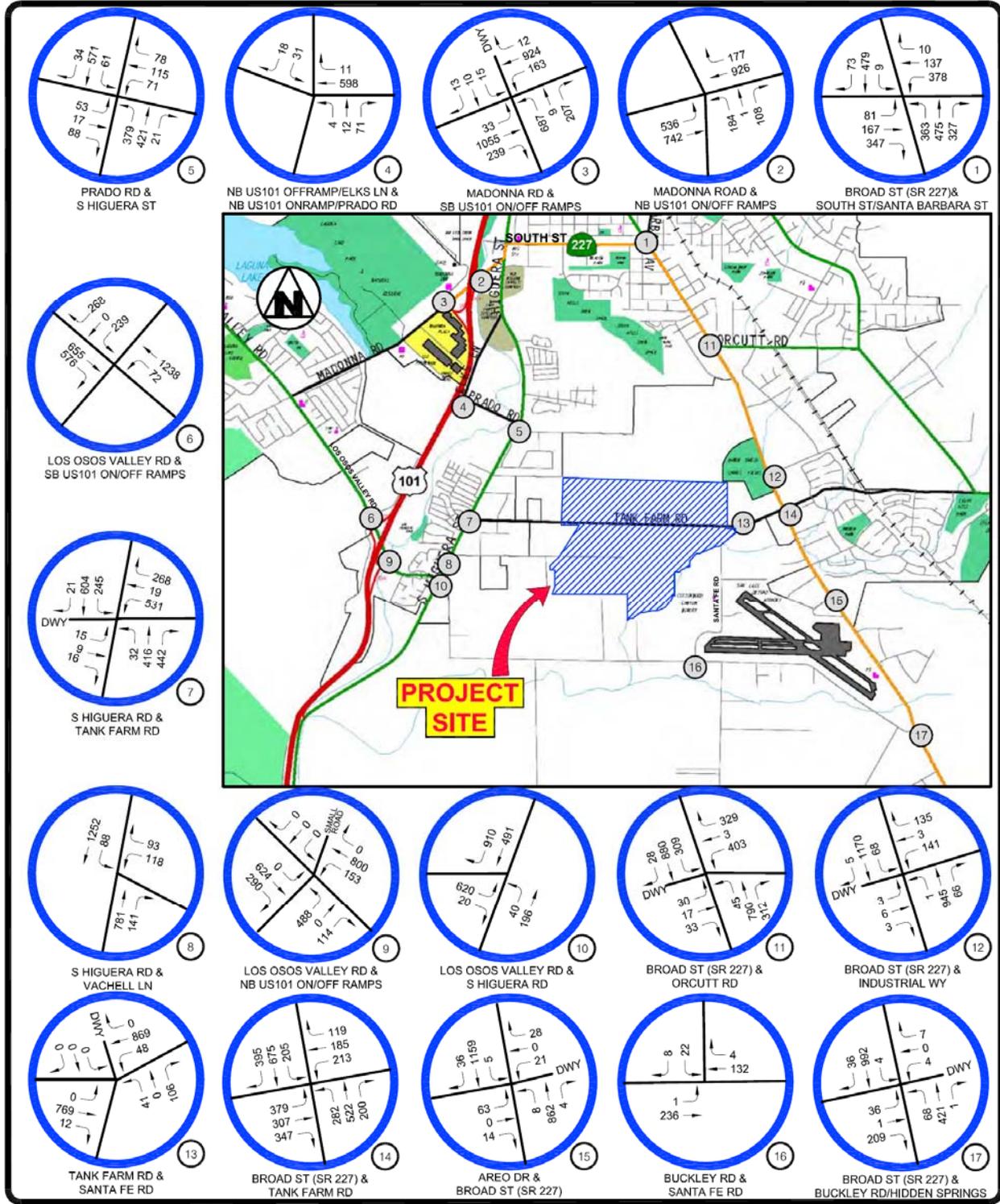
4.3 Transportation and Circulation

Figure 4.3-2 Existing a.m. Peak Hour Traffic Volumes



Source: Overland 2012

Figure 4.3-3 Existing p.m. Peak Hour Traffic Volumes



Source: Overland 2012

4.3 Transportation and Circulation

Table 4.3-1 Intersection Levels of Service & Delay

Level of Service	Signalized Intersection Delay (seconds per vehicle)	Unsignalized Intersection Delay (seconds per vehicle)	Description of Operating Conditions
A	Less than 10	Less than 10	Excellent conditions. No loaded cycles and little to no delay.
B	> 10 to 20	> 10 to 15	Very good conditions. A stable flow of traffic.
C	> 20 to 35	> 15 to 25	Good conditions. Stable operations continue. Loading is intermittent. Occasionally drivers may have to wait and backups may develop behind turning vehicles.
D	> 35 to 55	> 25 to 35	Fair conditions. Approaching instability. Delays may be lengthy during short times within the peak hours.
E	> 55 to 80	> 35 to 50	Poor conditions. At or near capacity with possible long queues for left turning vehicles. Full utilization of every signal cycle is seldom attained.
F	> 80	> 50	Failure conditions. Gridlock with stoppages of long duration.

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

Table 4.3-2 Corridor Level of Service Thresholds

Level of Service	Urban Street Class*			
	I	II	III	IV
Average Travel Speed (miles per hour)				
A	>42	>35	>30	>25
B	35 – 42	29 – 35	25 – 30	21 – 25
C	28 – 34	23 – 28	19 – 24	15 – 20
D	22 – 27	18 – 22	15 – 18	12 – 14
E	16 – 21	13 – 17	11 – 14	9 – 11
F	< 16	< 13	< 11	< 9

*As defined in Exhibit 15-2 of the Highway Capacity Manual.

Source: Highway Capacity Manual, Transportation Research Board, 2000

The LOS definition for freeway segments differs from the delay methodology used for intersections and corridors. Operating conditions along the freeway are based on the density of the traffic and is expressed in vehicles per mile per lane (veh/mi/lane). This methodology has been adopted by Caltrans District 5 to evaluate mainline freeway operating conditions and is based on the Highway Capacity Manual. The HCS+ software by McTrans was used to evaluate freeway operating conditions. Table 4.3-3 shows the definitions of the LOS grades for freeway locations.

4.3.1.6 Existing Intersection, Corridor and Freeway Operations LOS

The traffic volumes collected, lane configurations, and traffic control were used to determine the existing conditions at the study intersections. The results of this analysis are provided in Table 4.3-4. The existing conditions of the Tank Farm Road corridor are provided in Table 4.3-5. The existing conditions of the freeway segments are provided in Table 4.3-6.

Table 4.3-3 Freeway Segment Level of Service Thresholds

Level of Service	Description	Density ¹
A	Free flow speeds prevail.	≤ 11
B	Free flow speeds continue. Maneuverability is only slightly restricted.	> 11 to 18
C	Speeds at or near free flow speeds. Maneuverability within the traffic stream is noticeably restricted, lane changes require more care.	> 18 to 26
D	Speeds decline slightly with increasing flows. Maneuverability within the traffic stream is more limited with reduced driver comfort.	> 26 to 35
E	Operation at capacity. No usable gaps with little room to maneuver. Disruptions create queuing.	> 35 to 45
F	Breakdown in traffic flow. Failure.	> 45

¹ Density in vehicles per mile per lane.

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

Table 4.3-4 Existing Conditions, Level of Service Summary

#	Intersection	Peak Hour	Average Delay per Vehicle (sec)	Level of Service
1.	Broad Street & South St/Santa Barbara Ave	a.m.	23.8	C
		p.m.	28.8	C
2.	Madonna Road & NB U.S. 101 On/Off Ramps	a.m.	19.4	B
		p.m.	25.2	C
3.	Madonna Road & SB U.S. 101 On/Off Ramps	a.m.	29.5	C
		p.m.	36.4	D
4.	NB U.S. 101 Off Ramp/Elks Ln. & NB U.S. 101 On Ramp/Prado Rd*	a.m.	9.3	A
		p.m.	19.7	C
5.	Prado Road & S. Higuera Street	a.m.	18.6	B
		p.m.	23.7	C
6.	Los Osos Valley Road & SB U.S. 101 On/Off Ramps	a.m.	22.0	C
		p.m.	22.2	C
7.	S. Higuera Street & Tank Farm Road	a.m.	23.2	C
		p.m.	28.3	C
8.	S. Higuera Street & Vachell Lane ¹	a.m.	13.7	B
		p.m.	32.6	D
9.	Los Osos Valley Road & NB U.S. 101 On/Off Ramps	a.m.	18.5	B
		p.m.	17.3	B
10.	Los Osos Valley Road & S. Higuera Road	a.m.	12.4	B
		p.m.	16.0	B
11.	Broad Street & Orcutt Road	a.m.	17.7	B
		p.m.	27.7	C
12.	Broad Street & Industrial Way	a.m.	10.2	B
		p.m.	16.6	B
13.	Tank Farm Road & Santa Fe Road ¹	a.m.	1.1	A
		p.m.	10.6	B
14.	Broad Street & Tank Farm Road	a.m.	37.1	D
		p.m.	43.5	D
15.	Broad Street & Aero Drive	a.m.	8.8	A
		p.m.	13.8	B

4.3 Transportation and Circulation

Table 4.3-4 Existing Conditions, Level of Service Summary

#	Intersection	Peak Hour	Average Delay per Vehicle (sec)	Level of Service
16.	Buckley Road & Santa Fe Road ¹	a.m.	0.1	A
		p.m.	0.8	A
17.	Broad Street & Buckley Road	a.m.	17.5	B
		p.m.	10.9	B

Notes: ¹ Unsignalized Locations

Table 4.3-5 Existing Conditions, Corridor Summary

Location	Direction	Peak Hour	Average Travel Speed (mph)	Level of Service
Tank Farm Road between South Higuera and Broad Street	Eastbound	a.m.	38.2	B
		p.m.	34.6	B
	Westbound	a.m.	38.3	B
		p.m.	37.2	B

Table 4.3-6 Existing Conditions, Freeway Segments

Location	Direction	Peak Hour	Density (veh/mi/ln)	Level of Service
U.S. 101 south of Los Osos Valley Road	Northbound	a.m.	23.7	C
		p.m.	19.0	C
	Southbound	a.m.	12.5	B
		p.m.	24.4	C
U.S. 101 north of Los Osos Valley Road	Northbound	a.m.	21.4	C
		p.m.	17.5	B
	Southbound	a.m.	13.2	B
		p.m.	23.8	C

Source: U.S. 101/Los Osos Valley Rd Interchange PA & ED, September 2007 Fehr & Peers

4.3.2 Regulatory Setting

This section discusses the adopted plans relevant to traffic and circulation.

4.3.2.1 Federal

The federal government delegates the responsibilities of the maintenance and regulation of roadways to state and local governments.

4.3.2.2 State

Caltrans maintains the state highway system, including U.S. Highway 101, State Routes 227, 166, 33, 41, and 46, which provide access to collector, access, and local roads in the Project area. Caltrans generally regulates maximum load limits for trucks and safety requirements for oversized vehicles for operation on highways.

4.3.2.3 Local**San Luis Obispo Council of Governments**

The San Luis Obispo Council of Governments (SLOCOG) is a joint powers authority with a goal of facilitating cooperative regional and sub regional planning, coordination, and technical assistance on issues of mutual concern. SLOCOG is the designated Regional Transportation Planning Agency and thereby responsible for all regional transportation planning and programming activities, including developing the Regional Transportation Plan. The Regional Transportation Plan guides transportation policy and is updated every five years. Starting with the 2014 Regional Transportation Plan (underway, expected completion late 2014), SLOCOG will be required to develop a sustainable communities strategy (SCS) that identifies land use patterns expected to reduce vehicle miles traveled.

San Luis Obispo County General Plan

Chapter 5 of Framework for Planning and the Circulation Chapter of the San Luis Obispo Area Plan constitute the County's Circulation Element for the Project area. The circulation goals from Framework for Planning are as follows:

1. Provide for a land use pattern and rate of population growth that will not exceed the financial ability of the county and its residents to expand and maintain the circulation system.
2. Plan transportation system improvements to provide for, but not exceed, the capacities that are needed to serve the travel demand generated by the year 2010 population, consistent with the land use patterns allowed by the Land Use Element and the cities' general plans, so that growth is not facilitated or induced in inappropriate amounts or locations.
3. Integrate land use and transportation planning so that necessary transportation facilities and services can be provided to accommodate urban and rural development.
4. Coordinate the transportation system between different modes of travel, sensitive to the needs and desires of citizens in a manner that will provide an optimum benefit for the investment of public funds.
5. Recognize public transit and carpooling as very important components of the county's strategy to provide adequate circulation and to reduce dependency on the automobile.
6. Develop and coordinate transportation programs that reinforce federal, state, regional and local agency goals.

4.3 Transportation and Circulation

7. Design a transportation system that provides for safe travel within attainable, feasible economic and technical means.
8. Design transportation facilities with the intent to preserve important natural resources and features, promote the esthetic quality of the region and minimize environmental changes.
9. Develop and enhance a system of scenic roads and highways through areas of scenic beauty without imposing undue restrictions on private property, or unnecessarily restricting the placement of agricultural support facilities in agricultural and rural areas.
10. Encourage policies for new development to finance adequate additional circulation and access as a result of increased traffic it will cause.

San Luis Obispo County Code

The San Luis Obispo County Code implements the General Plan and provides more specific criteria for development. Traffic regulations, including traffic control devices and turning movements, are articulated in the San Luis Obispo County Code, Title 15, Vehicles and Traffic (SLOC 2009c). Title 22, Land Use Ordinance, provides standards for proposed developments and new land uses to include parking, street, and frontage requirements. Title 13, Roads and Bridges – Streets and Sidewalks, establishes a road improvement fee to pay for road facilities and improvements related to new development. The County can offer a reimbursement agreement to a developer who constructs a road facility or improvement that exceeds the impact mitigation needs of the new development (SLOC 2009d).

San Luis Obispo City General Plan

The City's Circulation Element of the General Plan was adopted in 1994, and was last revised in 2006. The Circulation Element includes the following goals related to transportation:

- Goal 1: Maintain accessibility and protect the environment throughout San Luis Obispo while reducing dependence on single-occupant use of motor vehicles, with the goal of achieving state and federal health standards for air quality.
- Goal 2: Reduce people's use of their cars by supporting and promoting alternatives such as walking, riding buses and bicycles, and using car pools.
- Goal 3: Provide a system of streets that are well-maintained and safe for all forms of transportation.
- Goal 4: Widen and extend streets only when there is a demonstrated need and when the projects will cause no significant, long-term environmental problems.
- Goal 5: Make the downtown more functional and enjoyable for pedestrians.
- Goal 6: Promote the safe operation of all modes of transportation.
- Goal 7: Coordinate the planning of transportation with other affected agencies such as San Luis Obispo County, Caltrans, and Cal Poly.

- Goal 8: Reduce the need for travel by private vehicle through land use strategies, telecommuting, and compact work weeks.

The City's Land Use and Circulation Elements are currently being updated and are scheduled to be complete in 2014.

Margarita Area Specific Plan

The City's 2004 Margarita Area Specific Plan (MASP) encompasses the 420 acre area bounded by South Higuera Street, Broad Street, Tank Farm Road, and the South Street hills ridge. The MASP calls for transit oriented development in the area, with predominantly residential and business park land uses. Once extended, Prado Road would serve as the primary vehicle connection between the Margarita Area and the rest of the community.

Airport Area Specific Plan

The City's 2005 Airport Area Specific Plan (AASP) sets a planning framework for the 1,500 acre Airport Area, south of the Margarita Area. The AASP calls for the extension of Prado Road, Buckley Road, and Santa Fe Road as a part of its Circulation system, as well as the widening of Tank Farm Road and the construction of the Unocal Collector.

Orcutt Area Specific Plan

The City's 2010 Orcutt Area Specific Plan (OASP) encompasses 231 acres roughly bounded by Tank Farm Road, Orcutt Road, and the Union Pacific Railroad. The OASP area consists primarily of residential and open space land uses.

A preliminary analysis of the project's consistency with applicable transportation plans and polices is provided in Appendix E.

4.3.3 Significance Criteria

Intersections were evaluated for potential impacts based upon impact criteria established by the County and City. These impacts are defined as follows:

- Signalized intersections: a significant impact would occur if the addition of Project traffic degrades operations from LOS D or better to LOS E or F; or if project traffic is added to an intersection operating at LOS E or F.
- Unsignalized intersections: a significant impact would occur if the addition of Project traffic causes intersection operations to degrade to an unacceptable level and the peak hour signal warrant is met.
- All intersections: a significant impact would occur if the Project's access to a public street causes a potentially unsafe situation.
- Pedestrian and bicycle facilities: a significant impact would occur if the Project conflicts with existing or planned pedestrian or bicycle facilities; or if the Project creates a pedestrian or bicycle demand without providing adequate facilities.

4.3 Transportation and Circulation

- Transit facilities: a significant impact would occur if the Project conflicts with existing or planned facilities; or if the Project does not provide adequate facilities for pedestrians and cyclists to access transit routes and stops.
- Construction: a significant impact would occur if construction activities create a potentially unsafe situation or conflict with existing or planned transportation facilities.

4.3.4 Remediation Project Impacts and Mitigation Measures

The remediation phase of the Project would generate traffic from employees and contractors accessing the site, trucks hauling hydrocarbon-affected soils, equipment delivery, and hauling of other materials. The Project's proposed truck routes are shown on Figure 4.3-4.

Impact #	Impact Description	Phase	Residual Impact
T.1	Remediation activities related to the Project could result in potentially significant impacts to roadways in the Project vicinity due to the potential obstruction of heavy vehicles creating an unsafe situation.	Remediation	Class II

Remediation activity is expected to involve between 29 to 45 employees, plus extra truck drivers as needed. Approximately 196,250 cubic yards of materials (including a 25 percent contingency factor) are expected to be exported from the site, and 82,000 cubic yards of fill would be imported. Assuming a typical capacity of 15 cubic yards per truck, this corresponds to 13,083 round trips for materials export and 5,467 round trips for materials import. These trips are expected to occur over a two-year period.

The highest intensity of truck traffic is expected to occur during months 21 and 22 of the remediation process, when activities will focus on Reservoirs 5 and 7, and the North Marsh area. Approximately 177 heavy truck round trips are expected per day at this time. Approximately 45 auto round trips are expected for employees on the site during this time.

Assuming a heavy truck is equivalent to 1.5 passenger cars (Highway Capacity Manual, 2000) these volumes correspond to 311 daily passenger car trips ($177 \times 1.5 + 45$). Given that these trips would be spread throughout the day, remediation trip generation is significantly lower than the trip generation associated with the development phase of the Project.

However, the heavy vehicle traffic and temporary traffic control on Tank Farm Road would potentially obstruct the flow of vehicle and bicycle traffic resulting in potentially unsafe conditions. Double trailer trucks interacting with standard commuter traffic could produce greater accident potential and the potential for roadway damage. In addition, remediation activities may overlap with the reconstruction of the Los Osos Valley Road/U.S. 101 interchange, exacerbating construction impacts. The development of construction traffic management plans would ensure that construction activities are performed in a safe manner and minimize impacts to the public.

Figure 4.3-4 Proposed Truck Routes



Source: RAP AVOCET 2007

Mitigation Measures

T-1 Prior to issuance of applicable construction permits, the Applicant shall develop a construction traffic management plan for review and approval by the County Public Works department in consultation with City Public Works and Caltrans. The plan shall include at least the following items:

- 1. Identification of haul routes for materials hauling and equipment deliveries. This section shall include a Haul Permit from Santa Barbara County Public Works.*
- 2. Monitoring program for street surface conditions so that damage or debris resulting from construction or remediation of the Project can be identified and corrected by the Applicant.*
- 3. A traffic control plan showing proposed temporary traffic control measures, including lane closure procedures, accommodation for pedestrians and cyclists, and removal procedures for the temporary traffic control devices and added lanes.*
- 4. A scheduling plan showing hours of operation to minimize traffic congestion during peak hours and special events.*
- 5. The use of electronic message signs providing the traveling public with current construction information and the availability of alternate travel routes.*
- 6. A park and ride program to reduce the number of worker single occupant vehicle trips going to the site.*

Residual Impacts

The preparation of an adequate construction traffic management plan would reduce impact T.1 to *less than significant with mitigation (Class II)*.

4.3.5 City Development Plan Impacts and Mitigation Measures

The Project would redevelop a portion of the Project Site once remediation activities are complete. The City Development Plan would consist of five phases, spread over a 25-year period. Once all phases are complete, the Project would include approximately 800,000 square feet of Business Park and service commercial uses, approximately 15 acres of recreation fields, and approximately 250 acres of conservation and open space areas.

4.3.5.1 Analysis of Traffic Impacts

Impact #	Impact Description	Phase	Residual Impact
T.2	The addition of traffic generated by the Project would cause one intersection to operate at unacceptable levels under Existing plus Project conditions.	Development	Class III

Project Trip Generation

Traffic-generating characteristics of many land uses have been surveyed by the Institute of Transportation Engineers (ITE). The results of these traffic generation studies are published in a handbook titled Trip Generation, 8th Edition, which has become the industry standard for estimating traffic generation for different land uses.

Most of the proposed Project land uses are included in the handbook (e.g., light industrial, industrial park, manufacturing, mini-warehouse, hotel, veterinary clinic, office park, research and development center, retail, and vehicle service). Some of the proposed uses are not specifically stated but would operate similar to land uses evaluated in the handbook. For example, the recreation park, fire station and training facility, and wastewater treatment facility trip generation (for the County Development Plan) was based on anticipated usage. The vehicle trip generation for the transit maintenance center was based upon a similar use studied for Los Angeles County.

Table 4.3-7 summarizes the estimated worst-case trip generation for the City Development Plan. Under this scenario, the City Development Plan would generate 8,193 weekday daily trips with 1,039 a.m. and 1,068 p.m. peak hour trips.

Table 4.3-7 Estimated Project Traffic Generation- City Development Plan

Land Use	Daily Weekday Trips	a.m. Peak Hour Trips			p.m. Peak Hour Trips		
		In	Out	Total	In	Out	Total
Business Park	5,121	588	96	684	116	488	604
Commercial Services	2,878	252	74	326	126	249	375
Public Facilities	194	22	7	29	46	43	89
Total	8,193	862	177	1,039	288	780	1,068

Note: Trips include pass-by and internalization reductions. See Table 2 of Appendix D for further details.

Distribution and Assignment of Project Traffic

The directions of approach and departure to the Project Site constitute the trip distribution, which is shown on Figure 4.3-5. A primary factor affecting trip distribution is the spatial distribution of residences for employees and visitors and distribution of vendors and support facilities in the community which would generate Project trip origins and destinations. The estimated Project directional trip distribution is also based on the study area roadway network, traffic flow patterns in and out of this area of the City and County and consistency with previously approved traffic studies for this area. The Project trip assignment is shown on Figure 4.3-6. These Project trips are added to the existing traffic volumes to develop Existing plus Project conditions.

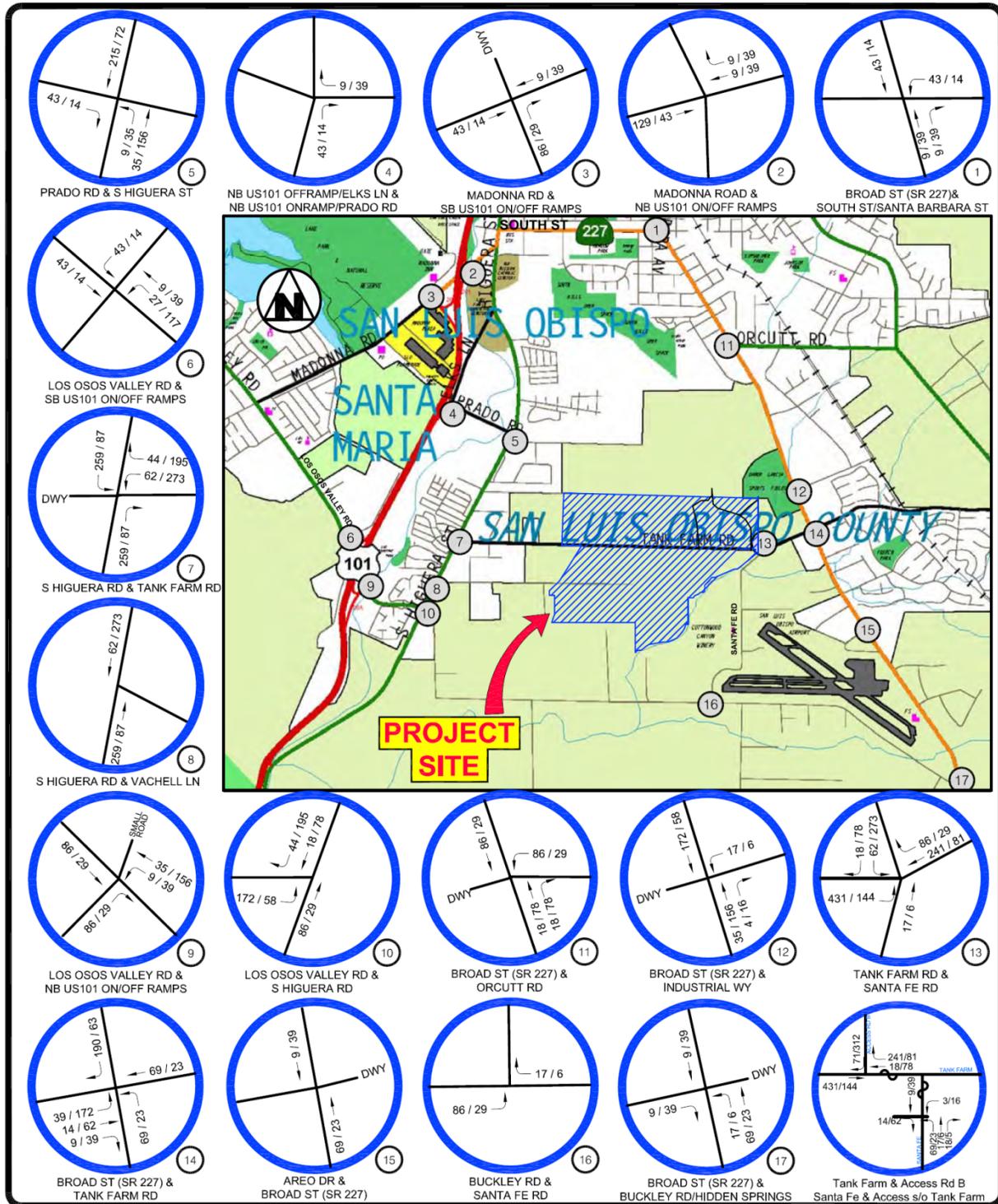
4.3 Transportation and Circulation

Figure 4.3-5 Project Trip Distribution



Source: Overland 2012

Figure 4.3-6 Project Trip Assignment (a.m./p.m.)



Source: Overland 2012

4.3 Transportation and Circulation

Evaluation of traffic flows associated with the existing conditions with the Project added, provides a slightly different distribution pattern than Cumulative without Project and Cumulative with Project because improvements to Prado Road are expected to change travel patterns in the area. Cumulative impacts are discussed in the Cumulative Section.

Analysis of Existing Traffic Conditions with the City Development Plan

To assess impacts associated with Existing plus Project conditions, Project impacts were analyzed as if the Project were constructed and operating today. This analysis does not include any assumptions of growth or change in current traffic levels in the area. See Appendix D for more details on the analysis. Table 4.3-8 summarizes the intersection operations under current conditions both with and without the City Development Plan.

Table 4.3-8 Existing Plus Project, Intersection Conditions

#	Intersection	Peak Hour	Existing		Existing + Project			Significant Impact
			Delay ¹	LOS	Delay ¹	LOS	Change	
1.	Broad Street & South St/Santa Barbara St	a.m.	23.8	C	25.3	C	+1.5	NO
		p.m.	28.8	C	29.3	C	+0.5	NO
2.	Madonna Road & NB U.S. 101 On/Off Ramps	a.m.	19.4	B	19.4	B	+0.0	NO
		p.m.	25.2	C	25.4	C	+0.2	NO
3.	Madonna Road & SB U.S. 101 On/Off Ramps	a.m.	29.5	C	29.5	C	+0.0	NO
		p.m.	36.4	D	36.5	D	+0.1	NO
4.	NB U.S. 101 Off Ramp/Elks Ln & NB U.S. 101 On Ramp/Prado Rd ²	a.m.	9.3	A	9.7	A	+0.4	NO
		p.m.	19.7	C	23.4	C	+3.7	NO
5.	Prado Road & S Higuera St	a.m.	18.6	B	20.7	C	+2.1	NO
		p.m.	23.7	C	25.1	C	+1.4	NO
6.	Los Osos Valley Road & SB U.S. 101 On/Off Ramps	a.m.	22.0	C	23.8	C	+1.8	NO
		p.m.	22.2	C	27.8	C	+5.6	NO
7.	S Higuera St & Tank Farm Road	a.m.	23.2	C	43.7	D	+20.5	NO
		p.m.	28.3	C	39.3	D	+11.0	NO
8.	S Higuera St & Vachell Lane ²	a.m.	13.7	B	35.8	E	+22.1	NO'
		p.m.	32.6	D	64.2	F	+31.6	NO'
9.	Los Osos Valley Road & NB U.S. 101 On/Off Ramps	a.m.	18.5	B	22.9	C	+4.4	NO
		p.m.	17.3	B	20.3	C	+3.0	NO
10.	Los Osos Valley Road & S Higuera St	a.m.	12.4	B	14.3	B	+1.9	NO
		p.m.	16.0	B	23.9	C	+7.9	NO
11.	Broad Street & Orcutt Road	a.m.	17.7	B	19.7	B	+2.0	NO
		p.m.	27.7	C	38.4	C	+10.7	NO
12.	Broad Street & Industrial Way	a.m.	10.2	B	11.2	B	+1.0	NO
		p.m.	16.6	B	17.9	B	+1.3	NO
13.	Tank Farm Road & Santa Fe Road ²	a.m.	1.1	A	20.2	C	+19.1	NO
		p.m.	10.6	B	20.9	C	+10.3	NO

Table 4.3-8 Existing Plus Project, Intersection Conditions

#	Intersection	Peak Hour	Existing		Existing + Project			Significant Impact
			Delay ¹	LOS	Delay ¹	LOS	Change	
14.	Broad Street & Tank Farm Road	a.m.	37.1	D	59.2	E	+22.1	YES
		p.m.	43.5	D	70.9	E	+27.4	YES
15.	Broad Street & Aero Drive	a.m.	8.8	A	9.0	A	+0.2	NO
		p.m.	13.8	B	14.1	B	+0.3	NO
16.	Buckley Road & Santa Fe Road ²	a.m.	0.1	A	0.3	A	+0.2	NO
		p.m.	0.8	A	1.8	A	+1.0	NO
17.	Broad Street & Buckley Road	a.m.	17.5	B	24.1	C	+6.6	NO
		p.m.	10.9	B	14.3	B	+3.4	NO

Notes: ¹ Average delay per vehicle in seconds.

² Unsignalized intersection.

Table 4.3-9 summarizes the corridor operations with the City Development Plan added. No significant corridor impacts have been identified.

Table 4.3-9 Existing Plus Project, Corridor Summary

Location	Direction	Peak Hour	Average Travel Speed (mph)	Level of Service
Tank Farm Road between South Higuera and Broad Street*	Eastbound	a.m.	34.3	B
		p.m.	22.7	C
	Westbound	a.m.	31.7	B
		p.m.	27.4	C

* Analysis reflects four lanes of travel on Tank Farm Road, consistent with the Project Description.

The freeway operating conditions are summarized in Table 4.3-10. No significant impacts have been identified to freeway segments.

Table 4.3-10 Existing Plus Project, Freeway Conditions

Location	Direction	Peak Hour	Density (veh/mi/ln)	Level of Service
U.S. 101 south of Los Osos Valley Road	Northbound	a.m.	25.0	C
		p.m.	19.4	C
	Southbound	a.m.	12.2	B
		p.m.	24.6	C
U.S. 101 north of Los Osos Valley Road	Northbound	a.m.	21.8	C
		p.m.	17.6	B
	Southbound	a.m.	13.0	B
		p.m.	22.9	C

4.3 Transportation and Circulation

Significant impacts associated with existing conditions with the Project traffic levels could occur at the following location:

- Broad Street and Tank Farm Road – a.m. and p.m. peak hour.

The impact related to this location is discussed below.

Broad Street and Tank Farm Road – The addition of Phase 1 Project traffic during the a.m. and p.m. peak hours would worsen operations from LOS D to LOS E. The design and installation of a second eastbound left turn lane would improve operations to a LOS D during both time periods. A second eastbound left turn lane was recently completed by the City using Airport Area Impact Fees as part of a major improvement project at this intersection. The Project would pay into the City Airport Area Impact Fee account as part of the City Development Plan. With the recently completed second eastbound left hand turn lane the Broad Street and Tank Farm Road intersection would operate at an LOS of D during both time periods, which would make the impact less than significant.

Mitigation Measures

No mitigation measures are required since the impact is less than significant.

Residual Impacts

With the recently completed addition of a second eastbound left hand turn lane at the Broad Street and Tank Farm Road intersection, the traffic impact to intersections would be *less than significant (Class III)*.

4.3.5.2 Analysis of Transit, Bicycle, Pedestrian Site Access, On-site Circulation, and Parking Impacts

Impact #	Impact Description	Phase	Residual Impact
T.3	Impacts to the City's <u>transit</u> system could result due to increased ridership generated by the Project; impacts to <u>bicycle and pedestrian</u> facilities could result from network discontinuities and unsafe crossings; impacts to <u>site access and on-site circulation</u> could result from queue spillback and the creation of additional conflict points.	Development	Class II

Transit Analysis

The City's 2009 Short Range Transit Plan summarizes near-term changes planned for the transit network. The plan includes a new cross-town route connecting the eastern and southern portions of the City with the Madonna Plaza area. This route would serve Tank Farm Road between South Higuera Street and Broad Street with one bus per hour. The Airport Area Specific Plan (AASP) describes a similar route, and calls for the implementation of transit service in the area as development levels become supportive of transit.

The Project would burden the planned cross-town transit route's capacity by generating more than 50 peak hour transit trips (see Appendix D for detailed calculations). In addition, the

majority of transit funding that is received by the City and County is derived from population statistics. Since the Project does not specifically generate a new population increase there is little likelihood that the Project will generate additional transit funding to pay for the operational costs of expanding transit service in the area. This is a potentially significant impact.

Bicycle Analysis

The City's 2007 Bicycle Transportation Plan (BTP), Figure 2C, shows existing and planned bicycle facilities. Numerous bikeways exist in the study area, and more are planned. Planned bicycle facilities in the study area include:

1. A Class I bike path along both sides of Tank Farm Road from Santa Fe Road to the Unocal Collector;
2. A Class I bike path connecting Tank Farm Road to Buckley Road along Tank Farm Creek;
3. A Class I bike path along the East Fork of San Luis Obispo Creek from Tank Farm Road to Esperanza Lane;
4. A Class I bike path along Acacia Creek from Tank Farm Road to the Damon Garcia sports fields near Industrial Way;
5. Class I bike paths and Class II bike lanes along the Prado Road extension;
6. Class I bike path and Class II bike lanes on Buckley Road;
7. Class II bike lanes on Esperanza and Vachell Lane;
8. Class II bike lanes on the future Unocal Collector Road between Tank Farm Road and the future Prado Road extension; and
9. Class II bike lanes on Santa Fe Road from Buckley Road to Prado Road.

Facilities numbered 1, 2, 3, 4, 8, and 9 pass through the Project site or along the Project frontage. The Project proposes the following changes to the planned bicycle facilities within or along the Project site:

- Instead of a Class I bike path on both sides of Tank Farm Road (per #1 above), the Project would construct a single 12-foot multi-use path in a 20-foot easement on the north side of Tank Farm Road.
- The Project would not construct the Class I bike path connecting Tank Farm Road to Buckley Road along Tank Farm Creek (per #2 above).
- The Project would not construct the Unocal Collector Road and associated bike lanes (per #8 above).
- Some of the Class I bike path alignments shown in the Bicycle Transportation Plan would be modified. For example, the path shown crossing the Project Site from north to south in the Bike Plan is proposed to go around the northwestern perimeter of the Project Site. Similarly, the bike path along San Luis Creek follows the Project boundary west rather than following the creek as planned.

4.3 Transportation and Circulation

These inconsistencies with the City's Bike Plan could result in a discontinuous bicycle network and the potential for uncontrolled crossings of Tank Farm Road, which are potentially significant impacts.

Pedestrian Analysis

The City's Circulation Element and the AASP emphasize the importance of a walkable community. The Project would increase the demand for pedestrian travel, both within the site and between the site and external land uses.

While detailed site plans are not available at this time, the preliminary plans provide typical public street cross-sections illustrating the planned pedestrian facilities within the developed portions of the site. The Project would provide sidewalks along both sides of all public roads on the site, including Roads A, B, and C, Santa Fe Road, and Tank Farm Road. Most sidewalks would be separated from the roadway by a planter area and, in some cases, a parking lane.

In addition to sidewalks, the planned Class I bike paths adjacent to Tank Farm Road, Prado Road, and along the East Fork of San Luis Obispo and Acacia creeks would also serve pedestrians, so inconsistencies with the BTP could result in a discontinuous pedestrian network and the potential for uncontrolled crossings of Tank Farm Road, which are potentially significant impacts.

Site Access

Vehicular site access to the northeastern portion of the Project Site from the south is proposed via Santa Fe Road (i.e., refer to Santa Fe Road and Roads A and B, Figure 2-18), and a driveway on Tank Farm Road serving the northwestern parcel of the Project Site. Once complete, the Prado Road extension will provide an additional route to access the northeastern portion of the Project Site from the north via Santa Fe Road. The following potential impacts related to site access have been identified.

- Tank Farm Road/Santa Fe Road: Under Existing plus Project conditions during the a.m. peak hour, the eastbound left turn movement would exceed the storage capacity of the turn pocket and spill back on to Tank Farm Road, which could create a potentially unsafe situation. The 95th percentile queues are projected to exceed 350 feet, thereby blocking through traffic.
- Tank Farm Road/Northwestern Parcel Driveways: Two driveways are proposed on Tank Farm Road at the northwestern parcel (i.e., an eastern and a western driveway which are approximately 200 feet apart). The eastern driveway would be a right in/right out only access point and the western driveway would permit all turning movements. The northwestern parcel would generate its highest level of traffic during the p.m. peak hour, with 31 vehicles entering and 59 exiting. The western full-access driveway would be located less than 200 feet from other driveways to the east (i.e., the "eastern driveway" referenced above) and west (off of the Project Site). This full access driveway would require a median break, which conflicts with the AASP plans for the Tank Farm Road cross-section. Given the proximity of adjacent driveways and the amount and speed of traffic on Tank Farm Road, in order to maintain roadway capacity and reduce safety concerns, it is recommended that left-turn access to the northwestern parcel be consolidated into one location only with adjacent parcels to minimize the potential for vehicular conflicts. One potential consolidated access point is proposed in

Tentative Tract Map 3009 (located immediately west of the Project Site), and would require coordination with nearby property owners.

On-site Circulation

Detailed plans showing on-site circulation have not yet been prepared. If improperly designed, site access and internal circulation could result in hazardous conditions for cyclists, pedestrians, and transit users. This is a potentially significant impact.

Parking

Parking for each of the components of the Project would be based upon what is required by code. Adequate code required parking for the components of the Project would need to be verified upon application for building permits. No parking impacts are anticipated with this Project.

Mitigation Measures

T-3a Site Access (Northeastern Parcel): Tank Farm Road/Santa Fe Road: Prior to the occupancy of Phase I buildings/development, the Applicant shall install a multi-lane roundabout at the new intersection of Tank Farm Road and northern leg of Santa Fe Road accessing the Project Site. This improvement is consistent with the intersection control in the AASP. Also the Applicant shall extend the existing four lane section of Tank Farm Road thru the multilane roundabout.

Transit: Prior to the occupancy of Phase I buildings/development, the Applicant shall install transit facilities along Tank Farm Road to the satisfaction of the City Public Works Department with direct pedestrian and bicycle connections to buildings on the Project Site. The Applicant shall also work with the City and SLO Transit to ensure that transit service capacity is adequate to serve the projected demand.

Bicycle and Pedestrian: Prior to the occupancy of Phase I buildings/development, the Applicant shall, at a minimum, install the following bicycle and pedestrian facilities: 1) a continuous Class I multi-use path along the north side of Tank Farm Road, 2) City standard 6.5 foot wide Class II bike lanes on the north and south sides of Tank Farm Road between the east and west boundaries of the entire Project Site along with appropriate transitions to existing Tank Farm Road, 3) a Class I multi-use path between Tank Farm Road and the southern limits of the Project Site connecting to the 'Avila Ranch' development project, 4) a Class I multi-use path through the north-west portion of the property (old Chevron Collector street location) with a provision to allow construction of a City sewer connection to the lift station, and 5) a Class I multi-use path through the north-east portion of the site linking the properties to the east to the Tank Farm Road/Santa Fe Road intersection. The precise alignment of these Class I paths shall be subject to the approval of the Community Development and Public Works Directors.

T-3b Site Access (Northwestern Parcel): Prior to the occupancy of Phase I buildings/development, the Applicant shall redesign its major access to the northwestern parcel so that it is consolidated with adjacent parcels to minimize the potential for vehicular, bicycle, and pedestrian conflicts and to prevent a break in the median on Tank Farm

4.3 Transportation and Circulation

Road. The recommended consolidated access point is proposed as a part of Tentative Tract Map 3009 and would require coordination with other property owners.

Residual Impacts

With the implementation of the recommended mitigation, Impact T.3 would be reduced to *less than significant with mitigation (Class II)*.

4.3.5.3 Analysis of Construction Impacts

The City Development Plan would generate construction traffic associated with the development of the site, including the delivery of equipment and materials and construction employees accessing the site.

Impact #	Impact Description	Phase	Residual Impact
T.4	The proposed construction phasing plan would disrupt vehicle and bicycle travel for an extended duration, and the proposed truck routes are inconsistent with the City's Circulation Element. Construction activities related to the Project could result in potentially significant impacts to roadways in the Project vicinity due to the potential obstruction of heavy vehicles.	Development	Class II

Truck Routes

Figure 5 of the City's Circulation Element shows the City's truck routes, which include Tank Farm Road, South Higuera Street, Prado Road, and U.S. Highway 101.

The truck route for transporting materials to and from destinations to the south on U.S. Highway 101 is proposed via either the Los Osos Valley Road interchange or the South Higuera Street interchange. Access to and from destinations to the north on U.S. Highway 101 is proposed via either the Los Osos Valley Road interchange or the Prado Road on-ramp. Site access would be provided via a single access point on Tank Farm Road controlled by a temporary traffic signal.

The City's truck route map and on-street signage indicate that Los Osos Valley Road is not a truck route. The Project's truck routes are therefore inconsistent with the City's Circulation Element. This is a potentially significant impact.

Construction Traffic

An estimated 1,624 total truck round trips per phase of the Project would be required for the delivery of construction materials and equipment, with a peak intensity of 110 daily truck round trips. Approximately 150 employees would work on site, resulting in approximately 150 daily round trips. This is substantially less than the traffic projected for both the remediation phase and trip generation associated with the Project.

The Project's infrastructure phasing plan shows that the construction of frontage and surface improvements to Tank Farm Road are planned to occur in a discontinuous manner over the first four phases. Similarly, the Class I bike path along Tank Farm Road would be constructed piece by piece, and would not be continuous until Phase 5 of the Project is complete. This phasing plan would result in persistent construction activities throughout the development of the Project, and

would require many redundant truck trips as staging and equipment delivery would have to occur as each phase's infrastructure improvements are constructed. This level of construction would substantially disrupt vehicle and bicycle travel. This is a potentially significant impact.

Mitigation Measures

T-4 Prior to issuance of applicable construction permit, the Applicant shall submit a construction traffic management plan that includes a revised phasing plan minimizing the duration of construction. In addition to the components described in mitigation measure T-1a, the plan shall ensure that adjacent sections of infrastructure be modified at the same time to minimize disruption of travel. The plan shall include proposed truck routes that do not use the Los Osos Valley Road interchange. The construction traffic management plan shall be subject to review and approval of the City's Public Works Department in consultation with County Public Works and Caltrans.

Residual Impacts

With the implementation of the recommended mitigation, Impact T.4 would be reduced *to less than significant with mitigation (Class II)*.

4.3.6 County Development Plan Impacts and Mitigation Measures

The County Development Plan aspect of the Project would involve site remediation as analyzed in section 4.3.4 and development in accordance with the County's existing General Plan zoning designations, but with different acreages than specified in the General Plan. Table 4.3-11 summarizes the estimated trip generation for the County Development Plan.

Table 4.3-11 County Development Plan Trip Generation Comparison

Land Use	Daily Weekday Trips	a.m. Peak Hour Trips	p.m. Peak Hour Trips
Commercial Service	5,658	695	654
Industrial	2,368	322	336
Recreation	69	0	60
Total	8,095	1,017	1,050

The total trip generation for the County Development Plan is 8,095 daily weekday trips, lower than the 8,193 daily trips generated by the City Development Plan. More of the Project's traffic would be generated by development on the northwestern parcels under the County Development Plan.

The County Development Plan would not result in additional transportation impacts beyond those identified for the City Development Project because it would generate fewer vehicle trips. Mitigation measures required for the City Development Plan would also be applicable to the County Development Plan, except that transit service would be the responsibility of RTA instead of SLO Transit.

4.3.7 Cumulative Analysis

4.3.7.1 Analysis of Cumulative Traffic Conditions with the City Development Plan

Additional analysis examined the potential impacts of the Project in the timeframe when it may actually be constructed and operational (i.e., approximately 27 years from date of approval, including the remediation phase). This scenario includes development associated with the build-out of the City's General Plan, as well as the infrastructure improvements detailed below. Future year traffic forecasts were developed using the City's Travel Demand Forecasting Model, which estimates future traffic levels resulting from the development of currently vacant parcels in the City. The Cumulative traffic volumes without the Project are shown on Figures 4.3-7 and 4.3-8.

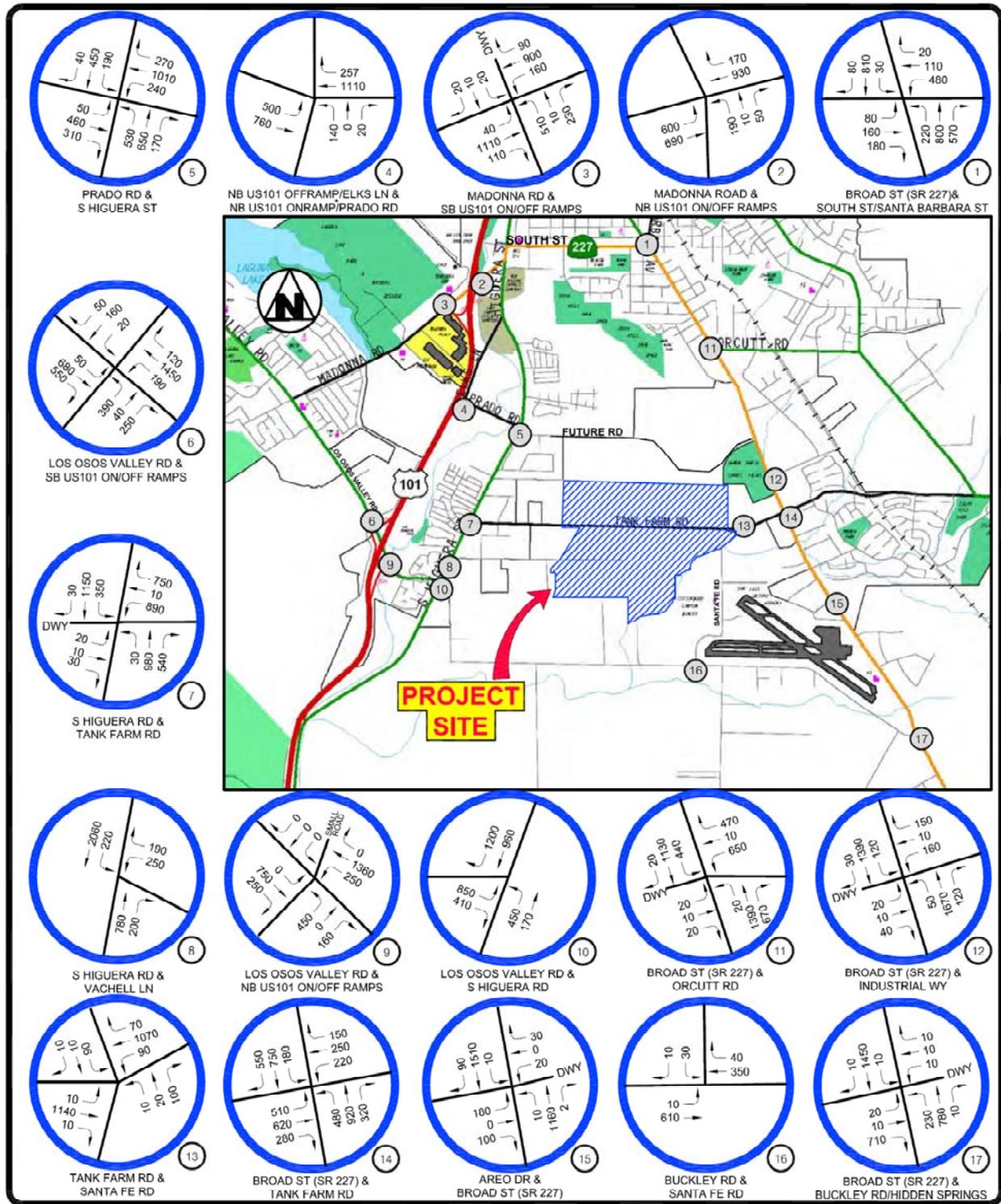
Impact #	Impact Description	Phase	Residual Impact
T.5	The addition of Project traffic would cause nine intersections and two freeway segments to operate at unacceptable levels under Cumulative conditions.	Development	Class I

Table 4.3-12 summarizes intersection operations under Cumulative conditions with and without the Project. The “Cumulative Without” and “With Project” includes future planned improvements as follows:

- A full freeway interchange will be constructed at Prado Road and U.S. 101 Freeway.
- Prado Road will be extended to connect Madonna Road to Broad Street. The roadway extension and interchange reconstruction will provide the following intersection improvements:
 - Signalization of the new freeway ramps with lane configurations as specified in the Prado Road/U.S. 101 Project Study Report including dual westbound left turns with two westbound through lanes, a northbound left turn lane with a northbound shared through right turn lane, dual westbound through lanes, and a westbound right turn lane.
 - Prado Road and South Higuera Street will be expanded to provide second east and westbound through lanes and a new westbound right turn lane.
 - Prado Road and Broad Street will be reconstructed with one left turn lane, one through lane and one shared through right turn lane northbound, one left turn lane, two through lanes and one right turn lane southbound, one left turn lane, one shared left through lane and one right turn lane eastbound and one shared left, through, right turn lane westbound.

4.3 Transportation and Circulation

Figure 4.3-8 Cumulative PM Traffic Volumes Without Project



Source: Overland 2012

Table 4.3-12 Cumulative Plus Project, Intersection Conditions

#	Intersection	Peak Hour	Future (2035) Cumulative Without Project Cumulative			Future Cumulative With Project			Significant Impact?
			Delay ¹	LOS	Change	Delay ¹	LOS	Change	
1.	Broad Street & South St/Santa Barbara Ave	a.m.	32.6	C	+8.8	35.4	D	+2.8	NO
		p.m.	33.4	C	+4.6	34.4	C	+1.0	NO
2.	Madonna Road & NB U.S. 101 On/Off Ramps	a.m.	17.4	B	-2.0	17.6	B	+0.2	NO
		p.m.	23.7	C	-1.5	24.0	C	+0.3	NO
3.	Madonna Road & SB U.S. 101 On/Off Ramps	a.m.	25.5	C	-4.0	25.9	C	+0.4	NO
		p.m.	28.5	C	-7.9	28.6	C	+0.1	NO
4.	NB U.S. 101 Off Ramp/Elks Ln & NB U.S. 101 On Ramp/ Prado Rd	a.m.	12.3	B	+3.0	13.7	B	+1.4	NO
		p.m.	15.8	B	-3.9	15.7	B	-0.1	NO
5.	Prado Road & S Higuera St	a.m.	63.9		+45.3	94.8		+30.9	YES
		p.m.	92.7		+69.0	117.0		+24.3	YES
6.	Los Osos Valley Road & SB U.S. 101 On/Off Ramps	a.m.	51.7	D	+29.7	59.8		+8.1	YES
		p.m.	52.7	D	+30.5	59.4		+6.7	YES
7.	S Higuera Street & Tank Farm Road	a.m.	78.2		+55.0	110.1		+31.9	YES
		p.m.	93.1		+64.8	126.2		+33.1	YES
8.	S Higuera Street & Vachell Lane ²	a.m.	459.0		+445.3	414.0		-45.0	YES
		p.m.	677.3		+644.7	623.4		-53.9	YES
9.	Los Osos Valley Road & NB U.S. 101 On/Off Ramps	a.m.	23.0	C	+4.5	24.2	C	+1.2	NO
		p.m.	17.0	B	-0.3	18.0	B	+1.0	NO
10.	Los Osos Valley Road & S Higuera Road	a.m.	25.8	C	+13.4	40.3	D	+14.5	NO
		p.m.	118.0		+102.0	152.1		+34.1	YES
11.	Broad Street & Orcutt Road	a.m.	29.9	C	+12.2	33.1	D	+3.2	NO
		p.m.	45.7	D	+18.0	50.2	D	+4.5	NO
12.	Broad Street & Industrial Way	a.m.	18.6	B	+8.4	19.7	B	+1.1	NO
		p.m.	30.1	C	+13.5	34.1	C	+4.0	NO
13.	Tank Farm Road & Santa Fe Road ²	a.m.	12.5	B	+11.4	20.3	C	+7.8	NO
		p.m.	22.6	C	+12.0	86.3		+63.7	YES
14.	Broad Street & Tank Farm Road	a.m.	53.2	D	+16.1	86.5		+33.3	YES
		p.m.	57.1		+13.6	63.4		+6.3	YES
15.	Broad Street & Aero Drive	a.m.	10.2	B	+1.4	10.3	B	+0.1	NO
		p.m.	25.9	C	+12.1	26.6	C	+0.7	NO
16.	Buckley Road & Santa Fe Road	a.m.	0.5	A	+0.4	0.7	A	+0.2	NO
		p.m.	0.9	A	+0.1	2.0	A	+1.1	NO
17.	Broad Street & Buckley Road	a.m.	31.5	C	+14.0	40.4	D	+8.9	NO
		p.m.	259.9		+249.0	286.6		+26.7	YES

4.3 Transportation and Circulation

Table 4.3-12 Cumulative Plus Project, Intersection Conditions

#	Intersection	Peak Hour	Future (2035) Cumulative Without Project Cumulative			Future Cumulative With Project			Significant Impact?
			Delay ¹	LOS	Change	Delay ¹	LOS	Change	
18.	Broad Street & Prado Road (NEW)	a.m.	51.8	D		61.4	D	+9.6	YES
		p.m.	28.8	C		32.4	C	+3.6	NO

¹ Average delay per vehicle in seconds.

² Unsignalized intersection.

- The Los Osos Valley Road and U.S. Highway 101 will be reconstructed as detailed in the Los Osos Valley Road/U.S. Highway 101 Initial Study with Mitigated Negative Declaration. Two alternatives were evaluated in the document. Alternative 6, which relocates the southbound ramps to the new Calle Joaquin, was used as future conditions in this analysis as it provides the more conservative scenario. Since the issuance of the NOP, Alternative 3 has been selected for construction, which will result in better traffic operations than Alternative 6. The improvement includes widening the Los Osos Valley Road overcrossing of the U.S. Highway 101 Freeway to two lanes in each direction. The improvement also modifies the southbound U.S. Highway 101 on- and off-ramps to connect to Calle Joaquin Road which eliminates the existing southbound off-ramp connection to Los Osos Valley Road.
- Tank Farm Road will be widened to four lanes between South Higuera Street and Broad Street with a two-lane roundabout at the Tank Farm Road/Santa Fe Road intersection. The Project includes this widening, but proposes a traffic signal at the Tank Farm Road/Santa Fe Road intersection instead of a roundabout and a new local street connection just west of the project Site.
- Tank Farm Road and Broad Street will be widened to provide a second eastbound left turn lane and second northbound left turn lane. *This improvement has been constructed since the issuance of the NOP.*

As indicated in Table 4.3-12, the following intersections have been identified as having Cumulative conditions that are potentially substandard to adopted City thresholds. Impacts from the Chevron project are cumulatively considerable and may have potentially significant impacts under Cumulative with Project traffic conditions. These locations are:

- South Higuera Street and Prado Road– The addition of Project traffic creates significant traffic impacts during the a.m. and p.m. Peak Hours.
- Los Osos Valley Road and Southbound U.S. Highway 101 On/Off Ramps – The addition of Project traffic creates significant traffic impacts during the a.m. and p.m. Peak Hours.
- South Higuera Street and Tank Farm Road – The addition of project traffic creates significant traffic impacts during the a.m. and p.m. Peak Hours.
- South Higuera Street and Vachell Lane – The addition of Project traffic creates significant traffic impacts during the a.m. and p.m. Peak Hours.

- Los Osos Valley Road and South Higuera Street – The addition of Project traffic creates a significant traffic impact during the p.m. Peak Hour.
- Tank Farm Road and Santa Fe Road – The addition of Project traffic creates a significant traffic impact during the p.m. Peak Hour.
- Broad Street and Tank Farm Road – The addition of Project traffic creates significant traffic impacts during the a.m. and p.m. Peak Hours.
- Broad Street and Buckley Road – The addition of Project traffic creates a significant traffic impact during the p.m. Peak Hour.
- Prado Road and Broad Street – The addition of Project traffic creates a significant traffic impact during the a.m. peak hour.

Table 4.3-13 summarizes Cumulative conditions with the Project along the Tank Farm Road corridor. No Corridor impacts have been identified.

Table 4.3-13 Cumulative Plus Project Conditions, Corridor Summary

Location	Direction	Peak Hour	Cumulative Without Project		Cumulative With Project	
			Average Travel Speed	LOS	Average Travel Speed	LOS
Tank Farm Road between South Higuera and Broad Street	Eastbound	a.m.	25.3 mph	B	22.9 mph	C
		p.m.	21.2 mph	C	18.9 mph	C
	Westbound	a.m.	30.6 mph	B	25.4 mph	B
		p.m.	20.2 mph	C	15.3 mph	D

Table 4.3-14 summarizes Cumulative plus Project freeway operating conditions. The Project would result in a significant and unavoidable impact to U.S. Highway 101, worsening unacceptable operations on both study segments. No feasible mitigation measures have been identified, and a Major Investment Study has yet to be performed identifying long term improvements necessary for U.S. Highway 101 between Los Osos Valley Road and Monterey Street off-ramps within the City of San Luis Obispo. A mobility study for the US 101 corridor is currently being conducted by SLOCOG and will review these issues. The long term impacts of this Project, as well as all other County development, remains significant and unavoidable along U.S. Highway 101.

4.3 Transportation and Circulation

Table 4.3-14 Cumulative Plus Project, Freeway Conditions

Location	Direction	Peak Hour	Cumulative Without Project		Cumulative With Project	
			Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS
U.S. Highway 101 south of Los Osos Valley Road	Northbound	a.m.	36.4	E	39.6	E
		p.m.	25.3	C	25.9	C
	Southbound	a.m.	17.0	B	17.2	B
		p.m.	35.7	E	38.7	E
U.S. Highway 101 north of Los Osos Valley Road	Northbound	a.m.	30.6	D	31.9	D
		p.m.	24.4	C	24.5	C
	Southbound	a.m.	17.5	B	17.9	B
		p.m.	33.6	D	34.6	D

Mitigation Measures

T-5a South Higuera Street and Prado Road – Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the right-of-way acquisition and intersection improvements to achieve LOS D operations. These improvements include: installation of second left turn lanes on the northbound, southbound, eastbound approaches; the addition of right turn lanes on the northbound and southbound approaches; and the addition of overlap phases on the eastbound and westbound approaches as determined by the City and the level of impact associated with the contribution of either the City or the County Development portions of the Project. This project is not included in the City’s Transportation Impact Fee program or the AASP or MASP impact fee programs. Due to its size and complexity, the City should consider amending this project into one of the City’s impact fee programs. If amended into an impact fee program, the Project shall pay impact fees in accordance with the amended fee program.

T-5b Los Osos Valley Road and U.S. 101 Southbound Ramps/Calle Joaquin –The Applicant shall participate in their pro-rata share of design and installation of a northbound left turn lane added to the future improvement on the Calle Joaquin approach, as determined by the City and the level of impact associated with the contribution of either the City or the County Development portions of the Project. This project is currently contained in the City’s TIF program as part of the Los Osos valley Road Interchange Project however it will be not be constructed as part of the Interchange project currently underway.

T-5c South Higuera Street and Tank Farm Road – Prior to the occupancy of Phase 1 buildings/development, the Applicant shall participate in their pro-rata share of the design and installation of a second westbound right turn lane with an overlap phase concurrent with the southbound left and a second southbound left turn lane, as determined by the City and the level of impact associated with the contribution of the City Development portions of the Project.

T-5d South Higuera Street and Vachell Lane – Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the design and

installation of the extension of Buckley Road to South Higuera Street. The AASP impact fee program contains part of the cost associated with the Buckley Road extension, but the impact fee program needs to be updated to reflect new project cost estimates and permitting requirements.

- T-5e South Higuera Street and Los Osos Valley Road- The applicant shall participate in their pro-rate share of either (1) The right-of-way acquisition, design, and installation a second southbound through lane, second southbound right-turn lane, and an eastbound right turn overlap signal phase concurrent with the northbound left turn; or (2) The extension of Buckley Road to the Los Osos Valley Road interchange (LOVR Bypass). This project is not currently in the City’s Circulation Element and is not contained in any impact fee programs established by the City or County. It is cumulative in nature and the City shall add this project into the TIF or AASP if the Circulation Element Update identifies it as an appropriate infrastructure improvement.*
- T-5f Santa Fe Road and Tank Farm Road - Mitigation measure T-3a would also mitigate this cumulative impact.*
- T-5g Broad Street and Tank Farm Road - Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the design and installation of a northbound right turn lane, a southbound right turn overlap phase concurrent with the eastbound left, and conversion of the westbound right turn lane to a shared through right turn lane.*
- T-5h Broad Street and Buckley Road - Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the design and installation of a second northbound through lane and a second southbound through lane.*
- T-5i Broad Street and Prado Road – Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the design and installation of a second northbound left-turn lane.*

Residual Impacts

South Higuera Street and Prado Road – The addition of Project traffic creates significant traffic impacts during the a.m. and p.m. Peak Hours. In order to achieve acceptable levels of service, all four approaches would need to be widened to include dual left turn lanes, two through lanes, and a right turn lane on each approach as required by mitigation measure T-5a. With the implementation of mitigation measure T-5a, the impacts during the a.m. and p.m. Peak Hours would be less than significant (Class II). The improvements would require additional right-of-way not currently under the jurisdiction of the City and potential relocation of existing residences in the property on the northeast corner of the intersection. If the additional right-of-way could not be obtained, then the impact to this intersection would remain significant and unavoidable (Class I).

Los Osos Valley Road and U.S. Highway 101 Southbound Ramps/Calle Joaquin – With the implementation of mitigation measure T-5b the impact would be less than significant (Class II)..

South Higuera Street and Tank Farm Road –The design and installation of a second westbound right turn lane and overlap phase and a second southbound left turn (see mitigation measure T-5c) would reduce the severity of the impact, but the impact would remain significant and unavoidable (Class I). These improvements would require additional right-of-way not currently under the jurisdiction of the City.

South Higuera Street and Vachell Lane – With the implementation of mitigation measure T-5d the impact would be less than significant (Class II).These improvements would require additional right-of-way not currently under the jurisdiction of the City. If the additional right-of-way could not be obtained, then the impact to this intersection would remain significant and unavoidable (Class I).

South Higuera Street and Los Osos Valley Road- The design and installation of a second southbound through lane, second southbound right-turn lane, and an eastbound right turn overlap phase concurrent with the northbound left turn (see mitigation measure T-5e) would reduce this impact to a level of less than significant (Class II).. However, the improvements would require additional right-of-way not currently under the jurisdiction of the City. This significant impact would remain significant and unavoidable until the right-of-way is obtained, any secondary impacts are mitigated, and the Project is completed. If the additional right-of-way could not be obtained, then the impact to this intersection would remain significant and unavoidable (Class I).

Santa Fe Road and Tank Farm Road - With the implementation of mitigation measure T-3a the impact would be less than significant (Class II).

Broad Street and Tank Farm Road - The design and installation of a northbound right turn lane and design and installation of a southbound right turn overlap phase concurrent with the eastbound left (see mitigation measure T-5g) would reduce this impact to a level of less than significant (Class II). However, the improvement may require additional right-of-way not currently under the jurisdiction of the City. The AASP impact fee program should be amended to include this Project. If the additional right-of-way could not be obtained, then the impact to this intersection would remain significant and unavoidable (Class I).

Broad Street and Buckley Road - The design and installation of a second northbound left turn lane, and a second southbound through lane (see mitigation measure T-5h) would reduce this impact to a level of less than significant (Class II). The improvements would require additional right-of-way not currently under the jurisdiction of the City. If the additional right-of-way could not be obtained, then the impact to this intersection would remain significant and unavoidable (Class I).**Broad Street/Prado Road** – With the implementation of mitigation measure T-5i the impact would be less than significant (Class II).

U.S. Highway 101 – No feasible mitigation measures have been identified, so this impact remains significant and unavoidable (Class I).

With the implementation of the recommended mitigation, one intersection and two freeway segment impacts would remain significant and unavoidable (Class I). Eight intersection impacts

would be less than significant with mitigation (Class II). The mitigation measures associated with five of the intersections would require the City to obtain additional right-of-way. If the additional right-of-way could not be obtained, then the impact to these five intersections would remain significant and unavoidable (Class I).

4.3.8 Mitigation Monitoring Plan

4.3.8.1 Remediation Project Mitigation Monitoring Plan

Mitigation Measure	Plan Requirements and Timing	Compliance Verification		
		Method	Timing	Responsible Party
T-1	<p>The Applicant shall develop a construction traffic management plan for review and approval by the City Public Works department in consultation with County Public Works and Caltrans. The plan shall include at least the following items:</p> <ol style="list-style-type: none"> 1. Identification of haul routes for materials hauling and equipment deliveries. This section shall include a Haul Permit from Santa Barbara County Public Works. 2. Monitoring program for street surface conditions so that damage or debris resulting from construction or remediation of the Project can be identified and corrected by the Applicant. 3. A traffic control plan showing proposed temporary traffic control measures, including lane closure procedures, accommodation for pedestrians and cyclists, and removal procedures for the temporary traffic control devices and added lanes. 4. A scheduling plan showing hours of operation to minimize traffic congestion during peak hours and special events. 5. The use of electronic message signs providing the traveling public with current construction information and the availability of alternate travel routes. 6. A park and ride program to reduce the number of worker single occupant vehicle trips going to the site. 	Review and approval of plan	<p>City plan: Prior to issuance of applicable construction permit</p> <p>County plan: Prior to issuance of applicable grading permit</p>	<p>City plan: City of San Luis Obispo</p> <p>County plan: County of San Luis Obispo</p>

4.3 Transportation and Circulation

4.3.8.2 City Development Plan Mitigation Monitoring Plan

Mitigation Measure	Plan Requirements and Timing	Compliance Verification		
		Method	Timing	Responsible Party
T-3a	<p>Site Access (Northeastern Parcel): Tank Farm Road/Santa Fe Road: Prior to the occupancy of Phase 1 buildings/development, the Applicant shall install a multi-lane roundabout at the new intersection of Tank Farm Road and northern leg Santa Fe Road accessing the Project Site. This improvement is consistent with the intersection control in the AASP. Also the applicant shall extend the existing four lane section of Tank Farm Road thru the multilane roundabout.</p> <p>Transit: Prior to the occupancy of Phase 1 buildings/development, the Applicant shall install transit facilities along Tank Farm Road to the satisfaction of the City Public Works Department with direct pedestrian and bicycle connections to buildings on the Project Site. The Applicant shall also work with the City and SLO Transit to ensure that transit service capacity is adequate to serve the projected demand.</p> <p>Bicycle and Pedestrian: Prior to the occupancy of Phase 1 buildings/development, the Applicant shall, at a minimum, install the following bicycle and pedestrian facilities: 1) a continuous Class I multi-use path along the north side of Tank Farm Road, 2) City standard 6.5 foot wide Class II bike lanes on the north and south sides of Tank Farm Road between the east and west boundaries of the entire Project Site along with appropriate transitions to existing Tank Farm Road, 3) a Class I multi-use path between Tank Farm Road and the southern limits of the Project Site connecting to the 'Avila Ranch' development project, 4) a Class I multi-use path through the north-west portion of the property (old Chevron Collector street location) with a provision to allow construction of a City sewer connection to the lift station, and 5) a Class I multi-use path through the north-east portion of the site linking the properties to the east to the Tank Farm Road/Santa Fe Road intersection. The precise alignment of these Class I paths shall be subject to the approval of the Community Development and Public Works Directors.</p>	Review of plans	Prior to occupancy of Phase 1 buildings/development	City of San Luis Obispo
T-3b	<p>Site Access (Northwestern Parcel): Prior to the occupancy of Phase 1 buildings/ development, the Applicant shall redesign its major access to the northwestern parcel so that it is consolidated with adjacent parcels to minimize the potential for vehicular, bicycle, and pedestrian conflicts and to prevent a break in the median on Tank Farm Road. The recommended consolidated access point is proposed as a part of Tentative Tract Map 3009 and would require coordination with other property owners.</p>	Review of site plan	Prior to occupancy of Phase 1 buildings/development	City of San Luis Obispo
T-4	<p>Prior to issuance of applicable construction permit, the Applicant shall submit a construction traffic management</p>	Review and approval of	Prior to issuance of	City of San Luis Obispo

4.3 Transportation and Circulation

Mitigation Measure	Plan Requirements and Timing	Compliance Verification		
		Method	Timing	Responsible Party
	plan that includes a revised phasing plan minimizing the duration of construction. In addition to the components described in mitigation measure T-1a, the plan shall ensure that adjacent sections of infrastructure be modified at the same time to minimize disruption of travel. The plan shall include proposed truck routes that do not use the Los Osos Valley Road interchange. The construction traffic management plan shall be subject to review and approval of the City's Public Works Department in consultation with County Public Works and Caltrans.	plan	applicable construction permit	
T-5a:	South Higuera Street and Prado Road – Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the right-of-way acquisition and intersection improvements to achieve LOS D operations. These improvements include: installation of second left turn lanes on the northbound, southbound, eastbound approaches; the addition of right turn lanes on the northbound and southbound approaches; and the addition of overlap phases on the eastbound and westbound approaches as determined by the City and the level of impact associated with the contribution of either the City or the County Development portions of the Project. This project is not included in the City's Transportation Impact Fee program or the AASP or MASP impact fee programs. Due to its size and complexity, the City should consider amending this project into one of the City's impact fee programs. If amended into an impact fee program, the Project shall pay impact fees in accordance with the amended fee program.	Inspection of modification	Prior to occupancy of each Phase of buildings/development	City of San Luis Obispo
T-5b	Los Osos Valley Road and U.S. 101 Southbound Ramps/Calle Joaquin –The Applicant shall participate in their pro-rata share of design and installation of a northbound left turn lane added to the future improvement on the Calle Joaquin approach, as determined by the City and the level of impact associated with the contribution of either the City or the County Development portions of the Project. This project is currently contained in the City's TIF program as part of the Los Osos Valley Road Interchange Project however it will be not be constructed as part of the Interchange project currently underway.	Inspection of modification	Prior to occupancy of Phase 2 buildings/development	City of San Luis Obispo
T-5c	South Higuera Street and Tank Farm Road – Prior to the occupancy of Phase 1 buildings/development, the Applicant shall participate in their pro-rata share of the design and installation of a second westbound right turn lane with an overlap phase concurrent with the southbound left and a second southbound left turn lane, as determined by the City and the level of impact associated with the contribution of the City Development portions of the Project.	Inspection of modification	Prior to occupancy of Phase 1 buildings/development	City of San Luis Obispo
T-5d	South Higuera Street and Vachell Lane – Prior to the	Inspection	Prior to	City of San

4.3 Transportation and Circulation

Mitigation Measure	Plan Requirements and Timing	Compliance Verification		
		Method	Timing	Responsible Party
	occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the design and installation of (the extension of Buckley Road to South Higuera Street. The AASP impact fee program contains part of the cost associated with the Buckley Road extension, but the impact fee program needs to be updated to reflect new project cost estimates and permitting requirements.	of modification	occupancy of each Phase of buildings/development	Luis Obispo
T-5e	South Higuera Street and Los Osos Valley Road- The applicant shall participate in their pro-rate share of either (1) The right-of-way acquisition, design, and installation a second southbound through lane, second southbound right-turn lane, and an eastbound right turn overlap signal phase concurrent with the northbound left turn; or (2) The extension of Buckley Road to the Los Osos Valley Road interchange (LOVR Bypass). This project is not currently in the City's Circulation Element and is not contained in any impact fee programs established by the City or County. It is cumulative in nature and the City shall add this project into the TIF or AASP if the Circulation Element Update identifies it as an appropriate infrastructure improvement.	Inspection of modification	Prior to occupancy of Phase 1 buildings/development	City of San Luis Obispo
T-5f	Santa Fe Road and Tank Farm Road - Mitigation measure T-3a would also mitigate this cumulative impact.	Inspection of modification	Prior to occupancy of Phase 1 buildings/development	City of San Luis Obispo
T-5g	Broad Street and Tank Farm Road - Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the design and installation of a northbound right turn lane, a southbound right turn overlap phase concurrent with the eastbound left, and conversion of the westbound right turn lane to a shared through right turn lane.	Inspection of modification	Prior to occupancy of each Phase of buildings/development	City of San Luis Obispo
T-5h	Broad Street and Buckley Road - Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the design and installation of a second northbound through lane and a second southbound through lane.	Inspection of modification	Prior to occupancy of each Phase of buildings/development	City of San Luis Obispo
T-5i	Broad Street and Prado Road – Prior to the occupancy of each phase of development, the Applicant shall participate in their pro-rata share of the design and installation of a second northbound left-turn lane.	Inspection of modification	Prior to occupancy of each Phase of buildings/development	City of San Luis Obispo

4.3.8.3 County Development Plan Mitigation Monitoring Plan

All mitigation measures identified for the City Development Plan would apply to the County Development Plan. See the Mitigation Monitoring Plan for the City Development Plan above for a list of these measures.

4.3.9 References

California Department of Transportation. 2002. Guide for the Preparation of Traffic Impact Studies.

_____. 2012. California Manual on Uniform Traffic Control Devices.

City of San Luis Obispo. 2004. Margarita Area Specific Plan.

_____. 2005. Airport Area Specific Plan.

_____. 2006. Circulation Element of the General Plan.

_____. 2007. Bicycle Transportation Plan.

_____. 2012. San Luis Obispo Municipal Code.

Fehr & Peers. 2007. US 101/Los Osos Valley Road Interchange PA & ED.

San Luis Obispo Council of Governments. 2010. Regional Transportation Plan-Preliminary Sustainable Communities Strategy.

San Luis Obispo County. 2009. San Luis Obispo Area Plan.

_____. 2011. San Luis Obispo County Code.

Transportation Research Board. 2000. Highway Capacity Manual. Washington, D.C.

Urbitran Associates, Inc. 2009. San Luis Obispo Transit Short Range Transit Plan.