
Section 4-9

Transportation/Traffic

This section provides information on transportation and traffic located in and around the Proposed Project sites. A discussion of federal, state, and local laws, policies, and regulations that influence transportation resources is also presented in this section. Impacts on transportation resources that may result from the Proposed Project are identified, and mitigation measures to avoid, minimize, and compensate for potentially significant impacts on transportation resources are described.

4-9.1 STUDY METHODS

Methods used to identify and evaluate transportation resources in and around the Proposed Project sites consisted of a review of existing traffic counts and studies. The study area for evaluating transportation resources encompasses the Proposed Project sites, and roadways within unincorporated Solano County that extend up to 15 miles from the Proposed Project sites. This distance was selected because the Proposed Project will involve excavating and transporting up to 950,000 cubic yards of soil. The soil will be transported to a site that will be determined by the construction contractor and is, therefore, not yet known. In compliance with City Standard Specifications, haul routes through City streets will be prohibited by the construction contract unless needed to access a disposal site within the City, in which case the most direct route will be used that avoids local residential streets, subject to approval by the City's Traffic Engineer. As such, the most likely roadways to be used for offsite disposal are Vaca Valley Road, and Pleasants Valley Road, Cherry Glen Road, Bucktown Lane, and Rogers Lane (Figure 3-1). To identify potential impacts on traffic from the Proposed Project, this section evaluates traffic operations along Vaca Valley Road and Pleasants Valley Road near the two Proposed Project sites and along Interstate (I)-80 near the Pena Adobe interchange. For purposes of this EIR, traffic impact calculations were analyzed for the worst case condition (although unlikely) that both basins would be under construction at the same time and for each basin individually.

Analysis of traffic volume and roadway capacity has been conducted to show the roadway capacity with and without the Project for both daily and peak hour time frames. Analysis for I-80 uses Caltrans 2008 count and truck data taken in the vicinity of the Lagoon Valley at Pleasants Valley and provides the percentage increase in total volume and in truck volumes. An assumption of one truck having twice the capacity impact of a passenger car was used in assessing impact to roadway capacity. The issues of safety and roadway damage from construction truck traffic is also addressed, but more subjectively since standards and mitigations are not well established.

With regard to traffic distribution assumptions, for purposes of this EIR, the traffic analysis considered the worst case scenario by assuming that all trips routed to and from the south and west would be using Pleasants Valley Road and I-80, and assuming that trips routed to the east and north would be a very small proportion of the total trips and would, therefore, not have a significant impact on those roadways.

4-9.1.1 Definition of Level of Service

Traffic level of service (LOS) is a qualitative measurement of traffic operations and flow characteristics. LOS A represents free-flow conditions with little to no delays. LOS E represents conditions at capacity, and LOS F represents over saturation with excessive delays. Table 4-9.1 presents LOS designation for various types of roadway and freeway segments developed using a model created by the Florida Department of Transportation based on a volume-to-capacity ratio. The methods used for the LOS analysis was developed to be consistent with the Highway Capacity Manual, 2000 edition (Transportation Research Board 2000). This model has been used by a variety of local jurisdictions such as Solano County and the City of Fairfield; it provides a generalized LOS designation and is the standard approach in the profession for determining roadway capacity and function.

The City of Vacaville General Plan identifies peak hour traffic capacities to maintain LOS C for two-lane collectors as 600 vehicles per hour per lane and 1,000 vehicles per hour for both lanes (City of Vacaville, 2007).

Table 4-9.1. Level-of-Service Criteria and Description

Number of Lanes	LOS A-C	LOS D	LOS E	LOS F
Freeways				
4	≤52,000	≤67,200	≤76,500	>76,500
6	≤81,700	≤105,800	≤120,200	>120,200
8	≤111,400	≤144,300	≤163,900	>163,900
10	≤41,200	≤182,600	≤207,600	>207,600
12	≤170,900	≤221,100	≤251,200	>251,200
Urban Roadway Segments				
2	≤11,200	≤15,400	≤16,300	>16,300
4	≤26,000	≤32,700	≤34,500	>34,500
6	≤40,300	≤49,200	≤51,800	>51,800
8	≤53,300	≤63,800	≤67,000	>67,000
County Roadway Segments				
2	≤9,100	≤14,600	≤15,600	>15,600
4	≤21,400	≤31,100	≤32,900	>32,900
6	≤33,400	≤46,800	≤49,300	>49,300

LOS = Level of Service
Source: Florida Department of Transportation 2009

4-9.2 ENVIRONMENTAL SETTING

Figure 3-1 illustrates the roadway system near the Proposed Project sites. This section describes the regional setting and existing conditions related to transportation resources in and near the Proposed Project sites.

4-9.2.1 Regional Setting

Regional access to the Proposed Project sites is provided by the freeway system that serves Vacaville, primarily I-80 (Figure 3-1). I-80 has six to 10 lanes at various points between Vallejo, Vacaville, Fairfield, and Dixon in Solano County. This freeway facility carries a sizeable amount of traffic between the San Francisco Bay Area and the Sacramento region.

4-9.2.2 Existing Resource Conditions in the Study Area

The local traffic circulation system near the Proposed Project generally consists of Pleasants Valley Road and Vaca Valley Road within an unincorporated portion of Solano County. Construction and dirt-hauling vehicles would access the sites from Vaca Valley Road off of Pleasants Valley Road. The majority of construction traffic leaving the sites would be presumed to travel toward I-80 to the south, with a lower percentage that may travel north on Pleasants Valley Road toward State Highway 128 and the Winters area. The intersections of Rivera Road/Cherry Glen Road (north of I-80 interchange) and Pleasants Valley Road/Cherry Glen Road are controlled by stop signs. The intersection of Pleasants Valley Road and Vaca Valley Road is controlled by a stop-sign on Vaca Valley Road with no stop sign on Pleasants Valley Road.

4-9.2.2.1 Site Access

Construction workforce as well as delivery and haul vehicles would travel to the Alamo and Ulati sites using the regional and local circulation system described above. Specifically, I-80 would provide freeway access from San Francisco and Sacramento directions. Existing public and private roadways would provide Local access to the site. From I-80, the sites would be accessed by exiting either eastbound or westbound onto the Pena Adobe Road off-ramp and turning left onto Rivera Road/Cherry Glen Road. Turn right onto Pleasants Valley Road after approximately 0.3 to 0.5 mile and continue north for 5.2 miles, turning right onto Vaca Valley Road. To access the Alamo site, travel 0.8 mile west on Vaca Valley Road and turn right onto Rogers Lane, a private road. No construction access will be permitted across private property along the northern boundary of the Alamo site. The Alamo site is located approximately 0.5 mile south on Rogers Lane. To access the Ulati site, travel 0.2 mile east on Vaca Valley Road and turn left onto Bucktown Lane. The Ulati site is located approximately 0.3 mile north on Bucktown Lane. I-80 has four lanes in each direction at the Pena Adobe Road off-ramp. Pleasants Valley Road and Vaca Valley Road are two-lane roadways. Rogers Lane is an unpaved one-lane (undivided) rural road that leads to a few rural residences and farmland south of Vaca Valley Road. Bucktown Lane is a paved two-lane (undivided) rural road that leads to several rural residences and farmland north of Vaca Valley Road. .

4-9.2.3 Existing Traffic Volumes

Existing traffic volumes for the freeways and roadways that may be used for the Proposed Project are provided in Table 4-9.2. It is expected that construction traffic would temporarily increase this existing scenario.

Table 4-9.2. Average Annual Daily Traffic Count for Roads in the Study Area

Location	Route/Road	Average Annual Daily Traffic	Level of Service
East of Pleasants Valley Road	I-80 at MP 23.958 8-lane freeway	136,000	D
0.1 mile north of Vaca Valley Road	Pleasant Valley Road ^a 2-lane rural	2,018	A-C
0.8 mile south of Vaca Valley Road	Pleasant Valley Road ^a 2-lane rural	2,109	A-C
0.1 mile east of Pleasants Valley Road	Vaca Valley Road ^a 2-lane rural	1,348	A-C
0.5 mile north of Vaca Valley Road	Bucktown Lane ^b Rural paved road	215	A-C

Note: No traffic counts are available for Rogers Lane

Source: California Department of Transportation 2008 Traffic Data - <http://traffic-counts.dot.ca.gov/2008all/r071-80i.htm> - Counts were completed in 2008

Meeks pers. comm., August 13, 2009 and September 17, 2009

^a Measured in 2000

^b Measured in 2004

4-9.2.4 Airport Transportation

Three airports operate in Solano County. The Nut Tree Airport and the Rio Vista Municipal Airport are public-use facilities and Travis Air Force Base (AFB) is a military facility. The Nut Tree Airport is located in Vacaville approximately 3.7 miles southeast from the Proposed Project sites and provides a facility for both general and business aviation use. The County owns and operates this airport, which is currently overseen by the General Services Department. The Rio Vista Municipal Airport (Baumann Field) is located 34 miles south of the project site locations in an unincorporated portion of Solano County. Travis AFB is adjacent to the City of Fairfield and encompasses an area of about 5,025 acres. Travis AFB is located 15 miles south of the project site locations. The project site locations are not within critical compatibility zones for any of these airports.

4-9.2.5 Pedestrian/Bicycle Network

Generally, roadways in unincorporated Solano County are not designed with sidewalks because these roadways generally are located in areas with low population or employment density. The County's connectivity consists primarily of short sidewalks and multiuse trails. Class I bicycle trails are usually designed as multiuse trails that can be shared with pedestrians. The closest Class I bike path is located approximately 0.4 mile east and southeast from the Alamo site within the City of Vacaville limits. This bikeway does not overlap with any proposed Project features or haul routes. Pedestrian facilities also include crosswalks and pedestrian-actuated signals at major intersections near developed areas. There is no developed pedestrian network in the vicinity of the project sites or along the probable construction haul routes. Because of the distances between destinations in the rural agricultural setting, pedestrian use of roadways is minimal.

The Solano Countywide Bicycle Plan (Solano Transportation Authority 2004) identifies numerous bikeway facilities throughout Solano County. The only existing developed bikeway in the vicinity of the Project is a Class I bike path located approximately 0.4 mile east and southeast from the Alamo site within the City of Vacaville limits. As indicated above, this bikeway does not overlap with any proposed Project features or haul routes. Roadways proposed for offsite disposal include Pleasants Valley Road

and Vaca Valley Road. Both of these roadways are recognized as popular undeveloped bike routes. However, due to the existing narrow pavement widths, these roads could not accommodate a Class II bike lane without widening (Solano Transportation Authority 2004). According to the Bicycle Plan Project List, adopted by Solano Transportation Authority Board on March 15, 2010, Pleasants Valley Road from Cherry Glenn Road to the Yolo County Line is designated as a planned project (Solano Transportation Authority 2010).

4-9.3 REGULATORY SETTING

This section summarizes the federal and state regulations that are relevant to transportation. It also discusses the pertinent Solano County regulations ordinances, and policies relating to transportation.

4-9.3.1 Federal Regulations

The U.S. government participates in transportation policy through the regulation of airspace and waterways, funding and oversight of transit service, and funding and oversight of the roadway system. Oversight of roadways includes regulation of allowable vehicles on public roadways based on type, fuel emission targets, and air quality performance. Federal requirements are also relevant when applying for funds to construct projects. Interstate 80 is identified as a Federal Route in the Federal Highway System. None of the other roadways analyzed in this EIR are classified as Federal Highways.

4-9.3.2 State Regulations

Caltrans is responsible for the construction and maintenance of State-owned facilities. These include interstate highways and other state routes that run through the study area, as described in Section 4.9.2.2 “Existing Resource Conditions in the Study Area.” The study area is located in Caltrans District 4.

4-9.3.3 Local Plans and Policies

The following local planning documents contain plans and policies applicable to transportation in the study area.

4-9.3.3.1 Solano County General Plan

Local traffic is subject to the policies and regulations of the Solano County Public Works Agency. The Solano County Public Works Engineering Division requires that all vehicles be capable of handling legal loads, with 80,000 pounds being the maximum. Solano County transportation policies and standards for roadways are discussed in the Transportation and Circulation Chapter of the Solano County General Plan (Solano County 2008a).

Transportation policies set forth in the Solano County General Plan relative to the Proposed Project include:

Policies

TC.P-1 Maintain and improve current transportation systems to remedy safety and

congestion issues, and establish specific actions to address these issues when they occur.

- TC.P-4 Evaluate proposals for new development for their compatibility with and potential effects on transportation systems.
- TC.P-5 Fairly attribute to each development the cost of on- and off-site improvements needed for state and county roads and other transportation systems to accommodate that development, including the potential use of development impact fees to generate revenue.

4-9.3.3.2 City of Vacaville General Plan

Transportation policies set forth in the City of Vacaville General Plan (City of Vacaville 2007) relative to the City's development and operation of the Proposed Project include:

Guiding Policies

- 6.1-G 1 Strive to maintain LOS C as a minimum standard at all intersections, interchanges and road links. Design improvements to provide for LOS C in the year 2025 based on City's development forecast.
- 6.3-G 1 Design local roadways and implement traffic control measures to maintain LOS C on local streets.
- 6.3-G 3 Discourage through traffic on local roadways.
- 6.3-G 4 Designate truck routes and discourage unnecessary through-traffic in residential areas through circulation system design and planning.

Implementing Policies

- 6.3-I 1 Avoid adding traffic to roadways carrying volumes above the standards.

4-9.4 SIGNIFICANCE CRITERIA

Under CEQA Appendix G Guidelines for transportation and traffic, impacts are considered significant if construction and operation of a project would:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).
- Exceed, either individually or cumulatively, a LOS standard established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Solano County Road Improvement Standards (2006) state:

The goal of Solano County is to maintain an LOS C on all roads and intersections. In addition to meeting the design widths and standards, all projects shall be designed to maintain an LOS C except where the existing LOS is already below C. Where the existing LOS is already below C, the project shall be designed such that there will be no decrease in the existing LOS. LOS shall be calculated using the Transportation Research Board's most recent Highway Capacity Manual.

CEQA standards of significance and Solano County Road Improvement Standards were subsequently combined and the following significance criteria were used to determine if the Proposed Project would result in a significant impact on transportation and traffic.

- Cause roadways that presently operate at LOS C or better to permanently degrade to LOS D, E, or F, or cause a decrease in LOS for those roadways that presently operate at LOS D, E, or F;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards from a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access;
- Result in inadequate parking capacity;
- Conflict with adopted policies, plans, or programs supporting alternative transportation; or
- Result in damage or degradation of existing roads from project construction.

The impact analysis section that follows describes impacts the Proposed Project might have in these criteria areas.

No impacts have been identified for the following criteria:

- **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.**

The Proposed Project would not affect air traffic because no additional flights would be generated and features would not be constructed vertically that would affect air traffic. In addition, the project sites are not located within critical compatibility zones of the Nut Tree Airport or Travis Air Force Base.

- **Result in inadequate emergency access.**

The Proposed Project would not result in inadequate emergency access as the basins will be accessible from roadways and each will be surrounded by an access road.

- **Result in inadequate parking capacity.**

Adequate parking would be present onsite to accommodate construction vehicles and vehicle parking during operation. Incidental public use will be docent led or by appointment with vehicle access limited to parking spaces provided on site.

- **Conflict with adopted policies, plans, or programs supporting alternative transportation.**

No policies, plans, or programs are in effect for alternative transportation that would be affected by the Proposed Project.

4-9.5 IMPACTS AND MITIGATION MEASURES OF THE PROPOSED PROJECT

During operation of both basins vehicle trips would be required to maintain the basins and for passive public use. It is anticipated that maintenance and/or agricultural uses would require the use of approximately 2 tractors twice annually, one backhoe or excavator once every two years, one tractor approximately 4 days per month (during months of any agricultural production), and one mower approximately 2 days per week (for approximately one month in the late spring). Incidental public access activities may also occur, which would be anticipated to result in an average of approximately 15 vehicle trips per month. Adding these trips to the existing volume on roadways leading to the Proposed Project sites (see Table 4-9.2) would have less-than-significant impacts on traffic. The only impacts to transportation would occur during construction of the Proposed Project as discussed in this section.

4-9.5.1 Cause Roadways that Presently Operate at LOS C or Better to Temporarily Degrade to LOS D, E, or F, or Cause a Temporary Decrease in LOS for those Roadways that Presently Operate at LOS D, E, or F

IMPACT 9-1: TEMPORARY INCREASE IN TRAFFIC DURING CONSTRUCTION

The Proposed Project would result in temporary and short-term increases in local traffic from construction-related workforce traffic, equipment and material delivery, and soil removal activities. Employee and construction traffic would originate at worker residences and at construction-equipment suppliers expected to be located in the metropolitan area near the Proposed Project. In compliance with City Standard Specifications, construction traffic through City streets will be prohibited and all haul routes and construction access will occur on local roads within unincorporated portions of Solano County. The primary construction-related impacts would be from excavated soil transported to an offsite disposal location. Table 4-9.3 presents estimated average daily trips (ADT) during excavation. At a maximum, construction of the Alamo basin is expected to generate up to 500,000 cubic yards of soil that would need to be hauled offsite. Assuming 240 construction days and 25 cubic yards of soil transported per truckload, a total of 83 round trips would be completed per day. In addition, about 24 round trips would be expected from construction personnel, assuming a construction crew of 20. Applying a factor of two cars for each truck, a total of 380 trips would be generated per day.

At a maximum, construction of the Ulatis basin is expected to generate up to 450,000 cubic yards of soil that would need to be hauled offsite. Assuming 190 construction days and 25 cubic yards of soil transported per truckload, a total of 95 round trips would be completed per day. In addition, about 24 round trips would be expected from construction personnel, assuming a construction crew of 20; therefore, 428 total trips would be generated per day. A total of 808 extra vehicles per day would be generated on local roadways from the Proposed Project, assuming the worst case scenario that both basins are constructed simultaneously and at the largest footprint possible. (Note that it is likely that environmental and other constraints will result in an actual basin size that is less than the maximum size and quantities used for this analysis.) Average peak hour trips generated from the project are presented in Table 4-9.4 for both a.m. and p.m. peak periods.

Table 4-9.3. Estimated Average Daily Trips (ADT) During Excavation Factored For Trucks

Alamo Detention Basin Cut & Fill Operation	In	Out	Ulatis Detention Basin Cut & Fill Operation	In	Out
Construction Worker Trips	24	24	Construction Worker Trips	24	24
Trucks: Soil Export	83	83	Trucks: Soil Export	95	95
<u>Passenger Car Equivalents</u>	<u>166</u>	<u>166</u>	<u>Passenger Car Equivalents</u>	<u>190</u>	<u>190</u>
<u>Total Directional Trips</u>	<u>190</u>	<u>190</u>	<u>Total Directional Trips</u>	<u>214</u>	<u>214</u>
Subtotal Initial Const. Trips	380		Subtotal Initial Const. Trips	428	

Total ADT construction trips (Passenger Car Equivalents) 808

Table 4-9.4. Estimated Average Peak Hour Trip

AM Peak Hour					
Alamo Detention Basin Cut & Fill Operation	In	Out	Ulatis Detention Basin Cut & Fill Operation	In	Out
Construction Worker Trips	12	0	Construction Worker Trips	12	0
Trucks: Soil Export	10	10	Trucks: Soil Export	12	12
<u>Passenger Car Equivalents</u>	<u>21</u>	<u>21</u>	<u>Passenger Car Equivalents</u>	<u>24</u>	<u>24</u>
<u>Total Directional Trips</u>	<u>33</u>	<u>21</u>	<u>Total Directional Trips</u>	<u>36</u>	<u>24</u>
AM Peak Hour Total Direction Traffic				69	45
PM Peak Hour					
Alamo Detention Basin Cut & Fill Operation	In	Out	Ulatis Detention Basin Cut & Fill Operation	In	Out
Construction Worker Trips	0	12	Construction Worker Trips	0	12
Trucks: Soil Export	10	10	Trucks: Soil Export	12	12
<u>Passenger Car Equivalents</u>	<u>21</u>	<u>21</u>	<u>Passenger Car Equivalents</u>	<u>24</u>	<u>24</u>
<u>Total Directional Trips</u>	<u>21</u>	<u>33</u>	<u>Total Directional Trips</u>	<u>24</u>	<u>36</u>
PM Peak Hour Total Direction Traffic				45	69

Notes: Assumption: 1 truck is equivalent to 2 passenger cars in evaluating capacity impact

Table 4.9-5 shows the existing LOS for each segment as well as acceptable capacity to maintain the LOS; existing ADT of each segment and percentage capacity of existing LOS; and estimated existing plus project of each segment and percentage capacity of existing LOS. For example on Vaca Valley Parkway, to operate within LOS A to C, 9,100 vehicle trips would be an acceptable ADT. Current traffic counts indicate that 1,348 vehicle ADTs occur, well within the acceptable range. The addition of 808 construction vehicles would result in an ADT of 2,156, still within the acceptable LOS range. The traffic volume would increase the LOS ratio from 14.81% to 23.69%. Traffic would still fall within an acceptable LOS for all segments based on ADT increases from construction. Tables 4.9-6 and 4.9-7 show the peak hour existing traffic volumes compared to the existing plus project volumes anticipated during peak a.m. and p.m. hours, respectively. These volumes are compared to allowable values presented in the City of Vacaville General Plan to maintain roadway segments at acceptable peak hour LOS C. Although the volume would increase during peak hours, the LOS would not degrade. Table 4.9-8 presents an analysis of truck volume increases on I-80. Likewise, the LOS would not decrease on I-80 from construction traffic. Construction traffic would not cause roadways that presently operate at LOS C or better to degrade to LOS D, E, or F, or cause a decrease in LOS for those roadways that presently operate at LOS D, E, or F. Therefore, impacts from increased construction-related traffic would be *less-than-significant*; no mitigation is required.

Table 4-9.5. Comparison of Existing and Existing Plus Project ADT and Capacity

Factors	Roadways				
	Bucktown	Vaca Valley Parkway	.01 M N VV Pl. Valley	.08 M S VV PL. Valley	I-80 E & W of PV
Existing LOS	A-C	A-C	A-C	A-C	D
Daily Capacity for Existing LOS	9100	9100	9100	9100	163,900
Existing ADT	215	1348	2018	2109	136000
Existing ADT % of Existing LOS Capacity	2.36%	14.81%	22.18%	23.18%	82.98%
Estimated Project Peak Trips/Day	808	808	808	808	808
Existing ADT + Project	1023	2156	2826	2917	136808
Existing + Project ADT % of Existing LOS Capacity	11.24%	23.69%	31.05%	32.05%	83.47%
% Increase of Existing LOS Capacity	8.88%	8.88%	8.88%	8.88%	0.49%

Notes: Estimated project ADT is in passenger car equivalents using a factor of 2 passenger cars/truck.
 Source: City of Vacaville 2010

Table 4-9.6. Pleasants Valley Road AM Peak Hour Traffic Volumes and Percent of Capacity

Cross Streets	Date	Existing Volumes			Existing + Project Volumes		
		SB	NB	Total	SB	NB	Total
Vaca Valley Road	3/4/2009	91 15.2%	36 6.0%	127 12.7%	136 22.6%	105 17.4%	240 24.0%
Foothill	3/4/2009	101 16.8%	43 7.2%	144 14.4%	146 24.3%	112 18.6%	257 25.7%
	3/5/2009	112 18.7%	31 5.2%	143 14.3%	147 24.5%	90 15.0%	237 23.7%
Cherry Glen	3/5/2009	142 23.7%	40 6.7%	182 18.2%	187 31.1%	109 18.1%	295 29.5%
	3/5/2009	164 27.3%	30 5.0%	194 19.4%	209 34.8%	99 16.4%	307 30.7%
PM Peak Hour Total Direction Traffic		-	-	-	45	69	114
Max. % Capacity		27.3%	7.2%	19.4%	34.8%	18.6%	30.7%
Notes							
Two Lane Collector LOS Capacity Based on Vacaville General Plan				Directional		600 vehicles/hr/lane	
				Total both directions		1000 vehicles/hour	

Source: Vacaville General Plan, Figure 6-1 (City of Vacaville 2007)

Table 4-9.7. Pleasants Valley Road PM Peak Hour Traffic Volumes and Percent of Capacity

Cross Streets	Date	Existing Volumes			Existing + Project Volumes		
		SB	NB	Total	SB	NB	Total
Vaca Valley Road	3/4/2009	66 11.0%	83 13.8%	149 14.9%	135 22.4%	128 21.3%	262 26.2%
Foothill	3/4/2009	55 9.2%	77 12.8%	132 13.2%	124 20.6%	122 20.3%	245 24.5%
	3/5/2009	47 7.8%	96 16.0%	143 14.3%	116 19.3%	141 23.4%	256 25.6%
Cherry Glen	3/5/2009	51 8.5%	138 23.0%	189 18.9%	120 19.9%	183 30.4%	302 30.2%
	3/5/2009	58 9.7%	142 23.7%	200 20.0%	127 21.1%	187 31.1%	313 31.3%
PM Peak Hour Total Direction Traffic		-	-	-	69	45	114
Max. % Capacity		11.0%	23.7%	20.0%	22.4%	31.1%	31.3%
Notes							
Two Lane Collector LOS C Capacity Based on Vacaville General Plan				Directional		600 Vehicles/hr/lane	
				Total both directions		1000 Vehicles/hr	

Reference: City of Vacaville, General Plan Figure 6-1 (City of Vacaville 2007)

Table 4-9.8. Total and Truck Average Daily Traffic on Interstate 80 in the Vicinity of Pleasants Valley Road

Site	Estimated Construction Worker Trips/Day	Estimated Project Truck Trips/Day	Caltrans Total AADT	Caltrans Total AADT with Project	Percent Increase in Total AADT	Caltrans Truck AADT	Percent Increase in Truck AADT
Alamo Detention Basin	48	166	136000	136,214	0.16%	7140	2.32%
Ulatris Detention Basin	48	190		136,238	0.18%		2.66%
Total	96	356		136,452	0.33%		4.99%
Caltrans Traffic Count Information							
Route: 80 District: 4 County: Solano	Post Mile: 20.925 Ahead		Description: Fairfield North Texas		Total: 136000	Trucks: 7140	% Trucks: 5.25%

4-9.5.2 Substantially Increase Hazards from a Design Feature or Incompatible Uses

IMPACT 9-2: TEMPORARY INCREASE IN HAZARDS

The Proposed Project would not increase hazards from a design feature, as the basins will not require roadway design changes such as sharp curves or new intersections. However, the introduction of construction traffic, and particularly large trucks that make wide turns at intersections and that could inhibit road visibility, has the potential to increase vehicular accidents with non-Project-related traffic during which drivers may not be aware of the presence of construction vehicles. This temporary increase in construction-related traffic is considered to be *significant*. Implementation of Mitigation Measure 9-2 would reduce this impact to a *less-than-significant* level.

MITIGATION MEASURE 9-2: ADDRESS TRAFFIC SAFETY AND OPERATION ON PUBLIC STREETS ASSOCIATED WITH TRUCK TRAFFIC

Prior to commencement of construction activities, the City shall require that the Project contractor submit and implement a Traffic Control Plan that will be subject to approval by the City's Traffic Engineer as well as by the County of Solano through the encroachment permit process. The Traffic Control Plan will be required to address truck haul routes and any advance warning, sight distance, traffic delay, and special flagman measures that might be necessary to ensure traffic safety on public roadways during offsite hauling activities.

4-9.5.3 Result in Damage or Degradation of Existing Roads from Project Construction

IMPACT 9-3: DAMAGE TO EXISTING ROADS AS A RESULT OF CONSTRUCTION

Construction access for the Alamo Creek detention basin will be from Vaca Valley Road via Rogers Lane. Construction access for the Ulatis Creek Detention Basin will be from Vaca Valley Road via Bucktown Lane. Existing roads could be damaged by construction of basins at both project locations. There is also the potential for tracking dust, soils, and other materials from the construction sites onto public and private roads. Although relatively large volumes of loaded trucks have the potential to chronically damage roadways, truck trips associated with the project construction would be legally loaded. Any extra legal loads needed for specialized deliveries, would be subject to a permit process involving fees and special requirements. The potential for damage to public and private roadways from construction traffic is considered *significant*. Implementation of Mitigation measure 9-3 would reduce this impact to a *less-than-significant* level.

MITIGATION MEASURE 9-3: ADDRESS ROAD DAMAGE AND WEAR RELATED TO TRUCK-HAULING ACTIVITIES

Construction traffic shall comply with the California Vehicle Code sections related to vehicle weight and width. Any extra legal loads needed for specialized deliveries shall be subject to special permit requirements from Solano County. The City shall obtain an encroachment permit for any modifications to project access points along County roadways, which may include specific requirements to address issues relating to the construction access and egress conditions. Repairs of any roadway damage along the Proposed Project's frontage that is directly attributable to the construction of the basins will be assessed jointly by the City and County with repairs completed by the City.

4-9.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

The cumulative context for transportation/traffic is the unincorporated area of Solano County in the vicinity of the Proposed Project. Development within the County is anticipated to continue in the future. The Solano County General Plan EIR concluded that with adoption and implementation of the proposed policies in the Solano County 2008 General Plan, combined with implementation of the roadway improvement projects listed in the General Plan EIR, impacts on roadway LOS in Solano County would be reduced (Solano County 2008b).

IMPACT 9-4: CUMULATIVE CONTRIBUTION TO TRAFFIC IN THE REGION

Since there are currently no projects proposed or under review by Solano County along Pleasants Valley Road (where a majority of temporary, short-term traffic impacts would occur) that would contribute incrementally to cumulative impacts, the Proposed Project would not contribute significantly to short-term cumulative construction traffic impacts. As discussed above, the Proposed Project would result in a less-than-significant impact to traffic during operation. Overall, the Proposed Project's contribution to this cumulative impact would not be considerable and this would be a *less-than-significant impact*.

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