

Transportation/Traffic

Chapter 3.16

SUMMARY OF FINDINGS

The proposed Project will result in *Less Than Significant Impacts* related to Transportation and Traffic. A Traffic Impact Analysis Report prepared by consultant 4Creeks, Inc., is included as Appendix H of this document which is used as the basis for determining this Project will result in Less Than Significant Impacts. A detailed review of potential impacts is provided in the following analysis.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Transportation and Traffic. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in Section 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”¹

The environmental setting provides a description of the Transportation and Traffic in the County. The regulatory setting provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County 2030

¹ CEQA Guidelines, Section 15126.2 (a)

General Plan, Tulare County General Plan Background Report, and/or Tulare County 2030 General Plan EIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist item questions. The following are potential thresholds for significance:

- Result in a Level of Service (LOS) less than “D”
- Unsafe roadway/circulation design
- Impact Air Traffic
- Dangerous Site Design
- Inadequate Access
- Need for additional Public Transit
- Need for additional Bike Facilities
- Need for additional Pedestrian Facilities

ENVIRONMENTAL SETTING

“Tulare County has two major regional highways, State Highway 99 and 198. State Highway 99 connects Tulare County to Fresno and Sacramento to the north and Bakersfield to the south. State Highway 198 connects from U.S. Highway 101 on the west and continues eastward to Tulare County, passing through the City of Visalia and into Sequoia National Park. The highway system in the County also includes State highways, County-maintained roads, and local streets within each of the eight cities.”²

“Tulare County’s transportation system is composed of several State Routes, including three freeways, multiple highways, as well as numerous county and city routes. The county’s public transit system also includes two common carriers (Greyhound and Orange Belt Stages), the AMTRAK Service Link, other local agency transit and Para transit services, general aviation, limited passenger air service and freight rail service.”³

“Some prominent county roadways include, but are not limited to, Alta Avenue (Road 80), Caldwell Avenue/Visalia Road (Avenue 280), Demaree Road/Hillman Street (Road 108), Tulare Avenue (Avenue 232), Olive Avenue (Avenue 152), Spruce Road (Road 204), El Monte Way (Avenue 416), Paige Avenue (Avenue 216), Farmersville Boulevard (Road 164), Road 192, and Road 152. Additionally, the highway system includes numerous county-maintained local roads, as well as local streets and highways within each of the eight cities and several unincorporated communities.”⁴

“Travel within Tulare County is a function of the size and spatial distribution of its population, economic activity, and the relationship to other major activity centers within the Central Valley

² Tulare County General Plan 2030 Update, page 13-2

³ Tulare County General Plan 203 Update Background Report, page 5-4

⁴ Ibid. Page 5-7

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(such as Fresno and Bakersfield) as well as more distant urban centers such as Los Angeles, Sacramento, and the Bay Area. In addition, there is considerable travel between the northwest portions of Tulare County and southern Fresno County and travel to/from Kings County to the west. Due to the interrelationship between urban and rural activities (employment, housing, services, etc.) and the low average density/ intensity of land uses, the private automobile is the dominant mode of travel for residents in Tulare County.”⁵

“According to the 2005 HCM, LOS is categorized by two parameters, uninterrupted flow and interrupted flow. Uninterrupted flow facilities have no fixed elements, such as traffic signals, that cause interruptions in traffic flow (e.g., freeways, highways, and controlled access). Interrupted flow facilities have fixed elements that cause an interruption in the flow of traffic such as stop signs, signalized intersections, and arterial roads (Transportation Research Board). The difference between uninterrupted flow and interrupted LOS is defined in the following summary.”⁶ See Tables 3.16-1 and 3.16-2 regarding Uninterrupted and Interrupted Traffic Flow Facilities LOS; respectively.

**Table 3.16-1
Uninterrupted Traffic Flow Facilities LOS⁷**

LOS A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.
LOS B	Is in the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
LOS C	Is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with others vehicles in the traffic stream.
LOS D	Is a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted and the driver experiences a generally poor level of comfort and convenience.
LOS E	Represents operating conditions at or near level capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
LOS F	Is used to define forced or breakdown flow (stop and go gridlock). This condition exists wherever the amount of traffic approaches a point where the amount of traffic exceeds the amount that can travel to a destination. Operations within queues are characterized by stop and go waves and they are extremely unstable.

⁵ Tulare County General Plan 203 Update Background Report, page 5-4.

⁶ 2011 TCAG Regional Transportation Plan, page 3-17

⁷ Ibid.

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Table 3.16-2
Interrupted Traffic Flow Facilities LOS⁸

LOS A	Describes operations with average intersection stopped delay of ten seconds or less (how long a driver must wait at a signal before the vehicle can begin moving again).
LOS B	Describes operations with average intersection stopped delay in the range of 10.0 to 20.0 seconds per vehicle, and with reasonably unimpeded operations between intersections.
LOS C	Describes operations with higher average stopped delays at intersections (in the range of 20.0 to 35.0 seconds per vehicle). Stable operations between locations may be more restricted due to the ability to maneuver and change lanes at mid-block locations can be more restrictive than LOS B. Further, longer queues and/or adverse signal coordination may contribute to lower average speeds.
LOS D	Describes operations where the influence of delay is more noticeable (35.0 to 55.0 seconds per vehicle). Intersection stopped delay is longer and the range of travel speeds are about 40 percent below free flow speed. This is caused by inappropriate signal timing, high volumes and some combinations of these.
LOS E	Is characterized by significant approach stopped delay (55.0 to 80.0 seconds per vehicle), and average travel speeds of one-third the free flow speed or lower. These conditions are generally considered to represent the capacity of the intersection or arterial.
LOS F	Characterizes arterial flow at extremely low speeds, with high intersection stopped delay (greater than 80.0 seconds per vehicle). Poor progression, long cycle lengths and high traffic demand volumes may be major contributing factors to this condition. Traffic may be characterized by frequent stop-and-go conditions.

“Public transportation provides an economical and efficient alternative for getting people to work, school and other chosen destinations. In Tulare County, buses are the primary mode of public transportation. Public transportation also takes the form of shared ride taxi, automobile and vanpools; dial-a-ride, and specialized handicapped accessible services. In Tulare County, social service transportation is provided by the following: local transit agencies, demand responsive operators and city/county special programs for senior citizens, mental health organizations and disabled citizens programs. These programs are funded and subsidized through State and federal grants, Local Transportation Funds (LTF), State Transit Assistance Funds (STAF), and local transportation sales tax revenues.”⁹

Traffic Impact Study Requirement

As it was anticipated that the proposed Project would generate more than 100 peak hour trips, it was determined that a traffic impact study was required. “The following criterion is a starting point in determining when a TIS is needed. When a project:

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS “C” or “D”).
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are

⁸ 2011 TCAG Regional Transportation Plan, page 3-17

⁹ Ibid. Page 1-14

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examples that may require a full TIS or some lesser analysis :

- a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS “E” or “F”).
- b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
- c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.).”¹⁰

A Traffic Impact Study (Traffic Study or TIS), November 2014, was prepared for the Proposed Project by consultant 4Creeks, Inc. Within this Traffic Study, the consultant outlined a number of roadways that may be affected. These roadways are listed as follows:

1. Betty Drive at Frontage Road (Betty Drive at Road 64 in 2040)
2. Betty Drive at State Route (SR) 99 Southbound (SB) Ramps
3. Betty Drive at SR 99 Northbound (NB) Ramps
4. Avenue 304/SR 99 SB Ramps at Road 68
5. Avenue 298 at Road 68
6. Avenue 298 at Project Driveway
7. Avenue 298 at Road 64
8. SR 198 at Road 64

“According to Traffic Impact Analyses for Site Development, the overall purpose of a traffic impact study is to determine the project impacts that are likely to occur to the surrounding street system. In order to accomplish this purpose you need to determine what occurs when the peak of the project generated traffic overlays the peak of the street traffic. Traffic Impact Analyses for Site Development states “the peak periods [of the adjacent street and highway system] are generally the weekday morning (7-9 a.m.) and evening (4-6 p.m.) peak hours, although local area characteristics occasionally result in other peaks (e.g., at major shopping or recreational centers)”. The peak hours analyzed in this study are:

- 7:00 to 9:00 AM
- 4:00 to 6:00 PM

These are the standard AM and PM peak hours of the street typically used for study in the County of Tulare.”¹¹

According to the Caltrans Guide for the Preparation of Traffic Impact Studies, one of the common rules for counting vehicular traffic is: “Vehicle counts should be conducted on Tuesdays, Wednesdays, or Thursdays during weeks not containing a holiday and conducted in favorable weather conditions.”¹²

¹⁰ Guide for the Preparation of Traffic Impact Studies, page 2

¹¹ Traffic Impact Study, A.2

¹² Guide for the Preparation of Traffic Impact Studies, CALTRANS, December 2002, page 4.

Table 3.16-3 shows the date and day the Existing Intersection Counts were taken for this Project. Prior to conducting these counts it was verified that these were non-holiday weeks.

**Table 3.16-3
Existing Intersection Counts**

Intersections	Day	Date
Avenue 304/SR 99 SB Ramps at Road 68	Tuesday	6/24/14
Avenue 298 at Road 68	Wednesday	6/11/14
Avenue 298 at Road 64	Wednesday	6/11/14

As shown in Table 3.16-3, all intersection counts were conducted on days that were appropriate to count. As noted in the TIS, Goshen Elementary School was out of session when traffic counts were conducted, but assumptions were made to include school related traffic in the analysis.

Airport

“There are nine public use airports in Tulare County. These include six publicly owned and operated facilities (Porterville Municipal, Sequoia Field, Tulare Municipal [Mefford Field], Visalia Municipal, Woodlake, and Harmon Field [currently closed]) and three privately owned and operated airports (Alta Airport [currently closed], Thunderhawk Field, and Eckert Field). Badger Field is under consideration for Federal Aviation Administration (FAA) recertification as a restricted private airfield (as of August 2006).”¹³

Design for Emergency Access

According to § 21060.3 and § 15359 of the CEQA Guidelines, an “Emergency” means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. “Emergency” includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage. A Proposed Project could potentially generate impacts through inadequate design for emergency access.

Alternative Transportation

“TCAT has been providing rural route service between various cities and towns in Tulare County since 1981. TCAT retains MV Transportation to provide all of its transit services, which includes fixed route and demand responsive services for inter-city and intra-city service in many small communities throughout the County. TCAT is the most extensive transit system in Tulare County and connects with Dinuba Area Regional Transit (DART), Visalia City Coach (VCC), Tulare InterModal Express (TIME), Porterville City Operated Local Transit (COLT), Kings Area Rural Transit (KART), Kern Regional Transit, Orange Belt and Greyhound bus.”¹⁴

¹³ Tulare County General Plan 2030 Update, page 13-2

¹⁴ TCAG Transportation Plan, page 1-14

REGULATORY SETTING

Federal Agencies & Regulations - None that apply to the proposed Project.

State Agencies & Regulations

Caltrans: Transportation Concept Reports

Caltrans has prepared a number concept reports for State Routes, Interstate Routes, and US Routes. Tulare County is located in Caltrans District 6.

Caltrans Guide for the Preparation of Traffic Impact Studies

“The California Department of Transportation (Caltrans) has developed this "Guide for the Preparation of Traffic Impact Studies" in response to a survey of cities and counties in California. The purpose of that survey was to improve the Caltrans local development review process (also known as the Intergovernmental Review/California Environmental Quality Act or IGR/CEQA process). The survey indicated that approximately 30 percent of the respondents were not aware of what Caltrans required in a traffic impact study (TIS).”¹⁵

Local Policy & Regulations

Tulare County Transportation Control Measures (TCM)

“Transportation Control Measures (TCM) are designed to reduce vehicle miles traveled, vehicle idling, and/or traffic congestion in order to reduce vehicle emissions. Currently, Tulare County is a nonattainment region under the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Both of these acts require implementation of TCMs. These TCMs for Tulare County are as follows:

- Rideshare Programs;
- Park and Ride Lots;
- Alternate Work Schedules;
- Bicycle Facilities;
- Public Transit;
- Traffic Flow Improvement; and
- Passenger Rail and Support Facilities.”¹⁶

Tulare County Association of Governments (TCAG)

“... [W]ith the passage of Assembly Bill (AB) 69 State law has required the preparation of Regional Transportation Plans (RTPs) to address transportation issues and assist local and state decision makers in shaping California’s transportation infrastructure.”¹⁷ The Tulare County Association of Government has prepared the 2011 Regional Transportation Plan. Specific policies that apply to the Proposed Project are listed as follows:

¹⁵ Caltrans Guide for the preparation of traffic studies, page ii

¹⁶ Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report, page 3.2-2

¹⁷ TCAG Transportation Plan, page 1-11

TRANSPORTATION SYSTEM MANAGEMENT (TSM) Policy 5

Support installation of adequate left and right turning pockets to allow increased storage, as necessary.

TRANSPORTATION SYSTEM MANAGEMENT (TSM) Policy 6

Encourage improvements in design of signalized intersections to improve turning for large vehicles and circulation flow.

Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within County of Tulare. General Plan policies that relate to the proposed Project are listed below.

LU-5.5 Access - The County shall locate industrial development where there is access from collector or arterial roads, and where industrial/heavy commercial traffic is not routed through residential or other areas with uses not compatible with such traffic.

LU-7.4 Streetscape Continuity - The County shall ensure that streetscape elements (e.g., street signs, trees, and furniture) maintain visual continuity and follow a common image for each community.

TC-1.13 Land Dedication for Roadways and Other Travel Modes - As required by the adopted County Improvement Standards, the County shall require, where warranted, an irrevocable offer of dedication to the right-of-way for roadways and other travel modes, as part of the development review process.

TC-1.14 Roadway Facilities - As part of the development review process, new development shall be conditioned to fund, through impact fees, tonnage fees, and/or other mechanism, the construction and maintenance of roadway facilities impacted by the project. As projects or locations warrant, construction or payment of pro-rata fees for planned road facilities may also be required as a condition of approval.

TC-1.15 Traffic Impact Study - The County shall require an analysis of traffic impacts for land development projects that may generate increased traffic on County roads. Typically, applicants of projects generating over 100 peak hour trips per day or where LOS “D” or worse occurs, will be required to prepare and submit this study. The traffic impact study will include impacts from all vehicles, including truck traffic.

TC-1.16 County Level Of Service (LOS) Standards - The County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of “D” or better in accordance with the LOS definitions established by the Highway Capacity Manual.

IMPACT EVALUATION

Would the project:

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets,**

highways and freeways, pedestrian and bicycle paths, and mass transit?

Project Impact Analysis: ***Less Than Significant Impact***

Existing Facility

The asphalt batch plant currently operates under a temporary use permit allowing the following production:

- Produce asphalt for large roadway projects
 - 3,700 tons per day, produced from oil and virgin aggregate
 - Typical daily production, when the plant is operational, is 1,600 tons

Table 3.16-4 shows the trip generation for the existing operation on an average day under the existing permitted production (1,600 tons per day).

**Table 3.16-4
Existing Average Production Trip Generation¹⁸**

	Daily Vehicles	AM Peak Hour Trips			PM Peak Hour Trips		
		Enter	Exit	Total	Enter	Exit	Total
Oil	3	1	1	2	1	1	2
Virgin Aggregate	61	6	6	12	6	6	12
New Asphalt	64	3	3	6	3	3	6
Plant Employees	9	0	0	0	0	3	3
Total	137	10	10	20	10	13	23

The average production trip generation shown in Table 3.16-4 is developed based on the following assumptions:

1. Plant employee shifts 10 hours each (7am-5pm and 7pm-5am)
2. New Aggregate will only arrive during the daytime shift

Proposed Project

The proposed Project's maximum capacity is 400 tons per hour. Operating at 400 tons per hour for two 10-hour shifts generates a maximum daily production of 8,000 tons per day. Table 3.16-5 shows the trip generation for the proposed Project on a peak production day.

The proposed Project expansion will provide the following products and quantities:

- Produce asphalt for large roadway projects
 - 500,000 tons per year, produced from oil (5% by weight), virgin aggregate (55% by weight), and recycled asphalt grindings (40% by weight)

¹⁸ Traffic Impact Study, page 12. See Appendix H of this document.

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- Recycle construction rubble
 - 200,000 tons per year
- Sell small quantities of dirt, sand, and aggregate
 - 5,000 tons per year

Vehicle trips generated by the Project are calculated using the data from the applicant and the proposed annual and daily production thresholds.

**Table 3.16-5
Proposed Project Peak Production Trip Generation¹⁹**

	Daily Vehicles	AM Peak Hour Trips			PM Peak Hour Trips		
		Enter	Exit	Total	Enter	Exit	Total
Oil	16	1	1	2	1	1	2
Asphalt Grindings	0	0	0	0	0	0	0
Virgin Aggregate	104	10	10	20	10	10	20
Construction Rubble	0	0	0	0	0	0	0
New Asphalt	320	16	16	32	16	16	32
Re-sorted Rubble	0	0	0	0	0	0	0
Aggregate/Sand/ Dirt Sales	0	0	0	0	0	0	0
Plant Employees	9	0	0	0	3	0	3
Office Employees	15	0	0	0	0	0	0
Total	464	27	27	54	30	27	57

The Proposed Peak Production Trip Generation shown in Table 3.16-5 is developed based on the following assumptions:

1. Assumes no rubble re-sorting or commercial sales during peak production days
2. Plant employee shifts 10 hours each (7am-5pm and 7pm-5am)
3. Office employee shift is 12 hours (6am-6pm)
4. Peak days will consume on-site stockpiles of asphalt grindings (2,000 tons) and virgin aggregate (3,000 tons)
5. Remainder of virgin aggregate import is 8,000 tons minus stockpile (2,000 + 3,000) and oil (8,000 * 5%) = 2,600 tons
6. New Aggregate will only arrive during the daytime shift

The difference between the existing and proposed Project trip generation, shown in Tables 3.16-4 and 3.16-5 is used throughout the TIS to determine the proposed Project's impact to the circulation system.

¹⁹ Traffic Impact Study, page 12. See Appendix H of this document.

Project Trip Distribution

The Project trips shown in the tables above are distributed on the nearby roadway network based on the locations of most likely origins and destinations as identified by the applicant. Most of the routes are currently in use as the plant operates under its temporary use permit. The following routes are anticipated for the various trip types:

1. Oil – to/from the north via SR 99 and Betty Drive
2. Asphalt Grindings – throughout the multi-county service area of the plant
 - Assumed to be 25% in each cardinal direction
3. Virgin Aggregate
 - In the near-term, virgin aggregate will travel to/from the Orosi Rock Quarry located ½ mile east of Orosi. Trucks will travel along the following route:
 - Rock Delivery: Avenue 420 to Road 144 to Avenue 416 to SR 63 to Avenue 384 to Road 80 to SR 198 to Road 64 to Avenue 298
 - Truck Return: Avenue 298 to Road 68 (near-term) / Road 64 (long-term) to Betty Drive to Road 80 to Avenue 384 to SR 63 to Avenue 416 to Road 144 to Avenue 420
 - The route between the Quarry and SR 63 is based on the Orosi Rock Quarry EIR
 - In the long-term (+10 years), virgin aggregate is likely to come from the Fresno area along the following route:
 - SR 99 to Betty Drive to Road 68/Road 64 to Avenue 298
4. Construction Rubble – throughout the multi-county service area of the plant
5. New Asphalt – throughout the multi-county service area of the plant
 - 70% to/from North via SR 99 and Betty Drive
 - 10% to/from South via SR 99 and Betty Drive
 - 10% to/from East via SR 99 and SR 198 and Betty Drive
 - 10% to/from West via SR 198 and Road 64
6. Re-Sorted Rubble – throughout the multi-county service area of the plant
 - Assumed to be 25% in each cardinal direction
7. Aggregate/Sand/Dirt Sales – throughout the multi-county service area of the plant
 - Assumed to be 25% in each cardinal direction
8. Plant and Office Employees – Assumed to mostly live in the Visalia area, but may come from any town/city in a reasonable daily driving distance

The annual Project Trip Generation and Trip Type is shown in Table 3.16-6.

Table 3.16-6
Proposed Annual Project Trip Generation²⁰

Trip Type	Annual Quantity	Vehicle Capacity	Annual Vehicles	Average Daily Vehicles	Average Daily Trips
Arriving Materials					
Oil	25,000 T	25 T	1,000	5	10
Asphalt Grindings	200,000 T	25 T	8,000	40	80
Virgin Aggregate	275,000 T	25 T	11,000	55	110
Construction Rubble	200,000 T	25 T	8,000	40	80
Departing Materials					
New Asphalt	500,000 T	25 T	20,000	100	200
Re-sorted Rubble	200,000 T	25 T	8,000	40	80
Other Trips					
Aggregate/Sand/ Dirt Sales	5,000 T	2 T	2,500	13	26
Plant Employees	3 employees per shift, 2 shifts	1 employee	1,800	9	18
Office Employees	10 employees per shift, 1 shift	1 employee	3,000	15	30
Total			54,300	317	634

The Proposed Annual Project Trip Generation shown in 3.16-6 is developed based on the following assumptions:

1. 200 operating days per year (260 weekdays minus 60 days closed due to weather)
2. Average commercial sale of agg/sand/dirt will be 1.5 cubic yards, approximately 2 tons per load
3. Half of employees (Plant and Office) will leave the site once per shift
4. Utilize 40% recycled material (asphalt grindings) for new asphalt production

Analysis Scenarios

The following analysis scenarios are analyzed based on County of Tulare guidelines and in consultation with Caltrans staff:

- Existing
- Opening Day Plus Approved Projects
- Opening Day Plus Approved Projects Plus Project
- Opening Day Plus 5-Year Plus Project
 - For the Avenue 304/SR 99 SB Ramps at Road 68 intersection only
- 2040 No Project
- 2040 Plus Project

²⁰ Traffic Impact Study, page 11. See Appendix H of this document.

The County of Tulare and Caltrans have agreed upon the above study scenarios consisting of the Existing/Opening Day and the cumulative 2040 time frames. Caltrans has further identified the need for a 5-year analysis scenario to analyze the intersection of Avenue 304/SR 99 SB Ramps at Road 68 only. In consultation with the County of Tulare, the analysis scenario conditions are taken from the recently prepared Goshen Community Plan Traffic Impact Assessment and Circulation Element. The Goshen Community Plan was prepared by VRPA Technologies and includes information/assumptions from Caltrans' EIR for the Betty Drive Interchange Project.

Project Impacts

Table 3.16-7 shows the levels of service (LOS) for the study intersections for the various scenarios. Intersections with movements currently or projected to operate below the County of Tulare or Caltrans adopted level of service standards are shown shaded in Table 3.16-7. The LOS and delay are shaded if either the AM or PM peak hour, or both, fall below the appropriate adopted LOS standard. The two-way stop controlled (TWSC) intersection levels of service are representative of the intersection's approach with the worst LOS and delay. The signalized and all-way stop controlled (AWSC) intersection levels of service are representative of the whole intersection. Individual intersection movements or approaches at signalized and AWSC intersections may operate above or below the intersection level of service or delay shown in this report.

Based on the trip generation and trip distribution, the following Levels of Service (LOS) as shown on Table 3.16-7 will occur.

**Table 3.16-7
Level of Service Summary**

Intersection	LOS Threshold	Existing		Existing Plus Approved Projects		Existing Plus Approved Projects Plus Project	
		LOS (AM/PM)	Delay ¹ (AM/PM)	LOS (AM/PM)	Delay ¹ (AM/PM)	LOS (AM/PM)	Delay ¹ (AM/PM)
Betty Drive at Frontage Road	D	B/B	10.3/10.1	B/B	10.3/10.1	B/B	10.4/10.3
Betty Drive at SR 99 SB Ramps	C	F/F	160.6/131.9	F/F	174.5/148.5	F/F	193.9/163.4
Betty Drive at SR 99 NB Ramps	C	C/C	19.8/19.4	C/C	20.1/19.7	C/C	21.3/20.8
Avenue 304/SR 99 SB Ramps at Road 68	C	B/B	10.6/11.7	B/B	10.6/11.7	B/B	10.9/12.0
Avenue 298 at Road 68	D	A/A	9.2/9.3	A/A	9.2/9.3	A/A	9.4/9.5
Avenue 298 at Project Driveway	D	A/A	8.6/8.6	A/A	8.6/8.6	A/A	8.7/8.7
Avenue 298 at Road 64	D	A/A	8.8/9.0	A/A	8.8/9.0	A/A	8.9/9.0
SR 198 at Road 64	C	C/C	16.3/16.2	C/C	16.4/16.2	C/C	16.2/16.1
		Opening Day Plus 5 Years Plus Project		2040 No Project		2040 Plus Project	
Intersection	LOS Threshold	LOS (AM/PM)	Delay ¹ (AM/PM)	LOS (AM/PM)	Delay ¹ (AM/PM)	LOS (AM/PM)	Delay ¹ (AM/PM)
		LOS (AM/PM)	Delay ¹ (AM/PM)	LOS (AM/PM)	Delay ¹ (AM/PM)	LOS (AM/PM)	Delay ¹ (AM/PM)
Betty Drive at Road 64	D	n/a	n/a	A/A	6.3/7.9	A/A	6.3/8.1
Betty Drive at SR 99 SB Ramps	C	n/a	n/a	A/A	5.3/7.1	A/A	5.4/7.3
Betty Drive at SR 99 NB Ramps	C	n/a	n/a	C/C	21.8/27.0	C/C	21.9/27.1
Avenue 304/SR 99 SB Ramps at Road 68	C	B/B	11.0/12.3	n/a	n/a	n/a	n/a
Avenue 298 at Road 68	D	n/a	n/a	A/A	9.3/9.4	A/A	9.3/9.4
Avenue 298 at Project Driveway	D	n/a	n/a	A/A	8.9/9.0	A/A	9.1/9.1
Avenue 298 at Road 64	D	n/a	n/a	A/A	8.9/9.2	A/A	9.0/9.3
SR 198 at Road 64	C	n/a	n/a	C/C	21.9/21.6	C/C	21.8/21.5

¹ Average seconds of delay per vehicle
n/a = not applicable, does not exist

Recommended Improvements

The analysis presented in the Traffic Impact Study has identified several intersections which either exceed the adopted LOS standards or meet the Peak-hour Traffic Signal Warrant. Those intersections include:

1. Betty Drive at Frontage Road
 - Meets the Peak-hour Traffic Signal Warrant
2. Betty Drive at SR 99 SB Ramps
 - Exceeds LOS Standard
 - Meets the Peak-hour Traffic Signal Warrant
3. Betty Drive at SR 99 NB Ramps
 - Meets the Peak-hour Traffic Signal Warrant²¹

In order to mitigate the intersections currently operating or are projected to operate below the adopted LOS standard(s) and/or meet the Peak Hour Traffic Signal Warrant, the following improvements are recommended:

- Betty Drive at SR 99 SB Ramps
 - Install the improvements recommended by Caltrans, including:
 - Installation of traffic signals at both off-ramp intersections
 - Installation of a westbound Betty Drive to southbound SR 99 loop ramp
 - Installation of an eastbound Betty Drive to southbound SR 99 slip ramp
 - Widening the Betty Drive overcrossing to five lanes
 - Extension of Betty Drive to Road 64, with access control
 - Termination of Road 68/Frontage Road at Avenue 308

The improvements to the Betty Drive at SR 99 interchange area are planned for construction within approximately 5 years and will be funded through local/state sources. As such, no improvements are recommended in the near-term.²²

Mitigation Measure(s): ***None Required.***

The Project does not directly cause any of the study intersections to exceed a threshold of significance. However, the Project does contribute to the future cumulative impacts as shown above. Additionally, the Project contributes to the currently unacceptable structural condition of Road 64, between Avenue 298 and Avenue 304. Although roadway segments and structural sections are not addressed in the TIS, the conditions of this roadway segment are currently unacceptable and a complete reconstruction is needed. Once the Betty Drive at SR 99 interchange project is complete, the Project will utilize this segment for approximately 75% of all truck trips. In consultation with the County, the Project will pay its fair share towards the necessary improvements based on a proportionate share calculation based on vehicle impact to

²¹ Traffic Impact Study, page 32. See Appendix H of this document.

²² Ibid

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the structural section (through the roadway ESAL calculation with and without the Project). The Project will pay their proportionate share fee prior to completion of the Betty Drive at SR 99 interchange project. Prior to completion of the Road 64 reconstruction project the proportionate share calculation may be revised based on potential changes to the Project's vehicle routing. This shall be made a condition of project approval.²³

Conclusion: ***Less Than Significant Impact***

Potential Project-specific impacts related to this Checklist item are ***Less Than Significant***.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. The cumulative traffic volumes are developed by calculating vehicle trips for Approved Projects identified by the County of Tulare and City of Visalia. The Projects identified by the County of Tulare are located far enough away from the study area that they are not included. The list of projects supplied by the City of Visalia includes all development projects approved in the past 2 years. Those projects were identified based on proximity to the study area and likelihood of traveling through the study intersections. Information on the City of Visalia Approved Projects is included in Appendix D of the TIS (see Appendix H of this document). Trip generation was then calculated for those Approved Projects and distributed to the study intersections as follows:

- 5% to/from the west on SR 198 for those projects located near SR 198, west of Demaree Street
- 5% to/from the south on SR 99, via Betty Drive, for those projects located near Goshen Avenue, west of Demaree Street
- 10% to/from the north on SR 99, via Betty Drive, for those projects located near Goshen and Riggins Avenues, west of Demaree Street

In addition, the 2040 traffic volumes were developed by calculating the 2040 background traffic volumes using the 2032 traffic volumes from the Goshen Community Plan with an additional 8 years of growth. One percent growth per year is applied to all intersections from the 2032 traffic volumes. The 2040 traffic volumes were developed by adding the incremental increase in Project trips to the 2040 No Project traffic volumes. As shown in Table 3.16-7, 2040 traffic volumes (including the proposed Project) are not anticipated to exceed any established levels of service.

Mitigation Measure(s): ***None Required.***

No mitigation measures are required. However, the Project contributes to the currently unacceptable structural condition of Road 64, between Avenue 298 and Avenue 304. Although roadway segments and structural sections are not addressed in this TIS, the conditions of this roadway segment are currently unacceptable and a complete reconstruction is needed. Once the Betty Drive at SR 99 interchange project is complete, the Project will utilize this segment for

²³ Traffic Impact Study, page 32. See Appendix H of this document.

approximately 75% of all truck trips. In consultation with the County, the Project applicant will pay their fair share towards the necessary improvements based on a proportionate share calculation based on vehicle impact to the structural section (through the roadway ESAL calculation with and without the Project). The Project applicant will pay their proportionate share fee prior to completion of the Betty Drive at SR 99 interchange project. Prior to completion of the Road 64 reconstruction project the proportionate share calculation may be revised based on potential changes to the Project's vehicle routing. This shall be made a condition of project approval.²⁴

Conclusion: *Less Than Significant Impact*

Potential Project-specific and cumulative impacts related to this Checklist Item are *Less Than Significant*.

- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

Project Impact Analysis: *Less Than Significant Impact*

The County's General Plan Policy: TC-1.16 Tulare County LOS Standards calls for an LOS of "D" or better. Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" (see Appendix "C-3" of Appendix H) on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained. As noted in the Traffic report, the Proposed Project would not lower the LOS of intersections in the area below "D". Additionally the Regional Transportation Plan, prepared by the TCAG, notes that "[t]he Cities of Visalia, Tulare and Porterville have the most traffic congestion in Tulare County and are candidates for TSM strategies."²⁵ As the project site is located in a rural area outside of the Visalia sphere of influence, the Proposed Project would not have an immediate impact on high congestion areas of Tulare County. Potential Project-specific impacts related this Checklist Item will be *Less Than Significant*.

Cumulative Impact Analysis: *Less Than Significant Impact*

The geographic area of this cumulative analysis is Tulare County.

As noted in the Response to 3.16 Item a), the Proposed Project is not anticipated to have a significant cumulative impact. As such, *Less Than Significant Cumulative Impacts* related to this Checklist Item will occur.

Mitigation Measure(s): *None Required.*

²⁴ Traffic Impact Study, page 32. See Appendix H of this document.

²⁵ TCAG Regional Transportation Plan, Page 3-62

Conclusion: *Less than Significant Impact*

Potential Project-specific and cumulative impacts related to this Checklist Item are *Less Than Significant*.

- c) **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?**

Project Impact Analysis: *No Impact*

The nearest airport to the project site is the Visalia Municipal Airport located approximately one mile directly east. The project site is within the “6 – Traffic Pattern Zone” of the Airport, which represents the lowest level of hazard for areas within the Airports Safety Zones.²⁶ The proposed project type is allowable in this Zone and consists of an existing facility that is proposing a small physical expansion and establishment of a permanent operation. The expansion will include construction of a new office / warehouse facility and will not include the construction of any tall structures. The proposed use is not un-similar to other existing industrial land uses located within one mile of the Airport and will not result in any change in air traffic patterns or increase in safety hazards for people working in the project area.

No Project-specific Impacts will occur as a result of the proposed Project.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

Mitigation Measure(s): *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

- d) **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

Project Impact Analysis: *No Impact*

The proposed Project will not create any new design features on-site. The on-site circulation pattern will remain similar to existing conditions. The proposed Project will not result in sharp curves, dangerous intersections, or incompatible uses.

Although there will be an increase in the volume of vehicles accessing the site, the same types of vehicles (trucks and personal vehicles) will continue to access the site. Therefore, *No Project-specific Impacts* related to this Checklist Item will occur.

Cumulative Impact Analysis: *No Impact*

²⁶ Tulare County Comprehensive Airport Land Use Plan (2012) page 5-6

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As noted earlier, no significant design changes that would result in a hazard are proposed. As such, ***No Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation Measure(s): ***None Required.***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

e) Result in inadequate emergency access?

Project Impact Analysis: ***No Impact***

The Project site is currently accessed via two entrances from Avenue 298. Therefore, emergency access to the site will remain adequate. The site is currently, and will remain, accessible to emergency vehicles of all sizes. Due to the number and size of access points to the Project site, the proposed Project will result in ***No Impacts*** related to this Checklist item.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

The existing site currently has adequate access for emergency vehicles.

Mitigation Measure(s): ***See Mitigation Measure 16.2.***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Project Impact Analysis: ***Less Than Significant Impact***

Pedestrian and bicycle amenities are unavailable within the vicinity of the Project site. The Project trip are proposing to utilize roadways that currently see a high percentage of heavy vehicles. The Project will not significantly impact pedestrian and bicycle facilities except as they relate to an incremental increase in roadway traffic volumes. Additionally, the major pedestrian facility near Betty Drive is the pedestrian overcrossing which is not impacted at all by the Project trips. The Betty Drive interchange upgrade will also significantly improve pedestrian and bicycle facilities in the portion of the study area with the highest pedestrian and bicycle traffic.

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No transit services operate with stops in the immediate vicinity of the Project site and due to the nature of the Project's traffic, no use of transit is anticipated. Visalia Transit operates one route with one stop, in front of Goshen Elementary. The Visalia Transit buses operate as any other vehicle on the roadways and do not present a special circumstance as it relates to the operation of the study roadways. The one stop in the study area, at Goshen Elementary, is on a significantly wider than average road with more than sufficient room for the bus to maneuver without conflicting with adjacent traffic. The Project is not projected to cause significant impacts to transit service.²⁷

As most of the additional daily trips will be truck traffic from light- and heavy-duty vehicles, it is not anticipated that the proposed Project will result in an substantial increase in the demand for public transit, bicycle facilities, or pedestrian facilities.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in TCAG Regional Transportation Plan.

Mitigation Measure(s): ***None Required.***

Conclusion: ***Less Than Significant Impact***

Potential Project-specific and cumulative impacts related to this Checklist Item are ***Less Than Significant.***

²⁷ Traffic Impact Study, page 20. See Appendix H of this document.

ACRONYMS

AWSC	All-Way Stop-Controlled
HCM	Highway Capacity Manual
LOS	Level of Service
TWSC	Two-Way Stop-Controlled

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County General Plan Background Report, February 2010

Guide for the Preparation of Traffic Impact Studies, California Department of Transportation (Caltrans), December 2002

2011 Regional Transportation Plan, Tulare County Association of Governments (TCAG), July 11, 2012

2010 Tulare County Regional Bicycle Transportation Plan, Tulare County Association of Governments (TCAG)

2014 CEQA Guidelines

Tulare County General Plan 2030 Update, Recirculated Draft Environmental Impact Report (RDEIR), February 2010

Traffic Impact Study, Papich Construction. 4Creeks, Inc. January 2015. Appendix H of this document.