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Focused Traffic Study



October 16, 2015

Ms. Kirsty Shelton Gerosa  
Farella Braun + Martel, LLP  
899 Adams Street, Suite G  
St. Helena, CA 94574

## **Focused Traffic Study for Caymus Winery**

Dear Ms. Shelton Gerosa;

As requested, W-Trans has prepared this focused traffic study to reflect significant reductions in the project description per the Caymus Winery Use Permit Modification Application dated September 1, 2015. The findings contained within this letter supersede those in the *Amended Caymus Winery Traffic Impact Study*, dated April 28, 2015, and respond to the request in the September 1, 2015 letter agreeing with the categorical exemption.

### **Project Description**

Caymus Winery ("Caymus") is requesting approval of a major modification to its Use Permit (U-438788), as modified by Use Permit No. 91474, to allow the existing winery to make minor improvements. The existing entitlement includes 43,098 square feet of winery facilities and buildings, 4.5 acres of developed area, annual production of 110,000 gallons of wine per year, and public tours and tastings.

For the years 2011 to 2016, it is understood that pursuant to a judgment, the County of Napa has authorized an annual production of 1,800,000 gallons per year and 98,000 square-foot of winery development area. With the current application, Caymus requests approval to improve an existing access road, relocate interior vehicle access roads, and construct new parking; demolish an existing single-family dwelling and construct an 8,205 square foot agricultural greenhouse; and increase annual production on a permanent basis by 550,000 gallons, for a total maximum ongoing annual production of 660,000 gallons per year. Caymus does not request an increase in existing employees, parking spaces, number of visitors, or marketing events.

Caymus operations are located on approximately 4.5 acres within a 69.5-acre parcel on the east side of Conn Creek Road approximately at the intersection with Rutherford Road, at 8700 Conn Creek Road.

### **Existing Conditions**

The Project area is an existing winery development. Caymus started operations in the 1970's, before the County required use permits. Presently, the winery buildings have not been updated, and Caymus proposes to remodel portions of existing buildings labeled B5, demolish 6,695 square feet, and construct an 8,279 square foot agricultural greenhouse. The parcel is relatively flat, except for the banks of Conn Creek, and is located in the valley floor of Napa Valley. Surrounding land uses includes vineyards, single-family homes, wineries, and farm management offices. Conn Creek runs to the east of the winery structures. The winery is accessed by a triangle intersection of Conn Creek Road-Highway 128/Rutherford Road. The current internal access is a one-way loop road with an exit at the triangle intersection. The Project proposes to remove this exit. Visitors will use the improved vineyard entrance to the north of the winery, and staff and deliveries will continue to use the southern entrance.

### **Trip Generation**

The anticipated trip generation for a proposed project is typically estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 9<sup>th</sup> Edition, 2012. However, the ITE publication contains no such information for a winery. Therefore, the County of Napa's *Winery Traffic*

*Information/Trip Generation Sheet* was used to determine the anticipated traffic that would be generated by the proposed change in production at the Caymus Winery. The trip generation was estimated for the existing and proposed uses at the site. The permitted conditions were not used in this evaluation since, per the applicant, a categorical exemption was satisfied wherein existing conditions have been authorized. Therefore, the impact of winery traffic on the surrounding roadway network is a comparison between the volume of traffic generated by existing production (1,800,000 gallons per year) as compared to traffic generated by the proposed production (660,000 gallons per year).

Copies of the trip generation sheets for each of these scenarios are enclosed and the trip generation for the two scenarios is summarized in Table 1. Based on the proposed reduction in production, the project is expected to generate 20 fewer trips during the weekday and eight fewer trips during the weekday p.m. peak hour, while no change in trips is expected during the weekend day and midday peak hour.

<b>Table 1 – Trip Generation Summary</b>				
<b>Land Use</b>	<b>Weekday Trips</b>		<b>Weekend Trips</b>	
	<b>Daily</b>	<b>PM Peak</b>	<b>Daily</b>	<b>MD Peak</b>
Existing Use	-347	-132	-252	-144
Proposed Use	327	124	252	144
<b>Total Net-New Project Trips</b>	<b>-20</b>	<b>-8</b>	<b>0</b>	<b>0</b>

Because the proposed project would result in either a decrease or no change in the number of trips on the roadway network, there is either no expected change or a minor benefit to operation on intersections and roadway segments.

### **Site Access**

Vehicular access to the site would be provided via an existing driveway off of Conn Creek Road (south driveway) and an existing driveway on SR 128 (north driveway).

The north driveway on SR 128 would serve inbound and outbound visitor traffic. The south driveway off of Conn Creek Road would be used by staff and for truck deliveries. Because project traffic is separated by user, way-finding signage for tasting room traffic should be provided to guide visitors to the north driveway.

The traffic volumes collected in October 2012 at the SR 128/Conn Creek Road intersection indicated that motorists were exiting out of the center driveway and making a westbound through movement across the median onto SR 128, which is illegal. Similarly, motorists were making an illegal eastbound through movement from SR 128 in to the winery via the center driveway.

By closing the two driveways located across from the dirt median, previous conflicts would be reduced while the two project driveways would maintain local access. The existing unusual configuration of SR 128/Conn Creek Road lends itself to illegal movements by motorists. Installing a landscaped median with curbs or asphalt berms would prevent motorists from making these illegal movements and would be expected to improve safety.

To allow for the ease of access by visitors, employees and trucks, the following driveway layout scheme, as proposed, is supported:

- **North driveway (on SR 128)** – to provide access to visitors
- **South driveway (Conn Creek Road)** –to provide access to staff and trucks

## Internal Circulation

Internal circulation for passenger vehicles was evaluated. The north driveway would connect to a small traffic circle, which would provide access to the visitor parking areas located along the project frontage. The south driveway would connect to the staff parking, which is located on the south side of the winery building. Internal circulation for the passenger vehicles is anticipated to be adequate.

## Sight Distance

At unsignalized intersections a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed.

Sight distance along SR 128 at the project driveways was evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distance for a driveway is based on stopping sight distance, with approach travel speeds used as the basis for determining the recommended sight distance. For a 45-mph posted speed limit on SR 128, the recommended stopping sight distance for a private driveway is 360 feet. Though speeds would be lower on Conn Creek Road due to the proximity to the intersection with SR 128, the same criterion was applied to both roads.

Sight distances at the north and south driveways were measured electronically on Google Earth based on field notes obtained during a site visit. SR 128 and Conn Creek Road are reasonably flat and straight on the approaches to both driveways. Available sight lines are more than adequate and meet the recommended distance for the prevailing travel speeds.

## Turn Lane Analysis

The need for a left-turn lane on SR 128 at the existing north driveway was evaluated based on criteria contained in the *Napa County Road and Street Standards*, 2011. Based on the turning movement volumes obtained at the intersection of SR 128/Conn Creek Road in October 2012, SR 128 has an average daily traffic (ADT) volume of 2,200 vehicles near the north driveway.

Using the County's criteria, for an average daily traffic volume of 2,200 vehicles on SR 128, a left-turn lane would be warranted if a project driveway has an ADT of 70 or more. A total of 160 inbound and outbound daily vehicle-trips are expected at the north driveway by visitors. Based on these traffic levels, a left-turn lane would be warranted at the north driveway. Turn lane warrant calculations are enclosed.

It is understood that the development agreement between the applicant and the County will address the north project driveway left-turn lane.

## Transportation Demand Management Plan

The project should also promote the use of public transportation and carpooling of employees (by adjusting work schedules, etc.) as well as facilitate the use of other transportation modes. The County has adopted several measures in the General Plan to reduce vehicle trips through public transit and Transportation Demand Management (TDM) strategies: "The project should support programs to reduce single occupant vehicle use and encourage alternative travel modes." The winery has the ability to reduce the dependence on single vehicle occupancy trips and to tier departures by employees and tasting room visitors to avoid peak hour trips. Therefore, it is recommended that the winery implement a TDM plan that may reduce peak hour vehicle trips.

**Conclusions and Recommendations**

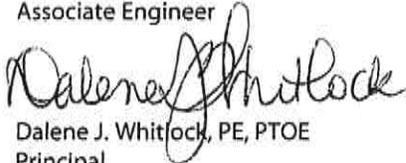
- The project is expected to result in a net negative number of project trips as compared to existing conditions during weekdays and the weekday p.m. peak hour, and no change in the number of trips during the weekend and weekend midday peak hour.
- No Impacts are expected on the roadway network in association with the proposed project.
- Visitors should access the project site via the existing north driveway off of SR 128. Wayfinding signage should be provided for visitors destined for the tasting room.
- Staff and truck deliveries should continue to access the project site via the existing south driveway off of Conn Creek Road.
- The closure of the existing center driveways and installation of curbs and landscaping in the median island at SR 128/Conn Creek Road per the project description are supported.
- Sight distance is adequate at the existing north and south driveways.
- The applicant and County should address the north project driveway left-turn lane on SR 128 in the development agreement.
- The winery should implement a TDM plan that reduces peak hour trips and thereby the project's potential impacts.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,



Smadar Boardman, EIT  
Associate Engineer



Dalene J. Whitlock, PE, PTOE  
Principal



DJW/MES/sab/NAX053.L1

Enclosures: Winery Trip Generation  
Napa County Left-Turn Lane Warrant Graph

References: *Amended Caymus Winery Traffic Impact Study*, W-Trans, April 28, 2015  
*Caymus Winery Use Permit Modification Application*, September 1, 2015

## Winery Traffic Information / Trip Generation Sheet

Project Name: **Caymus Vineyards**

Project Scenario: Existing Conditions

### Traffic during a Typical Weekday

Number of FT employees: <u>42</u> x 3.05 one-way trips per employee	=	<u>128</u>	daily trips.
Number of PT employees: <u>14</u> x 1.90 one-way trips per employee	=	<u>27</u>	daily trips.
Average number of weekday visitors: <u>208</u> / 2.6 visitors per vehicle x 2 one-way trips	=	<u>160</u>	daily trips.
Gallons of production: <u>1800000</u> / 1,000 x .009 truck trips daily <sup>3</sup> x 2 one-way trips	=	<u>32</u>	daily trips.
<b>Total</b>	<b>=</b>	<b><u>347</u></b>	<b>daily trips.</b>
Number of total weekday trips x .38	=	<u>132</u>	PM peak trips.

### Traffic during a Typical Saturday

Number of FT employees (on Saturdays): <u>7</u> x 3.05 one-way trips per employee	=	<u>21</u>	daily trips.
Number of PT employees (on Saturdays): <u>4</u> x 1.90 one-way trips per employee	=	<u>8</u>	daily trips.
Average number of weekend visitors: <u>312</u> / 2.8 visitors per vehicle x 2 one-way trips	=	<u>223</u>	daily trips.
<b>Total</b>	<b>=</b>	<b><u>252</u></b>	<b>daily trips.</b>
Number of total Saturday trips x .57	=	<u>144</u>	PM peak trips.

### Traffic during a Crush Saturday

Number of FT employees (during crush): <u>14</u> x 3.05 one-way trips per employee	=	<u>43</u>	daily trips.
Number of PT employees (during crush): <u>7</u> x 1.90 one-way trips per employee	=	<u>13</u>	daily trips.
Average number of weekend visitors: <u>450</u> / 2.8 visitors per vehicle x 2 one-way trips	=	<u>321</u>	daily trips.
Gallons of production: <u>1800000</u> / 1,000 x .009 truck trips daily x 2 one-way trips	=	<u>32</u>	daily trips.
Avg. annual tons of grape on-haul: <u>8800</u> x .11 truck trips daily <sup>4</sup> x 2 one-way trips	=	<u>122</u>	daily trips.
<b>Total</b>	<b>=</b>	<b><u>532</u></b>	<b>daily trips.</b>
Number of total Saturday trips x .57	=	<u>303</u>	PM peak trips.

### Largest Marketing Event- Additional Traffic

Number of event staff (largest event): <u>250</u> x 2 one-way trips per staff person	=	<u>500</u>	trips.
Number of visitors (largest event): <u>20</u> / 2.8 visitors per vehicle x 2 one-way trips	=	<u>14</u>	trips.
Number of special event truck trips (largest event): <u>4</u> x 2 one-way trips	=	<u>8</u>	trips.

<sup>3</sup> Assumes 1.47 materials & supplies trips + 0.8 case goods trips per 1,000 gallons of production / 250 days per year (see *Traffic Information Sheet Addendum* for reference).

<sup>4</sup> Assumes 4 tons per trip / 36 crush days per year (see *Traffic Information Sheet Addendum* for reference).

## Winery Traffic Information / Trip Generation Sheet

Project Name: Imus Vineyards

Project Scenario: Proposed Conditions

### Traffic during a Typical Weekday

Number of FT employees: <u>42</u> x 3.05 one-way trips per employee	=	<u>128</u>	daily trips.
Number of PT employees: <u>14</u> x 1.90 one-way trips per employee	=	<u>27</u>	daily trips.
Average number of weekday visitors: <u>208</u> / 2.6 visitors per vehicle x 2 one-way trips	=	<u>160</u>	daily trips.
Gallons of production: <u>660000</u> / 1,000 x .009 truck trips daily <sup>3</sup> x 2 one-way trips	=	<u>12</u>	daily trips.
<b>Total</b>	<b>=</b>	<b><u>327</u></b>	<b>daily trips.</b>
Number of total weekday trips x .38	=	<u>124</u>	PM peak trips.

### Traffic during a Typical Saturday

Number of FT employees (on Saturdays): <u>7</u> x 3.05 one-way trips per employee	=	<u>21</u>	daily trips.
Number of PT employees (on Saturdays): <u>4</u> x 1.90 one-way trips per employee	=	<u>8</u>	daily trips.
Average number of weekend visitors: <u>312</u> / 2.8 visitors per vehicle x 2 one-way trips	=	<u>223</u>	daily trips.
<b>Total</b>	<b>=</b>	<b><u>252</u></b>	<b>daily trips.</b>
Number of total Saturday trips x .57	=	<u>144</u>	PM peak trips.

### Traffic during a Crush Saturday

Number of FT employees (during crush): <u>14</u> x 3.05 one-way trips per employee	=	<u>43</u>	daily trips.
Number of PT employees (during crush): <u>7</u> x 1.90 one-way trips per employee	=	<u>13</u>	daily trips.
Average number of weekend visitors: <u>450</u> / 2.8 visitors per vehicle x 2 one-way trips	=	<u>321</u>	daily trips.
Gallons of production: <u>660000</u> / 1,000 x .009 truck trips daily x 2 one-way trips	=	<u>12</u>	daily trips.
Avg. annual tons of grape on-haul: <u>8800</u> x .11 truck trips daily <sup>4</sup> x 2 one-way trips	=	<u>122</u>	daily trips.
<b>Total</b>	<b>=</b>	<b><u>512</u></b>	<b>daily trips.</b>
Number of total Saturday trips x .57	=	<u>292</u>	PM peak trips.

### Largest Marketing Event- Additional Traffic

Number of event staff (largest event): <u>250</u> x 2 one-way trips per staff person	=	<u>500</u>	trips.
Number of visitors (largest event): <u>20</u> / 2.8 visitors per vehicle x 2 one-way trips	=	<u>14</u>	trips.
Number of special event truck trips (largest event): <u>4</u> x 2 one-way trips	=	<u>8</u>	trips.

<sup>3</sup> Assumes 1.47 materials & supplies trips + 0.8 case goods trips per 1,000 gallons of production / 250 days per year (see *Traffic Information Sheet Addendum* for reference).

<sup>4</sup> Assumes 4 tons per trip / 36 crush days per year (see *Traffic Information Sheet Addendum* for reference).

# Napa County Left Turn Lane Warrant Graph

North Driveway

