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ADMINISTRATIVE DRAFT
TRAFFIC IMPACT REPORT
E AND C WINERY, SOLANO COUNTY

AUGUST 28, 2019

Prepared for: E AND C WINERY APPLICANTS

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I. INTRODUCTION

This report has been prepared at the request of the E and C Winery applicants to determine whether the winery project will result in any significant circulation impacts to the local roadway network. The scope of analysis has been discussed with and approved by County planning and engineering staff and includes evaluation of major intersections near the project site for Existing (2019) and Year 2040 planning horizons (see **Figure 1. Area Map, and Figure 2. Intersection Lane Geometrics**).

II. PROPOSED PROJECT SUMMARY

The project consists of a new winery to be located along the south side of Rockville Road and west side of Russell Road. It will have entrances along Russell Road less than one-quarter mile south of Rockville Road.

The winery will be built in three phases over approximately 10 years, with an initial production capacity of 125,000 gallons and ultimate production capacity of 2,000,000 gallons. The facility will process grapes grown both on and offsite. Onsite activities will include receiving and crushing grapes, fermentation, processing grape juice into wine, bottling & cooperage, sales, hospitality and administration.

The Phase 1 winery entrance will serve employees and visitors as well as grape/wine delivery and shipping traffic. This will be the primary visitor entrance to the winery for all phases. A second entrance driveway will be developed during Phase 2 that will serve employees, grape/wine deliveries and shipping traffic for Phases 2 and 3. See **Figure 3, Site Plan.** There is an existing unimproved entrance to the property at the northwest corner of APN 027-251-290 over the irrigation channel, which will continue to be used for agricultural access.

Analysis of traffic impacts were requested by the County for Phases 1 and 3. Phase 1 is analyzed in the context of existing conditions; Phase 3 is analyzed in the context of 2040 traffic volume conditions.

III. SCOPE OF SERVICES

The scope of services for this traffic study was developed in consultation with the Solano County Planning and Engineering departments to determine the extent of any significant circulation impacts due to the proposed project. Evaluation was conducted for weekday AM and PM commute peak and Saturday afternoon peak traffic conditions for the following locations:

1. Russell Road/Rockville Road
2. Russell Road/Primary Project Entrances
3. Rockville Road/Abernathy Road

4. Abernathy Road/Suisun Parkway-Chadbourne Road
5. I-80 NB ramps/Chadbourne Road
6. I-80 SB ramps/Chadbourne Road
7. SR 12 NB ramps/Chadbourne Road
8. SR 12 SB ramps/Chadbourne Road

Existing and year 2040 (the Solano County traffic model planning horizon) operating conditions were evaluated both with and without project traffic. Project entrance driveway sight lines and parking supply were also evaluated.

IV. SUMMARY OF FINDINGS

A. "WITHOUT PROJECT" OPERATING CONDITIONS

1. Year 2019 (Without Project) Circulation System Operation

All study intersections are expected to operate at an acceptable LOS (at or better than LOS C).

2. Year 2040 (Without Project) Circulation System Operation

All study intersections are expected to operate at an acceptable LOS (at or better than LOS C).

B. PROJECT IMPACTS

Russell Road, Rockville Road, Abernathy Road and Suisun Parkway-Chadbourne Road and their on and off-ramps with the I-80 and State Route 12 freeways are projected to have higher volumes due to the project, thus were the subject of this analysis.

1. Project Trip Generation

Project trips during the Friday AM peak hour will consist of a few employee trips and grape Trucks while project trips during the Friday PM peak hour will consist mostly of visitors plus some outbound employees. Project trips during the Saturday PM peak hour will be entirely due to visitors.

2. Year 2019 (With Project) Circulation System Operation

Project traffic would not result in any significant level of service impacts to analyzed intersections during any harvest weekday or Saturday peak traffic hours. "With Project" conditions would result in all analyzed intersections operating acceptably at LOS C or better.

3. Year 2040 (With Project) Circulation System Operation

Project traffic would not result in any significant level of service impacts to analyzed intersections during any harvest weekday or Saturday peak traffic hours. "With Project" conditions would result in all analyzed intersections operating acceptably at LOS C or better.

C. MITIGATION MEASURES

No circulation system mitigations are required based upon County significance criteria.

D. CONCLUSIONS

The project will result in no significant off-site circulation system operational impacts to the analyzed roadway network without a major event. Sight lines at the proposed project driveway connections to Russell Road are acceptable and meet Caltrans stopping sight distance criteria. The site has sufficient acreage to accommodate overflow parking for maximum event days.

V. PROJECT LOCATION & DESCRIPTION

The E and C winemaking and hospitality facility is proposed on two parcels zoned for agricultural uses totaling approximately 70 acres (APN 027-251-280 [20 acres] and APN 027-251-290 [49 acres]. The two parcels are undeveloped and bounded by agricultural and residential uses to the north, south, east and west. A produce farm and farm stand is located to the east and a commercial tractor supply company is located to the southeast, accessed from Russell Road. The nearest residence is on the neighboring parcel north of the project site; the residence is about 620' feet from the nearest proposed building. There are several residences across Russell Road east of the property.

The proposed project will be a three-phase development of parcel 027-251-290 for winery, administration and hospitality purposes. The project will include a complete winemaking facility including retail sales, business administration, tours and tasting, and space for promotional events. Wine will be bottled initially by a mobile bottling service and a permanent bottling building will be developed as part of a later phase.

The undeveloped portions of the properties would be maintained for agricultural uses - primarily farming or vineyard. During the July through October harvest season the facility will operate seven days per week with extended hours. During the November through June non-harvest season, the facility will operate from 5:00 AM until 11:00 PM, seven days per week.

The ultimate Phase 3 production is proposed to be 2,000,000 gallons.

<u>Phase 1</u>

- Capacity to produce up to 125,000 gallons of finished wine per year
- 30,000 square foot building and canopy which will include grape receiving area, barrel storage, fermentation, administrative offices, and tasting area
- Gardens and outdoor event space

- Driveway access from Russell Road, internal circulation roads, visitor and employee parking
- Pomace staging area
- Sanitary sewage treatment and subsurface disposal system
- Fire water storage tank
- Storm water detention basin
- Process wastewater treatment and effluent storage

Phase 2

- Capacity to produce up to 500,000 gallons of finished wine per year
- Additional driveways for site circulation including a second entrance from Russell Road
- Scale and scale house
- Construction of approximately 60,000 square foot building for additional winemaking facilities which may include enclosed buildings, covered and uncovered receiving and fermentation areas, barrel storage, fruit storage, work shops and offices
- Expand fire and domestic water storage
- Process wastewater treatment and effluent storage, likely to be wastewater treatment ponds
- Storm water detention basin as well as wastewater disposal and reserve area expanded as necessary
- Additional visitor and employee parking

Phase 3

- Capacity to produce up to 2,000,000 gallons of finished wine per year
- Conversion of the Phase 1 winery production building to Tasting, Hospitality, and Administration uses with a maximum of 5,000 square feet for tasting; includes the addition of a commercial kitchen.
- Expansion of the winemaking facilities to approximately 205,000 square feet which may include enclosed buildings covered and uncovered receiving fermentation areas, barrel storage, bottling, fruit storage, offices and workshops
- Truck docks
- Additional visitor and employee parking

Visitor-Serving Uses and Marketing Events

A number of visitor serving uses are planned with event hours until 11 pm. These uses will be implemented during Phase 1 and are to be held in the tasting room, barrel room, event lawn and garden spaces. By Phase 3 the event areas may be expanded to include conversion of the Phase 1 Winery Building into a hospitality center. Multiple events may take place on the same day. Promotional events (with over 100 attendees) and Special Events including weddings will not be scheduled concurrently. Additional information concerning visitor-serving uses and marketing

events is provided in **Section XIV** of this study.

VI. EXISTING CIRCULATION SYSTEM EVALUATION PROCEDURES

A. ANALYSIS LOCATIONS

The following locations have been evaluated.

1. Russell Road/Rockville Road
2. Russell Road/Primary Project Entrances
3. Rockville Road/Abernathy Road
4. Abernathy Road/Suisun Parkway-Chadbourne Road
5. I-80 NB ramps/Chadbourne Road
6. I-80 SB ramps/Chadbourne Road
7. SR 12 NB ramps/Chadbourne Road
8. SR 12 SB ramps/Chadbourne Road

B. VOLUMES

1. SEASONAL CONSIDERATIONS

Project traffic impacts have been evaluated on a background of March 2019 count conditions. Based upon 2017 and 2018 years of historical information from Caltrans PeMS (Performance Measurement System) count surveys along the I-80 freeway nearest Chadbourne Road revealed very close volumes of traffic for March, September and October. In fact, 2017 March volumes slightly exceeded 2017 September and October volumes. For all times sampled, freeway counts between March and harvest season (September-October) varied only two to five percent. For this reason, seasonal adjustments were found to be unwarranted.

Project trips were derived from the applicant's projected crush season (harvest season) conditions.

2. COUNT RESULTS

Weekday 7:00 to 9:00 AM and 3:00 to 6:00 PM as well as Saturday 1:00 to 6:00 PM turn movement counts were conducted by Crane Transportation Group (CTG) in March 2019 at all study intersections. The peak traffic hours for the system were determined to be 7:30 to 8:30 AM and 4:15 to 5:15 PM on a weekday (Thursday) and 2:15 to 3:15 PM on a Saturday. Resultant peak hour counts are presented in **Figures 4, 5 and 6.**

C. ROADWAYS

The project site is accessed by the following roadways:

Interstate 80 (I-80) is an east-west interstate freeway with variable numbers of lanes; near the project site it has four lanes in each direction. I-80 provides regional access to the project site via the Chadbourne Road interchange.

State Route 12 is an east-west state highway with two lanes in each direction. SR 12 provides regional access to the project site via the Chadbourne Road interchange.

Russell Road is a north-south, two-lane local road that begins at Rockville Road and extends south about 2,200 feet to terminate just north of Suisun Parkway. Russell Road does not connect to Suisun Parkway. It provides primary access to the project site. Russell road is stop sign controlled at Rockville Road.

Rockville Road is an east-west collector road that begins just west of Green Valley Road and becomes West Texas Street just west of I-80. Rockville Road has one lane in each direction with a Class II bike lanes and posted speed limit from 25 to 55 mph. This road provides direct access to the project site.

Abernathy Road is a north-south collector road that begins at Mankas Corner Road and terminates at Suisun Parkway. It has one lane in each direction with a posted speed limit of 45 mph. There is a roundabout at the Abernathy Road/ Rockville Road intersection.

Suisun Parkway is an east-west major arterial road that extends from Abernathy Road west along the north side of I-80, becoming Business Center Drive at Suisun Valley Creek. The parkway was completed and opened to traffic in 2010; it has two lanes in each direction with Class II bike lanes and posted speed limit of 45 mph.

Chadbourne Road is a north-south collector road that begins at Abernathy Road and terminates south of Cordelia Road. It has two lanes in each direction with Class II bike lanes and posted speed limits from 35 mph to 45 mph.

D. INTERSECTION LEVEL OF SERVICE

1. ANALYSIS METHODOLOGY

Transportation engineers and planners commonly use a grading system called level of service (LOS) to measure and describe the operational status of the local roadway network. LOS is a description of the quality of a roadway facility's operation, ranging from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). Intersections, rather than roadway segments between intersections, are almost always the capacity controlling locations for any circulation system.

Signalized Intersections. For signalized intersections, the 2010 *Highway Capacity Manual* (Transportation Research Board, National Research Council) methodology was utilized. With this methodology, operations are defined by the level of service and average control delay per vehicle (measured in seconds) for the entire intersection. For a signalized intersection, control delay is the portion of the total delay attributed to traffic signal operation. This includes delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 1** summarizes the relationship between delay and LOS for signalized intersections.

Unsignalized Intersections. For unsignalized (all-way stop-controlled and side-street stop-controlled) intersections, the 2010 *Highway Capacity Manual* (Transportation Research Board, National Research Council) methodology for unsignalized intersections was utilized. For side-street stop-controlled intersections, operations are defined by the level of service and average control delay per vehicle (measured in seconds), with delay reported for the stop sign controlled approaches or turn movements, although overall delay is also typically reported for intersections along state highways. For all-way stop-controlled intersections, operations are defined by the average control delay for the entire intersection (measured in seconds per vehicle). The delay at an unsignalized intersection incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. It should be noted that the 2010 analysis software for unsignalized intersections does not report overall intersection delay. However, the year 2000 software does report overall delay and was utilized to report overall intersection operation. **Table 2** summarizes the relationship between delay and LOS for unsignalized intersections.

2. MINIMUM ACCEPTABLE OPERATION

Solano County Roadway Improvement Standards and Land Development Requirements, Section 1-4 states:

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

E. PLANNED IMPROVEMENTS

There are no planned and funded improvements at any location evaluated in this study.[1]

[1] Mr. Jason Riley, Engineering Services Supervisor, Solano County/Department of Resources Management, written communication, May 14, 2019.

VII. FUTURE HORIZON TRAFFIC VOLUME PROJECTIONS

Traffic analysis has been conducted for existing (2019) and cumulative year 2040 planning horizons at County request. The 2040 cumulative horizon reflects the County General Plan Buildout year. To conservatively represent growth projections contained in the Solano County Traffic Model, an annual growth rate of one percent was applied to reflect future land use developments in the vicinity of the project site.[2] The 2040 volumes reflect 2019 traffic volumes to which this annual growth rate (a total of 21%) has been added.

Resultant year 2040 "Without Project" weekday AM and PM peak hour, and Saturday PM peak hour volumes are presented in **Figures 7, 8 and 9,** respectively.

VIII. INTERSECTION OPERATION – WITHOUT PROJECT

A. EXISTING (2019) OPERATING CONDITIONS (WITHOUT PROJECT)

Table 3 presents existing condition (2019) intersection LOS analysis results. All study intersections are currently operating at an acceptable LOS (at or better than LOS C). Detailed LOS calculation worksheets are provided in **Appendix B**.

B. YEAR 2040 OPERATING CONDITIONS (WITHOUT PROJECT)

Table 4 presents future condition (2040) intersection LOS analysis results. All study intersections are projected to operate at an acceptable LOS, at or better than LOS C. Detailed LOS calculation worksheets are provided in **Appendix B**.

[2] The Napa-Solano Traffic Model projections were provided by the Solano Transportation Authority via Vamsee Modugula, Director, Travel Demand Forecasting, TJKM, June 12, 2019, peak hour assignment procedures, Solano ABM model.

IX. PROJECT IMPACT EVALUATION SIGNIFICANCE STANDARD

According to Section 1-4 of the Solano County Roadway Improvement Standards and Land Development Requirements, significant traffic impacts at analyzed study intersections occur when the addition of project traffic causes existing LOS to deteriorate from an acceptable level (C or better) to an unacceptable level (D or below).

X. PROJECT TRIP GENERATION & DISTRIBUTION

A. TRIP GENERATION – TYPICAL DAY

This analysis focuses on typical weekday and Saturday peak traffic hours during project harvest conditions when staffing is greatest. Appendix C provides details of Phase 1 and Phase 3 traffic activity, as determined by the applicants. The peak hours of ambient traffic on the local circulation system are as follows.

Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Afternoon Peak Hour
7:30-8:30	4:15-5:15	2:15-3:15

PHASE 1 EMPLOYEES:
The table below shows that most employees will arrive either before or after the ambient AM peak traffic hour (7:30-8:30) and that five employees leave during the PM peak hour (4:15 – 5:15). Employee trips are conservatively projected at one passenger per vehicle. Also, no employee inbound and outbound activity would occur during the Saturday PM peak hour (2:15-3:15) when the primary winery activity is visitor-serving.

PROJECT EMPLOYEES AND WORK SCHEDULES DURING HARVEST

EMPLOYEE CATEGORY (FULL & PART TIME)	WEEKDAY		SATURDAY	
	#	SCHEDULE	#	SCHEDULE
Administration & Marketing	2	9:00 AM-5:00 PM	0	NA
Production	3	7:00 AM-4:00 PM	0	NA
Tours and Tasting (Hospitality)	2	10:00 AM-5:00 PM	5	10:00 AM-5:00 PM
TOTAL	7		5	

Source: E and C Winery applicants
Compiled by: Crane Transportation Group

PHASE 1 VISITORS:
100 on weekdays @ 2.6 per car [3] = 38 inbound and outbound vehicle trips. Conservatively assumes 40%, or 15 vehicles arrive and depart during the PM peak hour.

300 on Saturdays @ 2.8 per car[4] = 107 inbound and outbound vehicle trips. Assumes 20%, or 21 vehicles arrive and depart during the PM peak hour.[5]

PHASE 1 GRAPE DELIVERY TRUCKS:
5 on weekdays; none on Saturdays.

PHASE 1 PROJECT PEAK HOUR TRIP GENERATION

TOTAL PROJECT HARVEST TRIP GENERATION DURING AMBIENT PEAK TRAFFIC HOURS

THURSDAY

	AM PEAK HOUR (7:30-8:30)		PM PEAK HOUR (4:15-5:15)	
	IN	OUT	IN	OUT
Employees	2	0	0	5
Visitors	0	0	15	15
Grape Trucks	2	2	1	1
TOTAL	4	2	16	21

SATURDAY

	PM PEAK HOUR (3:15-4:15)	
	IN	OUT
Employees	0	0
Visitors	21	21
Grape Trucks	0	0
TOTAL	21	21

Source: Crane Transportation Group

[3, 3] Standard per car factors developed for wineries by Napa County for projections of weekday and Saturday visitors.

[5] Projection of visitor flow by E and C Winery project applicants.

PHASE 3
TOTAL PROJECT EMPLOYEES AND WORK SCHEDULES DURING HARVEST

EMPLOYEE CATEGORY (FULL & PART TIME)	WEEKDAY		SATURDAY	
	#	SCHEDULE	#	SCHEDULE
Administration & Marketing	4	9:00 AM-5:00 PM	0	NA
Production	45	7:00 AM-4:00 PM	0	NA
Tours and Tasting (Hospitality)	4	10:00 AM-5:00 PM	8	10:00 AM-5:00 PM
TOTAL	53		8	

Source: E and C Winery
Compiled by: Crane Transportation Group

PHASE 3 EMPLOYEES:
The table below shows that most employees will arrive either before or after the AM peak hour (7:30-8:30) and that about one-half of employees will leave during the PM peak hour (4:15 – 5:15). Employee trips are conservatively projected at one passenger per vehicle. Also, no inbound and outbound employee trips would occur during the Saturday PM peak hour (2:15-3:15) when the primary winery activity is visitor-serving.

PHASE 3 VISITORS:
100 on weekdays @ 2.6 per car = 38 inbound and outbound vehicle trips. Conservatively assume 40%, or 15 vehicles arrive and depart during the PM peak hour.

300 on Saturdays @ 2.8 per car = 107 inbound and outbound vehicle trips. Assume 20%, or 21 vehicles arrive and depart during the 2:15 – 3:15 PM peak hour.

PHASE 3 GRAPE DELIVERY TRUCKS:
Weekday grape delivery truck activity would be centered around the 5 to 6 week harvest season. Truck deliveries on weekends would be an exception.

PHASE 3 TOTAL PROJECT PEAK HOUR TRIP GENERATION

TOTAL PROJECT HARVEST TRIP GENERATION DURING AMBIENT PEAK TRAFFIC HOURS

THURSDAY

	AM PEAK HOUR (7:30-8:30)		PM PEAK HOUR (4:15-5:15)	
	IN	OUT	IN	OUT
Employees	2	0	0	26
Visitors	0	0	15	15
Grape Trucks	2	2	2	2
TOTAL	4	2	16	43

SATURDAY

	PM PEAK HOUR (3:15-4:15)	
	IN	OUT
Employees	0	0
Visitors	21	21
Grape Trucks	0	0
TOTAL	21	21

Source: Crane Transportation Group

B. TRIP DISTRIBUTION

There are three traffic distribution components due to the project: employee trips, visitor trips and grape delivery truck trips. Each component is shown individually on the figures provided, with distribution determined assuming most trips will come and go to and from the I-80 freeway, and to a lesser extent to and from the S.R.12 highway rather than via local roads. Employee and visitor trips are projected to arrive and depart in roughly equal volumes to and from the northeast and southwest on I-80. Harvest season grape deliveries will rarely occur on weekends. Deliveries are assumed to arrive and depart throughout the night and early morning, primarily to and from the west on the I-80 freeway.

PHASE 1:
Figures 10, 11 and **12** show the weekday AM & PM peak hour and Saturday PM peak hour project traffic by component.

- **Weekday AM Peak Hour:** Only employees and grape delivery trucks arrive and depart during the weekday AM peak hour; this time period is too early for visitors.
- **Weekday PM Peak Hour:** Visitors arrive, employees depart, and a grape delivery truck arrives and departs during the weekday PM peak hour.
- **Saturday PM Peak Hour:** There are no inbound or outbound employee trips during the Saturday peak hour, and there are no grape delivery trucks on Saturdays. Peak hour traffic is visitor traffic, with and estimated 20% arriving and departing during the afternoon ambient traffic peak hour (2:15 – 3:15).

Figures 13, 14 and **15** show the weekday AM & PM peak hour and Saturday PM peak hour distribution of existing plus project Phase 1 volumes.

PHASE 3:
Figures 16, 17 and **18** show the weekday AM & PM peak hour and Saturday PM peak hour project traffic by component.

- **Weekday AM Peak Hour:** Only employees and grape delivery trucks arrive and depart during the weekday AM peak hour, this time period is too early for visitors.
- **Weekday PM Peak Hour:** Visitors and grape delivery trucks arrive and depart during the weekday PM peak hour, while employees depart.
- **Saturday PM Peak Hour:** There are no inbound or outbound employee trips during the Saturday peak hour, and there are no grape delivery trucks on Saturdays. Peak hour traffic is visitor traffic, with an estimated 20% arriving and departing during the afternoon ambient traffic peak hour (2:15 – 3:15).

Figures 19, 20 and **21** show the weekday AM & PM peak hour and Saturday PM peak hour distribution of 2040 plus project Phase 3 volumes.

C. PLANNED ROADWAY IMPROVEMENTS

There are no capacity increasing roadway improvements planned by the County on the local roadway network serving the project site.[6]

XI. PROJECT IMPACTS

A. EXISTING (2019) "WITH PROJECT" CONDITIONS

Project traffic would not result in any significant level of service impacts to analyzed intersections during any harvest weekday or Saturday peak traffic hours. "With Project" conditions would result in all analyzed intersections operating acceptably at LOS C or better. ***Less than Significant.***

B. YEAR 2040 CUMULATIVE "WITH PROJECT" CONDITIONS

Project traffic would not result in any significant level of service impacts to analyzed intersections during any harvest weekday or Saturday peak traffic hours. "With Project" conditions would result in all analyzed intersections operating acceptably at LOS C or better. ***Less than Significant.***

XII. PROJECT ACCESS IMPACTS

A. PROJECT DRIVEWAYS

The Phase 1 two-lane, east-west driveway will connect to Russell Road about 300± feet south of the north property line. It will provide access to the event lawn and garden, and parking lot, for employees and visitors. The Phase 2 two-lane, east-west driveway will be located about 300± feet south of the Phase 1 driveway and will provide access to the Phase 1 parking lot as well as the receiving area and fermentation canopy. The Phase 2 driveway will be extended further west during Phase 3 to provide access to the bottle building, truck dock, outdoor fermentation area and Phase 3 parking lot. See **Figure 3, Site Plan.**

[6] Mr. Jason Riley, Engineering Services Supervisor, Solano County/Department of Resources Management, written communication, May 14, 2019.

B. SIGHT LINE ADEQUACY AT PROJECT DRIVEWAYS

1. Project Driveway Connections to Russell Road

Russell Road is level and straight at the proposed project entrances. There is no posted speed limit. Observed speeds on Russell Road at the project entrance ranged from 20 to 40 mph in both directions. Sight lines for drivers turning from the Russell Road driveway are greater than 1,000 feet to the north and 500 feet to the south.

2. Sight Line Criteria

Corner sight line criteria at a private driveway connection to a public road are based upon minimum stopping sight distance. Shown below are Caltrans minimum stopping sight distance Highway Design Manual criteria.[7]

SPEED (MPH)	MINIMUM STOPPING SIGHT DISTANCE
40	300'
45	360'

Based upon available sight lines and observed vehicle speeds along Russell Road at the proposed project entrances, sight lines are acceptable at both locations. ***Less than Significant.***

XIII. PARKING DEMAND

The Phase 1 parking lot, shown on the site plan just south of the event lawn and garden, will be constructed to more than accommodate the projected maximum 30 spaces that would be required for employees and visitors. Phase 2 would expand the Phase 1 space, and adding parking spaces and a scale house along the south side of the parking lot, and Phase 3 would provide an additional parking lot just west of the bottle building. The two parking lots would be constructed to more than accommodate the Phase 3 typical day employee and visitor demand, projected at a maximum 75 spaces. During periods of peak events the applicants anticipate provision of sufficient on-site, overflow parking to accommodate all employee and visitor parking demand. ***Less than Significant.***

[7] Caltrans *Highway Design Manual*, 2018.

XIV. VISITOR SERVING USES AND MARKETING EVENTS

Visitor serving activities during Phase 1 will be held in the tasting room, barrel room, event lawn and garden spaces. By Phase 3 the event areas may be expanded to include conversion of the Phase 1 Winery Building into a hospitality center. Multiple events may take place on the same day.

Promotional events (with over 100 attendees) and Special Events including weddings will not be scheduled concurrently.

- Tours, tastings (including barrel tastings) and retail sales open to the public are planned daily in the tasting room from 10:00 AM to 5:00 PM. Peak visitor numbers are expected to be up to 200 on a weekday and up to 800 people per day on a weekend (however, these do not reflect "typical" days).
- Food and wine pairings will be offered daily by reservation for groups of up to 25 attendees. Food service will be provided by caterers and food trucks. There will be minimal food preparation onsite until a commercial kitchen is developed.
- Promotional events:
    - Wine club and marketing events will take place in the tasting room, outdoor garden, and barrel building. The tasting room will accommodate 350 persons at any given time. The Barrel Building and the Event Lawn will accommodate up to 450 persons.
    - Winemaker dinners will take place in the barrel building. The barrel building will accommodate up to 450 persons.
- Up to 24 Special Events /weddings are planned per year with a maximum of 450 attendees to take place at the event lawn, garden, and barrel building.
- 800 is the maximum number of people proposed to be onsite at any time. Throughout a peak weekend day as many as 1,350 people may visit at various times between the tasting visitors and events attendees.

Summary of Visitor Serving Uses and Marketing Events

Events	Tastings	Wine and food pairings	Special Events/ Weddings	Wine promotional (e.g. Wine Club, Winemaker dinners)
Frequency	Daily	Daily	Up to 24 per year	Frequency not limited by Solano County; assume 50 for environmental review
Attendees	Up to 200 total visitors on any weekday and up to 800 on a weekend day. Up to 350 at one time.	Up to 25 persons per day	Up to 450 attendees	Up to 450 attendees.
Location	Any of the identified hospitality areas including the Event Lawn, garden, tasting room, and barrel building. In Phase 3 the events may also take place anywhere in the hospitality building.			

Source: E and C Winery applicants

XV. CONCLUSIONS

The project will result in no significant off-site circulation system operational impacts to the analyzed roadway network without a major event. Sight lines at the proposed project driveway connections to Russell Road are acceptable and meet Caltrans stopping sight distance criteria. The site has sufficient acreage to accommodate overflow parking for maximum event days.