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Revised Road & Street Standard  
Exception Request Packet

Frogs Leap Winery  
8815 Conn Creek Road  
Rutherford, California 94563

June \_\_, 2016

Rick Marshall, P.E., P.L.S, Deputy Director of Public Works  
Department of Public Works  
County of Napa  
1195 Third Street, Suite 101  
Napa, California 94559

**Re: Frog’s Leap Winery Use Permit Modification #P14-00054; Request for Road Exception to Left Turn Lane Standards**

Dear Mr. Marshall:

At our May 2, 2016 meeting we discussed the findings of Bill Pramuk, consulting arborist, regarding the oak tree across from Frog’s Leap Winery and the potential implications of those findings to your tentative approval of an exception to the Napa County Road and Street Standards requiring a left turn lane. According to Mr. Pramuk’s March 16, 2016 report, adding a 6’ wide shoulder along the east edge of Conn Creek Road as shown on plans prepared by Applied Civil Engineering (ACE), “would risk potentially devastating direct damage to the roots” of one oak tree. (Emphasis added.) The basis for your tentative approval of the road exception was the preservation of unique features of the natural environment, more specifically the retention of oak trees. Consequently, you had reservations about granting the exception assuming it would harm one of the trees it was intended to protect. However, after reviewing the proposed exception we realized that our discussion had unintentionally focused on only one tree, instead of recognizing that the exception would preserve all four trees.

As evidenced by the Omni-Means traffic impact study, Civil Engineer Mike Muelrath, and the report prepared by ASCA Registered Consulting Arborist, Denise Britton (“Britton Report”), installing a left turn lane would require removal of four mature trees—three of which are oak trees—in the public right of way. However, by granting an exception to the left turn lane requirements with a condition to widen the eastern shoulder as originally proposed, we can retain all four trees. While the health of one of these trees may be at risk if certain measures are not taken, we can preserve that tree by following the recommendations noted in the Britton Report. (Attached as Exhibit “A”) As a result we can both preserve all four trees and increase vehicle and bicycle safety conditions.

**The findings of the independent arborist support moving forward with the road widening as originally proposed in conjunction with certain measures to preserve the one oak tree at issue or, alternatively, modifying the road widening condition.**

We retained Denise Britton, an independent arborist, to determine whether we can add a 6’ wide shoulder along the east edge of Conn Creek Road and maintain the viability of the oak tree across from the Frog’s Leap Winery driveway. It is important to note that Mr. Pramuk did not conclude that the shoulder widening would result in the demise of this oak tree. He noted only the risk of potential damage to the oak tree—a significant difference from concluding that the shoulder widening would result in the death of the oak tree. We would also note that during our May 2<sup>nd</sup>

meeting it was indicated that the removal of one oak tree would not be considered a significant impact under the California Environmental Quality Act (CEQA).

The Britton Report evaluated the impacts of the aforementioned oak tree as a result of the shoulder widening. The report found that:

1. The root collar of the oak tree is at grade and has several anchoring roots exposed. These roots all have old injuries at the edge of the soil line indicating that the tree collar and roots were routinely and regularly disced around in the past.
2. Due to the regular and continuing discing at the grade line, it is more likely that the current anchoring roots are deeper than normal.
3. Installing pavement near oak trees does not cause irreparable harm to a tree. The main potential impacts are the required cuts to the soil needed to install base rock underneath the pavement.
4. Alternative means of construction and use of materials—including the use of a geo-textile fabric underneath the base rock out to the edge of the tree canopy, use of air spade, and pruning of tree limbs over the road—would keep the tree viable after constructing the shoulder.

The Britton Report provides other recommendations on page 4 that, if implemented, can maintain the viability of the tree after widening the shoulder.

We would also note that there are many examples of mature oak trees co-existing in close proximity to roadways more heavily traveled than Conn Creek Road. One example is west bound Finnell Road east of the Hopper Creek bridge where a line of mature oak trees line the south side of the road.

We believe that by following the recommendations in the Britton Report, we can preserve and protect the 52" oak tree during and after the shoulder-widening proposal contained in our original proposal dated October 9, 2015. (The October 9 proposal is attached as Exhibit "B") Also, the Britton Report suggested further safeguards for the oak tree that we could implement as an option upon your approval. First, if the shoulder widening could modify the road construction materials in the area 10' south and north of the tree, there would be even less impact to the tree replacing the pavement underneath the canopy of the tree to concrete, with a smaller layer of base rock underneath it. This would eliminate the need for using an air spade within 10' of the trunk, and would therefore leave the soil next to the tree undisturbed. The area for special treatment is shown on the drawing prepared by ACE (attached as Exhibit "C") and incorporated in the Britton Report. While this is not a continuous paving of the shoulder area recognized in the October 2015 plan from ACE, the modification to the paving area would still provide a refuge area in those infrequent instances when a northbound traveler on Conn Creek Road encounters another vehicle making a left turn into the project driveway—a significant improvement for vehicles compared with existing conditions. Further, it would provide bicyclists and pedestrians extra comfort from passing cars as bicyclists and pedestrians currently must share the lane with those cars. (See Cal. Dept. of Transportation, *Improving Access and Safety for Pedestrians & Bicyclists on State Highways* (Dec. 30, 2015), p. 10 [widening rural highways supports pedestrian and bicyclists]; see also Whitlock & Weinberger Transportation, *Napa County Bicycle Plan* (Jan. 2012), p. 70 [priority to widen Conn Creek Road/Highway 128 for bicyclists].)

In summary, we believe that our proposal, as memorialized in our October 9, 2015 letter to you, continue to support your findings to grant an exception to the left turn lane requirement for the project. We recognize Mr. Pramuk's comments on the potential effects to one oak tree upon the

proposed shoulder widening; however those comments do not account for measures that one can take during the construction process to preserve the viability of the tree such as those outlined in the Britton Report. Further, Mr. Pramuk's findings narrowly focus on one tree, instead of the four trees that will be preserved under this exception. Thus, in granting the exception as originally proposed, we could preserve the existing oak tree across from the project driveway, as well as the three other trees, and provide significant safety improvements to vehicles, bicyclists and pedestrians when compared to existing conditions.

**The alternative options for the Project to avoid impacts to the one oak tree of concern are limited by significant logistical, environmental, and economic obstacles.**

During our last meeting, you suggested we review other locations for a driveway entrance and left turn lane that would avoid impacts to the existing 52" oak tree. These alternate locations included:

1. Relocating the existing winery driveway to a suitable location to construct a left turn lane while still preserving the 52" valley oak;
2. Converting the existing secondary driveway on Rutherford Road; or
3. Widening Conn Creek Road to the west on Frogs Leap Winery property to construct a left turn lane and still preserve the existing 52" valley oak

Relocating the existing winery driveway to a point further south to allow for the installation of a left turn lane without impacting any of the heritage oak trees would result in the removal of significant amount of vineyard, require the construction of new irrigation lines and vineyard avenues and the relocation of PG&E utility poles, as well as the expenses to remove the existing driveway (the area under which would not be planted due to long term compaction of the soil) and utilities located adjacent to the existing driveway. In addition, relocating the driveway further south would place the winery driveway and attendant traffic closer to the awkward 3-way intersection at Conn Creek/Rutherford/Skellenger Road and the Caymus Winery driveway. Besides the obvious disruption to our vineyard operation and the significant costs incurred and revenues lost through added conversion of agricultural land to hard scape, our winery was developed to orient around the existing driveway and its relationship to the historic red barn. Also, compared with the current proposal that would retain both the existing driveway and oak trees, there is no significant benefit to the traveling public by relocating the project driveway.

Converting the existing secondary driveway on Rutherford Cross Road would place guest and employee traffic proximate to two heavily used driveways, serving Honig Vineyards, the McDonnell property, Round Pond Winery and the awkward intersection of Conn Creek/Skellenger and Rutherford Road. Further, the orientation of the winery, parking areas, walkways was carefully designed with the main entrance on Conn Creek Road as noted above. Construction of a new main driveway entrance on Conn Creek Road would place an extreme economic hardship on our winery without the commensurate public benefit.

Widening Conn Creek Road on the west side of the road to facilitate the installation of a left turn lane would not preserve the existing oak trees—the primary objective of our exception request. Specifically, the project engineer has stated that widening the west side of Conn Creek Road would also require widening the east side of the road under CALTRANS standards and the removal of three of the four oak trees in the public right of way. These existing trees vary in diameter from 24" to 60" dbh with canopies that vary from approximately 50' to 65' in diameter. Additionally, as discussed in greater detail below, the widening would also present a safety issue due to an obstructed line of site for vehicles exiting the project driveway.

**The Project merits an exception to the County's standards requiring a left turn lane due to a legal constraint.**

The widening of Conn Creek Road to the west would require the relocation of the existing stop sign at the winery driveway's intersection with Conn Creek Road under CALTRANS standards. As recommended by the traffic engineer in their Revised Traffic Impact Analysis, in order to achieve the required 430' line of sight for vehicles exiting the winery, the neighboring property owner would need to remove existing vineyard, relocate existing end posts on the northernmost area of the property adjacent to Conn Creek Road, and restrict any development in the area in perpetuity to assure a clean line of sight in the future. We have contacted the adjacent property owner, Red Barn Ranch LLC, to purchase a "viewshed" easement for reasonable compensation. However, due to the owner's long-term goals for this property, they will not grant such an easement. (Frog's Leap Winery's offer to purchase the viewshed easement and Red Barn Ranch's rejection of that offer is attached as Exhibit "D")

The inability to obtain the necessary easement needed to install a left turn lane with sight distances that meet CALTRANS standards is a legal constraint to the installation of a left turn lane. Due to the circumstances of which we have no control, an exception to the left turn standards is an appropriate pursuant to a legal constraint. Finally, widening Conn Creek Road on the west side of the road would create a more severe curvature to Conn Creek than by retaining the road in its present alignment.

**The proposal does not have a significant impact on traffic or traffic safety.**

Traffic research indicates the incidence of traffic accidents on this segment of Conn Creek Road is extremely low. According to the Amended Caymus Winery Traffic Impact Study, during the period of January 1, 2007 to December 31, 2011 there was one fatality from a traffic collision involving an intoxicated driver. The collision rate was also negligible when compared to the statewide average for rural, flat roads, with two lanes or less and a speed limit at or equal to 55mph. During that five-year period there was a total of 5 collisions. We have also contacted the California Highway Patrol to determine whether there have been any traffic accidents on Conn Creek Road in the last seven months. According to the Highway Patrol's data base there have been no auto accidents on Conn Creek Road during this time.

As recognized by Omni-Means, vehicle delays for northbound motorists wishing to turn left into the Conn Creek Driveway range from 0.2-1.2 seconds under all "with project" scenarios. Due to these incremental delays, it is very unlikely that there will be an emergency situation where a driver will need to use the shoulder area at all.

**Conclusion**

Based upon the investigation and recommendations of the Britton Report and the support provided in this letter, we respectfully request that you reaffirm your approval of an exception to the left turn lane requirement and forward your conclusion to the planning division. Thank you.

Sincerely,

John Williams  
Frog's Leap Winery

5/25/2016

Jeff Dodd  
Dickenson Peatman & Fogarty  
1455 First Street, Suite 301  
Napa, CA 94559

RE: Frog's Leap Winery

You asked me to discuss the following questions:

1. Will the Valley Oak tree directly across from the Frog's Leap Winery's driveway remain viable after the addition of a 6 foot shoulder, adjacent to the eastern edge of Conn Creek Road across from Frog's Leap Winery?
2. If the tree cannot remain viable, what measures can be taken during construction to maintain the tree?

### **BACKGROUND**

Frog's Leap Winery is applying for a winery use permit modification from the County of Napa. Napa County's Road and Street Standards require the installation of a left-turn lane at the Winery's driveway unless the party applies for an exception. One exception is whether there is an environmental constraint, such as the removal of an oak tree.

The construction of the left hand turn lane would require Frog's Leap to remove 4 oak trees – all of which are in the public right-of-way – as shown on the attached plans prepared by Applied Civil Engineering (the "Road Improvement Exhibits). Frog's Leap applied for and Napa County Department of Public Works granted an exception to the County's Road and Street Standards. The County granted the exception with a condition that Frog's Leap install a 6' wide shoulder on the eastern edge for Conn Creek Road for approximately 280 feet.

Last month, the County received a letter from another arborist, Bill Pramuk, which concluded that the road widening would put one of the 4 trees, the Valley Oak directly across from the main driveway "at risk of severe direct damage" and would create an "unsafe condition for the tree." As a result, Frog's Leap seeks to identify the validity of Mr. Pramuk's conclusions and whether it can maintain the viability of the during the widening process.

### **ASSUMPTIONS AND LIMITATIONS**

My conclusions and recommendations are based on my examination of the tree and the Road Improvement Exhibits.



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**DENICE BRITTON**  
*Consulting Arborist*

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1039 Darms Lane  
Napa, CA 94558  
denice@arborbritton.com  
www.arborbritton.com

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**PH (530) 624-8403**  
FX (707) 252-7825

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*ISA Certified Arborist #WE-  
0108A*  
*ASCA Registered Consulting  
Arborist #296*

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That show the proposed widening. I examined the tree from the ground for visual signs of its condition, including the root flare. I assessed the health of the tree based upon foliage color, density and twig growth.

This report reflects the condition of the tree at the time of examination. Trees are biological organisms subject to environmental forces beyond our control. I cannot predict with absolute certainty the safety or structural integrity of any tree, nor can we guarantee it. I provide in this report a summary of my assessment, performed to the best of my ability and knowledge.

Not all trees on the site were included in this assessment. I cannot, therefore, make any statements as to the structure or safety of trees I did not inspect and are not included in this report.

## OBSERVATIONS AND RECOMMENDATIONS

I examined the tree on May 16, with Mike Muelrath of Applied Civil Engineering, Inc. The tree is a Valley oak (*Quercus lobata*) measured as 52" in diameter at the Standard measurement height of 4.5'. The tree shows good vigor, with a full canopy of dark green leaves. There are a few accumulated dead branches in the tree, but it generally shows good structure. The branches growing over the road are long and somewhat heavy, especially at the ends. One limb on the southwest side has sap oozing from it (fluxing), which indicates an internal crack.



The edge of the tree's root collar (red arrow in photo to left) is 7.5' away from the outside edge of the white line on the existing pavement.

The root collar is at grade, and has several anchoring roots exposed. These roots all have old injuries at the edge of the soil line, indicating that the tree was routinely disced around in the past.

## DISCUSSION

Installing pavement near trees does not always cause irreparably harm to the tree. If the pavement is placed with minimum compaction and root cutting for the installation of base material, then valley oak trees can often tolerate such paving, especially when it is restricted to one side of the tree.

The main impacts are not the pavement per se, but the cut that would be required to install base rock underneath the pavement.

Generally, it is undesirable to remove anchoring roots any closer than a distance equal to twice the diameter of the tree, in feet. This is generally considered a minimum for a cut on one side of the tree. That means that no cuts should be made any closer than 10' from the tree, and these should be as shallow as possible in order not to damage the tree's anchoring roots. However, the fact that the tree was previously disced makes it more likely that the current anchoring roots are deeper than normal. (See photo below, with arrows pointing to old disc injuries.)



## CONCLUSIONS

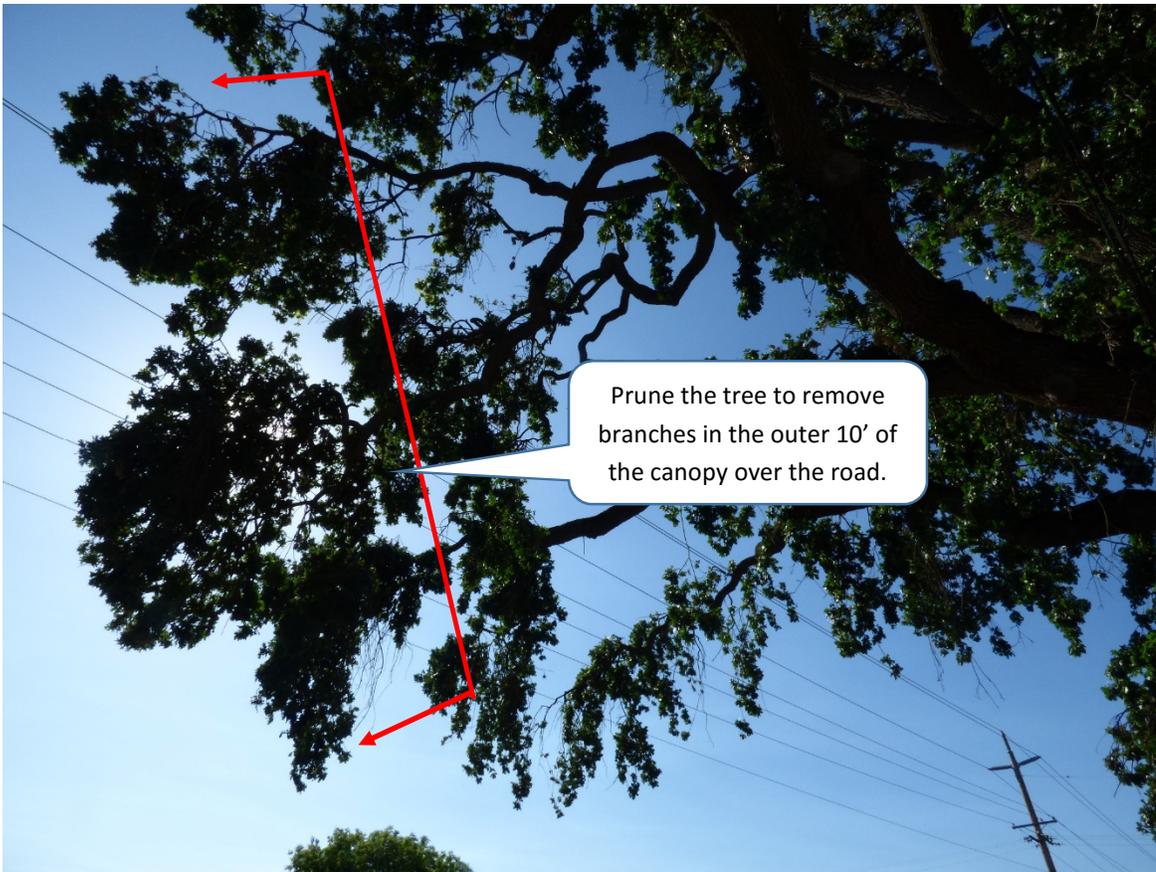
If 6' of new pavement is placed along the entire eastern edge of the road, it could damage the tree. However, from my experience with Valley oaks, one could maintain the viability of the oak by limiting root cutting and compaction under the tree, especially if the soil is undisturbed within 10' of the trunk.

If the widening could avoid the area 10' south and north of the tree, there would be even less impact if the pavement underneath the canopy of the tree could be changed to concrete, with a smaller layer of base rock underneath it. This would eliminate the need for using an air spade within 10' of the trunk, and would therefore leave the soil next to the tree undisturbed.

A further way to reduce damage would be to use a geo-textile fabric underneath the base rock, to stabilize the soil, out to the edge of the tree's canopy. Again, the edge of this excavation should be accomplished using an air spade to reduce the chances of injuring any main anchoring roots.

Another way to reduce impacts to the tree would be to save any roots larger than 4" (inches) diameter that are discovered below the grade of the pavement, by placing geotextile fabric over them and the final grade, and then filling in with base rock around the roots to the height needed for the cement layer.

Reflectors may be helpful on the south side of the tree to alert drivers to the presence of the trunk.



## RECOMMENDATIONS

1. Do not install a left hand turn lane, since it would require removal of 4 trees, rather than impacting only one tree. Instead, install a 6' shoulder, and preferably leave the area next to the tree undisturbed for a distance of 10' from the center of the trunk in all directions.
2. Retain an Arborist to work with the engineer to be certain that the tree's protection is fully considered in the planning stage. Protection measures should be spelled out on the site plan for the contractor to see them clearly, and take them into account when bidding the project.
3. Have a reputable tree service contractor who is a Certified Arborist prune the tree limbs over the road to elevate the foliage and reduce weight in the outer 10' of the limbs over the road, or to the left of red line in the above photo.
4. Clearly identify a Root Protection Zone RPZ on the west, south and north sides of the tree to keep construction equipment and workers away from the main roots.

5. Have an arborist on site during the initial excavation of the tree, to help insure that care is taken to leave roots intact. Under the canopy of the tree, either hand dig or use an air spade to retain as many roots as possible, especially near the trunk.
6. If roots larger than 2"-4" (inches) diameter are discovered below the grade of the pavement, then preserve these roots by placing a geotextile fabric over them and filling in with base rock around them.
7. Develop an inspection schedule so that an arborist can ascertain if any irrigation or other treatments are needed during construction, or during the next 12 months.
8. Monitor the tree annually to be certain it does not get too heavy, and to look for any health or structural concerns.

Please feel to call should you have any questions, or wish to discuss these matters further.



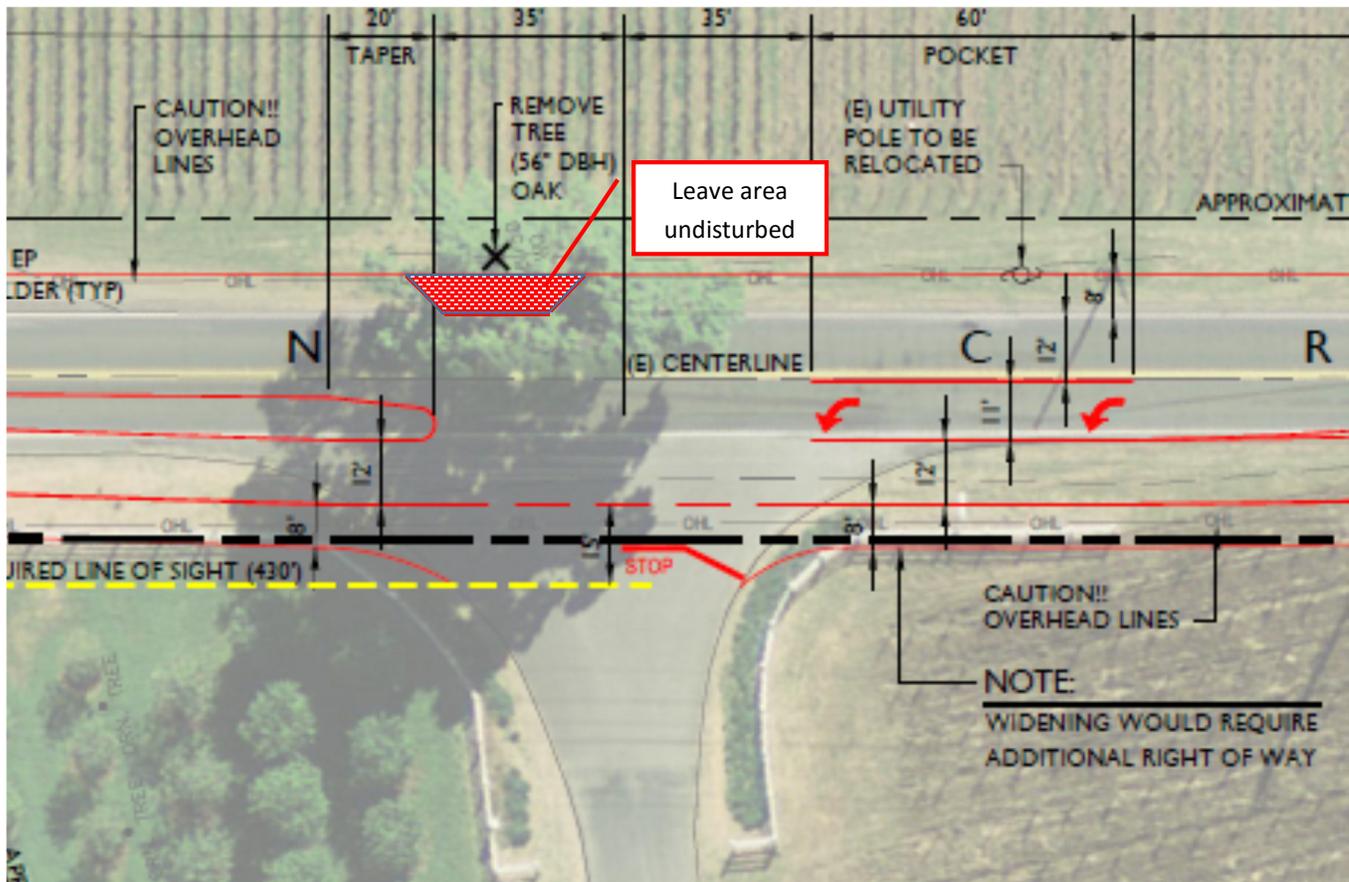
Denice Britton  
ASCA Registered Consulting Arborist #296



cc: Mike Muelrath, Applied Civil Engineering

Attachments: Road Improvement Exhibits, with illustration of proposed construction changes

### ROAD IMPROVEMENT EXHIBITS



This drawing shows Option 1, to widen the road for the left turn lane by moving the road to the west in front of the Frog's Leap Winery. The existing road and center line are shown. The narrow red line shows where an 8' shoulder would extend to. If instead of putting in the left turn lane, the road is widened by a 6' shoulder, then in my opinion the tree could be preserved. The edge of the tree's trunk is 7.5' east of the current edge of the pavement.

If at all possible, leave the area around the tree undisturbed for a distance of 10' on either side of the trunk. This would allow a car to go around a vehicle stopped to turn left and come back into the main lane well before encountering the tree. The hatched area shown above is 20' along the original pavement, or 10' on either side of the trunk.



**DENICE BRITTON**  
*Consulting Arborist*

**EDUCATION AND QUALIFICATIONS**

1979 -Bachelor of Science, Biology of Natural Resources, with emphasis in Plant Pathology, University of California, Berkeley. *Summa cum Laude.*

1981 -Master of Science, Wildland Resource Sciences, with emphasis in Urban Forestry, University of California, Berkeley. *Magna cum Laude.*

- 1984-2017 -Certified Arborist, WE-0108A, by the International Society of Arboriculture (ISA).
- 1984 -California Community Colleges Instructor Credential for Ornamental Horticulture, Credential No. 15 2 Fro 001 (#304717).
- 1989-2015 -Registered Consulting Arborist #296, American Society of Consulting Arborists.  
 1995 Graduate, ASCA Arboricultural Consulting Academy.
- 1992-2006 -California State Contractors License, Qualifying Individual, Limited Specialty Tree Service, C61/D49 #693647
- 2006 -Certified as an Urban Forester by the California Urban Forests Council (CaUFC)
- 2013-2017 -ISA Qualified Tree Risk Assessor #1842

**PROFESSIONAL EXPERIENCE**

- 1981-84 -**UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION, Berkeley. Urban Forestry Specialist.**  
 Develop an Urban Forestry outreach program to assist municipal foresters and arborists in setting up tree management programs. Provide technical expertise to University and Extension personnel regarding tree problems.
- 1984-2006 -**BRITTON TREE SERVICES, INC. ST. HELENA, CA. Consulting Arborist.** Evaluate trees on client estates, and for public agencies, to develop maintenance programs. Consultation regarding the care of trees in the landscape, hazard evaluation, mitigating construction damage and improving cultural conditions around trees. 1985-2001: Co-owner and General Manager.
- June, 2006-  
 June 2013 **CITY OF CHICO, CA. Urban Forest Manager.**  
 Manage street and park trees for the continuation of Chico's urban forest, including species selection, planting, pruning and removal. Oversee contract(s) for maintenance of public landscapes. Assist in planning review of new development projects. Review plans for tree preservation and landscape designs.
- July, 2013-  
 Present **CONSULTING ARBORIST, Self Employed**  
 Provide consultation in management planning, tree appraisal risk assessment, and expert witness regarding trees.

## **PROFESSIONAL AFFILIATIONS**

- 1981-2015 - **International Society of Arboriculture**  
 Certification Examination Committee, 1988-92
- 2002 **Honorary Life Membership** – In recognition of material and substantial contribution to the progress of arboriculture and having given unselfishly to support arboriculture.
- 1981-2015 **Western Chapter ISA, President, 1990-1991**  
 Board of Directors, 1986-90  
 Chairman, Regional Meetings Committee, 1981-88  
 Chairman, Certification Committee, 1982-87  
 Member, Certification Committee, 1987-92
- 1985 **Award of Merit.** In recognition of outstanding meritorious service in advancing the principles, ideals and practices of arboriculture.
- 1983-2013 -Member of **California Arborists Association**  
 Secretary-Treasurer, Napa Valley Chapter, 1986-87, 1992-93
- 1989-2015 - **American Society of Consulting Arborists**  
**President, 1998**  
 President-Elect, 1997  
 Vice President, 1996  
 Secretary-Treasurer, 1995  
 Board of Directors, two year term, 1992-94
- 1985-2006 -Member, **National Arborists Association, Now Tree Care Industry**
- 1986-93 -**Trustee, St. Helena Beautification Foundation**
- 1991 -Member, **California Urban Forest Advisory Council** to the California Department of Forestry regarding expenditure of funds allocated by the **America The Beautiful** program to the US Forest Service.
- 1981-2013 Member, **California Urban Forests Council**  
 Elected to Board of Directors, 2003  
 Treasurer, 2004-2006

## **PUBLICATIONS AND LECTURES**

Ms. Britton has authored several publications on the care, appraisal and maintenance of trees. Her work has been published by the University of California Cooperative Extension Service, and in the *Journal of Arboriculture*, *Journal of Urban Ecology* and in the trade magazines *Arbor Age* and *California Oaks*. She wrote and published a quarterly newsletter, *Out on a Limb*, for clients and associates of Britton Tree Services, Inc., from 1991 to 2005.

Denice Britton has lectured at numerous professional association meetings on the successful care and maintenance of trees. Since 1995, she has taught a semi-annual course on tree pruning for the University of California Extension at UC Davis.

***A detailed Curriculum Vitae can be provided upon request.***

Frogs Leap Winery  
8815 Conn Creek Road  
Rutherford, California 94563

October 9, 2015

Rick Marshall, P.E., P.L.S, Deputy Director of Public Works  
Department of Public Works  
County of Napa  
1195 Third Street, Suite 101  
Napa, California 94559

Re: Frog's Leap Winery Modification #P14-00054. 8815 Conn Creek Road,  
Rutherford. APN 030-090-033

Dear Mr. Marshall:

This letter is a follow up to the August 18, 2015 meeting that you had with Mike Muelrath and me during which we discussed our request for an exception to the left turn lane on northbound State Highway 128 (Conn Creek Road) at the driveway entrance to Frogs Leap Winery. You asked that I provide you with an analysis from our traffic engineer relating to trip generation at the two driveways that provide access to the Winery. Attached please find an email from Peter Galloway of Omni-Means that provides that analysis.

We also propose the following changes to our project and request that these changes be included in our project description and in the CEQA document prepared for the project:

- 1) We will add a 6 foot wide shoulder along the east edge of Conn Creek Road as shown on the attached plan prepared by Applied Civil Engineering;
- 2) We will direct all visitors, both daily and those who attend our marketing events to come to the winery by the Silverado Trail. This will be accomplished through our existing online reservation response system. We will confirm all appointments by automatic email notice that will include directions to our visitors to access the winery from the intersection of State Highway 128 and Silverado Trail. Implementation of these two measures will allow for right turns into our driveway to minimize the number of left turns; and
- 3) We will limit access to the secondary driveway to the ten (10) full time production staff that are directly employed by the winery. These employees will be directed to use only that driveway for access to the production facility. We will provide appropriate signage at this entrance.

It is my understanding based upon our meeting that these revisions/mitigation measures together with the existing conditions that you observed when we met you would allow you to grant our request for an exception to the left turn lane requirement at the 8815 Conn Creek Road winery driveway entrance.

We appreciate your willingness to meet with us and to assist with the development of these project revisions.

Sincerely,

Jonah Beer. General Manager  
Frog's Leap Winery

CC: Shaveta Sharma, Project Planner  
Mike Muelrath, Applied Civil Engineering  
Peter Galloway, Omni-Means  
Jeffrey Redding AICP

Attachment

# Technical Memorandum

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<b>To:</b>	Frog's Leap Winery	<b>Date:</b>	October 8, 2015
<b>Attn:</b>	Mr. Jonah Beer	<b>Project:</b>	Frog's Leap Winery
<b>From:</b>	Peter Galloway		Use Modification Project
<b>Re:</b>	Secondary Driveway Access	<b>Job No.:</b>	35-4569-01
	Left-Turn Lane Requirements	<b>File No.:</b>	C1799MEM002.docx
<b>CC:</b>	Mr. Jeff Redding AICP (Planning Consultant) Mr. George Nickelson, P.E., Omni-Means		

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Dear Jonah,

The following memorandum presents an analysis of the proposed Frog's Leap Winery Use Modification project that would allow for an existing secondary access driveway to/from Rutherford Road to be used by winery employees. Based on discussions with Mr. Jeff Redding, County Public Works staff have indicated that an existing secondary driveway could be used by winery uses to reduce overall trip generation at the winery's main driveway. Reducing overall traffic volumes at the main driveway would reduce the need for installation of a left-turn lane to serve the main project driveway.

The following sections describe existing and proposed driveway access, proposed project daily trip generation, and resulting left-turn lane requirements based on the winery having two access points.

## Existing/Proposed Driveway Access

Currently, the Frog's Leap Winery has one main driveway access from Conn Creek Road serving employees, guests/visitors, and production traffic. Conn Creek Road extends in a southwest direction from Silverado Trail through Skellenger Lane paralleling Silverado Trail to the east. The roadway passes Frank Family Winery, Frog's Leap Winery, and Caymus Winery in the study area. Conn Creek Road is a state highway (State Route 128) between Silverado Trail and Rutherford Road. At the project driveway Conn Creek Road is a rural, two-lane arterial roadway approximately 24-feet wide with unimproved shoulders.

The main winery driveway location at Conn Creek Road is a minor-street, stop-controlled intersection. Located at the east side of the parcel, the driveway consists of single lane approach that widens out considerably (large radius shoulders) at Conn Creek Road to provide for the eastbound right and left-turn movements onto the roadway. (The actual driveway entrance spans 120-feet along Conn Creek Road). This type of intersection is classified as three-way or (T-type) intersection. There is no northbound left-turn lane or southbound right-turn lane on Conn Creek Road at the existing project driveway.

A secondary driveway to the property is located approximately 650 west of Conn Creek Road on Rutherford Road (see Frog's Leap Winery Driveway Diagram—attached). This driveway

extends north from Rutherford Road for approximately 1,600 feet to the rear grounds of the Frog's Leap Winery. The secondary driveway does not meet the County's minimum driveway width of 18 feet (currently 15-16 feet). However, the driveway would only be used by Frog's Leap Winery employees. In addition, County driveway standards indicate that driveways of less than 18 feet in width have "pull-out" areas and these are available along the entire length of the driveway with ample shoulder areas.

## Proposed Project Trip Generation

Daily and peak hour project trip generation was calculated for proposed winery use modifications in previous transportation studies (*Omni-Means, Focused Traffic Analysis for the Proposed Frog's Leap Winery Modifications Project—Located on Conn Creek Road, Napa County, December 15, 2014*). As calculated, proposed use modifications would generate 202 daily weekday trips and 255 daily weekend trips (see Table 2, Peak Hour and Daily Trip Generation: Proposed Frog's Leap Winery Project—attached). For the weekday period, overall trip generation was based on 125 visitors, 30 full-time employees, 5 part-time employees, and 240,000 gallons of production. During the weekend period, overall visitation increased to 300 guests (maximum) while employment decreased to 10 full-time and 5 part-time employees.

Based on Napa County guidelines for the daily trip generation of winery employees, a full-time winery employee is estimated to generate 3.05 vehicle trips per day. Based on discussions with Mr. Jeff Redding, the winery would now re-allocate ten (10) of their full-time employees to the secondary driveway to/from Rutherford Road to reduce daily trip generation at Frog's Leap main project driveway. The shifting of 10 full-time employees would result in a corresponding reduction in daily trip generation at the main project driveway:

- 10 full-time employees x 3.05 trips/employee = 31 daily trips

As calculated above, a reduction in 10 full-time employees would reduce proposed project traffic at the main driveway by 31 daily trips. Overall project trip generation would be reduced to 171 daily trips during the weekday and 224 daily trips on the weekend. Conversely, daily traffic volumes on the secondary project driveway off Rutherford Road would equate to 31 daily vehicle trips during both the weekday and weekend periods.

## Left-Turn Lane County Requirements

### Main Project Driveway—Conn Creek Road

Under the revised employee trip allocation that would shift 10 employees to the secondary driveway on Rutherford Road, a new left-turn warrant graph was generated for the main Frog's Leap Driveway/Conn Creek Road (see warrant graph #1--attached). As shown, daily trip generation at the main driveway would be reduced to 171 weekday and 224 weekend daily trips and overall demand for a left-turn lane would be less. However, proposed project volumes at the main project driveway would continue to warrant a left-turn lane on Conn Creek Road.



## Secondary Project Driveway—Rutherford Road

Overall ADT volumes on Rutherford Road at the secondary project driveway are different from Conn Creek Road based on previous transportation counts conducted for the Honig Winery and vehicle travel patterns.<sup>1</sup> Based on these counts and yearly growth rates from Caltrans Highway volumes, ADT volumes near the project driveway are estimated at 2,700 vehicles. Combined with daily traffic volumes from near-term projects in the study area, overall near-term (no project) ADT volumes would be 3,282 vehicles on Rutherford Road near the secondary project driveway. With 10 employees using this secondary project driveway during both the weekday and weekend periods, 31 daily trips would be added to the roadway. A new left-turn lane warrant graph was generated for the project's Rutherford Road driveway (see warrant graph #2—attached). As shown, daily trip generation from proposed project uses would be well below the County threshold for installing a left-turn lane on Rutherford Road.

## Summary/Conclusions

The proposed Frogs' Leap Winery Use Modification project would shift a portion of the overall employee traffic from the project's main driveway at Conn Creek Road to a secondary access driveway off Rutherford Road to reduce traffic at the main driveway. Based on a shift of 10 full-time employees, a total of 31 daily trips would be removed from overall traffic volumes at the main Conn Creek driveway. An evaluation of the Napa County left-turn lane warrant requirement indicates that overall daily project volumes at the main Conn Creek Road driveway would be reduced. However, daily project volumes would still exceed the minimum County threshold for a left-turn lane at this location. At the secondary project driveway off of Rutherford Road, daily project traffic would be well below the County threshold for installing a left-turn.

In addition to moving a portion of the proposed project employee traffic to a secondary driveway off Rutherford Road; other physical project mitigation would be incorporated at the main driveway entrance at Conn Creek Road. Specifically, the eastern shoulder area on Conn Creek Road directly opposite the main Frog's Leap driveway would be improved and widened by six (6) feet. The newly paved shoulder area would extend approximately 140 feet both north and south of the driveway mid-point for a total length of 280 feet. This newly paved shoulder area would improve vehicle safety for northbound traffic on Conn Creek Road at the main Frog's Leap driveway and could reduce delays to through-traffic from vehicles turning left into the main driveway.

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<sup>1</sup> George W. Nickelson, P.E., *Traffic Study for Proposed Honig Winery Production and Visitor Program Increases*, November 22, 2006.



# Frog's Leap Winery

Driveway Diagram

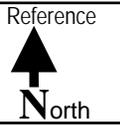


Google earth  
© 2015 Google



omni-means

## Project Driveway Access Plan



**TABLE 2  
PEAK HOUR AND DAILY TRIP GENERATION:  
PROPOSED FROG'S LEAP WINERY PROJECT**

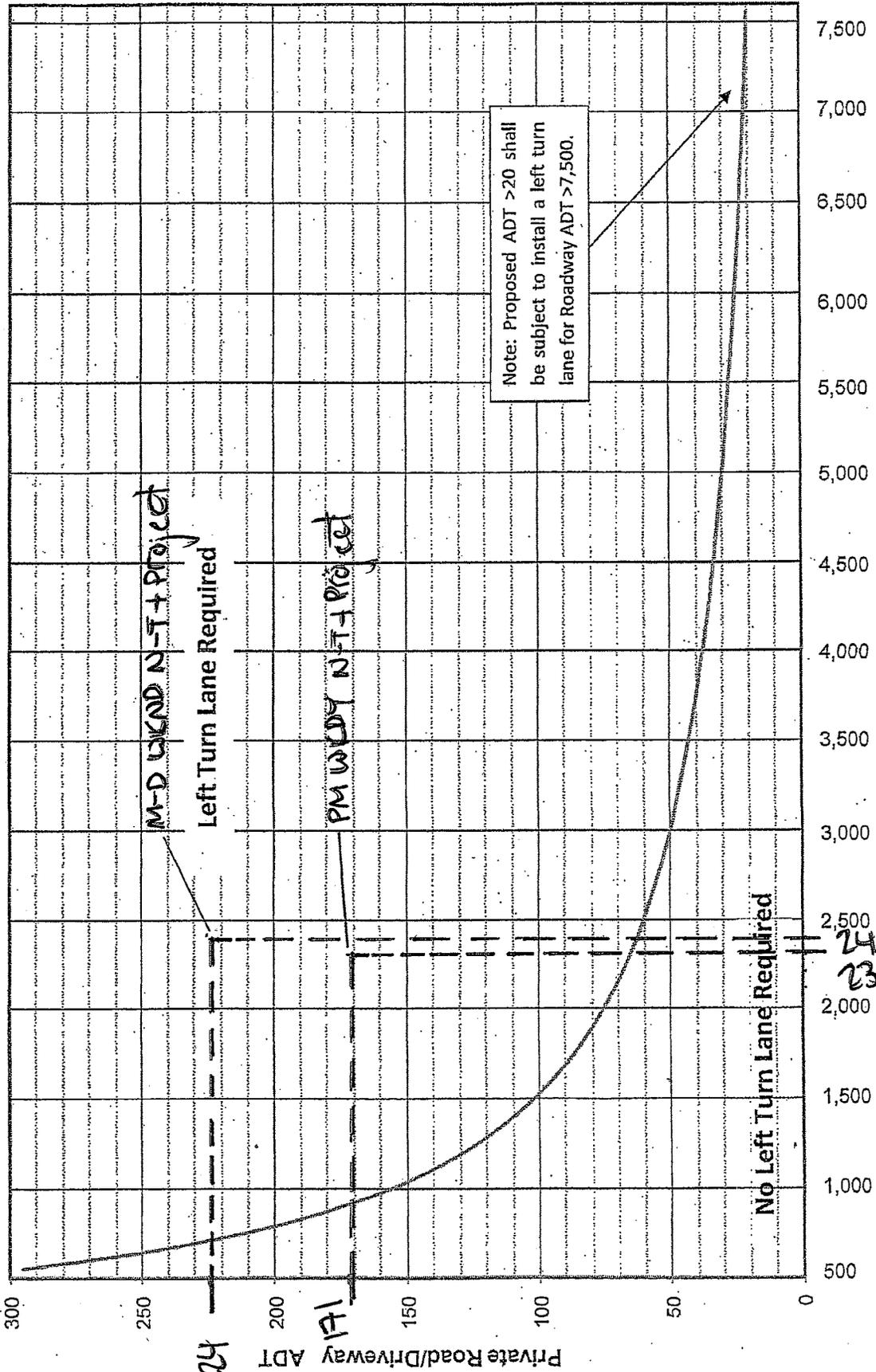
<u>Weekday Daily Traffic:</u>		
125 visitors/2.6 persons per vehicle x 2 one-way trips	=	96 daily trips
30 full-time employees x 3.05 one-way trips	=	92 daily trips
5 part-time employees x 1.90 one-way trips	=	10 daily trips
240,000 gallons/1,000 x .009 daily trucks x 2 o-w trips	=	<u>4 daily trips</u>
<b>Total Weekday Daily Trips</b>	=	<b>202 daily trips</b>
<u>Weekday PM Peak Hour Traffic:</u>		
125 visitors x 0.056 trips/visitor	=	7 peak hour trips
35 full-time/part-time employees x 0.657 trips/emp.	=	<u>23 peak hour trips</u>
<b>Total Weekday PM Peak Hour Trips</b>	=	<b>30 trips (6 in, 24 out)</b>
<u>Weekend (Saturday) Daily Traffic:</u>		
300 visitors/2.8 persons per vehicle x 2 one-way trips	=	214 daily trips
10 full-time employees x 3.05 one-way trips	=	31 daily trips
5 part-time employees x 1.90 one-way trips	=	<u>10 daily trips</u>
<b>Total Weekend (Saturday) Daily Trips</b>	=	<b>255 daily trips</b>
<u>Weekend (Saturday) Peak Hour Traffic:</u>		
300 visitors x 0.286 trips/visitor	=	86 peak hour trips
15 full-time/part-time employees x 0 trips/emp.	=	<u>0 peak hour trips</u>
<b>Total Weekend (Saturday) Peak Hour Trips</b>	=	<b>86 trips (40 in, 46 out)</b>
<u>Weekend (Saturday) Daily Harvest/Crush Traffic:</u>		
300 visitors/2.8 persons per vehicle x 2 one-way trips	=	214 daily trips
15 full time employees x 3.05 one-way trips	=	46 daily trips
5 part-time employees x 1.90 one-way trips	=	10 daily trips
240,000 gallons/1,000 x .009 daily trucks x 2 o-w trips	=	4 daily trips
900 annual ton grapes (o-h)/144 daily trucks x 2 o-w trips	=	<u>13 daily trips</u>
<b>Total Weekend (Saturday) Daily Harvest/Crush Trips</b>	=	<b>287 daily trips</b>
<u>Largest Marketing Event – Additional Traffic</u>		
20 event staff x 2 one-way trips per person	=	40 event trips
500 visitors / 2.8 visitors per vehicle x 2 o-w trips	=	357 event trips
3 trucks x 2 one-way trips	=	<u>6 event trips</u>
<b>Total Largest Event Marketing Trips:</b>	=	<b>403 event trips</b>

Source: Production, employee, and visitor data provided by Mr. Jonah Beer (project applicant), October, November, December, 2013. Daily calculations based on County of Napa, Conservation, Development, and Planning Department, "Use Permit Application Package," Napa County Winery Traffic Generation Characteristics, 2012. Peak hour calculations based on rates developed from weekday peak hour and Saturday mid-day peak hour driveway counts at Frog's Leap Winery combined with visitor and employee data for specific count days.



# FROG'S LEAP DRIVEWAY / CONN CREEK ROAD # 1

## LEFT TURN LANE WARRANT GRAPH



Roadway ADT

CONN CREEK ROAD (SR-128)

FROG'S LEAP DRIVEWAY

Private Road/Driveway ADT

224

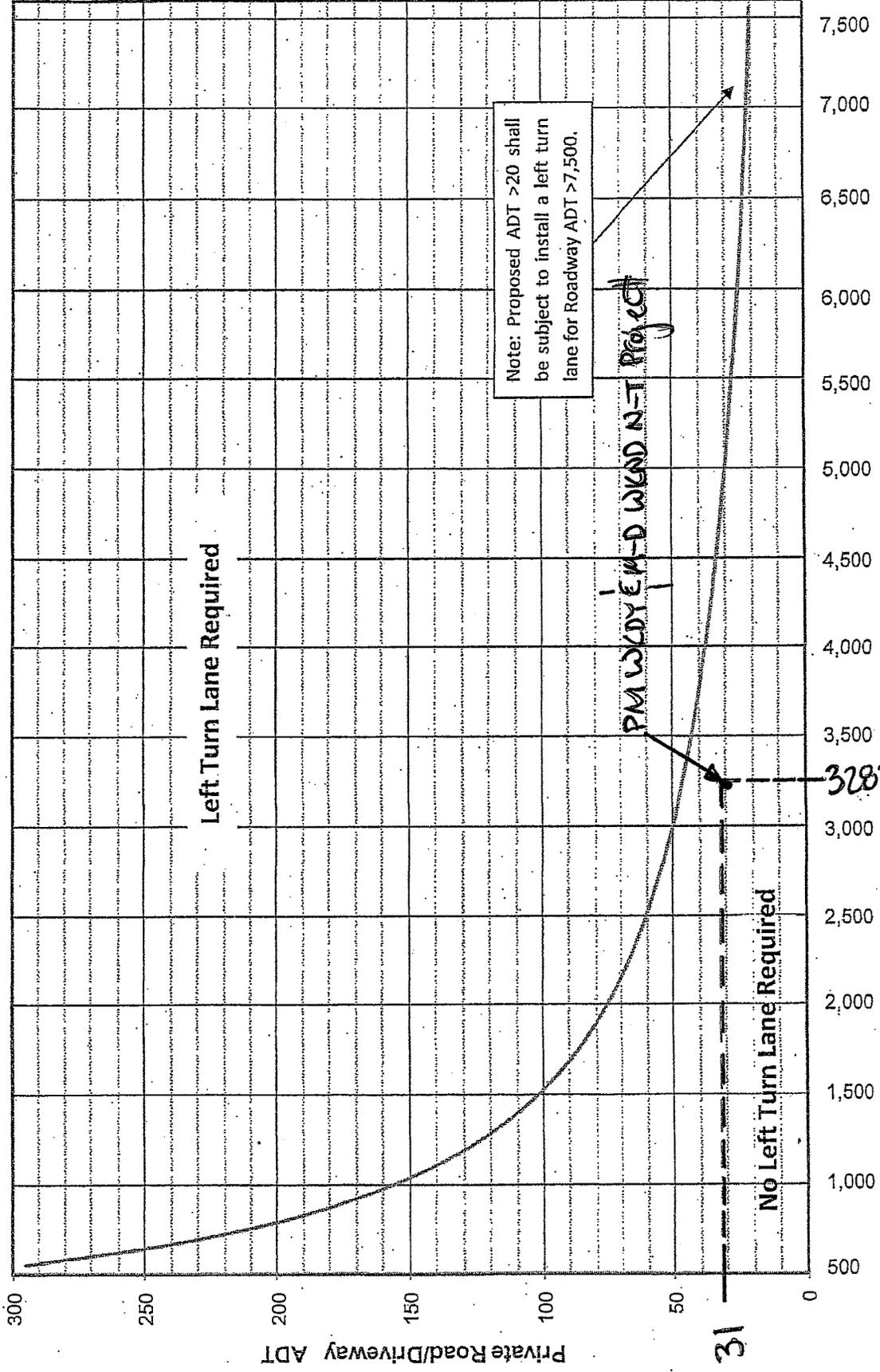
No Left Turn Lane Required

2406  
2353

Note: Proposed ADT >20 shall be subject to install a left turn lane for Roadway ADT >7,500.

# FROG'S LEAP DRIVEWAY / BATHERFORD ROAD # 2

## LEFT TURN LANE WARRANT GRAPH



Roadway ADT

BATHERFORD ROAD

Private Road/Driveway ADT

FROG'S LEAP DRIVEWAY

Note: Proposed ADT >20 shall be subject to install a left turn lane for Roadway ADT >7,500.

PAVEMENT WORK NOT PROJECT

No Left Turn Lane Required

7,500  
7,000  
6,500  
6,000  
5,500  
5,000  
4,500  
4,000  
3,500  
3,000  
2,500  
2,000  
1,500  
1,000  
500



## EXHIBIT D

**From:** [John Williams](#)  
**To:** [Jeff Dodd](#); [Jeffrey Redding](#);  
**cc:** [Kelly Williams](#);  
**Subject:** FW: Red Barn Ranch LLC easement.  
**Date:** Wednesday, June 01, 2016 4:07:19 PM

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**From:** Miles MacDonnell [<mailto:MCM@roundpond.com>]  
**Sent:** Wednesday, June 01, 2016 4:01 PM  
**To:** John Williams <[john@FrogsLeap.com](mailto:john@FrogsLeap.com)>  
**Subject:** RE: Red Barn Ranch LLC easement.

John,

After careful review and consideration we are not able to grant this viewshed easement. Given our long-term goals for this property we feel that this easement is not in the best interest of Red Barn Ranch at this time.

Regards,

Miles MacDonnell

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**From:** John Williams [<mailto:john@FrogsLeap.com>]  
**Sent:** Wednesday, June 1, 2016 3:17 PM  
**To:** Miles MacDonnell <[MCM@roundpond.com](mailto:MCM@roundpond.com)>  
**Subject:** Red Barn Ranch LLC easement.

Dear Mr. MacDonnell,

As you know, Frog's Leap Winery is seeking use permit modification (Permit Application no. P14-00054; the "Project"). While the Project will not have a significant impact on traffic conditions, the Project triggers the requirement for installation of a left turn lane at the winery's driveway pursuant to the Napa County's Road and Street Standards. In constructing the left turn lane, the Project must adhere to the California Department of Transportation's design standards which require an open line of sight for drivers exiting the winery. The line of sight for exiting drivers may be partially obstructed by the easternmost area of Red Barn Ranch's property off Conn Creek Road, just north of Frog's Leap (APN: 030-090-040; "Parcel 40").