February 13, 2012

Mr. Dan Takasugi, PE
City of Calistoga
1232 Washington Street
Calistoga, CA 94515

w-trans

Whitlock & Weinberger Transportation, Inc.

490 Mendocino Avenue
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Santa Rosa, CA 95401

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Response to Comments on the *Focused Traffic Impact Analysis for the Brian Arden Winery*

Dear Mr. Takasugi;

Whitlock & Weinberger Transportation, Inc. (W-Trans) is in receipt of comments from Carolyn Cole and Mark Crane of Crane Transportation Group contained in a letter addressed to Chuck Meibeyer dated January 28, 2012, relative to the *Focused Traffic Impact Analysis for the Brian Arden Winery*, November 29, 2011. Following is a discussion of each comment (paraphrased and indicated in *italics*) along with our response.

1. *Left Turn Lane Warrant: the Washington State DOT Left Turn Lane warrant was used in this study rather than the year 2001 update of the referenced NHRCP Report No. 279 (i.e., the update is NCHRP Report # 457, TRB). However, since Silverado Trail is a county road, Napa County standards should govern the requirement for left turn lanes. Preliminary application of this warrant indicates that a left turn lane would be warranted.*

   Response: The references cited in the report are those which contain the formulas and methodologies used for this evaluation, so are the appropriate reference. The proposed access driveway is located along a segment of Silverado Trail that is within Calistoga's City Limits; therefore, application of Napa County's left turn lane warrant is not appropriate for this proposed project.

2. *Saturday Analysis Needed: The Saturday PM peak hour should be analyzed, as well as the project driveway and Silverado Trail as volumes may be higher during this time period.*

   Response: A sensitivity analysis was performed on the left-turn lane warrants, and it was determined that weekend peak hour volumes on Silverado Trail would need to be over three times greater than weekday a.m. peak hour volumes and more than double weekday p.m. peak hour volumes to warrant a left-turn lane at the proposed Brian Arden Winery access driveway. Based on previous studies conducted along Silverado Trial, weekend peak hour volumes are slightly lower or equal to volumes experienced during the weekday a.m. and p.m. peak periods. Therefore, the left-turn lane evaluation contained in the Traffic Impact Analysis represents a worst case scenario and adequately addresses the potential need during the Saturday peak periods as well.

3. *All Components of Existing and Future Traffic Should be Clearly Identified: The study should provide graphics showing each increment of traffic referenced: existing volumes, future volumes without project, project increment, etc. Traffic volumes must account for all uses, not just the proposed new uses.*

   Response: The left-turn lane warrant calculations that were provided with the Traffic Impact Analysis display the projected future a.m. and p.m. peak hour volumes, so the data needed to evaluate the project's potential impacts is available. To further clarify the data used, the referenced 2007 machine counts used to evaluate existing conditions are enclosed. As regards to the level of analysis performed, since a turn pocket is not warranted under the worst case condition (Future

plus Project) it can reasonably be concluded that the turn lane would likewise not be warranted for scenarios with lower volumes.

4. *New Traffic Counts Needed: The study should not rely on turning movements that are nine years old (August Briggs Traffic Analysis, W-Trans, 2002) and 2007 machine counts. New counts conducted during the weekday PM peak hour and a Saturday peak hour would provide a reasonable basis for this analysis. These volumes could then be factored to present a "worst case," based on historical counts, if needed.*

   Response: As noted on Page 3 of the Traffic Impact Analysis, a comparison of traffic volumes obtained for various projects in and around Calistoga has shown that volumes collected in 2011 are either equal to or less than volumes collected in 2007 and 2008, so the applied volumes can reasonably be expected to result in a conservative analysis. As regards the reference to 2002 counts, the volumes used were for turns into and out of the project site, and unless the use has changed, there is no reason to expect that the volumes would have, so new counts at this location were deemed unnecessary, especially given the findings of the sensitivity analysis discussed in the response to Comment 2 above.

5. *Basis for Future Traffic Projections: The study should state why the County model (Solano-Napa Travel Demand Model) was not used to provide future traffic projections for Silverado Trail: instead of a growth factor.*

   Response: Based on previous evaluations, it has been determined that volumes produced by the Solano-Napa Travel Demand Model appear unreasonable for the study segment of Silverado Trail as well as Brannan Street and Lincoln Avenue (SR 29). Therefore, a growth factor, which was calculated based on the population growth of the area, was applied to existing volumes to determine future traffic projections.

6. *Silver Rose Inn and Winery Access: Is only going to be one "secondary" driveway to the Silver Rose Inn and Winery project 200 yards to the west of the Brian Arden driveway.*

   Response: Based on the most recent site plan for the Silver Rose Winery and Resort project there is only one secondary access being proposed and it would be located approximately 200 feet (not yards) west of the existing driveway that will provide access to the Brian Arden Winery. Given the distance separating these driveways, adequacy of line-of-sight, and the direction of the offset, operation of both driveways is expected to be acceptable.

We hope this information adequately addresses the comments. Please call if you need any further information.

Sincerely,

Chris Helmer
Transportation Planner

Dalene J. Whitlock, PE, PTOE
Principal

DJW/ch/CAL033.R2C

Enclosure: 2007 Machine Count Data

W-Trans
490 Mendocino Avenue, Suite 201
Santa Rosa, CA 95401

Site Code: CAL016
Station ID:
Silverado Trail North of Brannon Street

Latitude: 0' 0.000 Undefined

Start	26-Feb-07		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo
12:00 AM	*	*	*	*	*	*	4	7	5	13	4	10	19	34	13	23
01:00	*	*	*	*	*	*	4	5	7	6	6	6	9	17	14	10
02:00	*	*	*	*	*	*	2	4	7	3	4	4	17	9	8	6
03:00	*	*	*	*	*	*	7	11	8	5	8	8	5	8	9	6
04:00	*	*	*	*	*	*	26	12	29	15	28	14	16	11	13	12
05:00	*	*	*	*	*	*	62	11	47	13	54	12	32	5	39	16
06:00	*	*	*	*	*	*	205	43	176	44	190	44	69	29	9	2
07:00	*	*	*	*	*	*	**241**	82	**241**	67	**241**	74	80	70	19	20
08:00	*	*	*	*	*	*	231	96	195	116	213	106	110	71	30	21
09:00	*	*	*	*	*	*	172	113	170	113	171	113	157	128	66	33
10:00	*	*	*	*	*	*	136	119	164	146	150	132	**177**	155	88	58
11:00	*	*	*	*	*	*	154	**147**	136	**184**	145	**166**	148	**184**	**105**	**86**
12:00 PM	*	*	*	*	*	*	**161**	162	**191**	176	**176**	169	180	224	141	140
01:00	*	*	*	*	*	*	156	128	180	175	168	152	195	230	195	**165**
02:00	*	*	*	*	*	*	127	170	187	219	157	194	**234**	230	181	158
03:00	*	*	*	*	*	*	153	273	171	313	162	293	221	268	**222**	**144**
04:00	*	*	*	*	*	*	141	**300**	187	**324**	164	**312**	197	**293**	212	156
05:00	*	*	*	*	**129**	**254**	135	278	154	323	139	285	232	209	168	150
06:00	*	*	*	*	72	146	109	181	102	211	94	179	128	149	105	97
07:00	*	*	*	*	55	69	55	91	59	103	56	88	71	93	71	69
08:00	*	*	*	*	41	49	48	57	61	71	50	59	74	81	69	60
09:00	*	*	*	*	26	27	46	46	26	60	33	44	51	53	27	34
10:00	*	*	*	*	23	27	12	21	39	52	25	33	47	37	32	18
11:00	*	*	*	*	9	15	15	23	26	32	17	23	28	42	17	25
Total	0	0	0	0	355	587	2402	2380	2568	2784	2455	2520	2497	2630	1853	1509
Day	0		0		942		4782		5352		4975		5127		3362	
AM Peak							07:00	11:00	07:00	11:00	07:00	11:00	10:00	11:00	11:00	11:00
Vol.							241	147	241	184	241	166	177	184	105	86
PM Peak					17:00	17:00	12:00	16:00	12:00	16:00	12:00	16:00	14:00	16:00	15:00	13:00
Vol.					129	254	161	300	191	324	176	312	234	293	222	165

W-Trans
490 Mendocino Avenue, Suite 201
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Site Code: CAL016
Station ID:
Silverado Trail North of Brannon Street

Latitude: 0' 0.000 Undefined

Start Time	05-Mar-07		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo	South B	North Bo
12:00 AM	9	9	10	10	*	*	*	*	*	*	10	10	*	*	*	*
01:00	7	6	7	7	*	*	*	*	*	*	7	6	*	*	*	*
02:00	10	2	6	5	*	*	*	*	*	*	8	4	*	*	*	*
03:00	11	6	8	8	*	*	*	*	*	*	10	7	*	*	*	*
04:00	42	10	31	10	*	*	*	*	*	*	36	10	*	*	*	*
05:00	73	13	69	19	*	*	*	*	*	*	71	16	*	*	*	*
06:00	196	44	186	46	*	*	*	*	*	*	191	45	*	*	*	*
07:00	270	93	258	111	*	*	*	*	*	*	264	102	*	*	*	*
08:00	202	101	244	113	*	*	*	*	*	*	223	107	*	*	*	*
09:00	152	95	161	112	*	*	*	*	*	*	156	104	*	*	*	*
10:00	138	116	147	117	*	*	*	*	*	*	142	116	*	*	*	*
11:00	149	117	*	*	*	*	*	*	*	*	149	117	*	*	*	*
12:00 PM	160	159	*	*	*	*	*	*	*	*	160	159	*	*	*	*
01:00	122	105	*	*	*	*	*	*	*	*	122	105	*	*	*	*
02:00	131	137	*	*	*	*	*	*	*	*	131	137	*	*	*	*
03:00	152	228	*	*	*	*	*	*	*	*	152	228	*	*	*	*
04:00	145	301	*	*	*	*	*	*	*	*	145	301	*	*	*	*
05:00	142	265	*	*	*	*	*	*	*	*	142	265	*	*	*	*
06:00	100	171	*	*	*	*	*	*	*	*	100	171	*	*	*	*
07:00	44	73	*	*	*	*	*	*	*	*	44	73	*	*	*	*
08:00	38	47	*	*	*	*	*	*	*	*	38	47	*	*	*	*
09:00	24	23	*	*	*	*	*	*	*	*	24	23	*	*	*	*
10:00	17	18	*	*	*	*	*	*	*	*	17	18	*	*	*	*
11:00	12	23	*	*	*	*	*	*	*	*	12	23	*	*	*	*
Total	2346	2162	1127	558	0	0	0	0	0	0	2354	2194	0	0	0	0
Day	4508		1685		0		0		0		4548		0		0	
AM Peak	07:00	11:00	07:00	10:00							07:00	11:00				
Vol.	270	117	258	117							264	117				
PM Peak	12:00	16:00									12:00	16:00				
Vol.	160	301									160	301				

Comb. Total	4508	1685	942	4782	5352	9523	5127	3362
ADT	Not Calculated							