



Reference: 509051.100

November 8, 2012

Mr. Greg Plucker, Deputy Director
 Siskiyou County Planning
 806 South Main Street
 Yreka, CA 96097

**Subject: Response to Omni-Means Peer Review of SHN Traffic Analysis, JH Ranch
 Planned Development Plan Amendment Application, #Z-11-01**

Dear Mr. Plucker:

SHN Consulting Engineers & Geologists, Inc. (SHN) has reviewed the Peer Review document prepared by Omni-Means for SHN's traffic analysis work products for the above referenced project. At this time SHN is providing Siskiyou County with our responses to those items found in the Conclusions section of the Omni-Means Peer Review (Peer Review) that pertain directly to our work on this project or to traffic related items that are appropriate for our response. For ease of review, we have provided the conclusion item as it appears in the Peer Review along with our response.

Omni-Means Conclusion 2:

Section #4 of French Creek Road should be reanalyzed as a 1-way road.

SHN Response 2:

As identified in Conclusion 2 of the Peer Review, SHN performed an analysis of one-way traffic volumes for French Creek Road, Section 4. SHN performed this one-way analysis using TRAFFIX 10 software and existing data collected by SHN for this project. The TRAFFIX 10 software is compliant with the Highway Capacity Manual (HCM) 2010 version. SHN conducted a peak hour analysis for this roadway section due to the low traffic volumes recorded on the roadway. Analysis was completed for both the 2010 (Existing) and 2020 (Future) conditions. Assumptions utilized in this analysis included:

- Section 4 considered a single lane road with one-way traffic
- All-way stop controls
- A two legged intersection
- 50/50 traffic split based upon actual traffic data and visual inspection

Attached are the analysis outputs for roadway section. The 2010 Existing conditions show that the Level of Service (LOS) for the roadway section is LOS A. This value conforms to the information previously developed in our traffic analysis. The 2020 Future conditions show the roadway section also at a LOS A; the future conditions include an increase in traffic volumes, consistent with our previous analysis. Based on the analysis for the roadway segment the future LOS at the 2020 time period remains unchanged from existing conditions, at LOS A.

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Omni-Means Conclusion 3:

The technical analysis parameters used for LOS determination on all other sections of French Creek Road should be updated along with the associated calculations.

SHN Response 3:

Technical analysis performed for the project was begun under the guidelines and general direction of the Highway Capacity Manual (HCM) 2000 edition (work began in 2009). Updates are generally provided to the HCM on a 10-year interval period and the most recent update was published in 2010 as noted in the Peer Review. Since SHN's work products began in 2009 and were covered under the HCM 2000, we opted to continue analysis of this low volume roadway under the HCM 2000 guidelines to be consistent with data analysis. Review of the HCM 2010 guidelines finds that the difference between the two versions for a roadway such as French Creek Road are negligible, if any, and re-working the analysis to reflect values in the HCM 2010 would not produce any significantly different information than that developed with the HCM 2000.

Omni-Means Conclusion 4:

Depending on the traffic growth anticipated from a defined project, Caltrans may request analysis of French Creek Road at Highway 3.

SHN Response 4:

Review of the project by Caltrans may occur as part of the agency review process under CEQA. While we cannot predict what Caltrans may or may not comment on as part of their review process, it is our opinion that due to the current low volume and data that shows service volume will remain at LOS A for the roadway, additional intersection studies are not anticipated.

Omni-Means Conclusion 5:

A safety analysis of French Creek Road should be performed.

SHN Response 5:

As noted in the Peer Review, SHN did not address traffic safety in our analysis as there was no evident safety concern for the roadway based on actual vehicle collision data or our discussions with County Public Works staff. Vehicle collision data discussed in the Peer Review noted "the collisions appear somewhat random and scattered along the entire Roadway" (Peer Review, page 8).

SHN's discussions with County staff during our analysis revealed that there was no recent (within the last decade) vehicle collision data analysis or roadway assessment to evaluate potential roadway safety improvement projects that may be needed, based on documented safety issues. Lacking any recent vehicle collision data, or problematic accident locations along the roadway, it is our opinion that a safety analysis is not needed for the review and approval of the PDPA.

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Omni-Means Conclusion 6:

Existing ADT volumes are such that French Creek Road should not be considered a "Very Low Volume Road, ADT<400" in accordance with AASHTO guidelines.

SHN Response 6:

SHN concurs with the Peer Review conclusion.

Thank you for the opportunity to comment on the Peer Review. Submittal of this response concludes SHN's work on the traffic analysis for this project.

If you have any questions, please feel free to call me at 707-441-8855, or email me at bfreeman@shn-engr.com.

Sincerely,

SHN Consulting Engineers & Geologists, Inc.



Brian A. Freeman, P.E., T.E.
Senior Civil Engineer

BAF:MSC:bmd

Attachment: Peak Hour Analysis Section 4 (2010 and 2020)
c. w/attach.: Rob Hayes-St. Claire

2010 Existing Conditions French Creek Road Section 4

Node 1: Section 4-French Creek	
Control Type	AWSC
Average Delay	7.35
Average LOS	A
Intersection PHF	0.88
Critical V/C	0.07

Volume and Adjustments		
Approach	E	W
Movement	T	T
Existing Traffic	52	52
Future Growth Adjustment	1.00	1.00
Future Growth Volume	63	63
In Process Volume	0	0
Site Volume	0	0
Pass-by Volume	0	0
Other Volume	0	0
Total Volume	52	52
PHF	0.88	0.88
Flow Rate	59	59
Geometry Group	1	1

Saturation Headway		
Approach	E	W
Lanes	Lane 1	Lane 1
Total Lane Flow Rate	59	59
Left Turn Flow Rate	0	0
Right Turn Flow Rate	0	0
Proportion LT	0.00	0.00
Proportion RT	0.00	0.00
Proportion HV	0.06	0.06
Hlt adj	0.20	0.20
Hrt adj	-0.60	-0.60
Hhv adj	1.70	1.70
H adj	0.10	0.10

Departure Headway		
Approach	E	W
Lanes	Lane 1	Lane 1
Total Lane Flow Rate	59	59
Hd initial	3.20	3.20
X initial	0.05	0.05
Hd, iteration 1	4.05	4.05
Difference, iteration 1	0.85	0.85
Hd, iteration 2	4.06	4.06
Difference, iteration 2	0.01	0.01
Convergence	Y	Y
Hd final	4.06	4.06
X final	0.07	0.07

Capacity and Level of Service		
Approach	E	W
Lanes	Lane 1	Lane 1
Total Lane Flow Rate	59	59
Departure Headway	4.06	4.06
Degree of Utilization	0.07	0.07
Move Up Time	2.00	2.00
Service Time	2.06	2.06
Capacity	887	887
Delay	7.35	7.35
LOS	A	A
Approach Delay	7.35	7.35
Approach LOS	A	A
Intersection Delay	7.35	
Intersection LOS	A	

2020 Future Conditions

French Creek Road Section 4

Node 1: Section 4-French Creek	
Control Type	AWSC
Average Delay	7.43
Average LOS	A
Intersection PHF	0.88
Critical V/C	0.08

Volume and Adjustments		
Approach	E	W
Movement	T	T
Existing Traffic	63	63
Future Growth Adjustment	1.00	1.00
Future Growth Volume	63	63
In Process Volume	0	0
Site Volume	0	0
Pass-by Volume	0	0
Other Volume	0	0
Total Volume	63	63
PHF	0.88	0.88
Flow Rate	72	72
Geometry Group	1	1

Saturation Headway		
Approach	E	W
Lanes	Lane 1	Lane 1
Total Lane Flow Rate	72	72
Left Turn Flow Rate	0	0
Right Turn Flow Rate	0	0
Proportion LT	0.00	0.00
Proportion RT	0.00	0.00
Proportion HV	0.06	0.06
Hlt adj	0.20	0.20
Hrt adj	-0.60	-0.60
Hhv adj	1.70	1.70
H adj	0.10	0.10

Departure Headway		
Approach	E	W
Lanes	Lane 1	Lane 1
Total Lane Flow Rate	72	72
Hd initial	3.20	3.20
X initial	0.06	0.06
Hd, iteration 1	4.06	4.06
Difference, iteration 1	0.86	0.86
Hd, iteration 2	4.07	4.07
Difference, iteration 2	0.01	0.01
Convergence	Y	Y
Hd final	4.07	4.07
X final	0.08	0.08

Capacity and Level of Service		
Approach	E	W
Lanes	Lane 1	Lane 1
Total Lane Flow Rate	72	72
Departure Headway	4.07	4.07
Degree of Utilization	0.08	0.08
Move Up Time	2.00	2.00
Service Time	2.07	2.07
Capacity	884	884
Delay	7.43	7.43
LOS	A	A
Approach Delay	7.43	7.43
Approach LOS	A	A
Intersection Delay	7.43	
Intersection LOS	A	