ALAMEDA COUNTY
CONGESTION MANAGEMENT AGENCY

1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185
E-MAIL: mail@accma.ca.gov • WEB SITE: accma.ca.gov

TRI-VALLEY TRIANGLE STUDY
TECHNICAL ADVISORY COMMITTEE

MEETING NOTICE
(Please note time)

Tuesday, July 26, 2005
1:30 AM
Regional Room
Dublin City Offices
100 Civic Plaza
Dublin, CA 94568

Agenda

1. Introductions **1:30 PM**

2. Minutes of July 14, 2005* **Action** **1:35 PM**
It is recommended that the TAC approve the attached July 14, 2005 meeting minutes.

3. Operations Model** **Action** **1:45 PM**
Parsons will present the CORSIM simulation showing the period hours for the westbound direction of I-580. The emphasis is to ensure that traffic patterns are consistent and to use the data to develop the future 2030 base year so that it could be used for comparison purposes to assess the various proposed improvements in the I-580, I-680, and Rte 84 Corridors. The TAC will be requested to concur with the use of the operations model for development of the Future Base Case and analysis of the alternative packages.

4. Sensitivity Analysis * **Action** **2:00 PM**
A table summarizing the sensitive analysis is attached. The summary provides data on each of the modeled improvements considering the measures of effectiveness previously approved by the Policy Advisory Committee. The results are also based on modifications made to the model based on input from the TAC at the meeting on July 14th. The consultants are seeking concurrence that the model is responding as expected so that the results can be used to develop alternative packages.

5. Preliminary Packaging of Alternatives * **Action** **2:30 PM**
Based on the results of the sensitivity analysis, the TAC is requested to develop the preliminary improvement package of alternatives for the August 5th PAC meeting. The consultant memo

with recommendations for packages dated April 18 is attached. The memo is intended to serve as a starting point for discussions.

6. Next Meeting: TBD at the July 26 meeting.

7. Adjourn 3:30 PM

* Materials attached
** Materials to be distributed at meeting

PARSONS
100 Park Center Plaza, Suite 450 • San Jose, California 95113
(408) 280-6600 • Fax (408) 280-7533

Date: July 14, 2005 645176/224.01

Project: Tri-Valley Triangle Study

Subject: Triangle Technical Advisory Committee Meeting Minutes

To: All who attended meeting, see attached sign-in sheet

From: Gui Shearin Parsons

Enclosed are the minutes for the Triangle TAC meeting held on July 14, 2005. If you have any questions, comments, or changes to the minutes, please contact Kai Chan or Jean Hart before the next TAC meeting on July 26, 2005.

DRAFT

PARSONS RECORD OF MINUTES

645176/224.01

PROJECT: Tri-Valley Triangle Study

SUBJECT: Triangle TAC Meeting

DATE: July 14, 2005; 8:30 AM

LOCATION: Dublin City Hall, Regional Room
100 Civic Plaza
Dublin CA 94568

ATTENDEES: See attached sign-in sheet, Agenda, and attachments

MINUTES BY: Parsons

The purpose of the meeting was to discuss the travel demand model sensitivity results, the current status of the operations model, and assemble packages of alternatives to recommend to the PAC.

The following is a summary of the meeting. Action items are shown in **bold** and critical path items are in ***bold and italicized***. Action items subsequently completed are in *italics.*

DISCUSSION	ACTION
Welcome and Introductions: Ben Strumwasser of Circle Point started off the meeting and everyone introduced themselves to the group.	
Minutes of May 17, 2005 Meeting and June 16, 2005: The May minutes were accepted without comment by the City of Livermore. The June minutes were accepted by those present (check)Yes however Pleasanton reps were not present to approve.	
Travel Demand Modeling: Kym Sterner of Dowling presented the results of the calibration, which she said exceeded the FHWA guidelines that were agreed upon as targets. Rubin Izon of Alameda County asked about Altamont Pass; Kym said that she is modeling it and tracking diversion but did not have counts for validation. Rubin will provide and they will be included in the final validation runs. Mahendra Patel of Livermore asked for a pdf that he could plot on 11x17; Kym will send the TAC files for plotting on 11x17 as well as a full area one that uses very small fonts so that all the data is provided, including ramps and shorter links, and is better for zooming into and printing selected areas. Mahendra requested an extension on the review time so that Bob Vinn who is on vacation until the 26th can review. Mahendra asked about a select link analysis for Vasco Road at the County line that would let him see what percentage is going to/from Santa Clara County. Kym said that the I-680 gateway select links would provide this information; Mahendra indicated that this would be sufficient. Validation and select link plots will be distributed by Dowling Associates by COB July 15th.	***Kym to email pdfs of the validation by July 15. All validation comments are due to Jean Hart on or before the 29th.***

DRAFT

Operations Model: Gui Shearin asked if there are additional comments on the simulations or if the existing comments had been resolved. There were questions from Mahendra about the level of queues in the simulation model at the Vasco Road EB off ramp and on ramp in the PM. In showing the simulation, it was clear that there was queuing on the EB off ramp but not on the on-ramp. Ravi said that the on ramp volumes were calibrated to the actual volumes collected 2001 and 2002, and the ramp was not at capacity; thus the queuing did not show for that particular time slice. In reviewing I-580 near Hacienda, there were comments that the speed and density, in the simulation model, appeared to be better than expected. Part of this is probably due to the model being calibrated to available traffic counts collected in 2001 and 2002, rather than existing demand or 2005 counts. Readjusting the model would be a considerable effort. The model is also showing average speed and density rather than instantaneous speed and density, which can give a difference in perception, but this averaging is a model approximation and does not affect the accuracy of the travel time and delay results. There was general agreement that the analysis could go forward despite the appearance problems. The future base case that would be used to do the comparisons of the project improvement packages would be based on demand and is expected to show more queuing. The TAC would like to see the same level of detail on the AM case: added intersection detail and two hour simulation with the actual hours of 7 AM and 8 AM used to feed the simulation. Rubin Izon, who was not on the previous emails for the ftp site notice and data table, would like these sent to him. The TAC would also like the future videos of the simulation sent by CD as it was felt that this would be easier for some users instead of just being on the ftp site because of technical or time requirements to access the ftp site. Parsons will revise the AM simulation and show it on the 26th for confirmation with the TAC.	***Parsons will revise AM simulation to be comparable to the PM and show it again on the 26th.*** ***Parsons will send the simulation data file and FTP notice to Ruben Izon at the County.*** ***Rubin Izon to provide Dowling with AM and PM peak hour counts for the Altamont Pass.***
Sensitivity Results: Kym presented the sensitivity results and indicated that comments on the model responsiveness are a part of the validation process. The measures of effectiveness indicate there is some "noise" in the model. Kym will try to reduce this noise by increasing the number of iterations in the model runs. Also, the congested volumes statistics have some factors in them which adjust for differing levels of congestion. These are causing some strange results when comparing MOEs (specifically VMT, VHD, PHT and THT) between alternatives. Kym will review and modify these calculations so that the assumptions are constant between alternatives. This would also address the issue raised by Ray Kuzbari about why truck hour statistics went up for Dublin with the WB HOV lane. Another issue was that the result of adding a NB 680 to EB 580 HOV direct connector had the result of increasing congestion on I-580 and adding traffic to Stanley. The TAC surmised that the gap between the connector and the HOV lane is probably a factor in this result. Ray Kuzbari commented that the increase in traffic through Dublin	***Kym will send a revised sensitivity table by July 15. Comments are due to Jean Hart to give to Kym Sterner by Wednesday, July 20.*** ***Michele Bellows to check on the Route 84 lane assumptions and I-580/Isabel Interchange configuration for the future base case and send information to Jean.*** ***Emails for Dublin***

DRAFT

with both the HOV and mixed flow direct connectors from WB 580 to SB 680 were counter-intuitive. Kym said that some of the result was traffic flipping (noise) in the assignments that Dowling would investigate. The fact that there was no SB HOV lane on 680 is also a factor that makes these improvements less effective. Kym asked to confirm what the base case on Route 84 should be; it is clear that it is 2 lanes through Pigeon Pass, but the question is whether the future base case is 4 lanes from Stanley up to I-580 or 6 lanes. Also the configuration and number of lanes at the Isabel interchange is needed. The current assumption of 1 lane ramps does not allow for full responsiveness of the model to improvements to SR 84. Sensitivity analysis run #6 which improved Route 84 to four lanes through Pigeon Pass and six lanes to I-680 showed diversion of traffic through Livermore because of the lack of capacity of the Isabel Interchange. Michele to check on the future base assumptions for Route 84 and the associated Isabel Interchange and get back to Jean. For future presentations, Kym will bring a large plot which can be drawn on. Melissa Morton, Public Works Director for the City of Dublin, will be standing in for Ray at the next meeting because he will be on vacation. Copy Melissa.morton@ci.dublin.ca.us for the mailings prior to the next TAC meeting.	***prior to the next TAC meeting should be sent to Melissa Morton, who will sit in for Ray while he is on vacation.*** ***Dowling to bring to the next Trend Meeting the large plot showing the study network (added after the meeting)***
Next Steps/Next Meeting – July 26, 1:30 pm, Location: Dublin City Hall. The meeting will briefly discuss AM operations, review comments on the sensitivity analyses, and then concentrate on developing alternative packages for the PAC to review in August.	***CMA or Circle Point to call the participants prior to the next TAC as a reminder.***

DRAFT

Summary of Sensitivity Analysis (Keep in mind that this analysis is based on keeping the trip table constant, and the study network includes both freeway and the local street network)

		Vehicle Hours Traveled (VHF) "free flow"	Vehicle Hours Traveled (VHT) "congested"	Vehicle Hours Delay (VHD)	Person Hours of Travel (PHT)	Truck Hours Traveled (THT)	Congested Hours of Travel (CHRS)	Average Speed (free flow)	Average Speed (congested)	Vehicle Miles of Travel by Jurisdiction						
Sensitivity Runs	Peak hour	FW and Local	FW and Local	FW and Local	FW and Local	FW and Local	FW and Local	FW and Local	FW and Local	Alameda County	Dublin	Livermore	Pleasanton	Others	State	**Observations**
Future Base Case	AM	**19,002**	**35,354**	**16,352**	**39,886**	**1,531**	**4,524**	**39**	**24**	**816**	**444**	**1,075**	**795**	**137**	**5,666**	
	PM	**20,632**	**40,207**	**19,574**	**45,992**	**1,812**	**4,595**	**38**	**22**	**947**	**589**	**1,136**	**899**	**164**	**5,743**	
1) Add I-580 westbound HOV from Greenville to I-680	AM	-73	-1677	-1604	-2155	-69	32	0	1	-17	-8	-28	-5	0	56	1) Significant reduction in VHF, VHT, VHD, PHT in both AM and PM 2) reduce traffic on local system in all Tri-valley cities - both AM and PM 3) Greatest reduction in local VMT in Livermore 4) State VMT increased to 56 - attracting traffic from local system
	PM	-4	-139	-135	-183	-6	64	0	0	-1	-2	-2	-1	0	8	
2) Add I-580 westbound to I-680 southbound <u>HOV</u> direct connector (direct connector only)	AM	-2	-51	-49	-62	-4	-1	0	0	0	2	0	-2	0	-1	1) Benefits both AM and PM - greater in the AM 2) slight reduction in VMT in all Tri-valley cities in the PM (non-peak) 3) slight decrease in VMT in Pleasanton with slight increase in VMT in Dublin 4) am is peak period
	PM	-9	-20	-11	-32	1	4	0	0	-1	-2	-1	-3	0	6	
3) Add I-580 westbound to I-680 southbound <u>Mixed Flow</u> direct connector (direct connector only)	AM	-12	38	50	43	0	0	0	0	-1	0	0	-3	0	0	1) Increased VHT, VHD, PHT in the AM and PM - greatest in PM 2) slight decrease in VMT in Pleasanton in the AM 3) slight decrease in VMT in all Tri-valley cities in the PM with corresponding increase in VMT on the freeway 4) attracts traffic to freeway in the PM 5) A direct HOV has reduced VHF, VHT, VHD, PHT as compared to a direct SOV connector
	PM	-19	135	154	150	4	4	0	0	-1	-3	-1	-7	0	10	
4) Add I-680 northbound to I-580 eastbound <u>HOV</u> direct connector (direct connector only)	AM	-1	-5	-4	-8	0	5	0	0	0	0	0	0	0	0	1) Significant increase in VHT, VHD, PHT in the PM 2) modest increase in VMT in Livermore in the PM 3) no changes in VMT in the AM for Tri-vallley cities 4) slight decrease in VHF, VHT, VHD, PHT in the AM
	PM	13	653	640	733	12	24	0	0	7	-1	10	-1	0	-15	
5) Add I-680 northbound HOV from SR 84 to Alcosta Blvd. (northbound HOV only)	AM	-2	-190	-189	-240	-9	39	0	0	-1	0	0	-3	0	6	1) Significant benefits both AM and PM 2) slight reduction in VMT in all Tri-valley cities in the PM 3) modest reduction in VMT in Pleasanton in the AM
	PM	-33	-176	-143	-281	-3	41	0	0	-15	-1	-2	-4	0	19	
6) Widen SR 84 (4 lanes to Pigeon Pass, 6 lanes from Stanley Blvd to Kitty Hawk)	AM	-192	-3089	-2897	-3525	-162	-28	0	1	-23	-10	31	-53	0	-44	1) Significant benefits in both the AM and PM 2) significant reduction in VMT in Pleasanton - both AM and PM 3) significant increase in VMT in Livermore in the AM
	PM	-283	-3412	-3129	-3873	-137	-36	0	2	-53	-2	6	-57	0	1	
7) Add I-580 HOV from Greenville to N. Flynn Road (eastbound only)	AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1) no significant in the AM 2) reduction in VHT, VHD, PHT and THT in the PM 2) greater reduction in THT of all sensitivity runs
	PM	-1	-213	-212	-275	-30	6	0	0	-1	0	0	0	0	1	

Footnotes:

1) "-" negative means a reduction as compared to the future base case, and the number represents the unit of change.
2) "+" positive means an increase as compared to the future base case, and the number represents the unit of change.
3) Trip table is held constant for these runs.
4) This sensitivity analysis is only a quick comparison of various sensitivity runs to aid in helping the Team decide on the improvement packages

Parsons

100 Park Center Plaza, Suite 450 • San Jose, California 95113 • (408) 280-6600 • Fax: (408) 280-7533 • www.parsons.com

Memorandum

TO: Tri-Valley Triangle Study TAC

FROM: Parsons and Dowling Associates

DATE: April 18, 2005

SUBJECT: Tri-Valley Triangle Study – Proposed Improvement Packages for Analysis

---

Specific Project Identified in the Initial Statement of Work

The Triangle Study identified specific improvement projects to consider in the study. However, at our TAC meetings, some of the improvements were included in the base case. This memo provides an update of the recommended improvement packages for testing. Eight travel demand runs are included in the current scope, which allows for five runs of improvement packages plus the Base Case The plan is to test the proposed improvement packages and compare them to the base case to determine which projects provide the best congestion relief and are financially feasible.

The recommended travel demand runs are as follows:

1. Future year 2030 base case scenario, as approved by the PAC. At the May 6, 2005 PAC Meeting, the PAC expressed an interest to test more than one base case. The TAC is to provide recommendations and additional information to the PAC at the June 3, 2005 meeting.

2. This improvement package consists of three improvements identified in the initial scope.

   - Construction of I-580 westbound HOV lane from Greenville Road interchange to the I-680 interchange.
   - Construction of I-680 southbound HOV lane from Alcosta Boulevard interchange to SR 84 interchange. This completes the HOV lane on I-680
   - Construction of I-580 westbound to I-680 southbound HOV direct connector.

3. This improvement package consists of three improvements identified in the initial

   - Extension of I-580 east HOV lane, to the west, from the Tassajara/Santa Rita Road interchange to the I-680 interchange (eastbound HOV lane between Tassajara and Greenville is in the base case)
   - Construction of a I-680 northbound to I-580 eastbound HOV direct connector

- Construction of I-680 northbound HOV lane from SR 84 interchange to Alcosta Boulevard interchange.

4. Widening of SR 84 from I-680 interchange to Pigeon Pass from a two-lane road to a four-lane road.

5. Constructing a truck climbing lane or auxiliary lane in the eastbound direction of I-580 between Greenville Road interchange and N. Flynn Road.

6. Construction of a westbound I-580 to southbound I-680 and northbound I-680 to eastbound I-580 direct connectors to improve connectivity between the two interstate freeways. This is in the initial scope.

We recommend that the decision on the improvement packages for the remaining two runs be reserved until the Team has reviewed the result of the first six runs. This will allow the team to determine if any other combinations of improvement packages or if any specific improvement should be tested.

7. To be determined by the TAC

8. To be determined by the TAC