
Subject: Technical Team Meeting

Client: CDOT Region 1

Project: I-70 PPSL

Project No:

Meeting Date: July 3, 2013

Meeting Location: CDOT Golden

Notes by: Lorena Jones/Gina McAfee/Tammy Heffron/Andi Schmid

ATTENDEES:

See attached sign-in sheet.

SUMMARY OF DISCUSSION:

1. Steve Long opened the meeting. Introductions were made by everybody in the room. This first meeting was well-attended.
2. Steve then summarized the agenda for today's meeting. Focus for this project is to minimize physical impact and use the existing pavement. Purpose of the meeting is to hear from people in attendance about their input regarding purpose and need, concerns about the project, and environmental issues to be studied in more detail.

Context-Sensitive Solutions (CSS) (see handout)

3. Kevin Shanks (THK) discussed the CSS six-step process. This is the first meeting of the Technical Team (TT). The Project Leadership Team (PLT) has met two times already. This team is being asked to provide input to the context statement, core values, desired outcomes, critical issues, and design and evaluation criteria.
4. First two steps of CSS process are the focus right now.
 - Step 1: Define desired outcomes and action.
 - Step 2: Endorse the process.
5. Discussed Technical Team roles and ask those who have been on previous TTs to describe what the responsibilities of the TT are:
 - To bring one's technical expertise to the project.
 - To look at the technical side of the project.
 - Some degree of input on scoping, establish protocol for the study, among others.
 - Make sure that solutions we come up with fit the corridor, fit the core values, technical design criteria, and all other aspects of project.

6. With the Technical Team, we plan to be always checking back to the core values, the criteria—even if we are diving into the weeds on critical issues, we make sure we are always back-checking on the bigger issue.
7. The charge of the technical team is to understand the flow chart, endorse it, and make sure everything is covered.

Existing Studies (see handout)

8. Kevin notified the team that the I-70 CSS Web site has recently got transferred to the CDOT server from the CH2M Hill server. It is hard to access but we are aware of that. CDOT is working on making it accessible. Suggest doing a Google search for now.

Context Statement (see handout):

9. The PLT has worked on this statement a couple of times, but it doesn't mean that it has to stop here.

Core Values (see handout)

10. Core Values that the PLT has established: Safety, mobility, constructability, community, environment, engineering criteria and aesthetic guidelines, and sustainability. Kevin elaborated on the elements and critical issues that are linked to these core values.
 - Input from TT: Does mobility relate to the local road network? How do the existing roads interface with this project? Need to address that. We will do a scrub of the flow chart handout to make sure core values and critical issues are updated per input received today and that project criteria are tied to each. As an example, reliability will be added as a mobility measure plus the input just received on the mobility/connectivity to the local road network.
 - Steve Long: The idea of adaptability—not just flexibility—is important, so we are not building infrastructure that we would end up not needing. We need to start thinking about all the other projects that are in the works. Need to make sure we are not compromising safety. Very unique project, a lot of them will be competing with the safety issues that are associated with peak versus off-peak.
 - Input from Randy Jensen: Peak periods are assumed to be generally Sunday afternoons and holidays—generally toward the weekend.
 - Input from Mary Jane Loevlie: Most of the issues here would relate to the communities, and signing will be a challenge for the team—consider MUTCD requirements to make sure we address safety. It will be a compromise for sure. There may be a lot of signs required. As a team, we should look at the issue early and engage FHWA to make sure they are on board.
 - How do we balance safety with all of the other core values? That is the purpose of the TT—to make sure we address all the issues in a good, balanced way.

- Because of the land form that we are dealing with, everything is basically in the Clear Creek Canyon. Even though we are in rural Colorado, and because of the restricted nature of the canyon, we are kind of in an urban situation. Recreation, historical, and cultural resources are huge. Tourism is a major lifeline for Clear Creek County.
- Input from TT: How do we enhance the experience driving through the Canyon with this project? We need to address that issue. We need to address the issue of houses that are way older than the highway. If you encroach even an inch into those properties, the impact would be huge.
- The interstate is very much intertwined with Clear Creek. Any encroachment into the creek will be avoided if possible.
- Input from TT: Need to add metals to mining. Erosion and sedimentation would also be an issue.
- One design consideration should account for snow storage locations.
- Input from Gary Frey: How about wetlands? Have we done any surveys yet? There are definitely wetlands out there, but we have not initiated surveys yet. We will do that this summer.
- Input from Gary Frey: How about the programmatic work that was done to get us to this point? The programmatic document put a lot of restrictions of what is considered to be capacity improvements. No capacity improvements were allowed in this stretch of the corridor until the trigger points were addressed. The team is working with FHWA to prepare a white paper to address compatibility with the ROD. That information will be discussed with the Technical Team. A white paper will be available at the end of August. FHWA is currently looking at a draft white paper with their attorneys. Input from Cindy Neely: The PLT discussed this issue and I thought we were supposed to have the white paper this summer but we haven't got it yet. Gina stated that we discussed having the white paper ready by the end of August.
- We should look at adding the latest technology—tolling or cameras, among others. We should consider vehicle-to-vehicle and infrastructure-to-vehicle communication used for congestion management, queuing, and accident reduction. Response was that CDOT needs to be sure adequate fiber optics are in the ground to handle these types of wireless needs when this type of technology is generally available.
- Request was made for a copy of the Engineering Criteria and Aesthetic Guidelines. We will send it along with the meeting minutes.
- Sustainability—Use of local materials; working with County using their compost in our revegetation effort. The compost suggestion came out of the TT meeting for Twin Tunnels.

- Have we said anywhere that we do not intend this PPSL to be a permanent lane? That is currently in the P&N statement.
- Cost containment should be added—knowing the financial resources and using those resources in very effective ways to maintain whatever funds available for this project.

Steve Long: we could try to fit this in under constructability. We want to minimize the actual physical impact but also our budget and funding. Maybe we can refine the word life cycle cost to something like fiscally responsible life cycle cost.

- Jill Schlaefer: Are we going to review what the PEIS recommended versus what we are doing for this project?
- From Randy Jensen: The white paper addresses FHWA's belief that this is an operational project—not a capacity improvement.
- How do desired outcomes fit into the flow chart? Once you identify core values, the desired outcomes is something that is a separate sidebar. The PLT understands that going through the core values and project criteria, we then come up with the desired outcomes.

Project Criteria

11. Kevin discussed the project criteria that were developed by the PLT. The PLT talked about core values and critical issues, and then asked what we can do to address these critical issues. The PLT came up with 19 project criteria.
12. For #7—Can we make this engage and collaborate?
13. The team will take everyone's input on these criteria and will make the revisions and distribute a revised version to everyone on the team.

Desired Outcome

14. Andi Schmid: History behind the desired outcomes—created a draft list during the last PLT meeting to start with then asked the PLT to review it and make any changes or additions
15. Question (Holly): Can we get copies of the desired outcomes slide as a hand out?
16. We have visual impacts as desired outcomes, but we need to add protecting the viewshed.
17. Are we adding, say, a bike path, to the project? Response: Not at this time.
18. #10 (Environmental and Impacts) You need stronger words: protect, enhance, mitigate, preserve, minimize impact.

Project Schedule

19. Concept of Operations. A Feasibility Study has been done for this corridor. We need to take that to the next level and really understand the feasibility of the project. What are the things that need to be done to protect the traveling public?
20. FIR. 30 percent design plans is next—planned for the end of the year
21. FOR.
22. Advertise the project to get it built in one year.
23. Very very tight schedule, but if we adhere to the overall premise of what a PPSL is, maybe we don't need to spend so much time on the other steps.

NEPA Schedule

24. Data Collection will start in July—collecting field data, identifying issues of concern for the agencies.
25. Summarize results of data collection toward the end of the year.
26. In spring of 2014, we would assess impacts, hold consultations for Section 4(f), Section 404 and other areas of concern, then prepare a documented CatEx somewhat similar to the frontage road project. This is really a condensed EA. Get clearance to advertise the project by June 2014.
27. Steve Long: The challenge of the TT is that we have got to make a decision-making process so that we don't have to keep stepping backward. It's called incremental decision-making and it progresses throughout the project—so we don't have to spend a lot of time going back.
28. Question from Jeff Peterson: Are we already too late for field surveys?
29. Francesca: I think we are well within the time frame for conducting field work. It is ideal time.
30. Do we have any new construction—bridges, etc.?
31. As of right now, we do not know. Could be a lot of structural enhancements or there could be none - it depends on the cross section width selected. There would most likely be wall impacts at a minimum.
32. No right of way impact anticipated? That is what we are thinking right now. One exception could be along the bridge for SH 103 if the replacement of that bridge is required.
33. Does a CatEx go through the full list of environmental resources? That is correct. It will look at every single resource.

Purpose and Need

34. Gina notified the team that we have started work on project purpose and need; we have had a kick-off, define the project. Showed a list of studies that we are using as a base for the proposed action.
35. Steve asked Richard Davies to discuss his background on hard shoulder running or PPSLs, primarily in the UK. Richard discussed the issues of perceived safety problems and then how safety studies during actual operations did not indicate safety was a problem. The primary thing we need to address is driver confusion.

Main Aspects to the Purpose Statement

36. We should not limit the improvements in case there are other major improvements that are going to happen at the same time of the PPSL.
37. Are we addressing implementation of technology in the longer term? Not sure if that is a purpose of the project. We are not doing an active traffic management. What we are doing is short term.

Main Aspects to the Need Statement.

38. Travel time reliability is severely compromised during peak periods, and it affects tourism, economic development, local quality of life throughout the corridor, and transportation-dependent commerce.
39. Motorists divert to alternative routes, mainly the “frontage road”.

Comment: some of the roads that are attached to this belong to CDOT, some are county roads, some are through the community. Should not use the term frontage road, but maybe the local road network.

Change to “minimize diversion to alternate routes.”

40. Congestion-related crashes.

Dave Hattan from FHU is doing the study on safety and crashes along I-70. The existing safety problems are less than the average, but it doesn't mean it is not an issue.

Comment: Can we add, although the average crash rate is less than average, it is still an issue and is related to congestion.

Comment: can we add, “during the eastbound peak period...”need to tie into the actual need statement

41. Emergency Service Providers

Emergency vehicles have no other way to get to I-70 during a congested period, resulting in delay and effective incident management.

42. From Stephanie Gibson: if we are reducing the shoulder, doesn't this mean the emergency vehicles have even less space to pull over? We need to review this statement to make sure we can actually meet this need statement. If we partially address the congestion issue, emergency vehicles can move through more quickly if traffic is moving through quickly also.
43. Some mechanisms used: regulatory signs, flashing beacons, sometimes just traffic officers responding.
44. Signage is such a big issue, we anticipate having one TT meeting just to address the trade-offs between safety and aesthetics/effect to views and viewsheds and character.
45. It's not only emergency vehicles that cannot get through I-70 because of congestion, but also getting through congestion on the local road network.

Categorical Exclusion

46. Gina: This is really a condensed EA. All resource areas will be examined. We started to look at specific environmental resources, and we categorically sorted those resources according to the type of assessment (brief, some, or full) that needs to be done specific to those resources. (See handout)
47. We will take comments and input from this meeting and will incorporate into the assessments. Will also get input from the issues task forces planned and incorporate that input into the assessments.
48. Comment: For visual/aesthetics: add walls/structures in general.
49. Lisa: Need to add Section 106 as a separate item under full assessment category. (Note, this was mistakenly omitted from the power point but was included in the scoping form.)
50. Francesca: Wildlife/Fisheries—need to add SB 40.
51. Jill: Air Quality—no conformity issue for this project, so can delete.
52. Jill: Noise—need a formal discussion with FHWA to decide what type of analysis is needed. We may need to revisit earlier discussions.
53. Gina reiterated that these are just preliminary assessments of the likelihood of a resource being affected. As we collect data, we will go through a second assessment, and will make sure we consider the results in the alternatives evaluation.
54. Gary Frey questioned the CatEx documentation that is being prepared for this project. Why not a full EA? It seems like CDOT is trying to avoid doing the correct documentation. Stephanie explained that this clearly meets the class of action for a Cat Ex and CEQ has signed off on the FHWA approach to doing Cat Ex's.

Safety Assessment

55. Dave Hattan gave a summary of the safety issues along I-70. The team took the overall corridor and looked at the seven segments: Empire, Downieville, Dumont, Fall River Road, Idaho Springs, SH 103, and again Idaho Springs.
56. Types of accident are rear-end and sideswipe, both primarily due to congestion. The slide showed accident percentages for rear-end, sideswipe, and overall accidents.
57. In the east Idaho Springs interchange (getting to Twin Tunnels), the number of rear-end accidents are higher.
58. By the next time, we will hopefully clarify a lot of these data and tabulate, to identify what the problems are that can be solved.
59. Question: When you looked at accidents, what are the speeds associated with them?
60. Answer: For the five-year accident period we looked at, we probably would not look at individual every single traffic report. But we can definitely look at some of them.
61. Observation from EMS person: During peak season, most accidents happen during slower speeds. But during off-peak periods, we see accidents happened during faster speeds.

PPSL Design Elements

62. Steve Long announced that we started looking at the corridor at a high level. What would it look like if we can just take the existing pavement and restripe it? What if we make it a little wider and make it a little more comfortable? So we can put it in context and begin to look at determining roadway width we need, anticipated structures, and access points.
63. There would actually be a need to widen a little bit to accommodate auxiliary lanes at interchanges.
64. Unfortunately, our existing bridges are only 38 feet wide.
65. We ran a scenario that adds a few feet. There is a bridge that needs to be replaced carrying Highway 103. The widening of the other bridges is anticipated to be pretty minimal. We would need walls, but none of them would go down into the river, except one, but we are not sure. There is an extremely tight location (getting off at Idaho Springs). At this point, if we widen to the creek, we are within the 100-year floodway. There is also room for discussion if we want to widen to the median instead of the river. That is assuming the very narrow section. For every extra foot we put into the cross section, you are basically chasing it into the river or the median.
66. We also looked at meeting interstate standards - with acceptable shoulders. For peak periods, we would have to add a wall through the whole corridor.
67. Comment: So each interchange would need a new accel/decel lanes? Yes.

68. Comment: Can the existing shoulder pavement carry the loads associated with traffic? Yes.
69. Comment: Regarding the bridge carrying 103 that needs to be replaced, not sure if we can design to accommodate what's going to happen there in the future. In the AGS study, one of the leading candidates for a station is right in the area surrounding Highway 103, which would be an entire reconfiguration of that area.
70. Steve: The reason why we went through this exercise is so that we can determine the issues and what we need to do to address those issues. And that is why the role of the TT is important.
71. Gina: Sounds like we should have the Highway103 bridge be a focus area for a TT meeting.
72. Gina: Provided summary of the Issues Task Forces.

Meeting Wrap-Up

73. We anticipate meeting twice a month between now and the end of September with alternating locations: some in this location and some in the corridor area.
74. Schedule for the meetings was determined to be second and fourth Mondays of the month.
75. Suggestions: if not everyone can attend the regularly scheduled meetings, separate meetings will be held with various resources and/or design specialists.
76. Next meeting is hoped to be in Idaho Springs, then back in Golden, and continuing to alternate.
77. Will send the revised handouts with the meeting minutes early next week. We will incorporate all the input. We will send out the agenda prior to each meeting so people will have a chance to review. We also commit to sending other meeting materials out as much in advance as we can.

NEXT MEETING

78. We will:
- Review context statement, core values and critical issues.
 - Summarize the Feasibility Study.
 - Discuss the concept of operations and get feedback to that.

TECHNICAL TEAM MEETING ATTENDANCE SHEET

July 3, 2013 at 9:00 a.m.

CDOT Golden, Trail Ridge Conference Room

Attendance	NAME	AGENCY	E-MAIL ADDRESS	MAILING ADDRESS
	Acimovic, Ben	CDOT I-70 Mountain Corridor	benjamin.acimovic@state.co.us	
✓	Adams, Phyllis	UCCWA Upper Clear Creek Watershed	montanepros@juno.com	Box 1271, Idaho Springs, CO 80452
✓	Arbogast, Belinda	CDOT Planning & Environmental	belinda.arbogast@state.co.us	
	Babeon, Kelly	Clear Creek Fire	kb@co.clear-creek.co.us	
	Ballah, Art			
	Beck, Rick	Engineer, Clear Creek County	rbeck@co.clear-creek.co.us	
	Bemelen, Jim	CDOT I-70 Mtn Corridor Program	james.bemelen@state.co.us	
	Bowes, Margaret	I-70 Coalition	mbowes@i70solutions.org	
	Breslin, Thomas	Administrator, Clear Creek County	tbreslin@co.clear-creek.co.us	
	Buckland, Phil	Commissioner, Clear Creek County	madcreek@ieee.org	
	Cheroutes, Mike	Director, HPTE	michael.cheroutes@state.co.us	
✓	Coates, Carol	CDOT NEPA Specialist	carol.coates@state.co.us	
	Consultant	Designer, TBD		
	D'Andrea, Maria	Transportation Engineer, Jefferson County	mdandrea@jeffco.us	
	Davidson, Thomas	Commissioner, Summit County	thomasd@co.summit.co.us	
✓	Drumm, Angie	CDOT Government Relations	angie.drumm@state.co.us	4201 East Arkansas Avenue, #275, Denver, CO 80222
	Duran, Rich	Captain, Colorado State Patrol		Colorado State Patrol, Troop 4-C, 202 Centennial Street, Glenwood Springs, CO 81601
✓	Eidenmueller, Dan	Corporal, Colorado State Patrol	dan.eidenmueller@state.co.us	Colorado State Patrol, Troop 4-C, 202 Centennial Street, Glenwood Springs, CO 81601
✓	Frey, Gary	Colorado Trout Unlimited	gbfrey@msn.com	1272 South Routt Way, Lakewood, CO 80232
	Gibbs, Dan	Summit County	dang@co.summit.co.us	
✓	Gibson, Stephanie	Environmental Manager, FHWA	stephanie.gibson@dot.gov	12300 West Dakota Avenue, Suite 180, Lakewood, CO 80228
✓	Grant, Kari	HPTE	kari.grant@state.co.us	4201 East Arkansas Avenue, #230, Denver CO 80222
	Greer, Matt	Structural & Hydraulic Engineer, FHWA	matt.greer@dot.gov	
✓	Gross, Al	CDOT R1 Centennial Residency/Hydraulics	alfred.gross@state.co.us	7328 S. Revere Parkway, Suite 204A, Centennial, CO 80112
	Haile, Solomon	CDOT Traffic	solomon.haile@state.co.us	
✓	Hailu, Azeb	CDOT Traffic	azeb.hailu@state.co.us	
	Hale, Tom			
✓	Halouska, Troy	CDOT DTD	troy.halouska@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222
✓	Hattan, Dave	FHU/Safety	dave.hattan@fhueng.com	
	Hayden, Tom	Commissioner, Clear Creek County	clearcreektom@aol.com	
✓	Heffron, Tammy	HDR Engineering/Bridge	tammy.heffron@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
✓	Henderson, Vanessa	CDOT DTD	vanessa.henderson@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222
✓	Hersey, Steve	CDOT Traffic	steven.hersey@state.co.us	2000 South Holly Street, Denver, CO 80226
✓	Hymas, Darren	HDR Engineering/Roadway	darren.hymas@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
✓	Holm, David	CCWF	jdavidholm@gmail.com	
✓	Huyck, Holly	CDOT Planning & Environmental	holly.huyck@state.co.us	
✓	Jensen, Randy	Program Delivery Team Leader, FHWA	randy.jensen@dot.gov	12300 West Dakota Avenue, Suite 180, Lakewood, CO 80228
	Jepson, Dan	CDOT DTD Environmental	daniel.jepson@state.co.us	
	Johnson, Nicolena	Clear Creek EMS	nicolena.johnson@clearcreekems.com	
✓	Jones, Lorena	HDR Engineering, Inc./Project Assistant	lorena.jones@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202

TECHNICAL TEAM MEETING ATTENDANCE SHEET

July 3, 2013 at 9:00 a.m.

CDOT Golden, Trail Ridge Conference Room

Attendance	NAME	AGENCY	E-MAIL ADDRESS	MAILING ADDRESS
	Klaetsch, Jennifer	CDOT Environmental	jennifer.klaetsch@state.co.us	
	Kramer, Jay	CDOT ROW/Survey	jay.kramer@state.co.us	
✓	Kruse, Carol	USFS	ckruse@fs.fed.us	2150 Centre Avenue, Bldg. E, Fort Collins, CO 80521
✓	Krehbiel, Robert	Matrix Design Group/Hydraulics	robertk@matrixdesigngroup.com	
✓	Loevlie, Mary Jane	Idaho Springs		
✓	Long, Steve	HDR Engineering, Inc./Transportation	steve.long@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
	Martinez, Al	CDOT Maintenance	alfonso.martinez@state.co.us	
	Mauck, Tim	Commissioner, Clear Creek County	tim@timmauck.com	
✓	McAfee, Gina	HDR Engineering, Inc./Environmental	gina.mcafee@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
	McGuire, Brendan	I-70 Coalition	bmcguire@vailresorts.com	
	Morgan, Jack	Mayor, City of Idaho Springs	morganmkt@comcast.net	
✓	Neely, Cindy	Consultant, Clear Creek County	ccneely@yahoo.com	Box 532, Georgetown, CO 80444
	Noll, Thad			
✓	Ogden, Neil	CDOT/I-70 Mountain Corridor Engineering	neil.ogden@state.co.us	
	Pallante, Amy	Colorado SHPO	amy.pallante@chs.state.co.us	
	Petersburg, Ty	CPW		
✓	Peterson, Jeff	CDOT DTD Environmental	jeff.peterson@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222
✓	Pierce, Becky	CDOT DTD Environmental	rebecca.pierce@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222
✓	Rajasekar, Leela	CDOT Traffic	leela.rajasekar@state.co.us	
	Rice, John	Clear Creek Rafting Company	john@clearcreekrfting.com	
	Rice, Ryan	Director, CDOT Division of Operations	ryan.rice@state.co.us	
✓	Ruble, Dave	CDOT Utilities	dave.ruble@state.co.us	2000 South Holly Street, Denver, CO 80226
	Salloum, Aymon	CDOT Planning	ayman.salloum@state.co.us	
✓	Schlaefer, Jill	CDOT DTD	jill.schlaefer@state.co.us	4201 East Arkansas Avenue, Denver CO 80222
✓	Schmid, Andi	CDOT R1/I-70 Mountain Corridor Program	andria.schmid@state.co.us	425-A Corporate Circle, Golden, CO 80401
✓	Schoch, Lisa	CDOT DTD Environmental	lisa.schoch@state.co.us	4201 East Arkansas Avenue, Denver CO 80222
	Singer, David	CDOT I-70 Mtn Corridor Environmental	david.singer@state.co.us	
	Sohbi, Saeed			
	Sorensen, JoAnne	Land Use Director, Clear Creek County	jsorensen@co.clear-creek.co.us	
✓	Stewart, Dave	CDOT ROW/Survey	davida.stewart@state.co.us	425-A Corporate Circle, Golden, CO 80401
	Stiegelmeier, Karn	Commissioner, Summit County	karns@co.summit.co.us	
✓	Thomas, David	CDOT Geotech	david.thomas@state.co.us	4670 Holly Street, Unit A, Denver, CO 80216
✓	Tordanato, Francesca	CDOT Planning & Environmental	francesca.tordanato@state.co.us	425-A Corporate Circle, Golden, CO 80401
	Urban, Melinda	Operations Engineer, FHWA	melinda.urban@dot.gov	
	USFS	TBD		
	Winkle, Paul	CPW		
✓	White, Stephanie	HDR Engineering/Public Involvement	stephanie.white@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
✓	Yip, Steve	CDOT Staff Bridge	man.yip@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222