



MEETING SUMMARY

Westbound I-70 Mountain Corridor - Concept Development Process Technical Team (TT) Meeting

Wednesday, March 8, 2017

12:00 pm – 3:00 pm

Clear Creek Metropolitan Recreation | 98 12th Ave, Idaho Springs, CO 80452

Agenda

Meeting Purpose: To confirm Segment 1 Concepts and Decision Matrices and input from PLT. To review and gather input on Segment 2 Concepts and evaluation criteria. To confirm Segment 3 Critical Issues.

Time	Agenda Topic
12:00 pm – 12:15 pm	Introductions and Agenda Review
12:15 pm – 12:45 pm	Review and Agreement: Confirm Segment 1 Concepts and Decision Matrices Desired Outcome: TT reviews and confirms Segment 1 Concepts and Decision Matrices
12:45 pm – 1:30 pm	Review and Discussion: Review Segment 2 Critical Issues and Concepts Desired Outcome: TT provides feedback and has an understanding of Segment 2 Concepts.
1:30 pm – 1:40 pm	Break
1:40 pm – 2:20 pm	Review: Introduce Segment 2 Decision Matrix Criteria Desired Outcome: TT reviews and provides feedback on evaluation criteria.
2:20 pm – 2:45 pm	Discussion and Activity: Confirm Segment 3 Critical Issues and Context Desired Outcome: TT confirms Critical Issues and context for Segment 3.
2:45 pm – 2:55 pm	Review and Discussion: March 6 PLT Meeting Outcomes and Key Themes Desired Outcome: TT understands key outcomes, decisions, public meeting and process timeline suggestions from the March 6 th PLT meeting.
2:55 pm – 3:00 pm	Action Items, Next Steps and Closing

MEETING SUMMARY

Introductions, Agenda Review and Process Check in

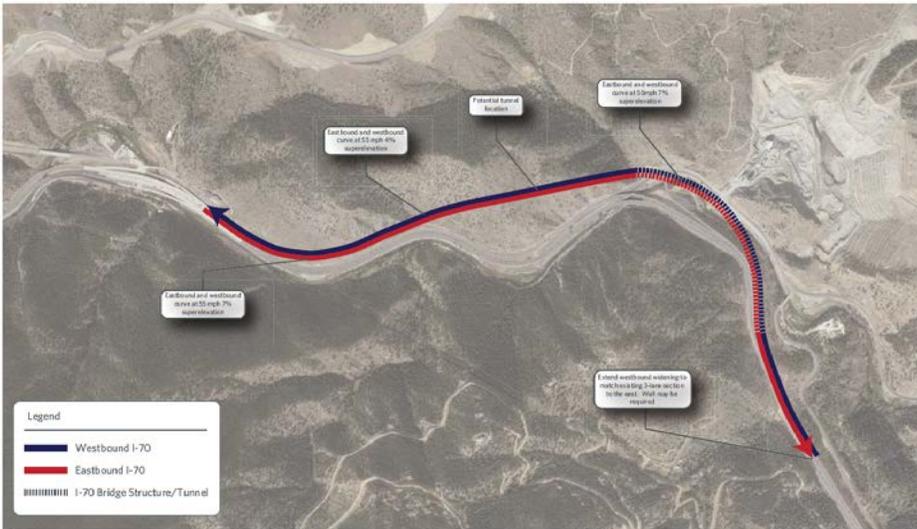
TT members introduced themselves and reviewed the agenda. The agenda was acceptable to the group as presented and the meeting proceeded.

The Project Management Team clarified to the TT that all Critical Issues, Concepts, and Evaluation Matrixes are works in progress. The TT should continue to provide feedback and commentary throughout the process until documents and project report are finalized in June.

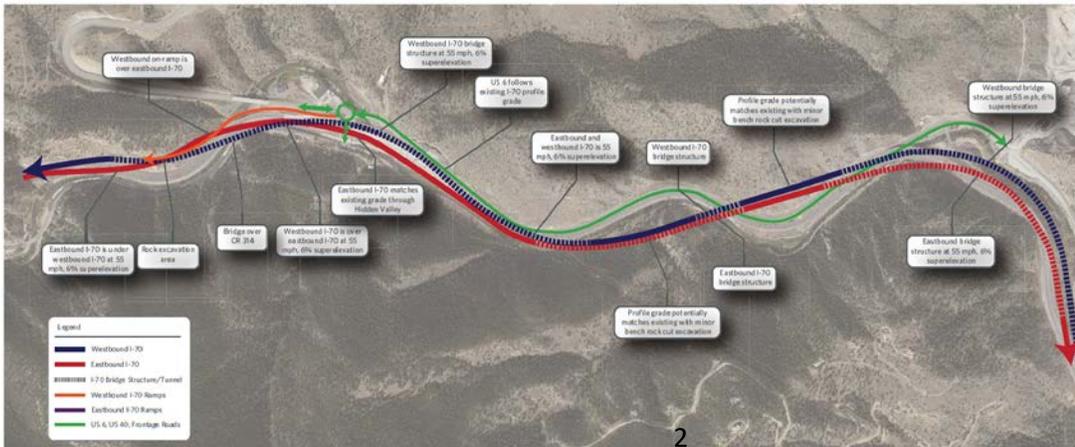
Segment 1 Concepts

Since the last TT meeting, HDR simplified the Concept maps to be less “engineered/technical” and at a higher level. The maps are still true to approximate size and scale. These maps are based on the first TT meetings and subsequent consultant/contractor meetings (together, these meetings came out with approx. 30 different alternatives matched with different scenarios). HDR took these alternatives and places them into “buckets.” These are discussed below:

- **Mainline/Alignment:**

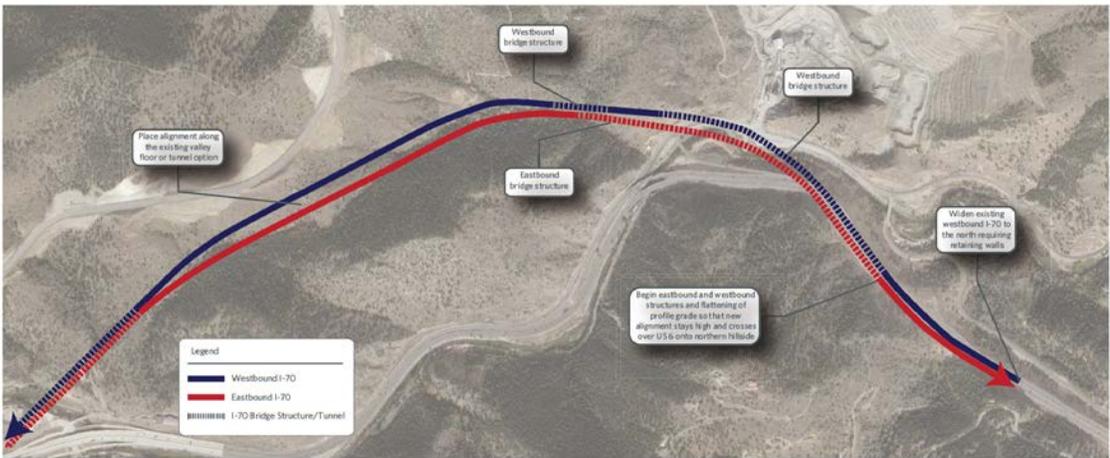


North Alignment concept – this concept holds the profile high with bridges beginning mid-way down Floyd Hill. The alignment is benched above the grade of I-70.



South alignment concept – The profile is raised beginning midway down Floyd Hill, then crosses to the south side canyon before swinging back to the north side to connect to the Hidden Valley interchange.

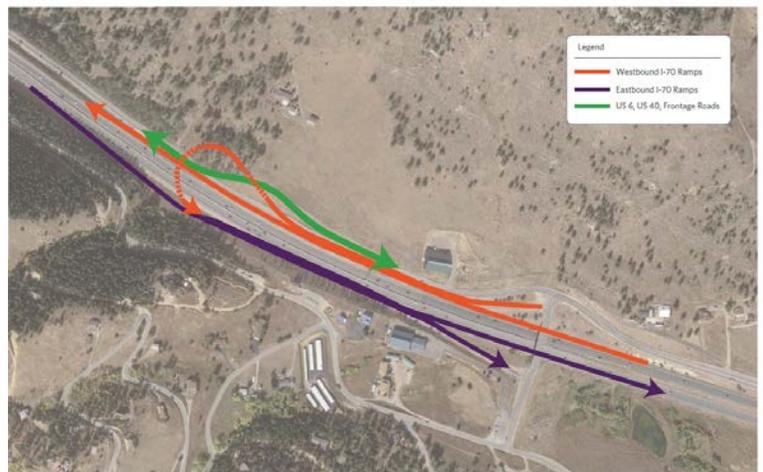
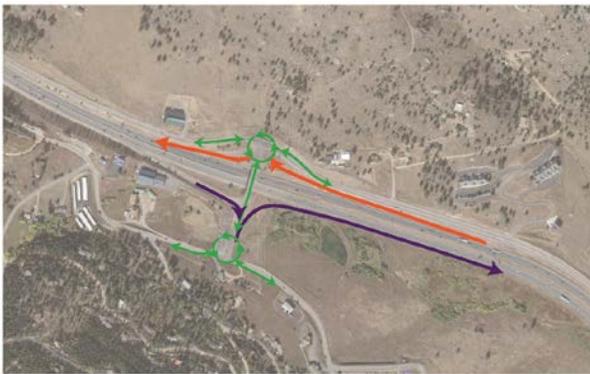
- **Off-Alignment:** Goes into the valley on the north side of road. Would need bridges and tunnels.



- Two of the “way off-alignment” options were not advanced primarily due to geotechnical, well water, landownership, US 6 integration considerations. Both were also considered either during the Programmatic EIS process or during the subsequent Design Speed Study and were recommended to be dropped at those times. These two alignments included the “Westbound off-alignment” - avoiding Floyd Hill completely and the “Off-alignment South,” avoiding Floyd Hill.

- **Interchanges**

Close Interchange at US 6
Move to East (Top of Floyd Hill)



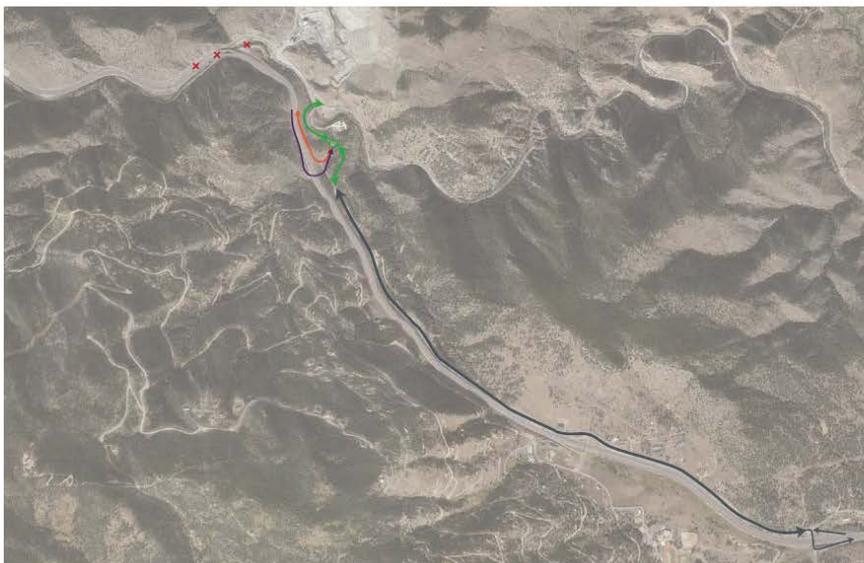
The Close Interchange at US 6 (move to top of Floyd Hill) concept, pictured above, closes the US 6 interchange and moves it to the top of Floyd Hill. Traffic from US 6 will need to go back up the hill. This option does not appear to be optimal for trucks or community. Intersections at both ends will be modified.

Close Interchange at US 6 Move to West (Hidden Valley)



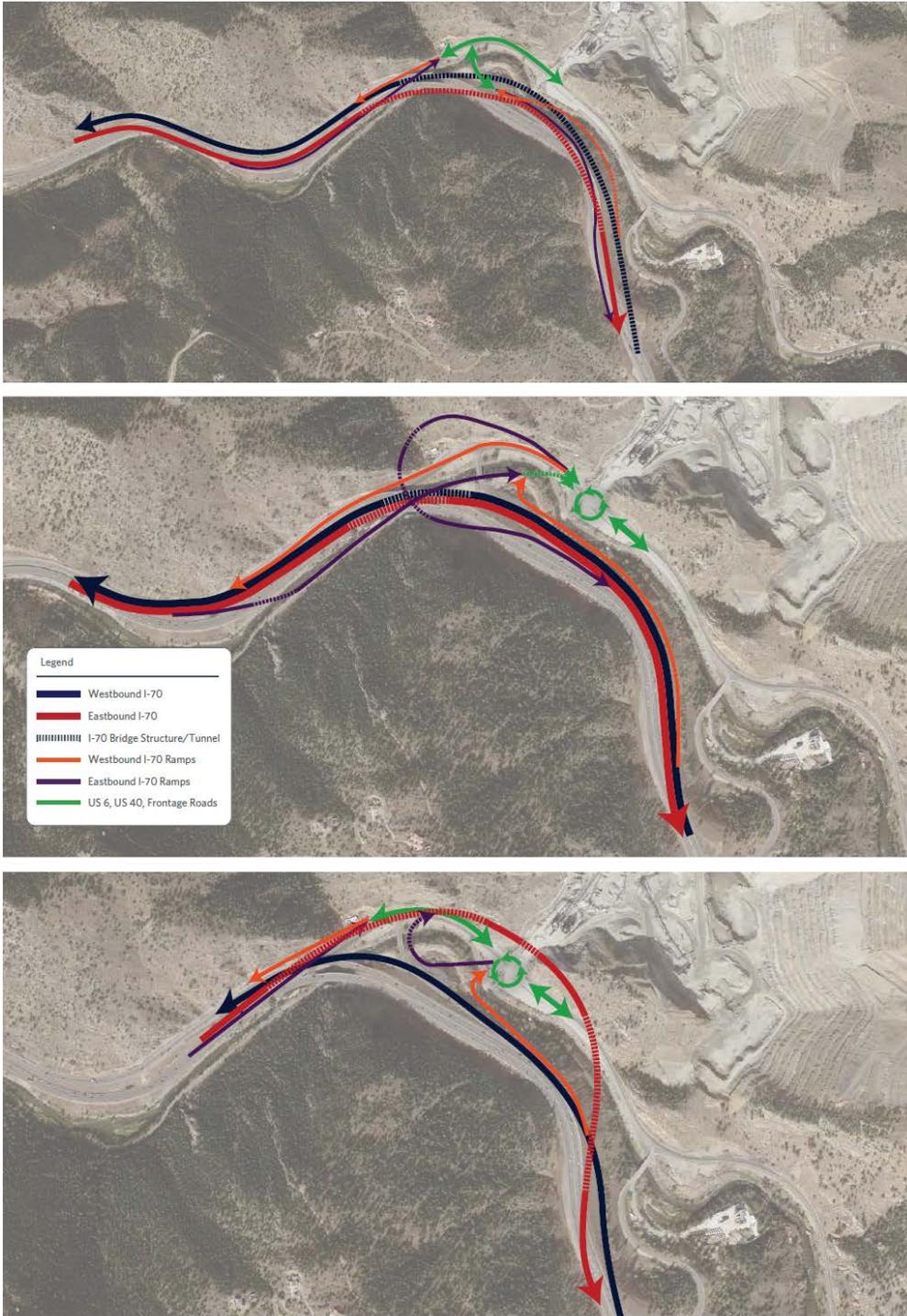
The above option takes all movements from the bottom of US 6 and moves them over to Hidden Valley.

Partial/Complete Closure of US 6 Interchange Shift Other Movements to East



These above maps show an interchange complex that moves some of the US 6 movement approximately 1500 feet up Floyd Hill. The top drawing looks like it handles everything, but the purple arrow is very steep.

Reconfigure US 6 Interchange Full Movements at Current Location



Keeping the interchange where it is will take a considerable amount of land to make these movements geographically appropriate for the context. It is very challenging to fit them all in because of topographic constraints and with Clear Creek.

General comments and discussion regarding alignment and interchange options:

- Roundabout arrows are going the wrong way! **The maps pictured above have already been fixed to address this issue.**
- Exits and onramps will be moved to the right of the highway at the US 6 interchange to meet driver expectations
- Context is addressed differently in each option.
- There are a lot of different interests to meet for the reconfiguration of the US 6 interchange.
- It is important to think about truck movement, e.g. turning. This will be greatly impacted by how the interchange functions.
- The Greenway is part of the evaluation criteria for all of Segment 1 Concepts. However, some of the concepts prioritize the Greenway, some prioritize community needs, some prioritize safety. All of the concepts involve different tradeoffs.

Decision Matrix Segment 1 Review

Alignments Matrix

- Matrix was modified to reflect input received from CPW, PLT and TT.
- Rows 1-18 are the same for every Segment, the Matrix contains a segment specific section at the bottom to look at accommodation of all users and how it fits with different interchanges.
- The TT clarified and changed items on the South Alignment re: wildlife connectivity (THK made changes to the document during the meeting). In general, the South Alignment has more white than other two, but there is not a compelling reason to drop any of the concepts at this time.
- The TT was encouraged to continue to keep thinking about the evaluation criteria and process and send additional comments to the PMT via email. The goal is to finalize the matrix in June.
- **Comment:** CMCA needs more operational input about the use of roundabouts – i.e. how big are the roundabouts? It is hard to decide which option is the “best” unless operations are included and specified as this could change whether or not trucks get through.
 - **Response:** At this point in the process, we are not diving deeper because we do not have enough information to provide specific roundabout widths, etc. This process looks at very broad concepts. This TT will continue to convene throughout this whole project (through NEPA) and will continue to get more specific and detailed. The TT will consider finer details at a future stage.
- **Comment:** South alignment looks like the worst option. Why are we holding on to South alignment? Is this because of budgeting and funding restrictions?
 - **Response:** There is not yet enough information to eliminate any alignments.
- **Comment and ACTION:** Instead of saying “no differentiator” say N/A.
- **Question:** Is the intent of Decision matrix to funnel down to NEPA or to use this matrix to guide NEPA process? Are all of these going to NEPA?
 - **Response:** None of these appear to be fatally flawed, so they will remain at this time. This matrix will help guide the NEPA scoping and allow us to determine the major issues that we will need to focus on in the NEPA process.
- **Comment and ACTION:** Change “minimize” to “reduce” in Row 6 of matrices.
- **Comment:** Some of these criteria are so broad and aggregated that they do not capture the details and issues.
- **Comment and ACTION:** The Matrix should state “base assumption is” so reader knows that each concept uses the same cross section assumptions identical to that used in the Veteran’s Memorial Tunnel.

- **Discussion:** There was a robust conversation among the TT asking for integration and combination of Alignment and Interchange Options. The TT would like an analysis of how each alignment option is favorable, or not favorable, to the different interchange options. Some TT members suggest that understanding the cost effectiveness for each option would also be helpful.
 - Some TT members and CDOT noted that it would be helpful to have more information before mixing and matching concepts and options. Some TT members were concerned that it is too early in the process to start ranking and eliminating options. At this stage, it is important to be identifying concepts that work or don't work. Further ranking and eliminating would come in NEPA when more engineering has been completed (e.g. grades, height, etc).
- **ACTION:** The PMT will develop a compatibility matrix of interchange and alignment options based on current data.
- **AGREEMENT:** At the next TT meeting, review any changes in the Matrix resulting from the Public Meeting

Interchange Matrix

- Added "impact to CMV" at the bottom of the Matrix
- **Comment:** Does the "Reconfigure full movement at current location" option impact river access in front of Kermitts (now Two Bears)? This is one of the most used input and outputs for rafters on Clear Creek, this would be "really white" and a huge detriment. Rows #10 and #8 – these would be "very white" – can we use red?
- **ACTION:** Change "Hidden Valley" option to yellow for rows #10 and #8 to provide a contrast effect and emphasize that the white in rows #10 and #8 in "reconfigure full movement" is incredibly detrimental.
- **Question:** Are we keeping all of the movements at one location or splitting between 2 locations? How high is the potential that we could keep all movements at one interchange? Are we pushing traffic onto frontage roads – are we creating trips on frontage roads because we are pushing movements to 2 sections?
- **ACTION:** Note this is something that needs more consideration. Suggestion to add a column that says: "can do full movement at one interchange or splits movement." **Add a new segment evaluation criteria to indicate out-of-direction travel.**
- **Question:** If interchange at US 6 is closed, could an access road be built so rafters can put in and out and mine workers would not need to radically change their business plans?
 - **Answer:** If this interchange is closed, we would move to Hidden Valley and would plan on providing access to minimize out of direction travel. No access to business will be cut off.
- **Question:** #2 Safety – Reconfiguration and Closing -- why are these two options rated the same?
 - **Answer:** Because of the huge out of direction travel and traffic would move to a winding road.
- **ACTION:** Number the Segments on the Matrices (Segment 1, Segment 2, etc)
- **ACTION:** Add methodology, i.e. distinguishing characteristics of why one option is white, yellow or green.
- **Comment:** Kermitts (now Two Bears) is the most undesirable place for an interchange. Although out of direction travel is terrible, we need to look at the benefits (e.g. its safer, maintenance, roadway and ramps are more sustainable, grades). Therefore if Matrix is going to add the adverse impact of out-of-direction travel, need to make sure we add positive impacts from a regional perspective.

Segment 2 Critical Issues

Critical Issues document was presented to the group and changes in the document were highlighted including:

- Mobility
- Access

- Construction schedule (work/school);
- Views along the highway
- Balancing visibility and sound
- SH103/Exit 204 – consistency of language
- Environmental #2 – existing mining claims under I-70, property rights/mineral rights.

The Critical Issues document will be updated to include these changes.

Segment 2 Concepts

- Presentation of WB PPSL Cross Section – Minimal, Hybrid/Variable and Maximum
- In general, looking to compare and contrast EB and what is different with WB?
- How do we optimize the existing facility and how much additional pavement should we put in
- **Questions:** If EB PPSL is optimized to full standard, what does that look like?
 - **Answer:** Full standard will have implications, i.e. rock falls
- There was a TT discussion around the issue of width with the following key themes:
 - How many of the historic properties will be impacted?
 - EB PPSL was a positive improvement and Clear Creek County (CCC) believes that under the MOU/ROD that the same template was going to be used for WB PPSL.
 - CCC does not believe that the hybrid and maximum sections as depicted would be considered an “operational improvement.” All minimum improvements must be made first, as well as adding busses, prior to these cross section options being considered. CCC does not believe they signed off on these type of options (Hybrid and widest section)
 - The maximum section was not called for in the ROD and is not an improvement identified in the ROD. It should happen after other improvements identified as triggers are concluded (i.e. interchanges, transit decisions).
 - USFS: It is important to work within the MOU for guidelines on widths.
 - EB had significant mobility benefits but there were a lot of lessons learned from that project, want to keep all of the options on the table to talk through pros and cons. We are not at the level where we are making decisions around width.
 - It is too early to say “it’s worse” because it’s wider. It will be important to have an assessment of what the impacts are. Before dropping Hybrid and Maximum, should evaluate the impacts and see how consequential these will be. Use the green, yellow and white matrix model.
 - **ACTION:** The word “maximum” is misleading: This is the maximum of the alternatives provided. It is not the maximum program as described in the ROD. Change the word maximum to “wide” or something less misleading.
 - FHWA - NEPA should consider these alternatives with varying widths and based on context. The road will not be one straight section – there will be narrower and wider sections, it is context dependent.
 - **ACTION:** FHWA: Need a separate discussion on what is considered an “operational improvement” – if it gets too big, it no longer fits within the definition of “expanded use of existing transportation infrastructure.”
 - Will local jurisdictions need to give up land for the PPSL?
 - The CSS Process requires that all ideas are put on the table to look at the range of alternatives.

Lessons learned discussion from EB PPSL

- Emergency access is vital for safety
- No place for cars to pull over since during peak period the shoulder is too narrow.
- Narrow section does not allow for Bustang/transit
- Important to respect the MOU, IGAs, ROD regarding operational improvements
- Construction and implementation best practices were not followed. Need better implementation and fulfillment or commitments
- Need construction phasing, safe refuge access, e-access, striping and signing, community, traffic control and flaggers
- Huge impacts on the related businesses
- Locals are not able to get through town
- On and off-ramp problems
- Trust – at the SB 1041 hearing, it was indicated that PPSL was not designed for oversized vehicles, etc. The permit was granted. 6-12 months after, CCC learned about buses, and now the operating plans at 1041 hearings and on website don't match. Documentation doesn't match. Impacts trust. Consistency and ensuring that plans match what is said in public and what is articulated in permits.
- Enforcement - High level of illegal activity (jumping the line, passing on the left)
- The “shy” distance from the wall is short – larger shy distances between wall and car.
- Poor visibility leads to diminished speeds (45-50 mph) because people can't see.
- Need to harmonize mobility and needs of community.

ACTION: If you have additional Lessons Learned, send to PMT.

Decision Matrix Review – Segment 2

ACTION: TT to look at review Matrix and provide feedback

- Add “Segment 2” at the top
- Add a row that states “Comply with the MOU”

Segment 3 Critical Issues

These have been collected from PLT and TT, we will get additional input from Public Meeting

ACTION: PMT to update Segment 3 Critical Issues and TT to continue to review and send feedback

- Eliminate #10 (Mobility) and get rid of #7 (Safety)
- Locate #1 and #2 (Safety) – locate these
- #3 (Safety) – follow up with Nicolena
- Mobility and Access: #2 – clarify that this is the bridge structure

Next Steps and Actions

- **ACTION:** THK to Update Decision Matrices for Segments 1 and 2 – see specific actions indicated above
- **ACTION:** CDR to update Critical Issues for Segment 2 and 3
- **ACTION:** HDR to send relevant elements of ROD and the MOU to the group to ensure clarity and intent.

- **ACTION:** PMT, TT and PLT to continue conversation re: PPSL Cross Sections, perhaps hold an ITF with some TT members to navigate the issues of PPSL width.
- **ACTION:** Change PPSL Cross Section nomenclature to be less misleading
- **ACTION:** FHWA, TT, PLT, PMT to discuss “operational improvements”
- **ACTION:** Next TT Meeting: Agenda Item on Building Trust

Attendees

Fred Holderness, Jeff Simmons (TSH); Allan Brown (EST); Matthew Christensen (Kiewit); Jason Buechler (Flatiron Corp); Ina Zisman, Jeff Wilson (WSP-PB); Kelly Larson, Shaun Cutting (FHWA); Gary Frey (Trout Unlimited); Tim Maloney, Matthew Hogan (Kraemer); Tom Gosiorowski (Summit County); Joseph Feiccabrino (Silverplume); Jo Ann Sorensen, John Muscatell (Clear Creek County); Mike Raber (Clear Creek Bikeway Users Group); Randall Navarro (Clear Creek Greenway); Cassandra Patton (Clear Creek Tourism Bureau); Martha Tableman (Clear Creek County Open Space); Holly Huyck (Clear Creek Watershed Foundation); Mitch Houston (Clear Creek School District); Andrew Marsh, John Bardoni (Idaho Springs); Carol Kruse (USFS); Tracy Sakaguchi (CMCA); Stephen Harelson, Neil Ogden, Ben Acimovic, Joe Mahoney, Bob Smith, Adam Parks (CDOT); Joe Walter (CPW); Jenna Bockey, Kevin Shanks (THK); Gina McAfee, Steve Long, Chris Primus (HDR); Jonathan Bartsch, Taber Ward (CDR)