



**MEETING SUMMARY**

**Westbound I-70 Mountain Corridor - Concept Development Process**

**Technical Team (TT) Meeting**

**Wednesday, January 4, 2017**

**9:00 am – 12: 00 pm**

Time	Agenda Topic
9:00 am – 9:15 am	<b>Welcome, Introductions and Agenda Review</b>
9:15 am – 10:00 am	<p><b>Review and Discussion: Project Overview, Roles and Responsibilities and Outcomes</b></p> <p>Goal: Provide an overview of the project, establish roles and responsibilities and outline the concept development process including the geographic scope and expected outcomes.</p>
10:00-10:15	<b>Break</b>
10:15 am – 11:45 am	<p><b>Discussion: Identification of Corridor-wide Critical Issues and Concepts for Segment 1</b></p> <p>Goal: Identify corridor-wide critical issues for Segment 1.</p>
11:45 am – 12:00 pm	<p><b>Next Steps and Action Items</b></p> <p>Goal: Determine immediate next steps and confirm action items.</p>

## Meeting Summary

### Welcome, Introductions and Agenda Review

Jonathan Bartsch, CDR Associates, welcomed the group. The meeting participants introduced themselves and stated their affiliation. Jonathan reviewed the agenda. The group agreed to the agenda as presented and proceeded.

### Project Overview, Roles and Responsibilities and Outcomes

**Summary:** Jonathan provided an overview of the project, established Technical Team roles and responsibilities and outlined the Concept Development Process including the geographic scope and expected outcomes. He encouraged the group to weigh in at this meeting as this is an interactive presentation.

#### Project Overview:

- **The outcome for the Concept Development Process (CDP)** established by the Project Leadership Team (PLT) is “to identify concepts for the roadway to be advanced into NEPA, taking into consideration the context of the communities and landscapes through which it travels. The process will also identify any fatal flaws with concepts.”
- **The geographic limits** of the project are from the top of Floyd Hill to Eisenhower Johnson Memorial Tunnels.
- **The Concept Development Process will:**
  - Identify concepts that can be carried forward in the next 3-5 years because they do not have red flags or fatal flaws.
  - Develop and recommend feasible concepts for the WB I-70 Mountain Corridor for further evaluation.
  - Consider overall corridor context, including physical, historic and legal context (e.g. ROD and MOU).
    - There is a suggestion to broaden these examples of “context” to include community, economic, environmental, recreational, construction impact and safety. The group is encouraged to expand their thinking and look at a very broad context for the community.
- This meeting is focused on identifying *Critical Issues* along the Corridor.

#### Role of TT Members:

- The TT members are multidisciplinary subject matter experts in their field.
- Identify the context and critical issues in the corridor. Using these as a base, the TT members will work with contractors and engineers to begin to develop multiple concepts for the corridor to take into the NEPA process. This will involve considering fatal flaws of suggested concepts based on overall context, and the framework provided by the ROD, PEIS and MOU re: PPSL. Concepts suggested may change in NEPA.

- Provide technical advice about issues in the corridor.
- Provide technical advice to develop concepts.
- Evaluate concepts using Core Values and Evaluation Criteria developed by the PLT and TT.
- Define the level of ‘feasibility’ for each segment.

#### Question and Answer Period:

**Question:** What does “concept” mean? How do these concepts relate to the PEIS and what is the level of detail? **Answer:** Gina McAfee, HDR Engineering, responded that PEIS/ROD is a Tier 1 decision document that identified the preferred **mode, general location and capacity**. For example, 3 lanes from Floyd Hill through the Veterans Memorial Tunnels; an interchange reconfiguration at US 6, etc. . The concepts that will be developed in this next stage are part of an initial planning state prior to NEPA. We will drop down to a greater level of detail based on the Tier 1 mode, location and capacity recommendations. For example, this process will provide more **specificity about type of interchange, exact location (including vertically), use of walls vs. fill, etc.** The ideas developed in the current process will examine types of interchange concepts (diamond, diverging diamond, clover leaf).

- **For example, the following were identified in the ROD:**
  - Tier 1: US 6 interchange modification
    - Concept Development: What interchange configuration makes the most sense, e.g. diamond vs. directional
  - Tier 1: Add one additional lane each direction
    - Concept Development: For WB, should we consider shifting US 40 as well?
    - Concept Development: Should split alignments be considered -- with the WB lanes located at a higher elevation than the EB lanes?
- In the NEPA process these concepts will get even more detailed.
- Each concept will be reviewed to ensure it does not preclude a future AGS. But this process will not site an AGS because the process is looking at what can be built in next 3-5 years. The AGS studies have concluded that AGS will take longer.

**Question:** In order to achieve the goals identified in PEIS, addressing and alleviating congestion, AGS was considered an important component because highway improvements alone will not be enough. AGS is meant to relieve capacity requirements on I-70. **Answer:** Gina McAfee responds that this process is not going beyond the minimum program and the minimum program can be built prior to a decision made regarding AGS. This process will not preclude AGS. If a concept is developed that precludes AGS, it is fatally flawed and will not be carried forward.

**Question:** Are the concepts developed just engineering concepts or do they include financing/funding? **Answer:** Stephen Harelson, CDOT, responds that this process only looks at physical and operational concepts for WB lane of I-70. The process is not looking at identifying

funding at this point. Funding identification will take place during NEPA. Costs for different concepts will vary, so the NEPA level at least is needed to develop accurate costs.

## Project Teams

**There was discussion among the group on who was on which team, the following is a result of the discussion.**

### Project Leadership Team (PLT)

#### Technical Team (TT)

- CDOT
- FHWA
- Consultants and Contractors
- Subject Matter Experts

#### Issue Task Force (ITF)

#### Project Management Team (PMT)

- HDR
- THK
- CDR
- CDOT

#### Stakeholders (Broader Public)

## Team Roles

**The PLT** drives the Concept Development Process and ensures that the CSS process and guidance is followed. Further, if there are any issues that the TT cannot resolve, these issues will be elevated to the PLT. The PLT is also tasked with developing a stakeholder engagement plan to include the public. The PLT is made of up CDOT, FHWA and local agencies.

**The TT** is a working group made up of technical experts and experts in multidisciplinary fields. The TT develops segment specific concepts based on corridor context. The TT will look at how different concept options play out.

**The ITF (if needed)** works with the TT to look at issue-specific questions, i.e. what do we do at landslide at bottom of Floyd Hill, and will bring back findings for TT to review.

**The PMT** is the staff for the PLT and TT to help organize, fund and facilitate the project.

**Stakeholders** include the broader public impacted by this process. The PLT and PMT are working on a stakeholder involvement process.

**The Consultants and Contractors** will work with the TT to identify fatal flaws, constructability and design. They will participate in TT meetings to understand TT perspectives.

**ACTION ITEM:** CDR to send out PLT/TT membership list to the TT.

#### **Stakeholder Outreach Discussion:**

- The TT discussed the critical need to include impacted neighborhood input into the process early on. Ideas should be bounced off these stakeholders and their issues need to be heard and included in the concept development process.
- The real decision-making process is at the stakeholder level.
- It is important not to get invested in concepts before involving the community.
- Ultimately, multiple concepts will come out of this process and be vetted with the broader community.
- The main theme of this conversation was that the concept development process needs to work in concert with the broader stakeholder groups and broader public. Public input is required.
- There is already a plan in motion to reach out to the public. The PMT and PLT are beginning to develop a stakeholder engagement plan that will be held in the next few months.

#### **The Concept Development Process will work within the framework of the ROD and MOU:**

##### **ROD:**

- **Specific Highway Improvements**
  - Six lanes of capacity from Floyd Hill through the Twin Tunnels (now the Veterans Memorial Tunnels)
  - Empire Junction interchange improvements
  - EB auxiliary lane from EJMT to Herman Gulch
  - WB auxiliary lane from Bakerville to EJMT
  - Bike trail from Idaho Springs to US 6
  - Frontage road from Idaho Springs to US 6
- **Other Highway Projects**
  - Truck operations improvements in non specified locations
  - Interchange improvements at Georgetown, Downieville, Fall River Road, Base of Floyd Hill
  - Expand use of existing transportation infrastructure in and adjacent to the corridor, e.g. EB PPSL.

##### **MOU:**

- MOU signed in January 2014 MOU between Idaho Springs, Clear Creek County and CDOT
- Relevance to this Process

- Agreement to a Westbound I-70 PPSL project from Twin Tunnels to Empire Junction.
  - It will not exceed the scope of the EB PPSL project.
- WB Floyd Hill project would include widening to three lanes, improving the design speed of both EB and WB, bridge replacement at the bottom of FH, interchange reconstruction at US 6 and Phase 2 of the Greenway and Frontage Road (CR 314 from Exit 241 to 243)
- CDOT will continue to explore demonstration opportunities for noise abatement at Lawson
- Does not preclude the preferred AGS alternative

### **Concept Development Process - Context Statement, Core Values and Critical Issues and Decision/Evaluation Matrix:**

Kevin Shanks, THK, presented a Concept Development Flow Chart and Concept Evaluation Matrix (see handouts). He outlined the context statement, core values and critical issues identified at the previous PLT meetings.

Kevin noted that this process is completely flexible and these charts and matrices are tools to structure and design the process and information brought forward from the PPSL project and the PLT meeting #1. This is a working document that can be changed and refined. Categories include:

- Measures of success
- Core values
- Strategies – these are specific ideas that are legitimate ideas and we are capturing them.
- Critical issues – many of these were pulled from EB PPSL
- Criteria

**The Decision/Evaluation Matrix** is an important tool to use upfront to eliminate of concepts that don't meet evaluation criteria. Each segment will have different issues and different evaluation criteria that will factor into decision making. The TT and PLT will get a chance to discuss and review the evaluation criteria further as the process proceeds.

At the bottom of the Decision/Evaluation Matrix handout, there is a section that will be used to compare and contrast concepts and ideas.

The PMT will assist the PLT/TT to help fill this information in and capture ideas using these matrices.

Design ideas, city visioning processes, stakeholder recommendations and strategies, geotechnical information have been mapped out, but these issues are not located on the flow charts. PLT/TT recommendations and strategies will go through the flowchart criteria and be evaluated.

## Identification of Corridor-wide Critical Issues – Mapping Exercise

HDR Engineering, Gina McAfee and Steve Long, presented four different maps:

1. Segment 1
2. Segment 2
3. Segment 3
4. Segment D

On each map HDR identified a combination of issues including, but not limited to: linkage interference zones, historic properties, wildlife crossings, components from the MOU, Clear Creek County Visioning recommendations, ROD Commitments, endangered species, known other issues such as Environmental Justice areas and tight curves, etc.

The group was asked to look at each segment map and identify additional critical issues. HDR will map these critical issues and send out to the group for review.

The group reported highlights from the critical issues exercise. All of the TT suggestions were written on sticky notes and will be mapped and sent out to the TT as either “concepts” or “critical issues.” Some suggestions at the meeting included:

### Segment 1:

- Segment 1 should start at the eastern end or bottom of Floyd Hill.
  - \*There will be consideration of the operations of I-70 beginning upstream of Floyd Hill at CR 65
- There is a need to address how people are merging into traffic and access point signage.
- Do not want to blow into mountains for highway improvements, need to stack highways.
- Tourists aren't familiar with merging (Floyd Hill)
- Left exit for on and off ramps are causing problems.
- Bikeway comes in underneath I-70 bridge, bikers/peds need to go on exit ramp for 30 meters. As you come out underneath I-70 and into exit lane, people don't expect that to be 2 way road. Need better signage. People park under the bridge at US 6. When you come up on US 40, minimal edge (cyclists or walkers) and always a problem with erosion that creates HUGE drop offs.
- No on/off-ramp at 247, all Floyd Hill residents have to get off and go on US 40. Huge impact on 40. Emergency access is cumbersome here and a delay. This intersection is not built out and needs an off and on-ramp
- Fisheries: looking at it site-specific, spawning and habitat and basin-wide, river has degraded. Need basin-wide and site-specific approach to conserve fisheries.
- Emergency access challenges. Neighborhoods are isolated. Need better locations for emergency access for neighborhoods. Lack of secondary access.

- There is illegal access on CDOT right of way by rafters at Kermitts. There is already a permit process at the county level. Issue is that those permitted and non-permitted are accessing river on CDOT right of way, illegally.
- Horizontal curve radii between Central City Parkway interchange and the bottom of Floyd Hill at the US 6 interchange.
- Headlight glare over much of the length of Segment 1.

### **Segment 2:**

- Lack of coordination of CDOT projects in Idaho Springs: 240 off ramp closed – limited access through Idaho springs had safety impacts/emergency response. Times in Idaho Springs when no one could move, lost interstate and tourism dollars. Need better coordination between the City project on Colorado Blvd and the CDOT work on I-70.
- Hazardous materials management - mining activities, tailings. Make sure these tailing issues are built into the process.
- Noise from highway traffic noise versus visibility for Idaho Springs business. Need to balance highway noise and the need for noise abatement with the impact on economic development.
- Protect what we already have – protect frontage road, Water Wheel park.
- Need truck access for deliveries for Idaho Springs and emergency truck parking.
- Resiliency – flooding of 2013, problems with frontage road washing out. Emergency access and movement.
- A significant portion of Idaho Springs is in the 500 year flood plain
- Fisheries: basin wide consider off-site mitigation.
- Maintenance and snow removal – make sure snow is not going into the creek.
- Headlight glare.
- The short length of the WB on-ramp where Colorado Boulevard comes onto I70 on the west side of Idaho Springs (239 interchange?). This short ramp combined with the upgrade causes traffic entering I70 to do so at a comparatively low speed thus forcing WB I70 traffic to either slow or to merge into the right lane to avoid the slower vehicles entering the highway

### **Segment 3:**

- Rock slope stability on CR 308 – rockslide - The entire segment is narrow and there are rocks coming down.
- Traffic and seasonal constraints for paving. Construction windows are short in this segment.
- If put in WB lane, Fall River Road, need emergency vehicle access and pedestrian access.
- Fall River Road – parking problem. Makeshift park and ride and parking commercial vehicles here instead of in driveways.



- Truck Weigh Station at Dumont interchange – trucks are required to exit here to chain up and then merge back on into a steep grade. The short length of the WB on-ramp coming out of the weigh station causes trucks entering I70 to merge into traffic at a comparatively low speed. Also, the proximity of the actual WB on-ramp at this interchange with the weigh station ramp creates two merging situations in too short of a space.
- Ice issues along I-70 in the Fall River Road area(shade)
- Narrow bridges for PPSL, concern

#### **Segment D:**

- Bikeway that goes from Silverplume to Georgetown. Comes out in a private RR parking lot. Impacts RR business. Have it wide enough for E-vehicles.
- Basin-wide water quality needs
- Endangered fish species and protection of Loveland Ski Area.
- Noise at Silver Plume and other areas. The noise wall at Silver Plume is in disrepair.
- Blowing snow near and just west of the Georgetown interchange. This area seems to be especially prone to snow blowing across the highway which loads the pavement with snow and also reduces visibility. Often a short stretch of the pavement here will be covered with snow when the pavement on either side is dry.

#### **General corridor comments:**

- We are managing this specific, unique section of weather and geology – must treat maintenance when it snows differently and recognize and fund this differently or any highway improvement becomes a moot point. We are just adding more lanes of traffic to same old issues.
- Poor visibility, particularly during nighttime with inclement weather.
- Balancing minimization of roadway lighting in order to maintain dark skies in this rural-ish area with roadway visibility.

### **Next Steps and Action Items**

**HDR:** Will send out blank maps with original issues, so TT members can get with others to define any additional issues. Next week will send out maps that have the issues identified above plus others that were discussed in the meeting.

**CDR:** Will send out Meeting Summary for TT to review along with PLT/TT list, meeting materials and doodle poll for TT Meeting #3.

**Next TT Meeting:** Easter Seals on January 18<sup>th</sup>

#### **TT Homework:**

1. Complete Doodle Poll for TT Meeting #3 in February

2. Think about additional critical issues and send to facilitators.
3. Begin to consider concepts for segment 1.

## **Attendees**

Steve Durian, Stephen Harelson, John Muscatell, Adam Bianchi, Matt Christenson, Lizzie Kemp, Lynnette Hailey, Matthew Hogan, Kelly Larson, Gary Frey, Kevin Brown, Neil Ogden, Dennis Largent, Tracy Sakaguchi, Andrew Marsh, Cassandra Patton, Margaret Bowes, Many Wharton, Paul Winkle, Nicolena Johnson, Cindy Neely, Mary Jo Vobejda, Allan Brown, Steve Long, Jeff Wilson, Brandon Simao, Kevin Shanks, Tim Maloney, Benjamin Acimovic, George Tsiouvaras, Gina McAfee, Jonathan Bartsch, Taber Ward, (Phone) Linda Isenhardt, Suzen Raymond, Jo Ann Sorenson Steve Cook, Mitch Houston, Rick Albers

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