



Floyd Hill Design - Technical Team

Meeting Summary

October 28, 2022, 9 AM to 12:00 PM

CDOT Golden Office – Lookout Mountain Conference Room and Virtual (Zoom)

1. Introductions, Meeting Purpose and Project Updates

CDR Associates opened the meeting and reviewed the agenda.

The purpose of the meeting was to discuss:

- Project Updates
- Confirm Structure Aesthetic Elements & Greenway Master Plan
- Discuss Options for Sound Wall
- Introduce Roadway Integral Components
- Next TT Agenda & Next Steps

TT members confirmed the meeting agenda with no changes.

2. Project Updates

Funding: CDOT shared with the group that the funding gap has been closed for the full cost of the Floyd Hill project. The State Transportation Commission revised their 10-year plan, allocating funds to support the remaining need for this project.

Ground Breaking Event: Those who attended last week described it as a great celebration to kick off the early projects. Construction of the Genesee Wildlife crossing is slated to begin next week. Shortly thereafter, construction on the Roundabout at the top of Floyd Hill will begin.

TT members in attendance identified the prominent figures who spoke at the event including: Gov. Jared Polis, Sen. Bennet and Sen. Hickenlooper, House Rep. Neguse, State Rep. Lisa Cutter, Executive Director of CDOT Shoshana Lew, and Clear Creek Commissioner Randy Wheelock.

- **TT Comment:** In my remarks, I made an effort to highlight and celebrate the dedicated stakeholder engagement that has fueled this process, including all the hours of preparation and attendance for the TT and ITF meetings.



3. Confirm Structure Aesthetic Elements & Greenway Master Plan

The facilitators reviewed main topics from the last TT meeting, fielding the group for any further thoughts or comments on the Bridge Aesthetics and the Greenway Master Plan.

- **Facilitator Question:** Are there any outstanding questions and concerns?
- **TT Comment:** the photo used on this slide isn't entirely accurate of most UTD choices
- **Project Team Response:** You are correct, thank you for pointing out this detail- we will get that updated.

ACTION: CDR to change photo on slide.

TT Agreement: There are no adjustments or concerns with the Bridge Aesthetics as presented in the last TT Meeting.

Hearing no other thoughts, the facilitators prompted Trout Unlimited to share any main takeaways from their recent meeting on creek access and how that may apply to the Greenway Master Plan.

- **TT Comment:** The meeting went well. It involved many groups interested in the Greenway corridor including recreation groups and stakeholders from Idaho Springs in addition to those interested in the Aquatic and Riparian ecosystems.
- The group did not find as many conflicts between rafters and anglers as was expected.
- The rafters would like to have more put in and take out locations but there were opportunities that did not interrupt angler access or aquatic habitat.
- The group marked up the existing Greenway Master Plan with their thoughts.
- The next steps would be to take the results of this conversation back to the SWEEP team as a whole for review.
- Then some of these areas and considerations could be incorporated into the Greenway Master Plan.



TT Agreement: Trout Unlimited and SWEEP members will provide agreed upon additions for the Greenway Master Plan regarding aquatic habitat areas and recreation access areas.

- **Project Team Comment:** The Project Team noted that it is still in the phase of mapping opportunities, constraints, and challenges. The information gleaned from SWEEP will support understanding the breadth of interests and specific locations of importance for creek access and riparian habitat and will be used in conjunction with roadway elements to further advance design.
- **CPW Comment:** There are fish studies active along the project area (from Floyd Hill to Twin Tunnels) which are identifying important areas for spawning to reduce project impact.
- This information/data can be accessed by contacting Paul Winkle at CPW to incorporate into the Greenway Master Plan where necessary.

TT Agreement: To incorporate CPW data from fish studies into Greenway Master Plan and implementation planning.

ACTION: Add Paul Winkle to email list for TT meetings.

ACTION: Follow up with Paul Winkle about fish survey data

- **TT Comment:** The goal for the Greenway is to have a 30% design by the Spring 2023, at which point we can have more in depth conversations about tradeoffs and mitigation. This would also be the time to convene more ITFs.
- **TT Comment:** In relation to the Greenway, Clear Creek may be submitting an application for the GOCO Centennial Grant (deadline Feb. 3rd) to fund improvements to the Greenway Trail from Tunnel 5 and US 40. They would potentially partner with Jefferson County and this could provide support or matching for the Greenway project as a whole.

4. Discuss Options for Sound Wall

THK Associates presented renderings for a proposed Noise Wall within the West Section of the project (below). The renderings are meant to facilitate discussion around the differences in perception from road vs. pedestrians vs. nearby residences.



I-70 Floyd Hill to Veterans Memorial Tunnel
Noise Wall - Proposed Conditions



I-70 Floyd Hill to Veterans Memorial Tunnel
Noise Wall - Proposed Conditions





- **TT Comment:** There are similar sound walls along C-470 and they have created shading along the multimodal path, which leads to ice on the trail. This will depend somewhat on how far away the wall is from the trail, but that is a concern.
- **TT Response:** This is an important consideration, although Idaho Springs will maintain the adjacent trail which should reduce icy spots.
- **Project Team Comment:** The height of the wall is based on sound models and the position/location in relation to the highway and the trail is based on the location of underground utilities, aiming to reduce disturbance.
- **TT Comment:** Idaho Springs is excited about this wall for the benefits to community members. However, there are some concerns for safety as this wall blocks a section of the road from the creek which could impact emergency response access.
- **TT Question:** Are there other options to these plain panels? Other structure types?
- **Project Team Response:** This rendering is certainly not a final design, just a first look at the location of the wall. In terms of materials, the tradeoff becomes cost and weight.
- **TT Comment:** There are examples of sound walls that blend better with mountain landscapes, incorporating variable heights and an irregular edge for example.
- **Project Team Response:** It would be helpful if you want to send us pictures of examples of sound walls you like. This rendering depicts a wall of 16 ft, however the model required a wall from 14-16 ft which allows for some variation in height.

ACTION: TT members to keep an eye out for good examples of sound walls that blend well with the environment and share with THK.

- **TT Comment:** This image as shown does not blend well with the surroundings, even making it a similar tan color to the bridge structure would make it look better.



TT Comment: There is a great example from Vicksburg, MS where they used their flood wall as a mural project. This could be an opportunity to do something similar (www.riverfrontmurals.com).

- **Project Team Comment:** Another consideration in regards to this Sound Wall is what information/images we want to present to the community in a survey for their comments. We are not on a tight timeframe, as other construction elements are not dependent on the wall, so we do not need to feel rushed.
- **TT Response:** What we show the public may depend on what we would like comments on, whether that is the location of the wall or the appearance. If we want to ask them about the location, we could use these renderings, however, we may still get lots of comments about the appearance and folks misunderstanding.

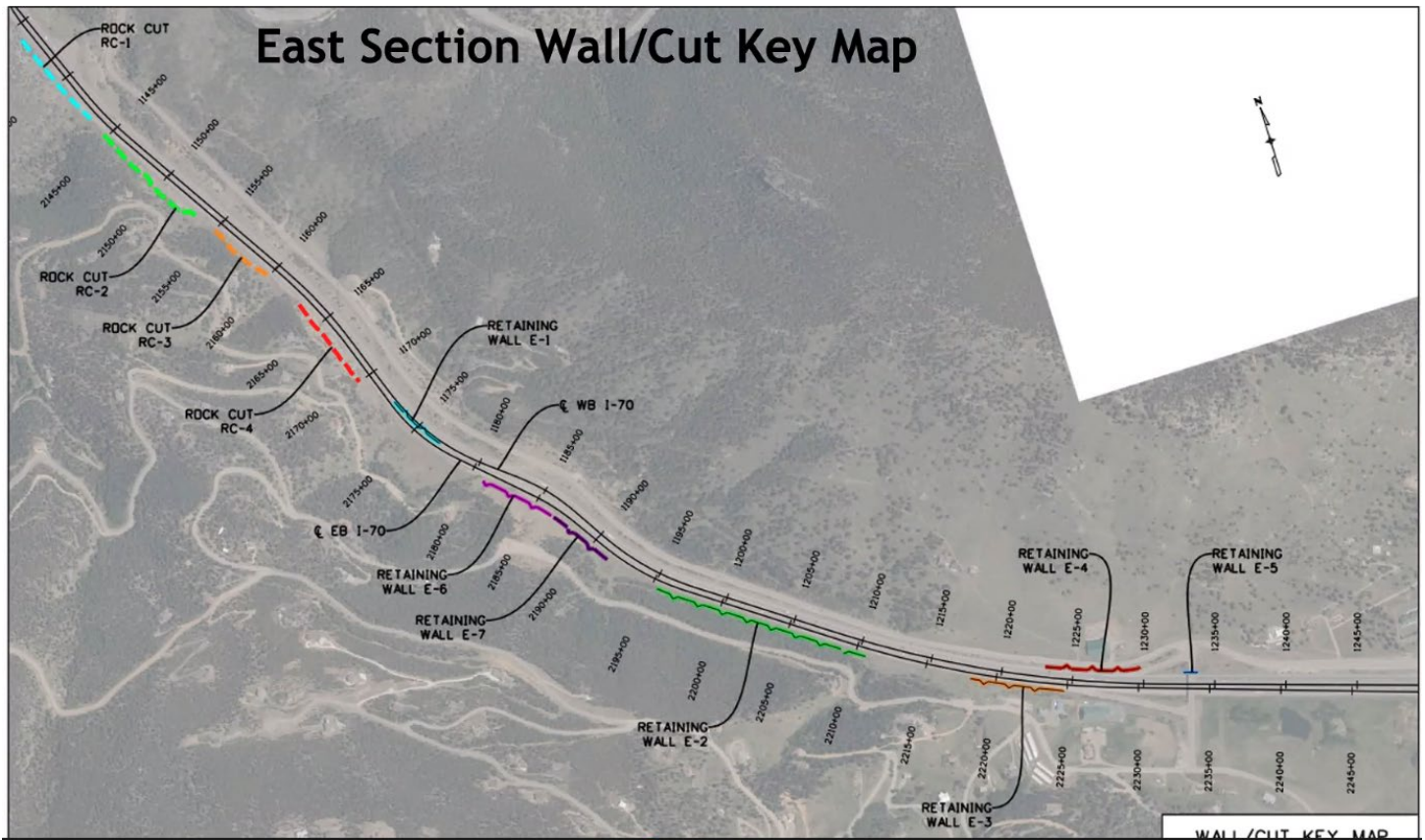
ACTION: THK to continue to refine Sound Wall renderings.

ACTION: Project team to determine what information to share as Community Survey about Sound Wall.

5. Introduce Roadway Integral Components

HDR presented the map below indicating the locations of all Rock Cuts and Walls in the East Section. The team is approaching 60% Design, with the caveat that the team is working to attain additional geotechnical information.

- **TT Question:** What are the plans for obtaining the appropriate amount of geotechnical information?
- **Project Team Response:** We should have it soon. Some drilling has been accomplished, however there were some unforeseen issues with the drilling machine. The new date for acquiring more information is Nov. 11th. As soon as we have that additional information, we can get more specific about the types of rock cuts and walls at each location indicated.



Note: Most walls are on S Side/Upslope side of roadway.

HDR walked the TT through each Rock Cut and Retaining Wall location with as much detail as possible at this point:

- **East Section Rock Cut (RC)** varies from 500 ft long to 900 ft long, with max heights from 15-20 ft.
- **East Section Retaining Walls:**
 - E1- located in the median, 460 ft length, 5 ft tall
 - E2- (S of highway) 1500 ft length, 16 ft tall
 - E3- (S) 660 ft length, 11 ft tall
 - E4- (N of highway) 675 ft length, 5 ft, cut wall below US 40
 - E5- (N) 110 ft, 4 ft tall
 - E6- (S) 450 ft, 25 ft tall
 - E7- (S) 250 ft, 20 ft tall



- **TT Comment:** E4 is right by the entrance to Floyd Hill park on the N side. Will we need to consider potential road widening for the turn lane?
 - **Response:** No, that should not be a problem.
- **TT Comment:** The area between E1 and E6 is an evacuation area. Will that be affected?

Project Team Response: That will not be affected.

The Project Team then presented some images of wall types to consider aesthetics.

Aesthetics: Consistency of wall types is essential to reduce visual clutter/reduce distractions from the natural environment.

Wall Types: Infrastructure or Landscape walls- there are a few places where the walls could be either vs. places they need to be infrastructure walls.

Project Team Comment: At this time, we want to get on the same page about how many walls, where they are, and start thinking about what they will look like.

- **TT Question:** can these walls help with erosion?
- **Project Team Response:** The roadway redesign should help with runoff management which should reduce erosion in this area and reduce sheet flow.
- **TT Comment:** The roundabout project includes a shotcrete wall, which may influence what we want some of these other pieces to look like.

6. Next Steps

The TT will continue taking a closer look at the details introduced today in addition to more details as they become available.

The Project Team thanked everyone for their time and concluded the meeting.



Summary of Action Items and TT Agreements:

ACTION: CDR to change photo on slide

ACTION: Add Paul Winkle to email list for TT meetings

ACTION: Follow up with Paul Winkle about fish survey data

ACTION: TT members to keep an eye out for good examples of sound walls that blend well with the environment and share with THK

ACTION: THK to continue to refine Sound Wall renderings

ACTION: Project team to determine what information to share as Community Survey about Sound Wall

TT Agreement: There are no adjustments or concerns with the Bridge Aesthetics as presented in the last TT Meeting

TT Agreement: Trout Unlimited and SWEEP members will provide agreed upon additions for the Greenway Master Plan regarding aquatic habitat areas and recreation access areas

TT Agreement: To incorporate CPW data from fish studies into Greenway Master Plan and implementation planning

6. Attendees

Cindy Neely, Amy Saxton (Clear Creek County); Lisa Wolff (Floyd Hill POA); Mike Raber (Clear Creek Bicycle User Group); Lynnette Hailey (City of Black Hawk); Brian Dabling (FHWA); Sam Hoover (Central City); JoAnn Sorenson (Upper Clear Creek Watershed Association); Dale Drake (Clear Creek Rafting Company); Steve Durian (Jefferson County); Steve Cook (DRCOG); James Proctor (Bridge Enterprise/AECOM); Paul Winkle (CPW); Tracy Sakaguchi (CMCA); Gary Frey (Trout Unlimited); Kurt Kionka, Jeff Hampton, Tyler Brady, John Gregory, Margo Mcinnis, Badr Husini, Ryan Sullivan (CDOT, CTIO); Anthony Pisano, Matt Aguirre, Alan Carter (Atkins); Matt Hogan, Koichiro Shimomura, Brandon Simao, Austin Knapp, Tim Maloney (Kraemer); Tammy Hebron (HDR); Mandy Whorton (Peak Consulting Group); Julie Gamec (THK Associates); Jonathan Bartsch, Daniel Estes, Cara Potter (CDR Associates).