



## Floyd Hill Design - Technical Team

### Meeting Summary

June 10, 2022, 9 AM to 12 PM

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

#### 1. Introductions, Meeting Purpose and Project Updates

CDR Associates opened the meeting and welcomed participants. The purpose of the meeting was to review Central Section Major Alignment TT Recommendations, review West Section Major Alignment Innovations, and review and discuss West Section ITF Recommendations.

##### Project Updates:

- **New CDOT Project Team Members:** CDOT stated that Tyler Brady and Badr Husini would be joining the Project Team.
- **Young Ranch LLC:** Central City provided an update on the Young Ranch gravel mine that is adjacent to the Central City Parkway. Central City completed the final annexation of the property the week prior to the TT meeting. Bob Young anticipates developing a quarry in the area, which could increase the number of trucks at the Hidden Valley intersection. CMCA anticipates most trucks from the quarry will be loaded with less weight so they can remain on US 6. Gilpin County suggested inviting Bob Young to present to the TT.
  - **ACTION:** Idaho Springs to share the date of the permitting hearing for the quarry with the TT.
- **Emergency Responder ITF:** The Emergency Responder ITF will take place Friday, June 17 to provide input on the Central and West Section Innovations.

#### 2. Review Central Section Alignment Innovations and Discuss Key Issues

Atkins shared graphics for the Central section alignments: Preferred Alternative, Braided Bridges Option, and the Eastbound Down Option. He noted these Innovations do not impact the US 6 Interchange.

Clear Creek County noted the County's concern that the Braided Bridges option could create problems during deicing and snow removal due to the product CDOT uses in these processes. Salinity and the impact on vegetation underneath the viaduct was articulated in the Braided Bridges option because it may require more deicing product than other options. There are also potential negative impacts from aerosols. CCC suggested that CDOT's Maintenance department be involved to better understand these issues, to which CDOT responded that Maintenance had been engaged. Idaho



Springs noted that a secondary impact from damaged or dead vegetation is an increase in fire danger.

- **TT Question:** Would sand be a better option than the newer deicing products used by CDOT?
  - **Response:** A TT member with winter maintenance experience said he does not advocate for sand over other deicers and noted that sand has its own drawbacks. He supports the Braided Bridges option.
- **TT Question:** Is CDOT still using sand in the corridor?
  - **Response (CDOT):** CDOT uses sand very rarely, and only when absolutely necessary.

It was noted that because the Preferred Alternative is the option that has the most amount of viaduct structure, it may require the most deicing product. Braided Bridges has less structure than the Preferred Alternative, while the Eastbound Down option has the least structure across the three options and therefore may require the least amount of product, but has its own disadvantages.

- **TT Question:** Could you channelize the runoff from the viaduct structure to treat it?
  - **Response (Atkins):** CDOT has considered channelizing runoff but the process gets more challenging the further the water needs to go.
- **TT Question:** Where will the deicing runoff go from the viaduct?
  - **Response (CDOT):** This will require further evaluation as the design progresses.
- FHWA noted that bridges tend to ice faster, meaning more deicer will be required with more structure.
- Atkins noted that the Project Team is capable of engineering solutions that will channel runoff to a desired location.
- **TT Question:** Has CDOT looked into pavement heating technologies to help with deicing?
  - **Response (CDOT):** Such technologies are currently cost prohibitive.
- **TT Question:** Is it premature to recommend an option before SWEEP has an opportunity for its review?



- **Response (CDOT):** SWEEP is planning to meet in July to review the Central Section, but as long as there are no red flags we should be good to move forward.

Clear Creek County said the TT still needs to hear from the Emergency Response ITF and CDOT maintenance, but at this point the TT can say that, pending ITF and Maintenance review, the Braided Bridges is the option recommended by the TT.

- **TT Agreement:** The group will move forward with the Braided Bridges option as its recommendation for the Central Section, pending ITF review.

Idaho Springs and Clear Creek County noted they would need to present the TT recommendations to their municipal leadership and scheduling the presentations may take some time.

- **ACTION:** Project Team to summarize options, advantages, disadvantages, and graphics for Central and West Section Major Alignment Innovations for TT members to present to their respective leadership.
- **ACTION:** Clear Creek County and Idaho Springs to schedule leadership presentations as soon as final TT recommendations are made.

#### **4. West Section Major Alignment Innovations Introduction**

CDR Associates began the discussion of the West Section Innovation Evaluations by noting that the West Section ITF had met to begin the evaluation process and the group had been able to reach a recommendation that the “North Option” provides the most benefit. The goal of the current TT discussion is to explain the rationale for that recommendation, while providing the TT a more detailed description of the options, and to check if the TT was aligned with “North Option” moving forward.

Atkins reviewed the West Section Preferred Alternative. There are risks associated with the rock cuts because there may be more rock cut necessary than currently identified. The Preferred Alternative involved a significant utility relocation, creek realignment, and impacts to dry-stack walls of Veterans Memorial Tunnel.



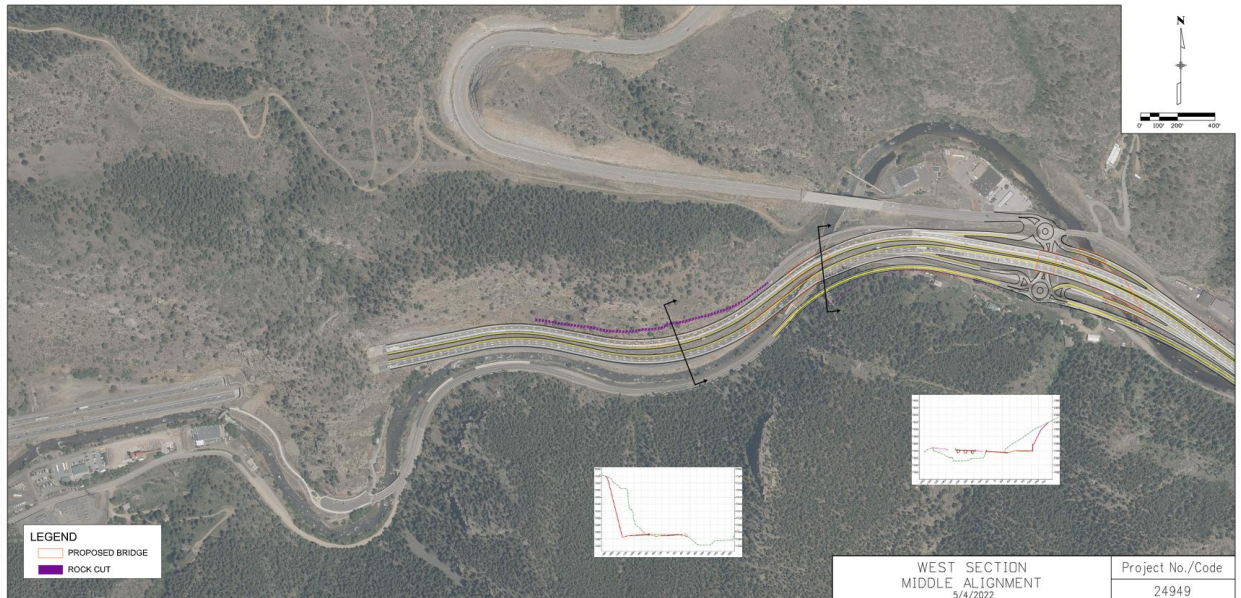


**Preferred Alternative:**



Atkins outlined the two proposed innovation options for the West Section: the “Middle Option” and the “North Option.” He reminded the group that a primary goal for these options was to mitigate impacts to the creek and to CR 314.

- **Middle Option:** This option includes rock cuts, but removes impacts to CR 314 closer to the Veterans Memorial Tunnel. This option removes the need to relocate the creek.

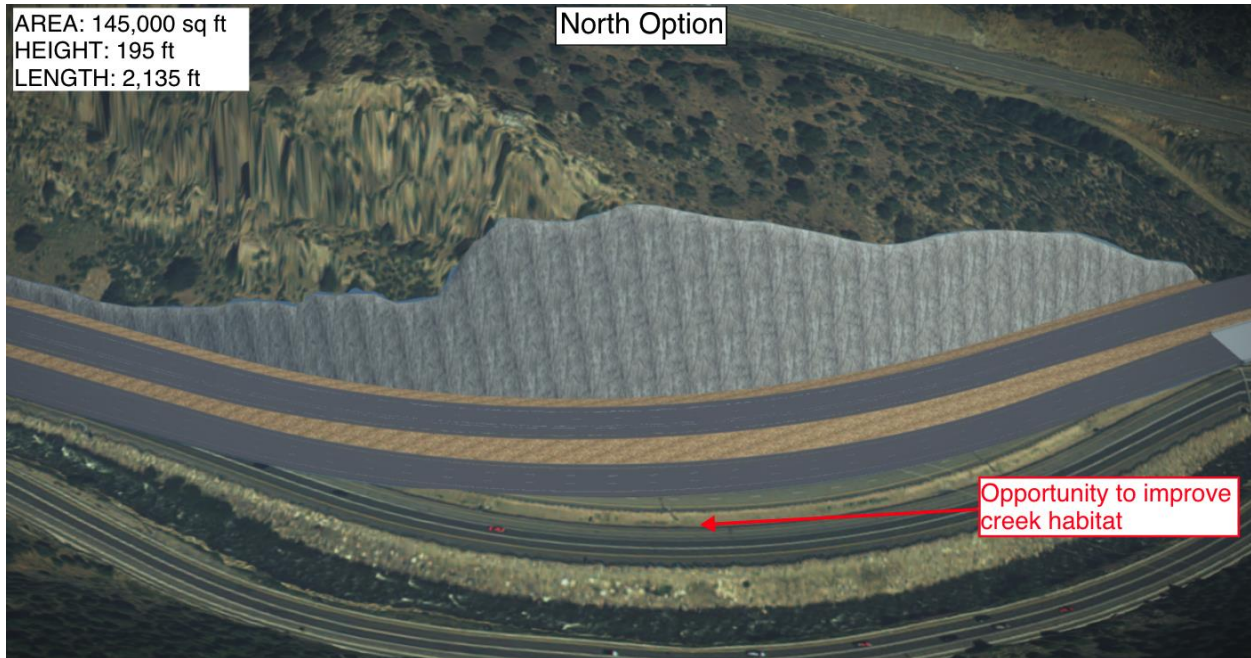
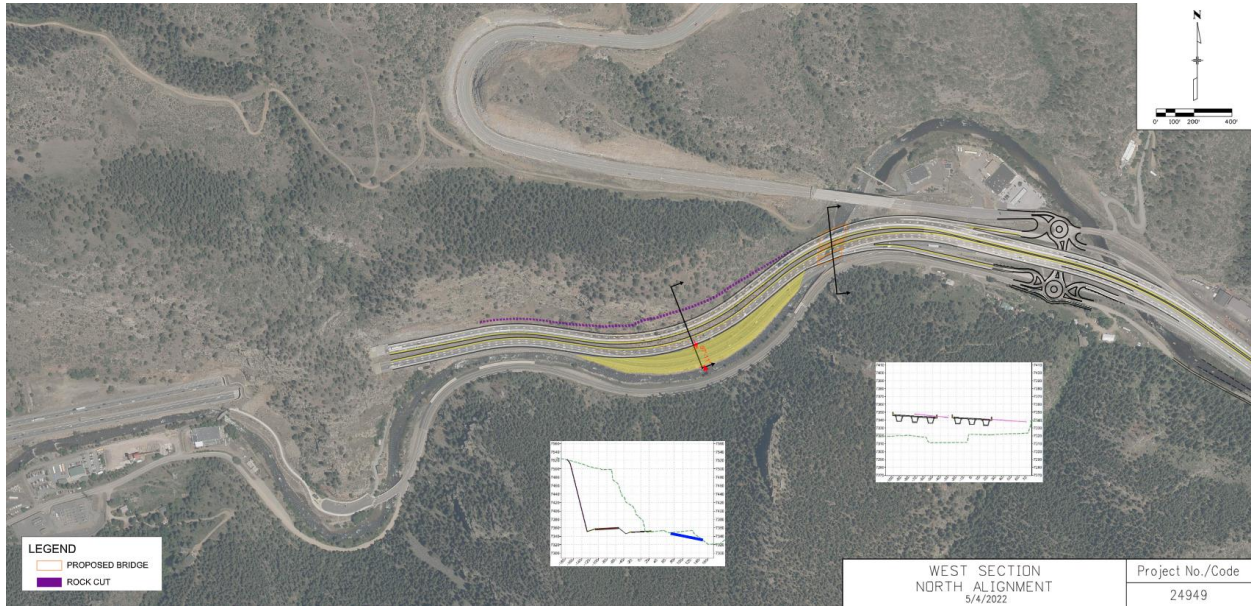


- **North Option:** This option removes all of the impacts to CR 314 and the creek, but it includes a larger rock cut. This option features no rock cut on the south side of CR 314 and no impacts to the walls. All impacts would be contained to the



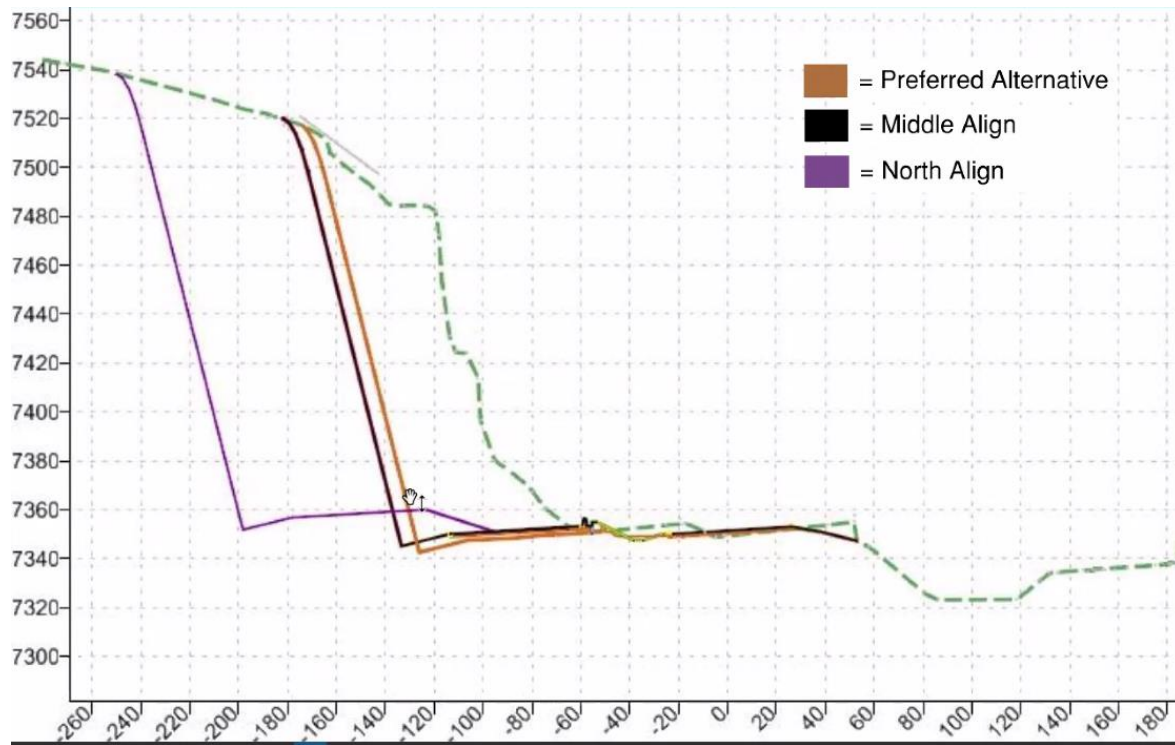


north side of I-70. This option opens up more opportunities for recreation access and creek restoration.





Atkins shared the image below depicting the differences in rock cut between the options:



CDR then presented the West Section matrix developed by the ITF, highlighting the benefits identified for the North Option, while also reviewing the Measures of Success. The full breakdown of the benefits and drawbacks between the Preferred Alternative, Middle Option and North Option can be found in the [West Section Evaluation Matrix](#).

The major benefits for the North Option include:

- Avoids creek relocation, utility relocations, private right-of-way acquisition
- Improved opportunity to provide new trail and creek accesses and Greenway amenities
- Requires less rock excavation on CR 314 and more on I-70 compared to the Preferred Alternative
- Incident management and fire response maintained during construction (no closures of CR 314 required)
- Less expensive than Preferred Alternative
- Allows for creek and riparian areas restoration
- Improved sight distance for EB off ramp for HV/Central City Pkwy



**TT Agreement:** Pending ITF review, the North Option will be the TT's recommendation to advance.

#### 4. Next Steps

The next TT meeting will focus on reviewing Emergency Responder ITF input, discussing and potentially confirming the recommendations, and introducing the East Section Innovations.

#### ACTION ITEMS

- **ACTION:** Jonathan Cain, Idaho Springs, to share the date of the permitting hearing for the quarry with the TT.
- **ACTION:** Project Team to summarize options, advantages, disadvantages, and graphics for Central and West Section Major Alignment Innovations for TT members to present to their respective leadership.
- **ACTION:** Clear Creek County and Idaho Springs to schedule leadership presentations as soon as final TT recommendations are made.

#### AGREEMENTS

- **TT Agreement:** The group will move forward with the Braided Bridges option as its recommendation for the Central Section, pending ITF review.
- **TT Agreement:** Pending ITF review, the North Option will be the TT's recommendation to move forward.

#### 8. Attendees

Cindy Neely, Amy Saxton (Clear Creek County); Bill Coffin (Saddleback POA), Lisa Wolff (Floyd Hill POA); Lynnette Hailey (City of Black Hawk); Jessica North (Clear Creek School District); Mike Raber (Clear Creek Bicycle User Group); Margaret Bowes (I-70 Coalition); Melinda Urban, Elizabeth Cramer (FHWA); John Curtis (Idaho Springs); Dale Drake (Clear Creek Rafting); JoAnn Sorensen (UCCWA); Sam Hoover (Central City); Jonathan Cain (Idaho Springs); James Proctor (Bridge & Tunnel Enterprise); Steve Durian (Jefferson County); Tracy Sakaguchi (CMCA); Ashley Giles (Trout Unlimited); Gary Frey (Trout Unlimited); Joe Walter (CPW); Vanessa Halladay, Kurt Kionka, Tyler Brady, Jeff Hampton (CDOT); Anthony Pisano, Matt Aguirre, Alan Carter, (Atkins); Koichiro Shimomura, Brandon Simao, Austin Knapp, Tim Maloney (Kraemer); Tammy Hebron (HDR); Mandy Whorton (Peak Consulting Group); Kevin Shanks (THK Associates); Jonathan Bartsch, Daniel Estes (CDR Associates)