



Floyd Hill - Project Leadership Team

Meeting Summary

September 16, 2022, 9:00 AM to 12:00 PM

CDOT Golden - Lookout Mountain Conference Room and Virtual (Zoom)

1. Introductions, Agenda Review, General Updates

CDR Associates opened the meeting and reviewed the agenda.

The purpose of the meeting was to:

- Review Revised Preferred Alternative and Endorsed Alignment Innovations
- Review CSS Decision Making Process and TT Meeting Frequency
- Discuss Plan for Public Involvement Process
- Review Project Schedule, Upcoming Milestones, and Next Steps

Project Leadership Team (PLT) members confirmed the meeting agenda with no changes.

General Project Updates:

- Federal INFRA grant: CDOT received a \$100 million grant to close a significant portion of the existing funding gap for this project (\$250 million). This is the largest single grant in the history of CDOT, maybe the state. This is a testament to the caliber of the project on the national scale. A contingency of winning the grant was the commitment to closing the remaining gap.
- Idaho Springs Mobility Hub: this adjacent project is planned at exit 240. CDOT had previously committed \$4.4 million and Idaho Springs \$4 million. CDOT pledged an additional \$1 million recently which also reaches closer to the total projected cost of \$13 million.
- Peaks to Plains Summit: Stay tuned for the details on the forthcoming date and time of the summit. This adjacent project is a collaboration between Clear Creek County and Jefferson County to connect the Greenway to the Plains. The portion of the Greenway along the Floyd Hill project area is a vital part of this recreational corridor.



- Young Resources Ranch Quarry: The quarry has received necessary permitting and will be moving forward with operations. This quarry is located along Central City Parkway, near the Gilpin County/Clear Creek County line. The operations will impact the Floyd Hill project area and should be considered in further design refinements.
- Early Projects Update: The Genesee Wildlife Crossing and Roundabout projects went up to bid yesterday. CDOT received a good number of bids and construction of these projects is projected to start in October/November of this year. There will likely be a Groundbreaking ceremony to kick off these projects as the official start of the Floyd Hill construction.

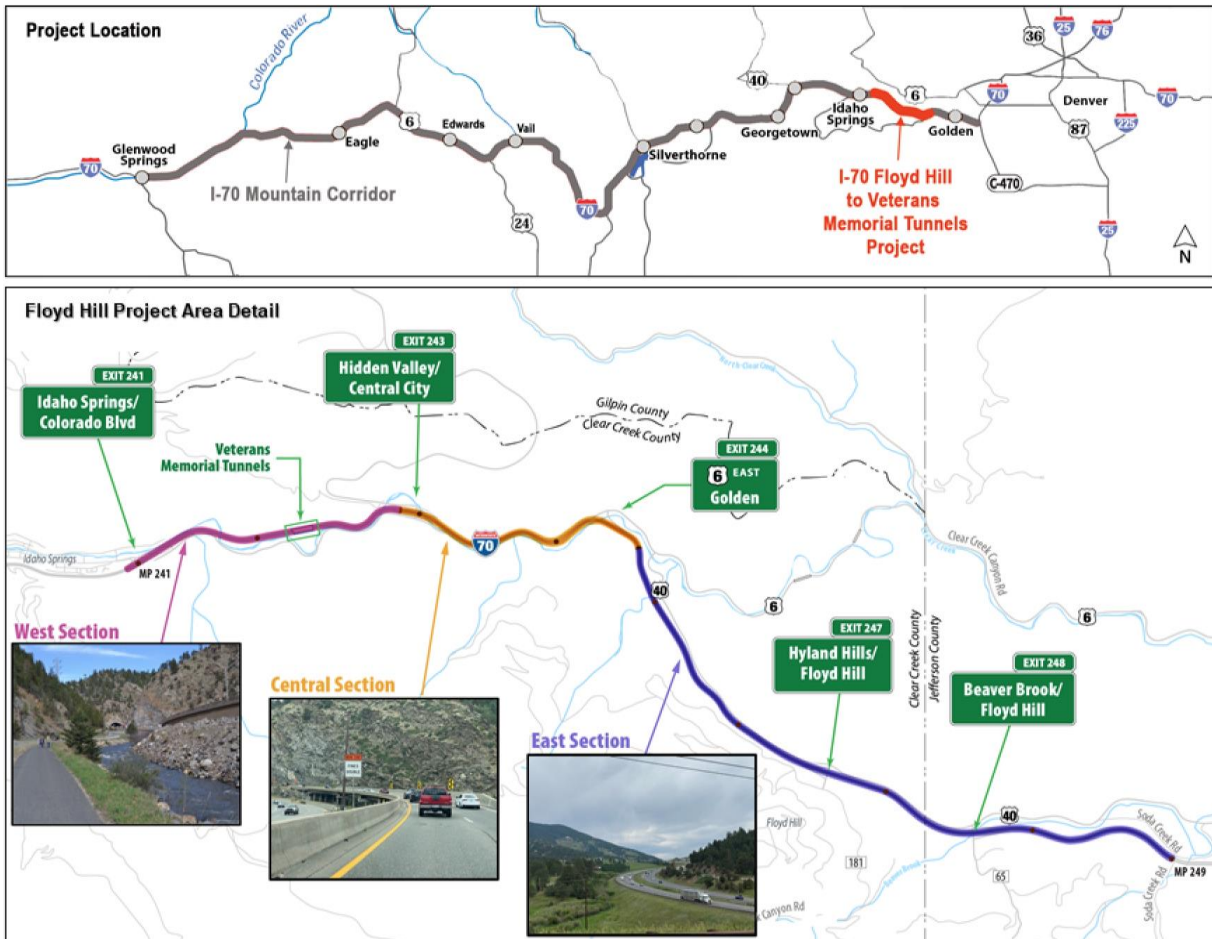
2. Review Revised Preferred Alternative and Endorsed Alignment Innovations |

Objective: PLT understands the updated endorsed alignment, including individual innovations, and TT evaluation process

Over the past few months, the Floyd Hill Technical Team (TT) successfully worked its way through a series of innovations to develop upon the Preferred Alternative 2021 (PA21), yielding the Revised Preferred Alternative 2022 (RPA22).

A focal point of this meeting was to review the RPA22 by section, bringing the PLT up to speed on the major design innovations. The PLT was not tasked with providing input directly on the design innovations, but rather, the process by which the RPA22 was developed.

CDR Associates reviewed a map of the project area, indicating the major sections: West, Central, and East. The team noted that the Central Section, despite being the shortest section of the corridor, presented the most design challenges and incorporated a majority of the design innovations.



The Approved Alignment and Innovation Decisions include:

- The North Option in the **West Section**
- The Terraced Alignment, Bottom of the Hill Option, North of the Creek Option, the removal of US 6 WB On Ramp, and the West Saddle Refinement for the **Central Section**.
- **PLT Comment:** as someone involved in every TT meeting, this list of innovations represents a very thorough and diligent process- built on strong foundational ideas many of the PLT participated in over the past 5 years. The process really centered around teamwork for trying to design the best project possible.
- **Facilitator Comment:** The level of engagement and dedication to the process has been very impressive. I want to recognize the consistency and commitment of the TT members during this concentrated period of effort.



The Project Team proceed to walk through summaries of each innovation by section:

West Section: North Option

The primary benefits of this innovation are:

- Avoiding creek location in this area, which avoids utility relocations and private right-of-way acquisition.
- New trail and creek accesses and Greenway amenities:
 - The TT incorporated perspectives from the rafting and angling communities which provided valuable insight on this front.
- No closures of CR 314 are required, which better maintains Incident management and fire response access
- Allows for creek and riparian areas restoration: The option preserves a much larger area of the North bank of Clear Creek for restoration.
- Improved sight distance for EB off ramp for HV/Central City Pkwy
- Less expensive than PA21



- **PLT Question:** Do you expect that US 6/Frontage Rd will be used more heavily during construction?



- **Construction Team Response:** Not necessarily, our goal is to disturb existing I-70 traffic as little as possible to keep traffic moving on the existing interstate.
- **PLT Question:** Will there be opportunities to add some trees and plants on that bank North of the creek?
 - **Design Team Response:** Yes, definitely, there is a great opportunity for landscaping in this riparian bank area. We are currently between 30-60% design and those details should come into play as we progress the design.
- **Design Team Comment:** The Greenway trail along this section of the corridor will not be changed greatly, just resurfaced with concrete.

Central Section: Terraced Alignment

The primary benefits of this innovation are:

- Reduced rock cut and fewer total rock blasts resulting in less impact/risk to traffic
- Greater recreational opportunities such as parking and creek access.
- More opportunities for creek enhancements, improved habitat and wildlife compared to the alternatives
- A better fit with the geometry of the creek & canyon
- Similar construction duration as 2021 PA



(Above: RPA22 // Below: PA21)



- **PLT Comment:** I like that the Terraced alignment creates a visual separation between the EB and WB lanes; it breaks up the block of interstate. It seems like



a better feel for travelers, almost like you're on a two lane road driving through the mountains- similar to Vail pass.

- **Project Team Response:** Definitely, that is something we like as well.
- **PLT Question:** Considering the closures that have occurred in Glenwood Canyon- have you considered how this design may create road closures due to rock fall or fire?
 - **Construction Team Response:** This is a great point and something we're taking into consideration. Resiliency has played a key role in the design process so far and will only become more of a focus as we move into discussions of specific fire mitigation strategies. This innovation does reduce overall rock cut which should reduce potential for rock fall.

Central Section: Bottom of the Hill

The primary benefits of this innovation are:

- The best construction access, as close to the bottom of the slope as possible:
 - The main question for this section was how to make this more constructible while maintaining the parallel goals of the project.
- This reduces disturbance of the hillside which reduces the risk of landslides/geotechnical hazards
- Reduced construction cost:
 - Reduced structure for the EB lanes
- The continuous shadow of a taller roadway will be beneficial for revegetation/stabilization of hillside





(For both Above and Below, L: PA21 // R: RPA22)



- **PLT Question:** So all of the roadway in the lighter color is elevated?
 - **Response:** Correct.
- **PLT Question:** How tall is the WB structure?
 - **Design Team Response:** 140ft at its highest point. The height of the structure aims to decrease the grade of this section of the interstate. There is a steep change in elevation, so the higher structure is needed to flatten that out.

Design Team Comment: Our goal is to reduce impact to existing traffic during construction. The Bottom of the Hill provides better construction access from US40 rather than I-70.

- **PLT Question:** Does this innovation incorporate anything to eliminate or reduce the glare closures in this area? Are there any technical workarounds for this, as it does cause significant impact to interstate traffic?
 - **Response:** Unfortunately, no. We spoke about the glare closures in the TT meetings but there is not a simple design innovation to address this issue- that was not one of our key priorities. Decreasing the grade of the hill may assist a bit but the glare was not our focus.
- **Project Team Comment:** I am glad you raised this point. We will likely hear more questions about this from the public as they receive more information about the project. There is not an easy workaround for the sun. But these questions are something we should be prepared for.

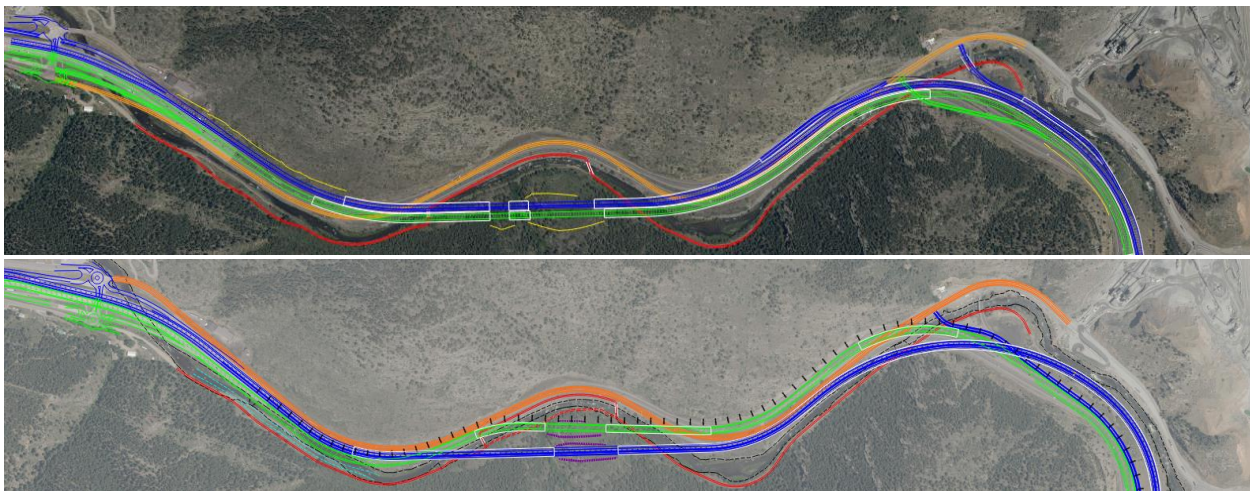


- **Project Team Comment:** That may align with the design details like fire mitigation, salinity, and revegetation. We were trying not to get bogged down in these details while working on the major roadway/design innovations, however they can be addressed as we develop these designs through the next stages.
- **PLT Comment:** The US 6 and 40 intersection is another tricky area when I-70 is closed- have you all discussed a roundabout or a signal there?
 - **Facilitator Response:** That has been discussed through our TT but it is outside of our project limits- at least for now. We have been on a short timeline and have been trying to stay focused on the roadway design. We don't mean to ignore these adjacent issues/projects but we have needed to impose discipline in our thinking to focus on the alignment decisions between the PA21 and RPA22.

Central Section Narrows: North of the Creek Option

The primary benefits of this innovation are:

- Increased constructability and congestion reduction:
 - This option also provides better construction access from US 6, minimizing impact to the traveling public.
 - Constructability has been a big part of these innovations and underlines the benefits of incorporating CM/GC with the CSS Process.
- Better alignment with existing geometry of canyon and creek
- Reduced cost of construction
- Avoids impacts to Greenway and Clear Creek
- Moving the WB I-70 on ramp to 244 allows for better mainline I-70 alignments





(Above: PA21 // Below: RPA22)

(No questions or comments from the PLT on this innovation)

Central Section: Removal of US 6 WB On Ramp

The primary benefits of this innovation are:

- Reduced structure at the US 6 Interchange, which provides more space for improved geometry of the EB lanes
- Improves constructability
- Reduces costs
- The design without the US 6 WB On Ramp does not preclude the future addition of an on ramp, would just require a relocation to the West.
- **Construction Team Response:** removing 30 feet of structure provides much needed flexibility in this narrow area that will ensure safety and avoid impacts to the existing roadway.

Central Section: West Saddle refinement

The ITF that deliberated on this innovation did not feel that the benefits of this refinement outweighed the impacts to Greenway corridor impacts and environmental impacts. This is an example of the benefit of this design deliberation process- not all innovations were carried forward. In this way, the sum total opinion yields the best possible designs and the best possible project.

3. Review CSS Decision Making Process and TT Meeting Frequency | Objective: PLT evaluates the CSS process to date and provides input regarding the TT's role in the next phase of the project

The Project Team presented a review of the CSS decision making process, specifically in relation to the design innovations thus far, and asked the PLT for any feedback and thoughts on how this could be adapted moving forward.

The Project Team also shared a note on a recent discussion within the TT that underscored important aspects of the CSS decision making process. Specifically, the importance of grounding the process in the agreement to move forward with the Canyon



Viaduct Alternative rather than the proposed Tunnel Alternative (from ~5 years previous).

The Design/Construction Teams reviewed the main reasons the Tunnel Alternative was not pursued and noted that they were compiling a detailed memo that would provide a more comprehensive review of this foundational decision. Publishing this memo will clearly document this decision and field any lingering questions from the community as this project becomes more publicly visible and scrutinized.

- **TT Comment:** To add perspective on the discussion that arose in our last TT meeting. The TT member highlighted concerns such as fire mitigation and recreation impacts, however it was agreed that the tunnel option is not the appropriate remedy for these concerns. Rather, forthcoming ITFs will address these details.
- **TT Comment:** I agree and would like to add that there are some standing ITFs as a part of this process, such as the Emergency Responders. Maintenance should be incorporated from the start of the design process. They have a very valuable perspective to ensure design has longevity.

The facilitators noted that this has been an extraordinary process and they are amazed by the dedication of the TT so far.

- **TT Comment:** The complexity of the project has meant we have to be clear in our goals- what are we trying to design vs. trying to improve upon existing design. Now our process turns to all the details and we need to discuss how it is guided by all the criteria: aesthetic guidelines, measures of success, etc.

~ 10 minute break ~

The Project Team wanted to hear from the PLT about the current process and how to adapt this process moving forward:

Review Schedule and Next Steps:



PLT / TT / ITF Design Issue Schedule	2022															
	May		June		July		Aug		Sept		Oct		Nov		Dec	
Topic	2nd	4th	2nd	4th	2nd	4th	2nd	4th	2nd	4th	2nd	4th	2nd	4th	2nd	4th
Innovations and VE																
Central Section (East of Hidden Valley)	◆	◆	★													
West Section		◆	◆	★												
Central Section (East end & near US 6)				◆	◆	◆	◆	★								
East Section Rock Cuts / Walls, WQ								◆	★							
Emergency Response ITF			◆		★											
SWEEP - Updated Pref and WQ, Salinity							◆									
Greenway, Sawmill Gulch, and Recreation Access																
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Riparian and forested areas, rehab old road																
Roadside barrier types and color																
Signing and lighting (dark sky)																

◆ TT or ITF Meeting
 ★ Topic Complete

- **TT Comment:** This is purely an organizational idea, but it seems that the tasks to come (listed below the solid line in the schedule above) include some things that apply to the whole project vs. area specific issues. We could define which is which and organize them accordingly. However, I don't think the TT is the spot for the Communication Plans, the PLT is.
 - **Response:** Later on the agenda we want to discuss the PILT, but yes, you're right- the TT is not responsible for the Public Engagement Planning.
- **Construction Team Response:** In terms of deciding which next steps are project wide- for example, rock cuts are project wide, However, the rock cut sites are very different and unique. So we may need to start generally but specify in relation to specific areas.
- **PLT Comment:** It is important to ensure the list is more complete. It doesn't need to be entirely exhaustive but making an effort to make it more complete is necessary.
 - **Response:** What is missing? Wildfire mitigation, water quality (potentially an additional SWEEP meeting?), maintenance aspects
- **TT Comment:** We can use the CSS Matrix to ensure the items in that matrix are covered. That's in some sense, what the matrix is for, to refer back to and ensure we are addressing all those goals/ideas as we move through the project.
- **Facilitator Comment:** In reference to the Matrix, for the benefit of the PLT members, as we moved through the design decisions, the full matrix became



cumbersome for each individual decision. However, can certainly be used to ensure all those considerations are included in the next steps.

- **TT Comment:** I think the matrices are a tracking device more so than a decision making document. They will be very helpful transitioning into construction/maintenance phases. A form of cross reference tracking.

Agreement: The matrices will be used as a tracking device to ensure all considerations are incorporated into the next steps of the design phase.

The Project Team then posed a question to the PLT and TT members: what makes sense for the TT meeting frequency moving forward? Once a month TT? With ITFs interspersed?

- **TT Response:** Well that depends on the schedule of the Design Team and Construction Team's schedule, no?
 - **Construction Team Response:** Yes, but I think we can work simultaneously in some cases.
- **TT Question:** How would this list of considerations work alongside projects in motion?

ACTION: The overall delivery schedule from the Design/Construction Teams will be created and brought to the next TT meeting.

The Project Team identified that, priorities on the design/construction schedules coming up include: Walls, East section resiliency and rock cuts, and Public involvement for early projects.

- **Design Team Comment:** Design and Public Information do go hand in hand in this process so we will have to work collaboratively to disseminate information proactively.
- **TT Comment:** we could structure TT meetings to have all these design detail items as discussion items each month and we would respond adaptively to the most pressing items each month. In this way, we could create a schedule of meetings- driven by construction schedule, and ensure the TT knows where we are going.



- **Response:** Let's table that and come back to TT to decide an organized structure of the agenda items/addressing each topic. We can return to the PLT with a few options for them to consider.
- **TT Response:** I like the idea of having all topics on the roster, to track- but the agenda is driven by design and construction schedule. That way, we won't have to discuss them specifically each meeting but rather, we can stay aligned with the design/construction schedules.
- **Question:** I think it is also important to establish what the role of the TT is during the design/construction phase? To what degree do we weigh in on design decisions moving forward? Should we rely more on ITFs to incorporate more specific expertise into those decisions and bring them back to the TT for final approval?
- **TT Comment:** In some cases it may be necessary for the Design Team to come to the TT to present information and check that those choices align with our goals/guidelines. In that way the TT will serve as a forum for feedback.

ACTION: TT will discuss the approach of the TT moving forward and the decision to have monthly TT meetings and follow up with the PLT.

4. Discuss Plan for Public Involvement Process | Objective: PLT provides input on initial public outreach process

The Project Team presented a brief summary of upcoming public information dissemination and involvement, asking for the PLT to weigh in on the public involvement.

Current Outline:

- Electronic communications/information dissemination of RPA22 rather than public comment period
- Spring '23 public meeting
- PILT formation and timeline development
- **Project Team Question:** Does this seem like a reasonable approach? Which elements do we want public input on?



- **TT Comment:** CSS does not include public involvement, it is focused on targeted and sustained stakeholder engagement. We do not seek out public input on innovations. A full engagement plan/stakeholder involvement plan will begin moving into the construction period. That should be developed by the PILT/PLT, not the TT.
 - **Response:** You are correct, however, these items are meant to be a bridge into the construction process. More regular and involved public engagement will align with the active construction project. But this is communication with the public to update them on where we're at- a time to provide detail and insight in anticipation of the construction phase.
- **FHWA Comment:** This aligns with discussions in our office about when we communicate with the public to provide them an update.
- **TT Comment:** On such a large and complex project, we should be proud of disseminating information of the work we have done to get here.

The group discussed the difference between involving vs. informing and the benefits and drawbacks of both approaches.

- **PLT Comment:** Transparency is a double edged sword but I like the way you all want to move forward.
- **PLT Comment:** Our duty to the public at this point is to clearly articulate why we have made the decisions we have made and make it efficient so as not to create impediments for the project.
- **CDOT Comment:** We will be strategic in the way we present this topic for the public. We've also discussed something like a media day to highlight the grant and identify early projects and talk about how the EA looks different now than it did. We will certainly update the website with lots of renderings and images and highlight the public meeting in Spring of 2023.

ACTION: Once CDOT and FHWA have a chance to discuss their desired approach for public involvement, develop a PILT and begin public information and involvement campaigns.

CDR Associates closed the meeting with gratitude for the collaborative effort and engagement. Thank the PLT for their leadership and direction, clearly things to work on but it is exciting to see where we are. Thank you very much and we will be in touch!



Summary of Agreements and Action Items:

Agreement: The matrices will be used as a tracking device to ensure all considerations are incorporated into the next steps of the design phase and determining necessary TT and ITF meetings.

ACTION: The overall delivery schedule from the Design/Construction Teams will be created and brought to the next TT meeting to guide next steps.

ACTION: TT will discuss the approach of the TT moving forward, the decision to have monthly TT meetings, and follow up with the PLT.

ACTION: Once CDOT & FHWA have solidified their desired approach for public involvement, the PLT will develop a PILT and begin public information and involvement campaigns.

Attendees

Cindy Neely, Amy Saxton (Clear Creek County); Andy Marsh (Idaho Springs); Joe Behm (Central City); Margaret Bowes (I-70 Coalition); Lynnette Hailey (City of Black Hawk and Gilpin County); Melinda Urban, Liz Cramer (FHWA); Kurt Kionka, Kevin Brown, Tyler Brady, Jeff Hampton, (CDOT); Anthony Pisano (Atkins); Matt Hogan (Kraemer); Mandy Whorton (Peak Consulting); Jonathan Bartsch, Daniel Estes, Cara Potter (CDR Associates)



Floyd Hill Design // CMGC Project Leadership Team

September 16, 2022

- 1. Agenda Review, General Updates**
- 2. Revised Preferred Alternative and Endorsed Alignment Innovations**
- 3. Review CSS Decision Making Process**
- 4. Discuss Plan for Public Involvement Process**
- 5. Review Project Schedule, Upcoming Milestones, and Next Steps**



Meeting Agenda

September 16, 2022



General Project Updates

- Funding Update: Floyd Hill project wins \$100 million in federal INFRA grant funds
- Other updates?

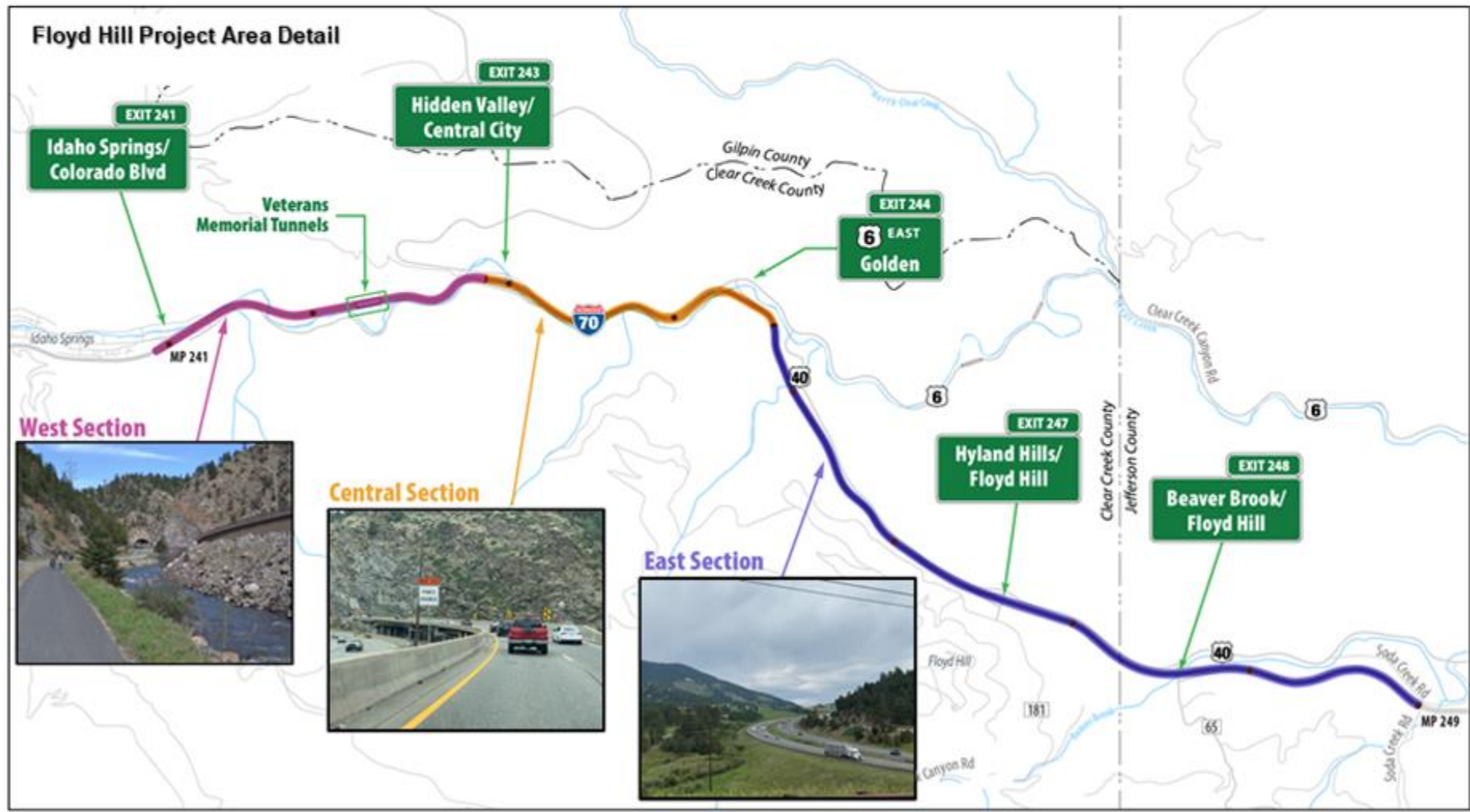


Review RPA and Endorsed Alignment Innovations

- Review Preferred Alternative '21 (Viaduct vs. Tunnel options)
- Walk through each project section (Central, West) – review endorsed innovations
- Review key differentiators and decision factors (CSS Measures of Success)

****Team shares supporting visuals/graphics****

Floyd Hill to Veterans Memorial Tunnels: 8 miles of I-70- from west of Evergreen to eastern Idaho Springs. 3 major sections (West, Central, and East)





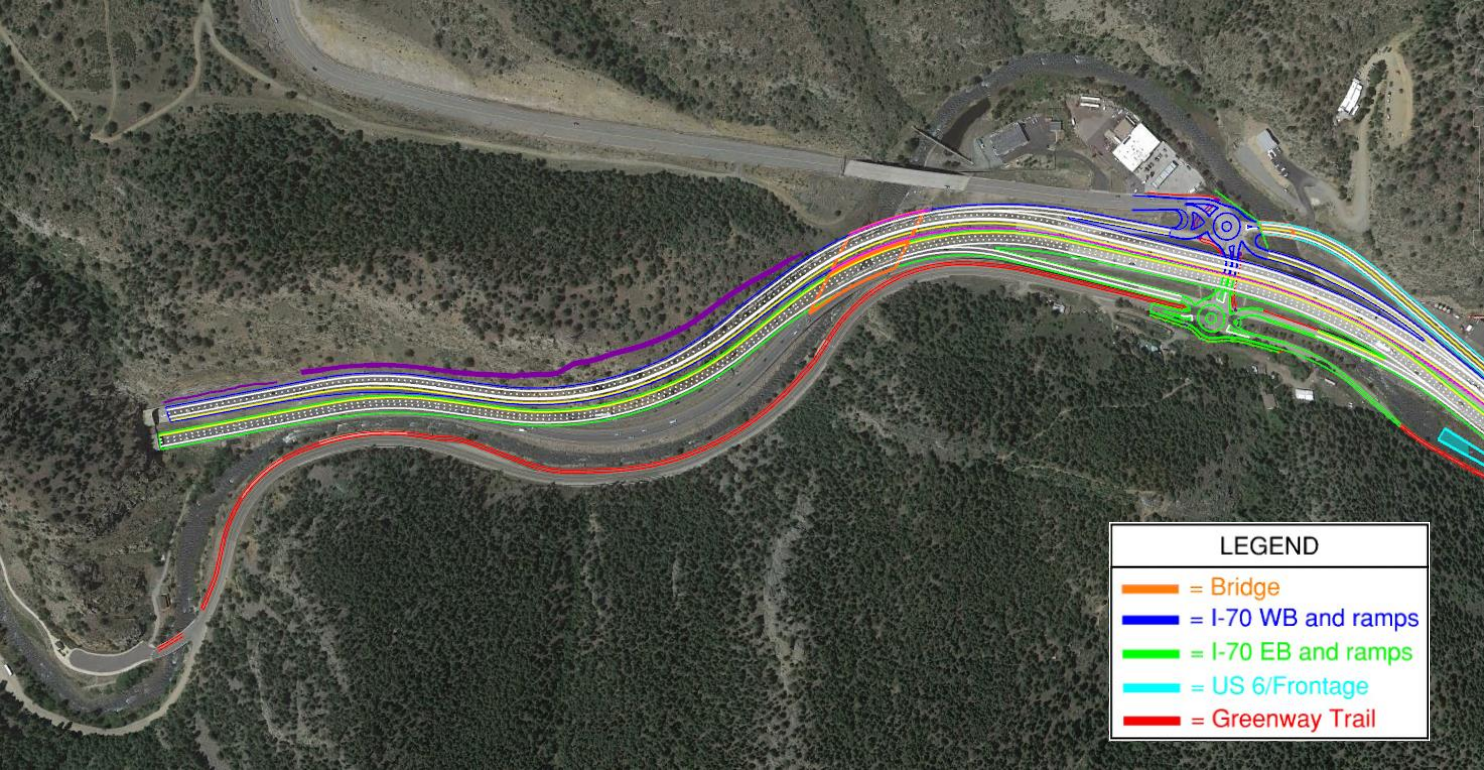
Current Approved Alignment and Innovation Decisions

- West Section: North Option
- Central Section: Terraced Alignment (prev. “Braided Bridges”)
- Central Section: Bottom of Hill
- Central Section Narrows: North of Creek Option
- Central Section: Advance designs without US 6 WB On Ramp at I-70 milepost 244 (pending FHWA review)
- Central Section: West Saddle Refinement - TT decision to maintain previously endorsed option



Current Approved Alignment and Innovation Decisions

- **West Section: North Option**
 - Avoids creek relocation, utility relocations, private right-of-way acquisition
 - Incident management and fire response maintained during construction (no closures of CR 314 required)
 - Allows for creek and riparian areas restoration
 - Improved sight distance for EB off ramp for HV/Central City Pkwy
 - Less expensive than 2021 PA

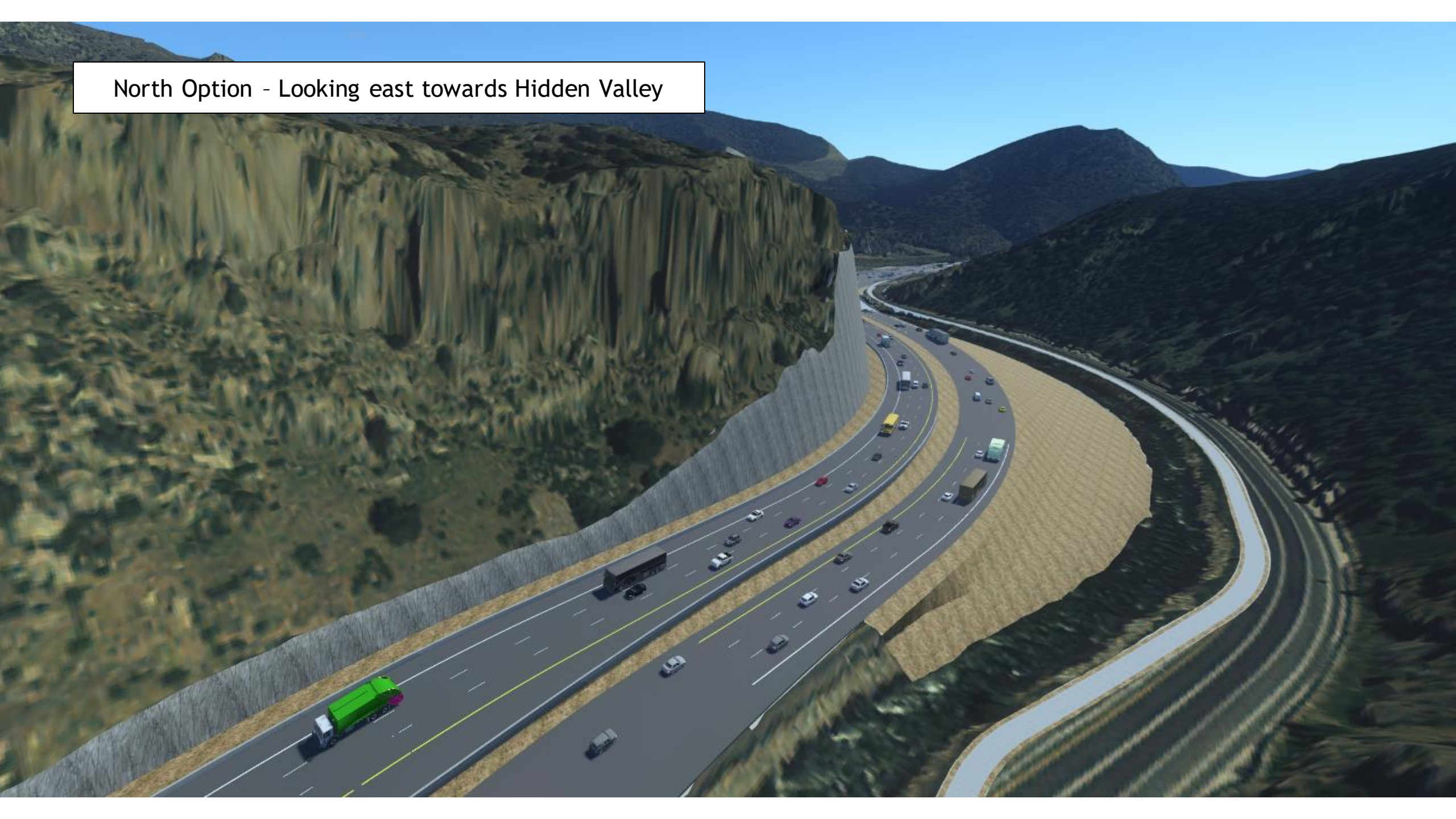


(Above) '22 RPA

(Below) '21 PA



North Option - Looking east towards Hidden Valley





Current Approved Alignment and Innovation Decisions

- **Central Section: Terraced Alignment (prev. “Braided Bridges”)**
 - Reduces rock cut, least risk to traffic impacts; fewer total rock blasts
 - Opportunity to create additional trailhead - parking and creek access point
 - More opportunity for creek enhancements, improved habitat and wildlife compared to other alternatives
 - Better fit with geometry of the creek & canyon compared to other alternatives
 - Similar construction duration as 2021 PA

Central Section '22 RPA: Terraced Alignment (facing West)





(Above) '22 RPA

(Below) '21 PA





Current Approved Alignment and Innovation Decisions

- **Central Section: Bottom of Hill**
 - Offers best access for construction of the viaduct- as close to the bottom of the slope as possible
 - Reduces risk of landslides/geotechnical hazards
 - Reduced construction cost
 - Moving the continuous shadow of taller roadway aids in revegetation/stabilization of hillside

2021 Preferred Alternative (left) vs. 2022 Revised Preferred Alternative (right)



2021 Preferred Alternative (left) vs. 2022 Revised Preferred Alternative (right)

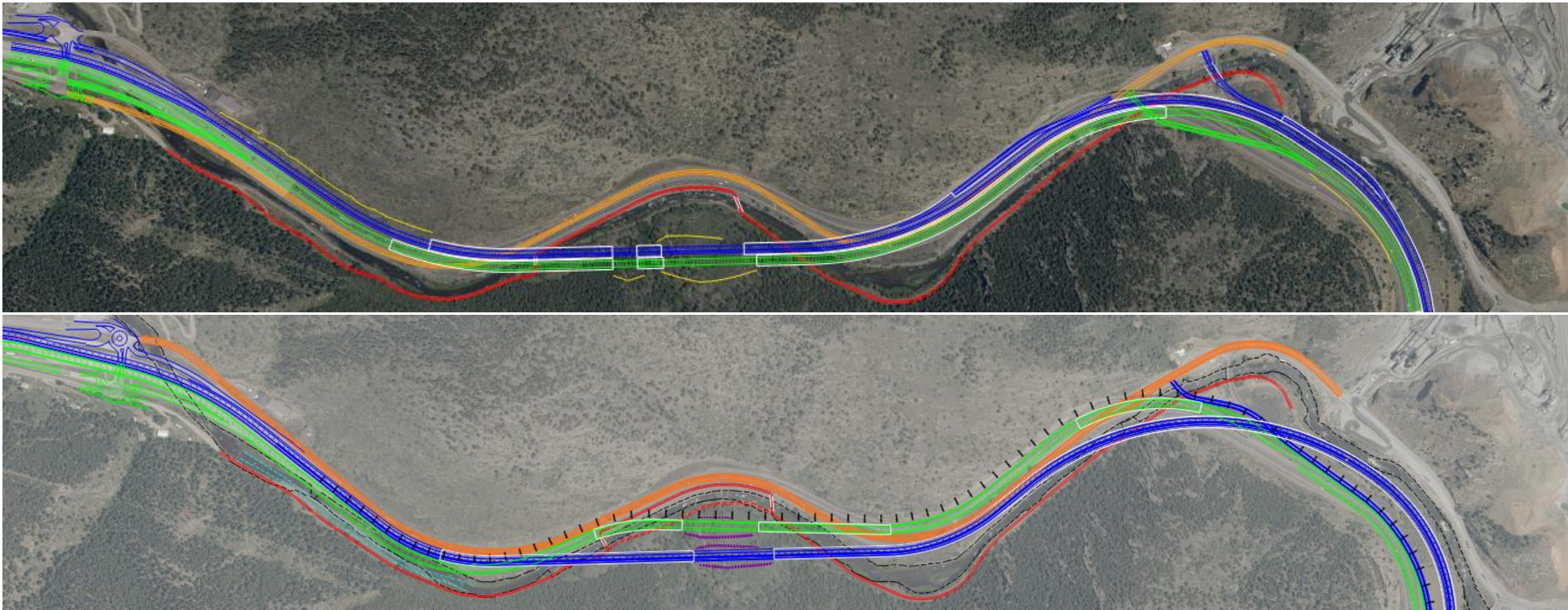




Current Approved Alignment and Innovation Decisions

- **Central Section Narrows: North of Creek Option**
 - Increased constructability and congestion reduction
 - Better alignment with existing geometry of canyon and creek
 - Reduced cost of construction
 - Avoids impacts to Greenway and Clear Creek
 - Moving the WB I-70 on ramp to 244 allows for better mainline I-70 alignments

2021 Preferred Alternative (top) vs. 2022 Revised Preferred Alternative (bottom)





Current Approved Alignment and Innovation Decisions

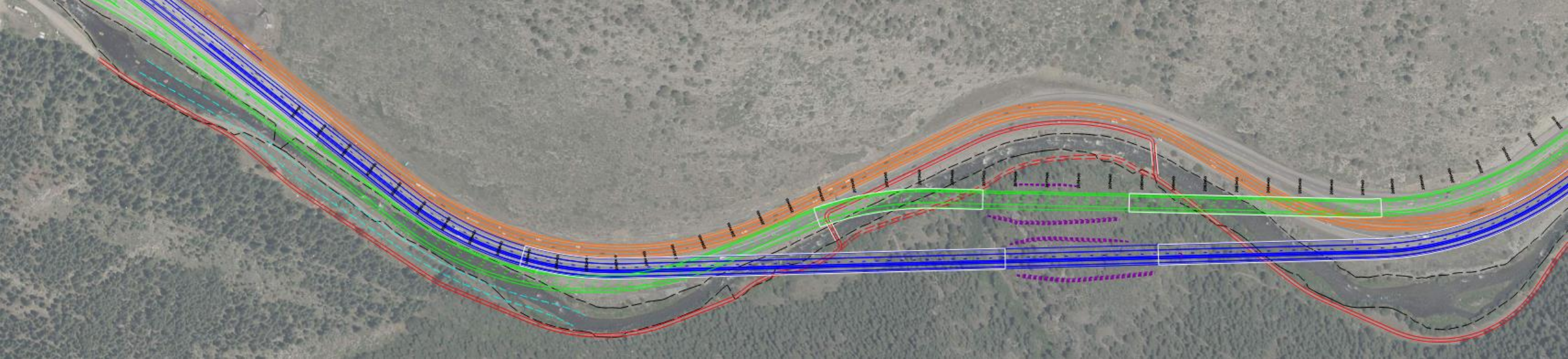
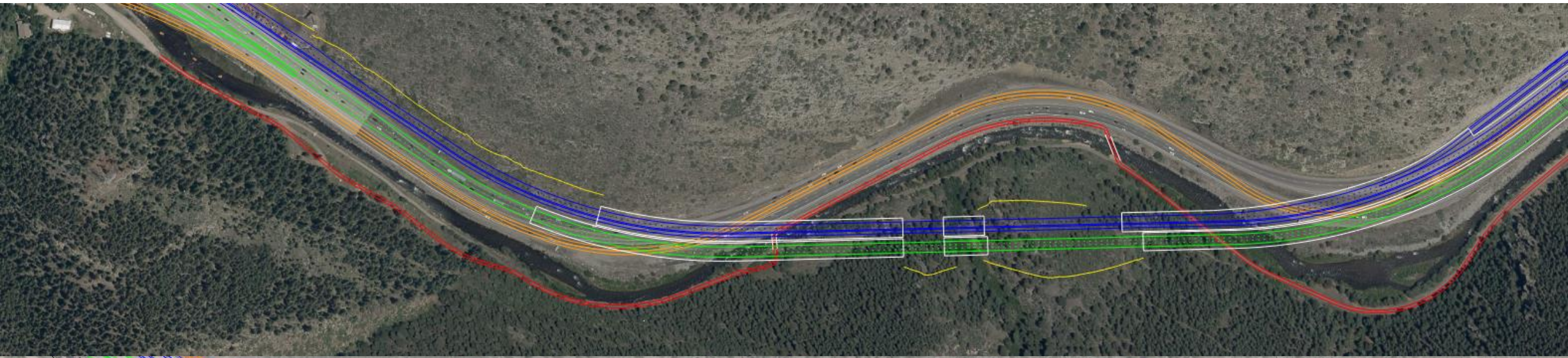
- **Central Section: Advance designs without the US 6 WB On Ramp (pending FHWA review)**
 - Reduces structures at US 6 interchange
 - Provides more space for improved geometry of EB lanes
 - Improves constructability
 - Reduces cost

NOTE: Design doesn't preclude adding an on-ramp if required



Current Approved Alignment and Innovation Decisions

- **Central Section: West Saddle Refinement - TT decision to maintain previously endorsed option**
 - Due to recreation, user experience, and environmental impacts, TT determined that potential drawbacks of West Saddle Refinement outweighed potential benefits; elected to maintain previously endorsed option



Top: '21 PA (Endorsed)

Bottom: '22RPA



Review CSS Decision Making Process

CSS process for evaluating alignment innovations:

1. Design team identified innovations, present concept to TT
2. TT indicates interest in pursuing and determines if ITF is warranted
3. ITF meets to review innovation in detail, makes recommendation for TT
4. TT reviews recommendation, decides if innovation is advanced to be included RPA '22



Review CSS Decision Making Process

Technical Team's Role:

- CSS Schedule (Atkins Shares)
- What are the outstanding design decisions and other issues?
- What is the necessary role for the TT in these issues? TT meeting frequency?

Other:

- What role, if any, should the matrix play and commitment tracking sheet?
- Should CSS tracking be connected to environmental tracking?
- How best to work through the 1041 process?



TT Schedule and Upcoming Issues

PLT / TT / ITF Design Issue Schedule	2022															
	May		June		July		Aug		Sept		Oct		Nov		Dec	
	2nd	4th	2nd	4th	2nd	4th	2nd	4th	2nd	4th	2nd	4th	2nd	4th	2nd	4th
Innovations and VE																
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West Section		◆	◆	★												
Central Section (East end & near US 6)				◆	◆	◆		★								
East Section Rock Cuts / Walls, WQ								◆	★							
Emergency Response ITF				◆	★											
SWEEP - Updated Pref and WQ, Salinity							◆									
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Roadside barrier types and color																
Signing and lighting (dark sky)																

- ◆ TT or IFT Meeting
- ★ Topic Complete



Discuss Plan for Public Involvement Process

- Review Stakeholder Involvement Plan
 - What issues stand out?
- Discuss approach and schedule for initial public engagement
 - Spring '23 public meeting
 - PILT formation and timeline



Thank You!

September 16, 2022