



MEETING NOTES

PROJECT:	23982-23929 I-70 West Vail Pass Safety and Operations Improvements
PURPOSE:	Technical Team (TT) Meeting #18
DATE HELD:	August 2, 2021
LOCATION:	Online Google Meet Meeting
ATTENDING:	John Kronholm, Project Manager, CDOT Region 3 Rob Beck, Program Engineer, CDOT Region 3 Karen Berdoulay, Resident Engineer, CDOT Region 3 Matt Figgs, Project Manager, CDOT Region 3 James Proctor, CDOT Bridge Enterprise Lisa Schoch, CDOT Historian Michelle Cowardin, DNR Greg Hall, Town of Vail Pete Wadden, Town of Vail Dick Cleveland, Town of Vail Kevin Sharkey, ECO Trails Len Wright, PhD, ERWSD Larissa Read, ERWSD Tracy Sakaguchi, Colorado Motor Carriers Shannon Anderson, Bicycle Colorado Jon Stavney, NW COG Mark Gutknecht, Kiewit Randal Lapsley, R S & H Brian Hearn, R S & H Jeb Sloan, R S & H Mary Jo Vobejda, Jacobs Loretta LaRiviere, Jacobs
COPIES:	Attendees

SUMMARY OF DISCUSSION:

1. Introductions & Meeting Purpose

- a. Karen introduced the attendees at today's meeting.
- b. Mary Jo said as always the goal of the meeting is to provide updates and gather feedback on the stakeholder process to ensure the project is successful. This has been working very well for the project team so please let us know if you feel like you need more information.

2. Review of Work Completed Since the Last Technical Team (TT) Meeting

- a. We have updated the project website. Now that we are starting to get into some funded portions of the project. We have the EA section which is for the third lane up and down the pass and have added a section for the funded portion of the project where you can find out more about what is actually being built in this phase and other portions of the project.
- b. We are also planning our virtual public engagement which will be launched very soon. There will be a video similar to what we did during the EA focusing on



information about the total project as well as what is funded and the construction that will be done this year.

- c. We are also planning an in-person groundbreaking event which is planned for August 25th at noon to celebrate the construction of the entire funded project not just the work this year. Because of COVID we haven't determined the number of people that can attend. More information will be sent out in the coming week.
- d. Another Emergency Services Coordination Meeting was held on July 15th. Kiewit and Matt Figgs led this meeting which was focused on Construction Package #1.
- e. Roadway design continues working to minimize the areas with cut walls. Numerous cut walls were identified in the EA and the INFRA design is revisiting these walls. Today we will talk about one location, but generally there are fewer of them than were in the EA.
- f. ITF deliverables update:
 - ALIVE memo regarding the Wildlife Crossings is almost completed and we expect to have the final ALIVE Meeting in September.
 - Draft of Aesthetic Guidelines have been completed and under review by ITF and we have a meeting on August 5th.
 - SCAP Sections 2-6 will be available in the fall. We will have a SWEEP ITF meeting and a SWEEP Field visit
- g. Everything is progressing towards FIR (30%) design in September

3. Construction Package 1 Update

- a. Karen said Construction Package #1 has been awarded to Kiewit. This package includes the lower truck ramp at MP 182.5 and the westbound highway closure system. That work will start sometime in the next week and will continue through November of this year before being shut down for the winter and resume again in the spring. Part of the reason the work will continue next spring is the time it takes to get some of the ITS materials for the highway closure system. The truck ramp will be built and completed this year. Minor traffic impacts are anticipated.
- b. The lower truck ramp will be closed for three months. We looked into building a temporary truck ramp but it's not possible since you essentially need to build another truck ramp. We are looking to add additional signage to create two hot brake areas and will work with our EMS providers and CMCA to provide any other mitigation that we can.
- c. Tracy asked if the lower truck ramp has been geo fenced to give information to freight drivers. She suggested we get in touch with Craig Hurst and the mapping folks to make sure we get those hot brake check areas geo fenced. That way when carriers are coming through the pass they will get the alert that the ramp is closed and to use the hot brake pull-offs because that would be the last attempt to use anything if their brakes were hot.

- d. Karen said the signage plan does include the lower and upper truck ramps, so it is clearer. At the top of the pass it will say “truck ramp at MP 182.5 closed, truck ramp 185.5 open”.
- e. Matt said they have reached out to Craig’s office and he is aware of our plan. Tracy said she will also follow up with Craig to make sure information gets out showing the ramp is now closed.
- f. Jon said geo fencing is an excellent resource and a great complement to the VMS signage. Last year as people crossed into Utah they immediately got a notice about COVID requirements, so a lot of people are using this and he’s pretty sure CDOT is utilizing this.

4. Cut Walls at MP 188

- a. Karen said the original designers of the Pass really tried to optimize not having many cut walls that are visible from the highway. To honor that original design approach we are spending a lot of time working through iterations to figure out where we can eliminate walls as well as reduce cut walls. We started with quite a few walls as part of the INFRA Project and we deleted at least three by fine tuning the alignment in those areas.
- b. There are two areas left that have some cut walls that are more significant. We want to show you the work we’ve been doing and get your feedback to see if we are missing anything in these two areas. We are more advanced at the one at MP 188, the other one we are looking at right now is at MP 185 near the bridge we are replacing.
- c. MP 188 is one of the first major curves coming down the highway over Vail Pass. The original design for the wall was approximately 1000’ in length and we have reduced it to around 500’. We started with four tiers of scallop wall and now we are potentially down to two tiers. We are trying to balance fitting the wider section into the hillside and trying to balance the cut walls you will see from the highway as well as the fill walls you would see from the recreation trail.
- d. The roadway section we are looking at is three lanes eastbound and then we’re laying in the two lanes westbound with a refined alignment of the curve, but we’re also planning out what this is going to look like when the ultimate configuration of the third westbound lane is constructed.
- e. We really wanted to have 30’ from the edge of shoulder to any kind of wall or slope for snow storage westbound. In discussions with maintenance the minimum that would work for snow storage is 13’-15’ from the future shoulder to the front of the wall. Distance to the front of the wall would be 15’ and distance to the front of the barrier might be around 13’. In those areas where we have a cut wall and are considering the narrow snow storage area, we have reduced this length to about 500’ and that is manageable for our maintenance team and snow storage.
- f. We are planning to have grass in between the barrier and the first tier of wall and grass between each tier of the scalloped wall.
- g. Karen explained the EA base case and how tall the wall was initially and how much earth we would be taking out to catch the existing slope and there would be four tiers of walls.. The designers looked at alternatives that shift the roadway section closer to the recreation path, and options of more fill or more cut walls. We are currently focusing on alternative – 1B which is a balance between the other options.

h. The benefits of Option 1B are:

- Least aesthetic impact with reduced cut wall visible (less tiers and less length)
- Minor trail temporary impacts
- Minor wetland impacts. More fill wall than Option 1 but less fill wall than Option 2

i. Brian said balancing the trail impacts on the west were really one of the constraints on trying to optimize the fill wall. If we relocated the trail we were starting to chase the slope down another forested hill, and then needed a second wall on the back side of the trail. Option 1B really strikes the balance by keeping the cut wall down at two tiers high and minimize the length of the cut wall while increasing the fill walls a little bit, but now too much.

1. Shannon asked if this option impacts the bike path at all. Does it make it any narrower and makes it feel very cramped in that area?

Karen said the trail will not be any narrower. Brian said in this section we are starting to tie into the existing trail so the trail will remain as it is. We are not encroaching on the trail width.

Karen said in general wherever we are proposing a new trail adjacent to a wall, there will be a 2' gap from the wall to the trail.

Brian added that in this case the fill walls on the trail generally have 13' from the eastbound edge of highway pavement to the face of fill wall and if we are able to tighten that up it would provide further offset from the trail to the face of the wall.

2. Shannon asked what is the length when you're so close to that wall and close to the highway?

Karen said it looks to her like the wall is about 1000' and there is about 100'-150' where you are very close to the wall.

3. Greg said he knows you're trying to minimize existing disturbance on the uphill side, but you can kind of see how far that tree line is. Did you look at doing more grading up above one of those walls to reduce a tier?

Brian said they did and what he's assuming at this point is that we will have a very minor third tier, but he thinks we can grade out through final design pretty easily here. We would be holding the 2nd tier and chasing any slope from the top tier up, this would provide a nice consistent wall height.

4. Greg said with the new bike path is 12' wide with shoulders. Is the existing 10' wide?

The team confirmed that the existing trail is 10' wide. Brian explained that he will provide a 2' or greater buffer to the wall from the edge of trail.

Greg said even if you're not rebuilding the bike path, we should provide the shy distance if it does get rebuilt sometime in the future.

j. Karen thanked Greg for his input in helping us make sure we honor the existing design on Vail Pass which is minimizing these cut walls. This is a great example of how we are really trying to figure out the right balance. among different resources up on the pass and minimizing our environmental impact.

1. Greg inquired regarding curves where east and westbound are close together there is a real safety problem with the glare, especially at night or when it is raining. Are you making sure you eliminate that glare with either taller barriers or a differential between lanes?

Karen said they are installing glare screen wherever the roadways are at the same level.

Brian said the intent is to have the 4 ½' glare screen concrete barrier instead of the 3' barrier. We do have a vertical separation between east and westbound at this reconstructed curve because we were able to optimize the wall heights by bringing the westbound profile up a little bit. This should help with the glare through those curves.

5. Schedule for Design and Construction

- a. Karen said the schedule hasn't changed since you last saw it. We are now starting construction on Package 1 which is a pretty major milestone and is exciting for all of us. Construction Package #2 is the recreation trail and we are planning to go to CAP agreement for that in early 2022 and that work will start in April or May. We are still on track for Construction Package #3 completion sometime next summer and Construction Package #4 will begin at the end of 2022.. We are taking all of the construction packages to 30% design next month and then starting to stagger completion of final design for the packages.

- b. We are continuing with PLT & TT meeting monthly right now. Finishing the work of our Issue Task Forces.

Moving forward we will most likely have a SWEEP meeting in September and another one when the document is completed.

106/Aesthetics ITF is meeting this month to discuss the Aesthetic Guideline's remaining chapters and we will talk with the group as to whether another meeting is needed.

The wildlife crossing design recommendations are being finalized and there will be an ALIVE ITF Meeting in September.

The CSS Design Exceptions will likely meet again, and we will continue to combine them with the TT Meetings.

The Emergency ITF will meet continuously through the construction packages.

CSS will continue through 2024.

6. Next Steps

- a. Mary Jo noted the next steps are:
 - 106/Aesthetics Meeting #5 – Thursday, August 5th
 - PLT Meeting #9 – Friday, August 6th
 - Email blast for updated website & virtual public engagement
 - Planning the final ALIVE ITF meeting



- Planning the SWEEP ITF meeting and September field trip
- Project Groundbreaking 3rd week of August (in person)