



**Twin Tunnels
Environmental Assessment**

Public Scoping Meeting
September 27, 2011

Welcome



- **Agenda**
 - » 5:30-6:00 open house
 - » 6:00-6:30 presentation and Q&A
 - » 6:30-7:30 open house
- **Objectives**
 - » Provide information on the proposed improvements
 - » Solicit input from the public and other stakeholders
- **Contacts**
 - » CDOT Program Engineer – Jim Bemelen
 - » CDOT Project Manager – Ben Acimovic
 - » Consultant Project Manager – Mandy Whorton, CH2M HILL

Welcome to the Public Scoping Meeting for the Twin Tunnels Environmental Assessment. I am Jim Bemelen, CDOT's Corridor Manager for the I-70 Mountain Corridor. I also want to introduce Ben Acimovic, CDOT's Project Manager for the Twin Tunnels EA, and Mandy Whorton with CH2M HILL, the Consultant Project Manager for the study.

The purpose of tonight's meeting is provide information and solicit input from you on CDOT's proposed action for the Twin Tunnels area. The meeting is structured in an open house format where you can spend time studying the displays we have set up around the room and talk to members of the project team.

The Project Staff is a combination of CDOT and Consultant Staff familiar with the I-70 Mountain Corridor. I encourage you to find anyone with a CDOT or project name tag if you would like to discuss the details of any of the display or handout information.

How We Got Here



- I-70 Mountain Corridor PEIS and Agreements
 - » Record of Decision, June 2011
 - » Section 106 Programmatic Agreement, SWEEP MOU, ALIVE MOU
 - » Context Sensitive Solutions
- Idaho Springs Visioning
- Twin Tunnels – Tunnel Visioning

Let's start by reviewing how we got to tonight's meeting. In June of this year, FHWA signed a Record of Decision for the I-70 Mountain Corridor Programmatic Environmental Impact Statement. The PEIS studied multi-modal improvements to the I-70 Mountain Corridor from C-470 to Glenwood Springs. It also included several agreements: the Section 106 Programmatic Agreement, which focuses on historic resources in the corridor, the Stream and Wetlands Ecological Enhancement Program (SWEEP) Memorandum of Understanding, and the ALIVE (A Landscape Level Inventory of Valued Ecosystem Components) Memorandum of Understanding. Another commitment made by CDOT in the 106 PA was to develop a Context Sensitive Solutions (CSS) approach to all projects on the I-70 Mountain Corridor. The CSS Guidance was rolled out this year and will be followed on the Twin Tunnels EA.

CDOT worked with the City of Idaho Springs in 2009 to develop a vision for I-70 through Idaho Springs, and in 2011 held a design workshop for the Twin Tunnels, Tunnel Visioning, that engaged stakeholders, community representatives, and technical experts from numerous firms and disciplines in a week-long workshop. That workshop provides the background for the Twin Tunnels Proposed Action we are presenting this evening.

Tunnel Visioning Process



- CDOT, stakeholders and technical experts met to discuss the mobility issues at the Twin Tunnels
- Five day workshop followed CSS 6 Step Process
- Desired outcome of the workshop:
Develop improvements that address near term and current mobility needs

The Tunnel Visioning workshop was held in February of this year to develop improvements that address near term and current mobility needs for the Twin Tunnels area. The week-long Tunnel Visioning Workshop followed the CSS 6-Step Process, with a multi-disciplinary, collaborative approach that involved stakeholders in identifying the critical success factors to be considered in developing and evaluating options to address the safety and congestion issues in the Twin Tunnels area, with a shared objective of developing improvements that address near term and current mobility needs.

Tunnel Visioning Process



Participants

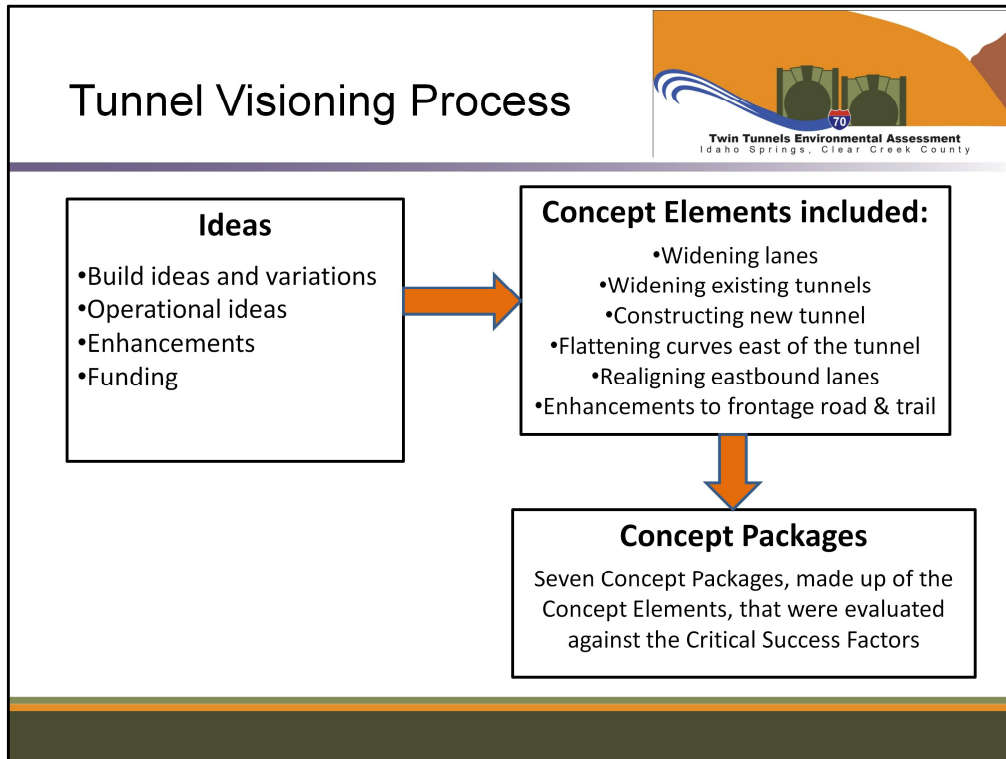
- CDOT
- Clear Creek County
- Idaho Springs
- Denver Regional Council of Governments
- Jefferson County
- FHWA
- Vail Resorts
- BRT advocate
- Colorado Motor Carriers
- Denver Post
- Transit researcher
- 30 engineering and construction experts

Critical Success Factors

- Mobility
- Compatibility
- Timing
- Cost
- Environmental
- Economic
- Flexibility and Usability
- Stakeholder Acceptance
- Funding and Political Support
- Safety
- Construction Disruption

Participants included stakeholders, community representatives, elected officials, and technical experts. You can see the full list of participants on the board summarizing the Tunnel Visioning Process in the back of the room. On the first day of the workshop, we involved all the participants in sharing history and discussing concerns. We also brainstormed critical measures of success that would be used to evaluate options and come to a recommendation that met the objective and the critical success factors. The critical success factors for the visioning workshop were:

- Improve mobility
- Compatibility with existing plans
- Timing of implementation
- Cost – both capital and operations & maintenance
- Level of environmental change
- Level of economic benefit
- Flexibility of design and long term usability
- Community stakeholder acceptance
- Attractive solution to gain funding and political support
- Safety
- Construction disruption



During the first day of the workshop we also brainstormed ideas for short term solutions with all the participants. We captured all the ideas and categorized them into build, operational, enhancement and funding. These were further refined into concept elements that reflected the build ideas and variations for further study and consideration. CDOT engaged technical experts in design, environmental resources, and construction (including tunnel experts) to develop these elements into concept packages that were evaluated against the critical success factors.

Evaluation of Tunnel Visioning Concepts

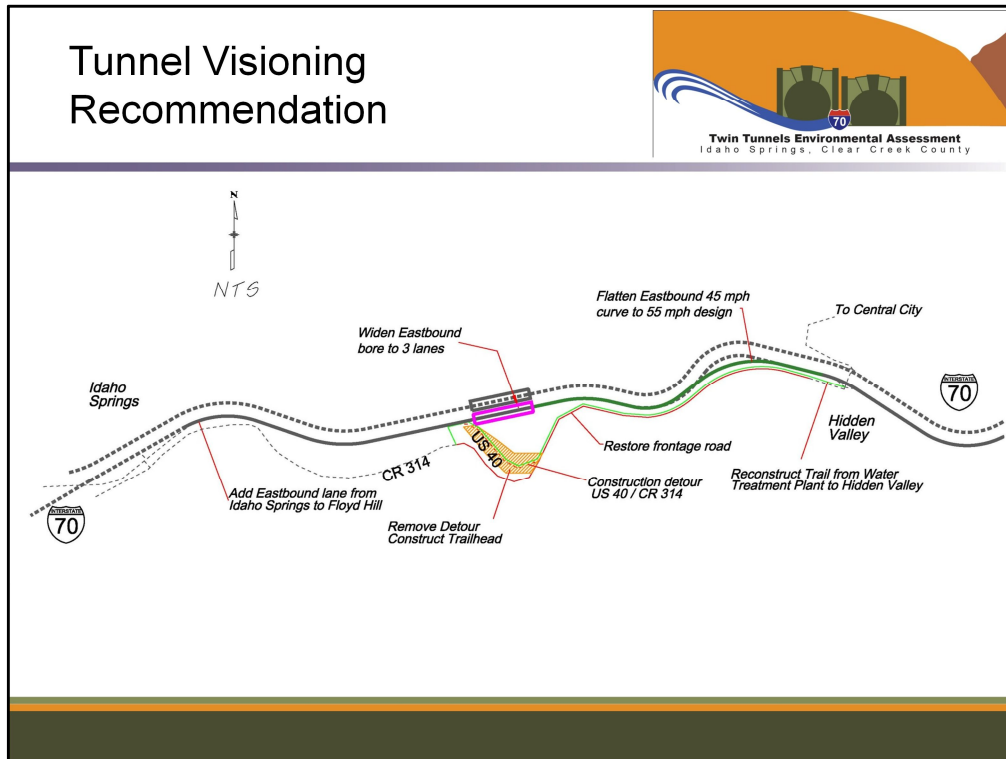


Concept Packages

Major
Issues

Recommendation

Over the next three days, the technical team considered the concept packages and evaluated them against the critical success factors to develop a recommendation that met the objective to “Develop improvements that address near term and current mobility needs” For each of the concept packages, issues or limitations were identified and discussed. Two of the concept packages included an additional lane both eastbound and westbound; however, limitations on the bridge at the interchange with US 6 would not accommodate 3 lanes coming down Floyd Hill without rebuilding the existing bridge. It became a much more complex project to address the three lane configuration in the westbound direction, making it infeasible to complete improvements in the near term. One of the concept packages included reconstruction of the alignment east of the tunnels that would impact travel in both directions but only add a new lane in the eastbound direction. A couple of the concept packages looked at constructing a new alignment south of the tunnels with three eastbound lanes on viaduct. These options would require cutting into the south side of the mountain and construction of viaducts with significant grades and safety and maintenance concerns. They would also disrupt the natural wildlife bridge that currently exists across I-70 over the tunnels. Another concept package considered the construction of a new eastbound bore (a third bore to the south of the existing tunnels). This option had the advantage of keeping most of the construction outside the current travel lanes but required realigning the highway and Clear Creek.

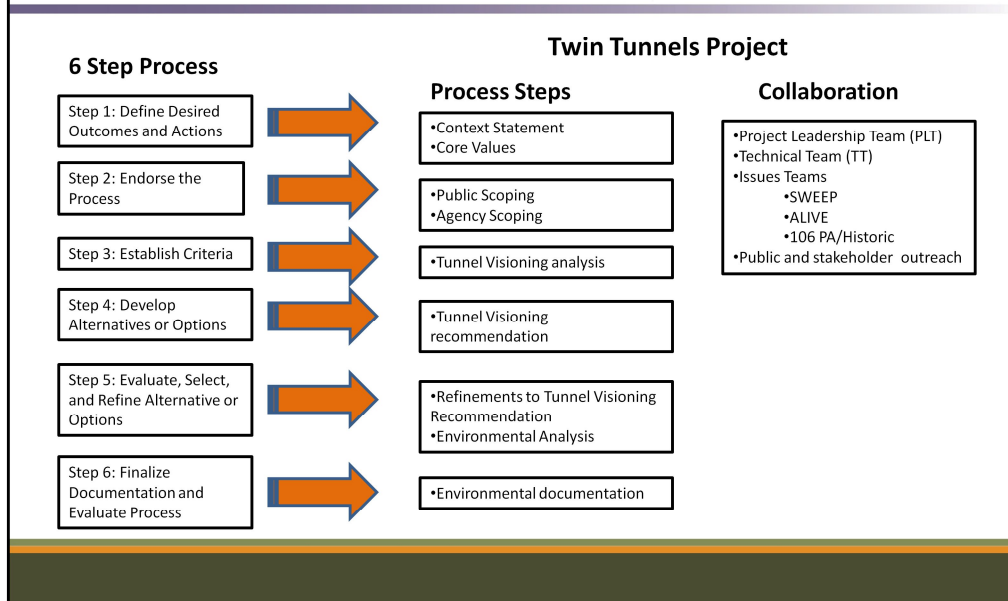


The Concept Package that met the Critical Success Factors most effectively was one that widened eastbound to three lanes from the east Idaho Springs interchange to the existing three lanes at the base of Floyd Hill and widening the existing eastbound bore of the Twin Tunnels to accommodate the additional lane. The concept package also addressed the existing 45 mph curve east of the tunnel to flatten it out to improve safety for eastbound travelers.

In addition to the elements outlined in this concept package, the technical team recommended that several variations be considered with future studies. This recommendation was presented to the larger stakeholder group on the final day of the workshop. After a couple hours of discussion, the entire stakeholder group was supportive of moving forward with the recommendation.

The recommendation from the Tunnel Visioning Workshop became the basis for CDOT's Proposed Action for the Twin Tunnels area.

Following the CSS Guidance



We are following the I-70 Mountain Corridor CSS Guidance on this study. The 6-Step Process provides the decision-making structure for all projects on the I-70 Mountain Corridor. The 6-Step Process is used to ensure collaboration and has been adapted specifically for the Twin Tunnels Project. As you can see, the first steps including developing a Context Statement and Core Values and conducting Public and Agency Scoping.

Twin Tunnels Project Context Statement



I-70 is Colorado's only east-west Interstate, providing a link over the Continental Divide, interstate commerce and mountain access.

Blasted through a geological feature and contained within a narrow canyon, the Twin Tunnels symbolize Colorado's historic endeavors to improve access to and from the mountains. Currently occupying this canyon are Clear Creek, the Frontage Road, and I-70. The vision for the future includes an Advance Guideway System with these transportation facilities.

The Twin Tunnels are a gateway for arriving and departing the mountains, provide a natural crossing for wildlife and connect local communities to national and regional services. Running parallel to I-70 is Clear Creek, a natural and recreational resource. The tunnels now are a constriction to travel and create a safety problem.

The Project Leadership Team, Technical Team and Project Staff have developed a Context Statement for the Twin Tunnels Project. The Context Statement seeks to capture in words the special qualities and attributes that define the Twin Tunnels area as unique. It is intended to reflect that which was true fifty years ago and that which must be considered during the development of improvements in order to sustain truth in those same words for fifty years to come. The Context Statement for this project is:

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Twin Tunnels Project Core Values



- Safety
- Mobility
- Gateway
- Wildlife
- Clear Creek
- Tourist destinations and community facilities
- History

The Project Leadership Team, Technical Team and Project Staff also identified the Core Values for the Twin Tunnels Project. Core Values describe something of significant importance to stakeholders -- something you respect and want to protect and preserve. These Core Values must be honored and understood and decisions and choices made in the Twin Tunnels area should be influenced by and support the Core Values. The Core Values are:

- Safety
- Mobility
- Gateway
- Wildlife
- Clear Creek
- Tourist destinations and community facilities
- History

These Core Values will guide decisions made on the project.

Twin Tunnels Project Core Values



- **Safe** travel for people and goods. **Safety** for emergency responders and maintenance workers. A **safe** crossing for wildlife.



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Twin Tunnels Project Core Values



- **Mobility** through safe and reliable transportation facilities.



Mobility through safe and reliable transportation facilities.

Twin Tunnels Project Core Values



- A primary access and visual **gateway** to the Mountain Mineral Belt, historic Idaho Springs and Front Range communities.



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Twin Tunnels Project Core Values



- **Wildlife**, wildlife habitat, migration routes and access to Clear Creek.



Wildlife, wildlife habitat, migration routes and access to Clear Creek.

Twin Tunnels Project Core Values



- **Clear Creek**, as a clean, high-quality water resource, a recreational asset, an aquatic resource with sustainable fisheries' habitat, a drinking water source, and a defining natural feature of the corridor.



Clear Creek, as a clean, high-quality water resource, a recreational asset, an aquatic resource with sustainable fisheries' habitat, a drinking water source, and a defining natural feature of the corridor.

Twin Tunnels Project Core Values



- **Tourist destinations and community facilities**, including the Scott Lancaster Trail and Bridge, the waste-water treatment plant, the planned Clear Creek Greenway, the frontage road, and Clear Creek.



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Twin Tunnels Project Core Values



- **History** as a defining element of Clear Creek County. Celebrating the cultural resources associated with mining and mining towns, and the first successful tunneling operation as part of the construction of I-70 west through Colorado's mountains.

History as a defining element of Clear Creek County. Celebrating the cultural resources associated with mining and mining towns, and the first successful tunneling operation as part of the construction of I-70 west through Colorado's mountains.

Twin Tunnels EA Draft Purpose and Need



The purpose of the Twin Tunnels project is to improve eastbound highway safety, operations, and travel time reliability in the Twin Tunnels area of the I-70 Mountain Corridor east of Idaho Springs.

The project is needed to address:

- » Safety
- » Mobility
- » Operational characteristics that slow travel

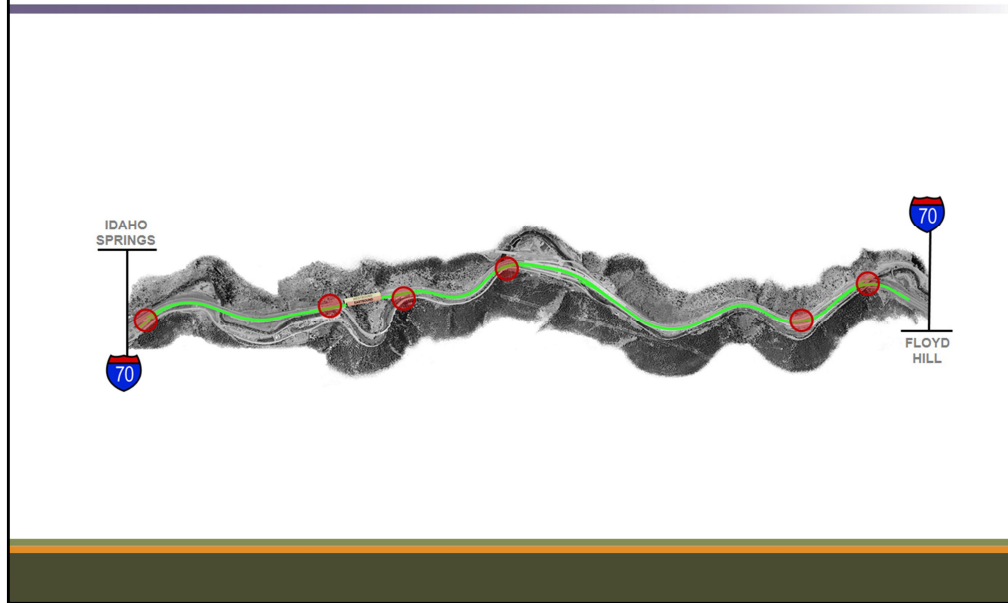
The Twin Tunnels Environmental Assessment will follow the National Environmental Policy Act (NEPA) requirements for environmental review. Existing problems and issues on I-70 in the Twin Tunnels area lead to the definition of the project purpose and need. The purpose and need provides the basis for refining and evaluating the Proposed Action.

The Draft Purpose and Need is:

The purpose of the Twin Tunnels project is to improve eastbound highway safety, operations, and travel time reliability in the Twin Tunnels area of the I-70 Mountain Corridor east of Idaho Springs. The project is needed to address:

- Safety. A high number of crashes occur in the project area related to tight curves, poor sight distance, narrow shoulders, and congested traffic conditions.
- Mobility. Slow and unpredictable travel times in peak traffic periods (Saturday and Sunday afternoons) frustrate travelers, affect economic conditions, and decrease safety.
- Operational characteristics that slow travel. Capacity in the most congested portion of the I-70 Mountain Corridor east of **Georgetown** is largely controlled by the Twin Tunnels. Real and perceived narrowness of the tunnels causes drivers to slow down and reduces capacity by up to 30 percent. Curves in the project area between the tunnels and Floyd Hill (east of the tunnels) also cause drivers to slow down.

Twin Tunnels Proposed Action



The Proposed Action includes widening eastbound I-70 from the east Idaho Springs interchange to the base of Floyd Hill, enlarging the eastbound bore of the Twin Tunnels, and addressing safety issues on the eastbound highway curves between the tunnel and Floyd Hill. You can see from this graphic that there will be three eastbound lanes and shoulders from Idaho Springs, through the tunnel, connecting to the existing three lane section. You can also see that the curves will be flattened to provide a safer, continuous speed alignment.

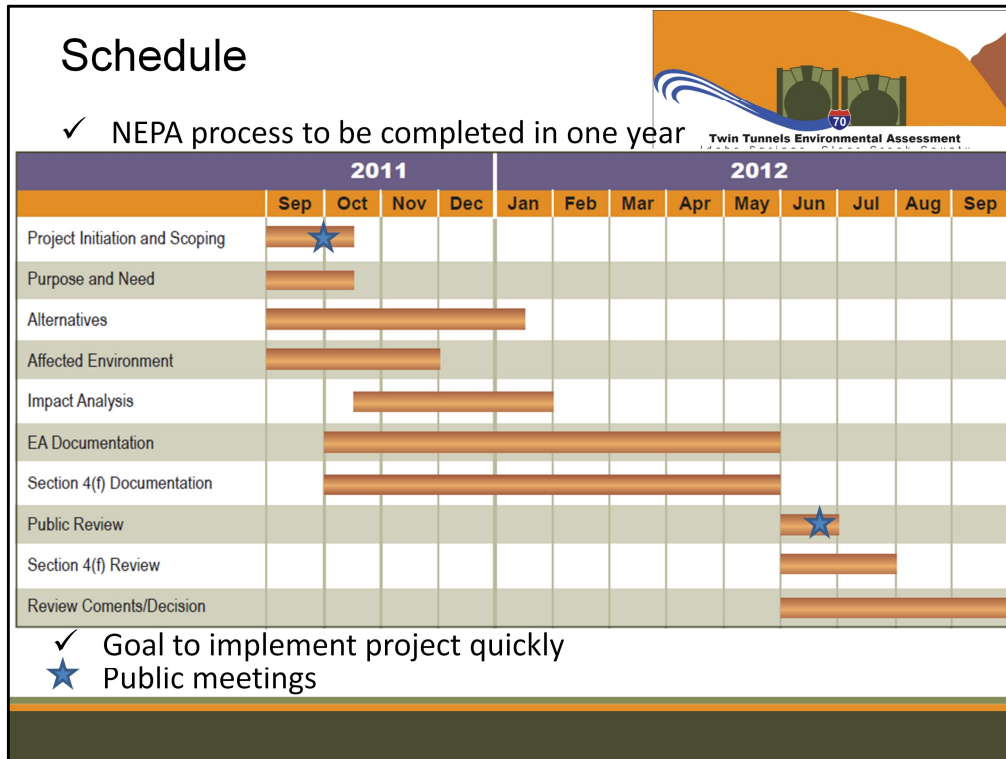
Operational Considerations



- Current considerations for this project include:
 - » Peak-period pricing on new eastbound lane
 - » Hard shoulder running during peak periods



There are operational options that will be considered in the Twin Tunnels Environmental Assessment. CDOT is exploring Peak-period pricing for the new lane, which would not apply to the existing lanes. We are also considering the use of hard shoulder running during peak periods to accommodate a third lane of traffic without building a new lane.



The overall goal of CDOT is to implement improvements in the Twin Tunnels area quickly, with anticipated construction in Fall 2013.

As you can see by this schedule, we anticipate the NEPA process to be completed in one year.

The stars on this schedule show the public meetings planned for the study, tonight and next summer as part of the public review. There will be other opportunities to provide input in the study and participate in issue task forces.

Project Teams

Twin Tunnels Environmental Assessment
Idaho Springs, Clear Creek County

Project Leadership Team	Technical Team
<ul style="list-style-type: none"> •FHWA •CDOT •Clear Creek County Commissioner •Idaho Springs Mayor •Consulting Team 	<ul style="list-style-type: none"> •Federal, State and local agencies •Private stakeholders •Interest groups and organizations •Transportation/engineering •Wildlife •Historic •Water resources •Environmental •Public safety and emergency response •Forests •User groups

In keeping the CSS Guidance, we have established a Project Leadership Team to lead the project and ensure that the decision making is consistent with the CSS 6-Step Process. The membership of the PLT includes CDOT and consultant team personnel, FHWA, Clear Creek County, Idaho Springs, and the contractor, when one has been selected for the project.

The Technical Team is a multidisciplinary team that will assure that the context is integrated into the project, recommend and guide study methodologies, prepare and review technical reports, support and provide insight with respect to community and agency issues and regulations, and coordinate with respective agencies.

A full list of both teams can be found on the display boards for this project.

Issues Task Forces



- **Historic Issues Task Force**
 - » Consulting Parties from the Section 106 Programmatic Agreement
 - » Address processes, documentation, mitigation and agreements around historic issues
- **SWEEP**
 - » Develop recommendations consistent with the SWEEP MOU
- **ALIVE**
 - Develop recommendations consistent with the ALIVE MOU

We will work with three Issue Task Forces – Historic, SWEEP and ALIVE. The consulting parties on the 106 PA and those involved in developing and implementing the SWEEP and ALIVE Memoranda of Understanding will work with project staff to address issues specific to these three groups.

Construction Considerations



The Proposed Action requires detouring eastbound traffic during tunnel widening and roadway realignment. A number of options are being considered to accommodate traffic during construction, including a detour using the frontage road, use of reversible lanes, limited construction schedules allowing the tunnel be used at peak times. We anticipate having a construction contractor onboard in early 2012 to help work through the construction and detour options.

The detour option that we are currently considering to allow the reconstruction of the tunnel and improve the curves quickly, to meet a goal of opening the new tunnel to traffic in the fall of 2013, is to detour eastbound traffic to the frontage road and close the major construction area to traffic. CDOT is currently working with Clear Creek County to reconstruct the frontage road to accommodate local and emergency traffic more effectively. The improved frontage road would provide an opportunity to take eastbound I-70 traffic off the interstate before the tunnel and return it to the interstate near Hidden Valley. This reduced-speed detour would only be used for a few months and would allow quicker, safer construction. This is what that detour might look like traveling east from Idaho Springs on I-70.

There are issues we need to address for this detour, including how we would accommodate trail users (bikes and pedestrians) during the detour.

How to Stay Involved



- Provide comments tonight
- Provide contact information
- Follow the project at www.coloradodot.info/projects/i70twintunnels
- Participate in Public Hearing
- Contact Project Manager
Ben Acimovic: Benjamin.Acimovic@dot.state.co.us

We have provided a comment form for tonight's meeting. We are looking for specific input on the Proposed Action for the Twin Tunnels EA. Please provide your contact information on the form or on our sign-in sheet if you want to be sure you receive additional information on the study. We have also set up a project webpage and the URL is provided here and on the Frequently Asked Question sheet available at the sign-in table. As I mentioned before, we will hold a Public Hearing next summer on the Environmental Assessment document, please plan to attend that. Ben Acimovic is CDOT's Project Manager and his email address is provided here. A link will also be available on the webpage. There are a number of project team members in the room, those of you on the project team please raise a hand. We will all be here for the next hour or so to answer any questions you have and discuss the study in more detail. The information I presented is provided in greater detail on the displays around the room. Please take your time reviewing the information and don't be shy about talking to the project team members, that's what we are here for.

Thank you for coming tonight and we look forward to hearing more from you tonight and throughout the study.