

# Twin Tunnels Environmental Assessment



Purpose:	<b>Project Leadership Team and Technical Team Combined Meeting</b>		
Day:	<b>Thursday</b>	Date:	<b>January 12, 2012</b>
Location:	<b>CDOT Traffic Operations Center, Golden, Trail Ridge Conference Room</b>		

## Participants:

### Project Leadership Team

Attendee	Representing	
Ben Acimovic	CDOT R 1	Y
Chuck Attardo	CDOT R 1	N
Jim Bemelen	CDOT R 1	Y
Allan Brown	Atkins	Y
Tony DeVito	CDOT	Y
Angie Drumm	CDOT Local	Y
Janet Gerak	CDOT R 1	Y
Vanessa Henderson	CDOT EPB	Y

Attendee	Representing	
Randy Jensen	FHWA	Y
Gina McAfee	Jacobs	Y
Tim Mauck	Clear Creek Co.	Y
Jack Morgan	Idaho Springs	Y
Pat Noyes	Pat Noyes	Y
Melinda Urban	FHWA	Y
Mary Jo Vobedja	CH2M HILL	Y
Mandy Whorton	CH2M HILL	Y

### Technical Team

Attendee	Representing	
Ben Acimovic	CDOT R 1	Y
Chuck Attardo	CDOT R 1	N
Phyllis Adams	Upper CC Watershed Assn.	N
Carol Anderson	EPA	Y
Rick Beck	Clear Creek Co Public Works	Y
Jim Bemelen	CDOT R 1	Y
Rena Brand	USACE	N
Tom Breslin	Clear Creek Co.	Y
Allan Brown	Atkins	Y
Steve Cook	DRCOG	Y
Maria D'Andrea	Jefferson Co.	Y
Jim DiLeo	CDPHE	Y

Attendee	Representing	
Carol Kruse	USFS	N
Gina McAfee	Jacobs	Y
Bill Macy	Idaho Springs	N
Alison Michael	USFWS	Y
Cindy Neely	Clear Creek Co.	Y
Ty Petersburg	Colorado Parks & Wildlife	N
Amy Pallante	SHPO	N
Bob Quinlan	Jacobs	Y
Colleen Roberts	CH2M HILL	Y
Martha Rudolph	CDPHE	N
Steve Rudy	DRCOG	N

Attendee	Representing	
Gary Frey	Colorado Trout Unlimited	N
Janet Gerak	CDOT R 1	Y
Stephanie Gibson	FHWA	N
Dan Gibbs	Summit County	Y
Dave Hattan	FHU	Y
Vanessa Henderson	CDOT EPB	Y
Nicolena Johnson	Clear Creek EMS	N

Attendee	Representing	
Tom Schilling	Intermountain Corporate Affairs	Y
Paige Singer	Center for Native Ecosystems	N
Jo Ann Sorensen	Clear Creek Co.	N
Mary Jo Vobejda	CH2M HILL	Y
Mandy Whorton	CH2M HILL	Y

## Discussion Items

### Welcome and Introductions

Jim Bemelen reviewed the agenda. Participants introduced themselves.

### Other Corridor Project Schedules and Updates

#### Frontage Road

FIR plans have been updated with the survey information. The Final Office Review (FOR) plans will be done in early March with the project expected to advertise in April.

#### Inter-Regional Connectivity Study

The final selection process for Wendy Wallach's replacement is in the works and this project will be starting shortly after the hire is made.

#### AGS Study

Interviews were held last week and the final selection will be made shortly.

#### Other Items

Tony DeVito said the Governor's State of the State speech will include mention of the Twin Tunnels project. He congratulated the group on the job they are doing.

### Twin Tunnel Updates

#### Managed Lane Discussion planned for March

The consultant has received training on the traffic modeling software and the modeling will be presented to the PLT/TT at the March meeting. **The Managed Lane Questions (Attachment 1) will also be answered at the March meeting. If there are additional questions to add to this list, please forward them to Jim Bemelen.**

#### Status of Issue Task Forces

The next SWEEP meeting is on Thursday, January 19<sup>th</sup> and the next ALIVE meetings is Friday, January 20<sup>th</sup>. The final reports for both IFTs will be presented at the April PLT/TT Meeting.

A Doodle poll has been sent out for the next Section 106 meeting and a confirmation of the selected date will be sent out soon.

## CM/GC

The selection for the CM/GC contractor and design consultant will be made in February. The selected teams will be introduced at the April combined PLT/TT Meeting.

## Design Updates

The new survey has shown the existing outside shoulder is 10' wide, not 8'; therefore the new minimum cross-section will be 50' to maintain the existing ten-foot outside shoulder. The tunnel cross section will have a ten-foot outside shoulder and the minimum will now be 53' instead of 51'. This will provide better incident management.

The geotechnical investigation inside the tunnel will begin the last week in January. The work is expected to last two weeks. The work will be done at night and will require a lane closure. Some inventory will be done on the westbound tunnel for existing conditions.

Jack Morgan mentioned the westbound bore is starting to get a lot of ice buildup. Tony DeVito said he would send maintenance out to take a look at it.

The most cost effective method for the dog-house rail bridge rehab is to add small angle irons to the outside girders. The deck will be patched where needed and a membrane sealer will be applied and topped with a thin layer of asphalt. A temporary jersey barrier will be put up in front of the existing guard rail to make it crash worthy. When the contractor is brought on board, they may have some better ideas on the rehab.

Restoring the bridge to how it looked before the detour is very important to the PLT. These decisions will be addressed during the design phase with PLT input. Clear Creek County is working on their design for the game check area and inquired when CDOT will need their plans.

As part of the Value Engineering process, the schedule is being migrated to Primavera. **Ben has the basic schedule now that he can give to Clear Creek County now and will provide the finalized schedule in the next few weeks.**

The conceptual design will need to be done in the next two months for the EA Impact Analysis. The final design will be done early in 2013 as part of Package 3. Because this bridge is within the City of Idaho Springs, Clear Creek County will include the City in the design process.

Clear Creek County anticipates there will be three years of impacts on the bridge: construction of the Frontage Road in 2012; the detour in 2013 and decommissioning the detour in 2014. This could have a very big impact on rafting in this area. **Tim Mauck will work with CDOT to set up a meeting within the next month with the rafting community to discuss possible impacts and understand their operations.**

Jack Morgan said he is concerned about the safety of the bridge on Colorado Avenue which is the same as the Dog House Bridge. Tony DeVito said he will check into getting Jack the load ratings.

The group is concerned about what mitigation recommendations will be made because of the adverse effects to the historic nature of the Twin Tunnels. Mandy Whorton said mitigation will be the main topic of the next Section 106 Task Force meeting. Also, there will be an MOA signed

by the consulting parties as part of the Section 106 process which will detail the mitigation agreed upon.

## **EA Approaches**

### **Cross Sections**

The EA will evaluate both the 50' and 56' cross sections west of Hidden Valley and make a recommendation on the width in the decision document. Because the tunnel will be a permanent improvement, the project is using the 50' and 56' cross sections to explore the balance of tunnel width, resulting impacts and costs.

East of Hidden Valley the cross section has been set at 50' because this segment of the road may be throw-away in the future depending on the permanent design of 55 mph or 65 mph.

### **Adaptive Mitigation Approach**

During the EA, analysis of the impacts will be made based on the cross sections discussed above. These impacts and resulting mitigation measures will become a part of the contract documents.

All impacts result from a specific activity in a particular location at a defined time. All mitigation results from an impact. Therefore, the contract documents will describe the activity, location and timing. With the contractor as a part of the design, creative methods for construction may eliminate an activity in a particular location or at a defined time. In this situation the described mitigation would not be put in place.

The EA will describe this process and include a table of the impacts and associated mitigations for each activity, location and time. During construction the activities, locations, and times will be monitored by CDOT.

The PLT will remain intact throughout the construction and the contractor has the responsibility to report back to the PLT on a regular basis. One report the PLT will receive will address the status of impacts and mitigations as defined in the table described above.

### **Decision Making Framework to Address Cross Section and Managed Lane**

The Decision Making Framework outlines how the I-70 Mountain Corridor CSS six-step process has been used to determine the proposed action for the Twin Tunnels and what tolling options will be included in the EA analysis.

The Decision Making Framework further defines, in Table 1, how future decisions on the cross section width and the tolling options will be made.

The PLT has been involved in the development of the criteria for decision making. Future decisions will be discussed in PLT meetings. The group was asked to review Table 1 to make sure all their concerns are addressed.

The text in this document will be included in Chapter Two of the EA.

The group agreed the "project team" and "stakeholders" should be more clearly defined.

The group agreed that the discussion of tolling should include the following points.

- Tolling a lane (managed lane option) is being considered for congestion management which would provide a more reliable travel time for those willing to pay.
- The price would fluctuate depending on demand.
- DRCOG does not have an official policy on tolling but DRCOG guidance requests consideration of tolling on any new capacity.
- The modeling will look at three scenarios for 2035: no action, managed lane and general purpose lane.
- It is possible the modeling will indicate that implementing tolling at this time is not feasible; however, CDOT would retain the right to implement tolling in the future if conditions change.

The group suggested the 6<sup>th</sup> Step should be reworded to reflect it is to evaluate how the CSS process worked and how NEPA worked.

It was suggested that CDOT do a public information campaign to explain they are studying tolling because of funding challenges.

### **Future Meetings**

Combined PLT/TT Meetings were scheduled for:

Wednesday, February 8<sup>th</sup>: Discuss construction assumptions and plan

Thursday, March 15<sup>th</sup>: Discuss Traffic Analysis, Managed Lanes and Value Assessment recommendations

Thursday, April 12<sup>th</sup>: Introduce the CMGC and design team and final reports from the IFTs

Thursday, May 10<sup>th</sup>: Discuss impacts and Mitigation

# Agenda



# *I-70 Twin Tunnels Environmental Assessment Combined Project Leadership and Technical Team Meeting*

**Thursday, January 12, 2011**

**Golden Residency**

**9:00 am - 12:00 pm**

1. Welcome and Introductions (Bemelen)
2. Other Corridor Project Schedules and Updates (Bemelen)

Frontage Road (Acimovic)  
Inter-regional Connectivity Study (Bemelen)  
AGS Study (Bemelen)

3. Twin Tunnel Updates (Bemelen)

Managed Lanes discussion planned for March (Bemelen)  
Status of Issue Task Forces (Noyes)  
    SWEEP (including SCAP); ALIVE; 106 Process;  
CMGC (Acimovic)

4. Design Updates (Brown)

Existing Shoulders 10'  
Geotechnical Investigation - January/February lane closures

5. EA Approaches (Whorton)

Both cross sections presented in EA with decision in the Decision Document  
Adaptive Mitigation Approach  
Decision Making Framework to address Cross Section and Managed Lane

6. Next Combined PLT/Tech Team Feb. 9, 2012 (Bemelen)

## Handouts

Managed Lane  
Questions

Decision Framework

<b>Date</b>	<b>Group</b>	<b>Purpose</b>
Jan. 12	PLT and Tech Team	Project Progress and Status Managed Lane Process and Criteria Discussion
Jan	Greenway	
Jan. 19	SWEEP	
Jan. 20	ALIVE	
Feb. 9	PLT and Tech Team	Construction Assumptions and Plan
Feb	Section 106 ITF	
Mar	PLT and Tech Team	Traffic Analysis Value Assessment Results
Apr	PLT and Tech Team	Introduce the CMGC and Design Teams Schedule and Project Status Final Reports from Issue Task Forces
May	PLT and Tech Team	Discuss Impacts and Mitigation
June	PLT or Tech Team	Agenda To Be Determined
July	PLT or Tech Team	Agenda To Be Determined
Aug	PLT or Tech Team	Agenda To Be Determined
	Public Hearing	Date To Be Determined

# Attachment 1



## TWIN TUNNELS MANAGED LANE QUESTIONS

The following questions were posed by the Twin Tunnels' Project Leadership Team and the Technical Team members while discussing the Managed Lane option proposed for the Twin Tunnels Project.

- What is the relationship between the toll and congestion? How does it improve flow? How does it improve reliability of travel time?
- What are the assumptions for the model in determining how much the toll should be?
- What is the value of time used in the model?
- How do managed lanes affect the 1041 process?
- Are there other processes that will review this option and how does public input play into those processes?
- What is the revenue generation?
- What infrastructure is required?
- What is the relationship between PEIS model and the DYNAS-T model?
- When will the tolls turn on – time of day and initial day - what is the threshold?
- How will travelers be notified?
- How does the managed lane affect or improve air quality?
- How does the managed lane affect or improve emergency response?
- How does tolling affect the footprint? Could the design speed be higher if we didn't have managed lanes?
- How will the model be validated and tested?
- What are the safety implications of the Managed Lane option?

# Presentation

# 6-Step Process

- Define Desired Outcomes and Actions
  - » Formed PLT
  - » Review previous recommendations of PEIS and Tunnel Visioning Workshop
  - » Move forward with Tunnel Visioning recommendation of Concept Package 2 as Proposed Action
- Endorse the Process
  - » Formed Technical Team and Issue Task Forces
  - » Developed Context Statement and Core Values
  - » Identified issues of concern



# 6-Step Process (cont.)

- Establish Criteria
  - » Criteria developed in Tunnel Visioning to select Proposed Action
  - » Consideration of how Core Values are reflected in refined design
  - » Review tolling options
- Develop Alternatives or Options
  - » Range of cross section
  - » Range of tolling options



# 6-Step Process (cont.)

- Evaluate, Select, and Refine Alternatives or Options
  - » Screening process used to develop and select the PEIS Preferred Alternative
  - » Screening process used to recommend Tunnel Visioning site-specific action for Twin Tunnels
  - » Environmental Assessment will fully evaluate impacts and mitigations associated with the Proposed Action
- Finalize Documentation and Evaluate Process
  - » EA and evaluation of lessons learned



# Step 3 – Establish Criteria

## Critical Success Factors from Tunnel Visioning

- Improve mobility
- Compatibility with existing plans
- Timing of implementation
- Cost
- Level of environmental change
- Level of economic benefit
- Design flexibility and long term usability
- Stakeholder acceptance
- Attractive solution to gain funding and political support
- Safety
- Construction disruption

# Step 3 – Establish Criteria (cont.)

## Criteria for New Tolling Option

- Consistency with current CDOT practices for highway capacity projects in or adjacent to the DRCOG region
- Ability to maintain a less congested, more reliable option for travel
- Ability to alter travel behavior to encourage off peak travel
- Ability to accommodate freight traffic
- Socio-economic impacts on local travelers
- Socio-economic impacts associated with recreational traffic
- Ability to accommodate emergency vehicles
- Safety
- Energy consumption
- Effect to adjacent roads of diverted traffic



# Step 4 – Develop Alternatives & Options

## Tolling Options

Option	Evaluation
Toll all lanes all the time (eliminated)	<p>Not consistent with CDOT practices</p> <p>Severe socioeconomic impacts</p> <p>Does not meet freight needs</p> <p>Results in frontage road congestion</p>
Toll only new lane all the time (eliminated)	<p>More consistent with CDOT practices but more disproportionate impact on local traffic</p>
Toll all lanes during congested periods only (eliminated)	<p>Similar issues as tolling all lanes all the time but lesser effects</p> <p>Overload of frontage road</p>
Toll new lane during congested periods only (retained and evaluated in EA)	<p>Consistent with CDOT practices</p> <p>Offers opportunity to manage congestion</p>
Do not implement tolling at this time but reserve the right to implement tolling as part of a larger project in the future (retained and evaluated in EA)	<p>Consistent with state and federal tolling regulations</p> <p>Offers flexibility to manage future traffic congestion without affecting current operations or incurring capital costs of implementing a tolling program</p>

# Step 5 - Evaluate, Select, and Refine Alternatives or Options

- Consideration of Core Values
- Consideration of regulatory requirements from NEPA, Clean Air Act, Clean Water Act, National Historic Preservation Act, Section 4(f), etc.
- Factors are reflected in Table 1 of handout, and are being used to inform decisions on tolling and roadway width

