

## FINAL Meeting Minutes

**Project:** CDOT Region 3—SH 82 Grand Avenue Bridge

**Purpose:** PLT Meeting #6

**Date Held:** January 12, 2012

**Location:** Glenwood Springs Community Center

**Attendees:**

**CDOT:** Josh Cullen, Joe Elsen, Tammie Smith (conference call),  
Roland Wagner

**Transportation Commission (City):** Shelley Kaup

**FHWA:** Eva LaDow (conference call)

**City of Glenwood Springs:** Bruce Christensen

**Eagle County:** Eva Wilson

**Garfield County:** Jeff Nelson

**Glenwood Hot Springs:** Kjell Mitchell

**Glenwood Springs Chamber:** Suzanne Stewart

**Historic Preservation Commission:** Gretchen Ricehill

**Pitkin County:** Brian Pettet

**Downtown Development Authority:** Leslie Bethel

**Colorado Bridge Enterprise:** Josh Laipply

**Jacobs:** Craig Gaskill, Jim Clarke,

**TSH:** George Tsiouvaras, David Woolfall

**Pat Noyes and Associates:** Pat Noyes (conference call)

**Newland Project Resources:** Tom Newland

**Copies:** PLT Members, File

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## SUMMARY OF DISCUSSION:

### INTRODUCTIONS

### SCREENING PROCESS AND CRITERIA

1. All documents presented are included as attachments to these minutes.
2. Some modifications to the Purpose and Need had been made since the last PLT meeting. These occurred as a result of further review by FHWA and CDOT. The changes were reviewed with the PLT. One revision was recommended by the PLT: Spell out the “Roaring Fork Transit Agency” rather than list RFTA.

3. Similarly, some modifications to the Project Goals had also been made since the last PLT. A question was about why the meeting design standard was a goal and not a given? Craig explained that to meet standards there may be unreasonable impacts, so this goal recognizes this condition. The group discussed how variances work and that some flexibility existed within the process as long as the solution is safe. The goals also recognize that rehabilitation of the bridge requires a 30-year life while a reconstruction would require 75 years.
4. The Project Goals were agreed to by the PLT as presented.
5. The Screening Process was presented and provided as a handout. This includes three levels of screening, each with increasing detail.
6. The Level 1 screening criteria were reviewed.
7. Proposed Level 2 and Level 3 screening criteria were included in the handout and briefly discussed. No initial concerns were noted.
8. The PLT concurred with the screening process, the Level 1 criteria, and with proceeding with Level 1 screening.
9. Input on Level 2 and Level 3 screening criteria and associated measures of effectiveness (MOEs) are due back to the study team within two weeks (by January 26<sup>th</sup>).

## **INITIAL FAMILIES OF ALTERNATIVES**

1. A presentation was made of the initial families of alternatives and how these were developed. There are also alternative elements that are not considered at Level 1 but will be added in the future.
2. Alternatives are generally bound by Cooper & Colorado Avenues, 6<sup>th</sup> and 8<sup>th</sup> Streets, and Exit 116.
  - a. Alignment Alternatives
    - i. It was noted that single alignments that connect with roads like Colorado might have challenges since those roads have smaller right-of-way width than Grand Avenue. Couplets might work within these smaller rights-of-way.
  - b. Cross Section Alternatives
    - i. Several cross section elements were discussed.
  - c. Profile Alternatives
    - i. Touchdown for pedestrian bridge to meet clearance requirements would land between 7th and 8th Streets if it stays on the SH 82 alignment.
    - ii. This family allows for investigation of how much of a plaza could be developed as part of the process today. A graphic demonstrated the inadequate vertical clearance envelope for both 7th Street and the railroad. If the profile is raised it helps to extend the possibility of a plaza and extend it to about the coffee shop with a vertical clearance of 8 feet at the minimum with the vertical clearance growing rapidly to the north. One consideration could be eliminating the pedestrian crossing on the north side of the intersection at 8<sup>th</sup> Street to help with

the traffic constraints. The pedestrians could still cross on the south side of 8th Street.

- iii. It was identified that one of the Downtown Development Authorities' 2012 projects would be to make the alley near the Italian Underground more pedestrian friendly.
- iv. There was a question on how we will arrive at a decision whether to separate pedestrian traffic from bridge? The differences between different pedestrian options will be evaluated during later screening levels, but first we need to pare down alternatives to a reasonable number before we start adding in other alternative elements.

## **LEVEL 1 ALTERNATIVES SCREENING**

1. Recommendations were made for Level 1 screening of alignments, cross sections, and profiles. The following recommendations were made:
  - a. Alignments west of Colorado or East of Cooper.
  - b. Alternatives that head straight south from Exit 116.
  - c. Two-lane alternatives.
  - d. Any alternative with at-grade crossings of the railroad.
  - e. Options that grade separated below the railroad.
2. The PLT agreed on all recommendations.

## **UPDATES**

1. Public Involvement
  - a. Craig provided an update on public involvement activities
    - i. Project logos
      - o Concerns expressed by some that the Grand Avenue and South Bridge logos are too similar.
      - o Question to PLT— are they too similar such that they might cause confusion?
      - o Discussion—changing colors will help, focus on changing burnt orange. Other options could be to change the font or add some historic buildings to the logo.
      - o Study team will send out some options to the PLT for input.
    - ii. Public meeting planned for April 4th
    - iii. Rotary Club meeting planned for January 13th. Joe Elsen and Tom Newland will present.
    - iv. Stakeholder Working Group (the Visioning Group) meeting is tentatively planned for Feb. 13th.

- v. There is a combined Chamber of Commerce, DDA, Downtown Partnership workshop/presentation planned. Leslie agreed this is a good idea and suggested this could occur with the Stakeholder Working Group meeting.
  - vi. Tom working on setting up Transportation Commission workshop. Shelly offered that this could be a special meeting.
  - vii. City Council workshop is tentatively considered for late March.
  - viii. Similarly, Tom will check with the County Commissioners to see if they are interested.
  - ix. Individual stakeholder meetings as needed/requested.
  - x. It was suggested that Valley View hospital be contacted to see if they are interested in discussing the project.
  - xi. New scope will include social media outreach pending CDOT policy input.
  - xii. New scope will include 3D model.
  - xiii. New scope will include WebEx meeting (Public).
  - xiv. Visioning Workshop Summary documents are complete and will be available shortly on the ftp site.
  - xv. The ftp site is now available. Instructions will be sent out.
2. Planning
- a. There was no separate planning update as planning activities were covered under the main agenda items.
3. Environmental
- a. Tammie to follow up with the CDOT historian on a site visit with SHPO.
4. Engineering
- a. Checking existing data; fatigue does not seem to be issue.
  - b. Next scope includes mapping and scour survey.
  - c. George will follow up on getting structure depths for railroad bridge.
  - d. It was noted that Wednesday's (1/11/12) newspaper had story about Thompson Divide natural gas development. If growth occurs as planned, great increase in heavy truck traffic along Grand; Midland Avenue doesn't allow heavy truck traffic.
5. Schedule
- a. Craig discussed the revised schedule with a recommendation on the preferred alternative being extended to August 2012, which will give us more time to consider the options. The overall schedule will be maintained by completing more engineering effort earlier.

## **ACTION ITEMS**

- 1. Revised logo options will be sent out to the PLT for review.
- 2. The study team will work on setting up a combined Downtown Development Authority (DDA), Downtown Partnership (DP), and Chamber of Commerce meeting, perhaps combined with the Stakeholders Working Group (being planned for February 13th).

3. The study team will send out information on accessing the ftp site.

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# SH 82 Grand Avenue Bridge Project Leadership Team Meeting #6 Glenwood Springs Community Center

## AGENDA

January 12, 2012

1:30 p.m. to 3:30 p.m.

1. **Updates**
  - a. Public Involvement
  - b. Planning
  - c. Environmental
  - d. Engineering
2. **Screening Process and Criteria**
3. **Initial Families of Alternatives**

**Project Leadership Team Meeting #6**  
**January 12, 2012**  
**1:30 p.m. to 3:30 p.m.**  
**Glenwood Springs Community Center**

<b>Present</b>	
<b>Colorado Department of Transportation, Region 3</b>	
✓	Josh Cullen
✓	Tammie Smith (via WebEx/conference call)
✓	Joe Elsen
✓	Roland Wagner
<b>City of Glenwood Springs City Council Representative</b>	
✓	Bruce Christensen
	Shelley Kaup (alternate)
<b>City of Glenwood Springs</b>	
	Dave Betley
<b>Colorado Bridge Enterprise/ AECOM</b>	
	Charlie Trujillo
✓	Josh Laipply (alternate)
<b>Eagle County</b>	
✓	Eva Wilson
<b>Garfield County</b>	
✓	Jeff Nelson
<b>Pitkin County</b>	
✓	Brian Pettet

<b>Present</b>	
<b>FHWA</b>	
✓	Eva LaDow (via WebEx/conference call)
<b>Jacobs</b>	
✓	Craig Gaskill
✓	Jim Clarke
<b>Tsiouvaras Simmons Holderness, Inc. (TSH)</b>	
✓	George Tsiouvaras
✓	David Woolfall
<b>Glenwood Hot Springs</b>	
✓	Kjell Mitchell
<b>Glenwood Springs Chamber Resort Association</b>	
✓	Suzanne Stewart
<b>Downtown Development Authority</b>	
✓	Leslie Bethel
<b>Historic Preservation Commission</b>	
	Gretchen Ricehill
<b>Other (Name/Organization)</b>	
✓	Tom Newland — Newland Project Resources
✓	Pat Noyes — Pat Noyes & Associates (via WebEx/conference call)

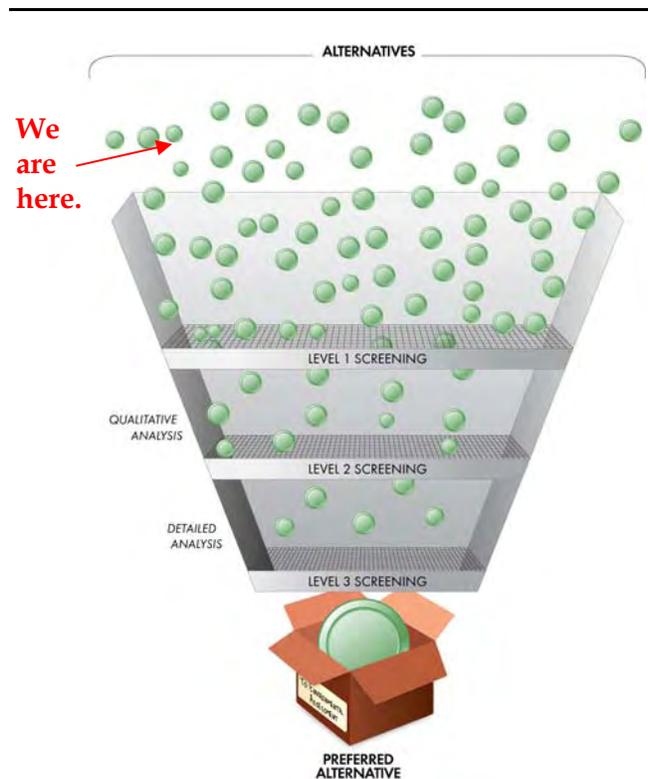
## Introduction

This document summarizes the upcoming alternatives screening process for the SH 82 Grand Avenue Bridge project.

### Level 1 Screening

As a means of arriving at a Preferred Alternative(s), the study team will develop and screen alternatives based on increasing levels of analysis and evaluation, with the first screening being the most basic Fatal Flaw level. The Level 1 screening will evaluate whether the proposed alternative meets the following criteria:

- Does the improvement meet the Purpose and Need?
- Does the improvement have irresolvable environmental impacts?
- Does the improvement have exorbitant costs?
- Does the improvement use unproven technology?
- Is the improvement constructible?
- Is the improvement part of the No Action Alternative?



The figure illustrates the multi-level screening process. If an alternative does not meet the above criteria, it is screened and does not continue into later stages of evaluation.

In some instances, alternatives may be screened during this step, but ultimately become part of the Preferred Alternative. Because they do not meet the screening criteria, these alternatives would not be stand-alone alternatives, but could be combined with other alternatives. For example, transit, travel demand management, and intelligent transportation system improvements might all be screened during Level 1, but could be retained as supplemental alternatives if they enhance the Preferred Alternative.

Oftentimes, new alternatives arise as the alternatives development and screening process is moving forward. The study team would carry these newly identified alternatives through the screening process, starting at Level 1, and evaluate them at each level.

## Level 2 Screening - Qualitative Analysis

This second level of the screening process is a qualitative comparative evaluation. The qualitative analysis rates each of the alternatives based on measures of effectiveness (MOEs) developed for each of the projects needs and goals. More thorough than the preceding Level 1 screening, this step eliminates alternatives that do not meet the project needs and goals as well as others. In general, evaluations are based on MOEs where discernable and relevant differences between alternatives can be determined.

Ratings are based on a cursory review of the information available in each of the respective disciplines. Later, in the final screening, the remaining alternatives will be compared at a more detailed, quantitative level.

Criteria and measures of effectiveness (MOEs) are developed for both project purpose and need elements and project goals. Project goals supplement the project Purpose and Need. These goals help differentiate between the transportation improvements identified to meet the transportation needs and therefore help guide the alternatives development and screening process. While the needs must be addressed by the project, the goals provide a framework by which the proposed improvements can exceed those requirements.

### Criteria and MOEs

#### **Purpose and Need Element**

*Improve connectivity between downtown Glenwood Springs, and the Roaring Fork Valley, with the historic Hot Springs pool area and I-70.*

1. Relative ability to provide good connectivity for Glenwood residents and visitors between downtown Glenwood Springs/ Grand Avenue and historic Glenwood Hot Springs area/ I-70.
2. Relative ability to provide good connectivity for through traffic between Grand Avenue and I-70.

#### **Purpose and Need Element**

*Address the functional and structure deficiencies of the bridge to improve public safety, including emergency service response, and reliability as a critical transportation route.*

1. Relative ability to minimize risk of bridge closure.
2. Relative ability to address existing functional deficiencies.
3. Relative ability to address existing structural deficiencies.
4. Relative bridge life.
5. Relative ability to improve emergency access across the bridge.

## Level 2 Screening - Qualitative Analysis

### Measures to Address Project Goals

*Minimize environmental impacts to scenic, aesthetic, historic, and natural resources.*

1. Relative effect on environmental resources, including:
  - Historical resources
  - Parks and recreation resources
  - Visual / aesthetics
  - Water and aquatic resources
  - Noise and air quality

*Is the project in harmony with the community?*

1. Ability of the alternative to provide a Context Sensitive Solution (CSS).
2. Ability of the alternative to address the Project Context Statement.
3. Ability of the alternative to satisfy the Project visioning .

*Provide a practical and financially realistic alternative.*

1. Relative cost of the alternative.
2. Relative ability to construct.
3. Relative bridge life

*Reduce and minimize construction impacts to the businesses, transportation users, and visitors.*

1. Relative construction impacts to businesses.
2. Relative construction impacts to traffic.
3. Relative construction impacts to pedestrians and bicyclists.
4. Relative construction impacts to visitors.

*Minimize private property impacts.*

1. Relative physical impact on private property.
2. Relative economic impact on private properties.

*Safely accommodate transportation users.*

1. Ability of the alternative to improve traffic safety on the Grand Avenue Bridge.
2. Ability of the alternative to provide for safe pedestrian and bicycle use across the Colorado River.
3. Ability of the alternative to meet design standards.

*Maintain and improve multimodal connections for buses, pedestrians, and bicycles.*

1. Ability of alternative to improve connections for buses.
2. Ability of alternative to improve connections for pedestrians.
3. Ability of alternative to improve connections for bicycles.

*Provide an alternative that is consistent with city planning.*

1. Is the alternative consistent with the goals and objectives of SH 82 Corridor plans? (if not, why?)
2. Is the alternative consistent with City of Glenwood plans? (if not, why?)

*Incorporate sustainable elements into the design.*

1. Is the alternative compatible with local sustainability plans? (yes/no)
2. Does the alternative preserve future transportation options? (yes/no)

*Maintain or improve transportation operations in the project area.*

1. Relative ability of the alternative to maintain or improve transportation operations in the project area.

### Level 3 Screening – More Detailed Analysis

This third level of the screening process is a more detailed comparative evaluation. The primarily quantitative analysis rates each of the alternatives based on MOEs developed for each of the projects needs and goals. More thorough than the preceding Level 2 screening, this step eliminates alternatives that do not meet the project needs and goals as well as others.

In general, evaluations are based on MOEs where discernable and relevant differences between alternatives can be determined.

#### Criteria and MOEs

##### **Purpose and Need Element**

*Improve connectivity between downtown Glenwood Springs, and the Roaring Fork Valley, with the historic Hot Springs pool area and I-70.*

1. Connectivity for local traffic (ability to connect between downtown Glenwood Springs and the historic Hot Springs pool area.
2. Connectivity for regional traffic (ability to connect between the Roaring Fork Valley and I-70.

##### **Purpose and Need Element**

*Address the functional and structure deficiencies of the bridge to improve public safety, including emergency service response, and reliability as a critical transportation route.*

1. List of functional deficiencies.
2. List of structural deficiencies.
3. Anticipated bridge life in years.
4. Emergency vehicle travel time across bridge.
5. Variability of emergency vehicle travel time across bridge.

### Level 3 Screening – More Detailed Analysis

#### Measures to Address Project Goals

*Minimize environmental impacts to scenic, aesthetic, historic, and natural resources.*

1. Effect on all potentially impacted environmental resources:
  - Historical resources – number, location, and amount of impact
  - Parks and recreation resources – number and type of properties, number of acres, location, and level of impact
  - Visual / aesthetics – view sheds, renderings of key views
  - Water and aquatic resources – description of impacts
  - Noise – noise levels at adjacent receivers
  - Air quality – Level of congestion at adjacent intersections.
  - Wetland (if any) – number and acres impacted

*Is the project in harmony with the community?*

1. Ability of the alternative to provide a Context Sensitive Solution (CSS) – description.
2. Ability of the alternative to address the Project Context Statement – description.
3. Ability of the alternative to satisfy the Project visioning – description.

*Provide a practical and financially realistic alternative.*

1. Cost estimate of the alternative.
2. Ability to construct – description.
3. Bridge life

*Reduce and minimize construction impacts to the businesses, transportation users, and visitors.*

1. Construction impacts to businesses.
  - Change in access.
  - Approximate length of construction.
  - Change in visibility.
2. Construction impacts to traffic.
  - Delay during construction.
3. Relative construction impacts to pedestrians and bicyclists.
  - Change in routes.
  - Closures.

4. Relative construction impacts to visitors.
  - Change in access.
  - Noise.
  - Length of construction.
  - Extent of construction.
  - Congestion.

*Minimize private property impacts.*

1. Physical impact on private property.
  - Number and location of impacts.
  - Number and location of relocations.
2. Relative economic impact on private properties – in range of dollars.

*Safely accommodate transportation users.*

1. Ability of the alternative to improve traffic safety on the Grand Avenue Bridge.
  - Deviations from design standards based on safety.
  - Projected accidents as available for conditions.
2. Ability of the alternative to provide for safe pedestrian and bicycle use across the Colorado River.
  - Deviations from design standards based on safety.
  - Separation from traffic.

*Maintain and improve multimodal connections for buses, pedestrians, and bicycles.*

1. Ability of alternative to improve connections for buses – description.
2. Ability of alternative to improve connections for pedestrians – description.
3. Ability of alternative to improve connections for bicycles – description.

*Provide an alternative that is consistent with city planning.*

1. Consistency with the goals and objectives of SH 82 Corridor plans – describe.
2. Consistency with City of Glenwood plans – describe.

*Incorporate sustainable elements into the design.*

1. Compatibility with local sustainability plans – describe.
2. Ability of alternative to preserve future transportation options – describe.
3. Ability of alternative to reduce maintenance costs – describe and include estimated maintenance costs as available.

*Maintain or improve transportation operations in the project area.*

1. Hours of delay within project area.
2. Average travel time on SH 82 within project area.

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