BANKS-LOWMAN
Rockfall Hazard Mitigation Project
PHASE2

Banks-Lowman Rockfall Hazard Mitigation Phase 2 Project

Public Meeting

Open House 5:00 - 7:00 pm
(Presentation at 5:30 pm)

ATKINS

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Please have a seat!
We will be starting
the presentation shortly.

Agenda

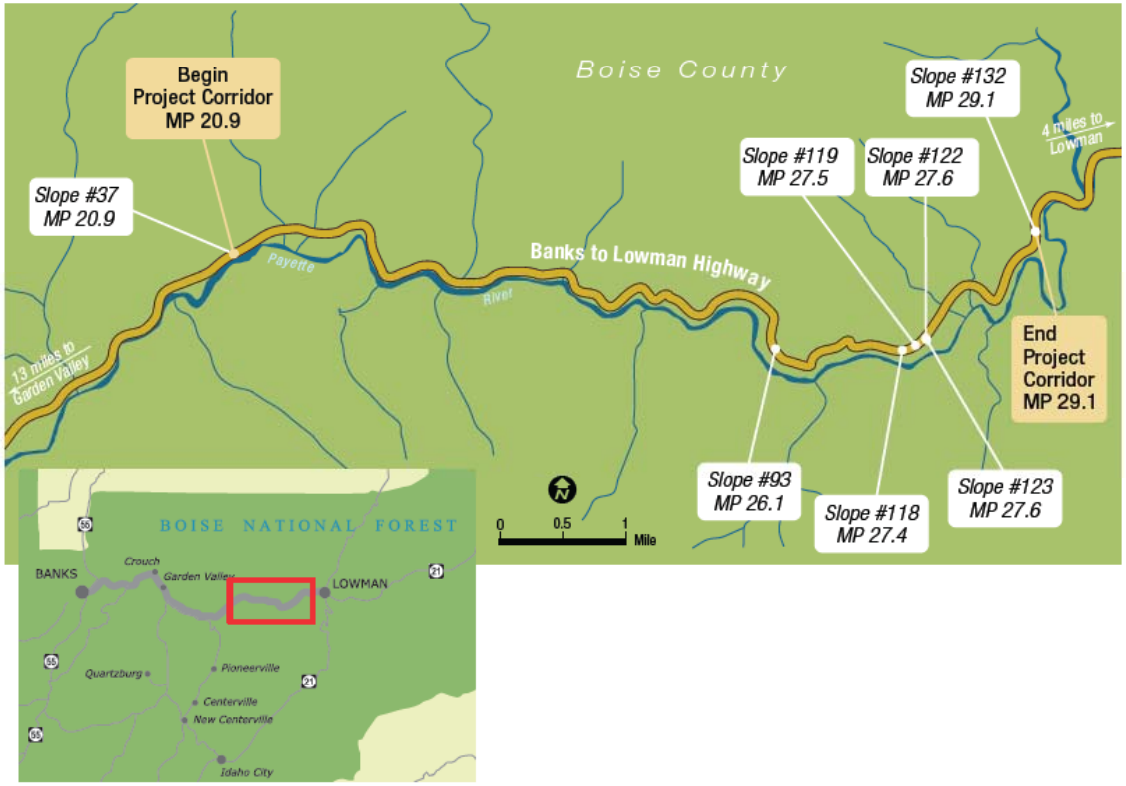
- Project Team Introductions
- Project Overview
- Project Criteria
- Environmental Overview
- Project Mitigation Methods
- Next Steps
- How to Stay Involved
- Questions/Comments

Banks-Lowman Project Team

- Cooperative effort between Western Federal Lands Highway Division (WFLHD), Idaho Transportation Department (ITD), and Boise County.
  - **WFLHD Project Manager**
    - Greg Gifford
  - **Consultant Project Manager**
    - Kristin Lang
  - **Public Involvement Specialist**
    - Anahita Behrad
  - **WFLHD Environmental Specialist**
    - Hannah Visser
  - **Consultant Environmental Specialist**
    - Becky Rude
  - **Consultant Structural Engineer**
    - Alex Whitney
  - **Subconsultant Geotechnical Engineer**
    - Mark Vessely

Project Overview

- The Banks-Lowman Highway, an approximate 33-mile corridor, runs along the South Fork Payette River between the communities of Banks and Lowman in Idaho, located 45 miles north of Boise.



Project Overview

- Work completed to date:
  - Rockfall Hazard Rating System (RHRS) for the 164 existing slopes
  - 13 slopes were rated “very high”
  - Priority for mitigation funding will reserved for the highest ranking slopes
  - Phase 1 – Design of Slopes 37, 89, 100, 112, 113, and 132
  - Phase 1 – Categorical exclusion environmental document and construction package for Slopes 89, 100, 112, and 113
  - Phase 2 - Draft concept study completed in November 2012 to screen initial mitigation methods/alternatives for Slopes 93, 118, 119, 122, and 123

- Phase 2 will develop a construction package for Slopes 37, 93, 118, 119, 122, 123, and 132.

Project Criteria

- Meet the aesthetic requirements for the forest service and corridor plans
- Rockfall catchment of 90% or greater
- Minimize/avoid rockfall in the river
- Maintain traffic during construction
- Provide cost effective mitigation methods
- Reduce rockfall maintenance requirements

Screening Process

- The process used to screen the range of initial alternatives included analysis of:
  - Construction costs
  - Life-cycle costs
  - Rockfall hazard
  - Risk reduction
  - Constructability
  - Impacts to the river
  - Reclamation opportunities
  - Aesthetic and visual assessments
  - Maintenance

Environmental Overview

Land Management

- *Boise National Forest Land & Resource Management Plan* (2010)
  - Context sensitive design and mitigation required to meet Visual Quality Objectives of plan
  - Project may require forest amendment to provide permanent rock debris disposal sites since project is within a management area with many roadless areas (Management Area 11)
  - South Fork Payette River is eligible for Wild & Scenic River designation
- *Wildlife Canyon Scenic Byway Corridor Management Plan* (2004)
  - Points of Interest identified along or near corridor: River View Point, Timber Point, Hole-in-the-Wall Canyon View, and Pine Flats hot springs.

Threatened and Endangered Species

- Minimize potential impacts to bull trout and associated habitat in the South Fork Payette River

Recreation

- Ensure access and safety for recreational users on the river since area is highly used for fishing, kayaking, camping, and other outdoor activities

Project Mitigation Methods

- Mesh

(Recommended for Slopes 93, 118,119, 122, and 123)

- Draped
  - Loosely draped high strength wire mesh supported by a cable

-Anchored
  - High strength wire mesh with rock bolts

Project Mitigation Methods

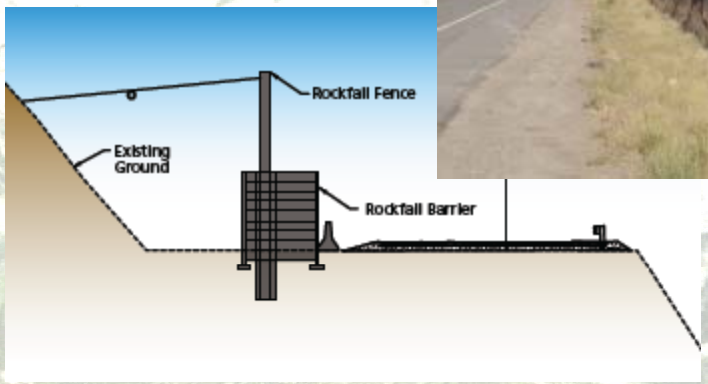
- Rockfall barrier and fence

(Recommended for Slopes 93, 118,119, 122, and 123)

- Barrier Walls
  - Wall at the bottom of slope

- Fence
  - Extensible fence at bottom of slope

- Barrier with Fence
  - Hybrid



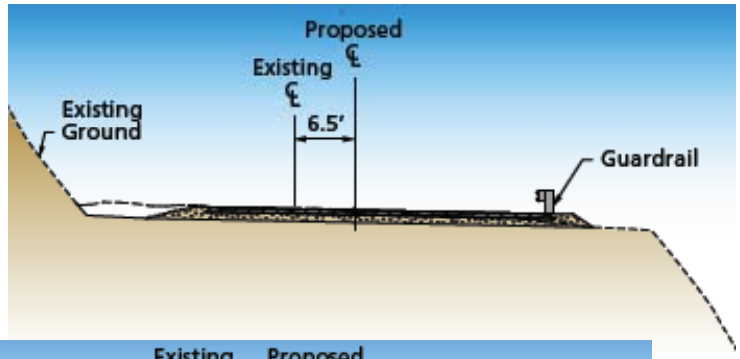
Project Mitigation Methods

- Realignment

  - 6.5’

    - Offset existing road 6.5’ towards downhill

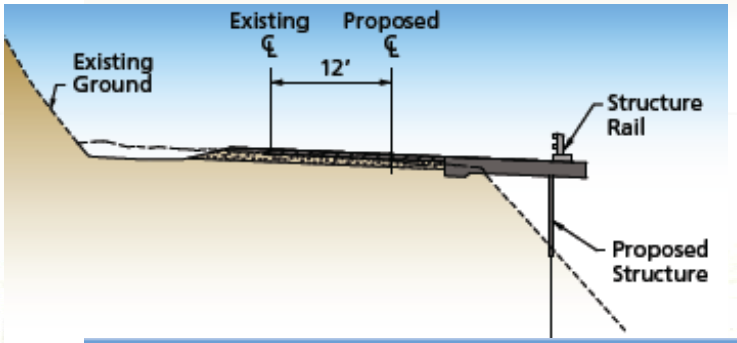
(Recommended for Slopes 93, 118,119, 122, and 123)



  - 12’

    - Offset existing road 12’ towards downhill

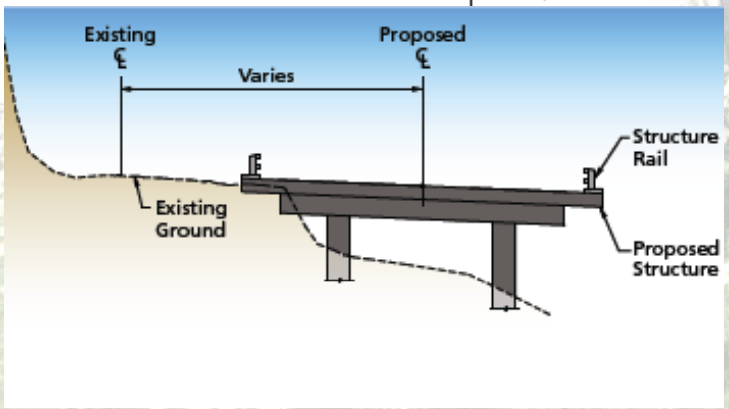
(Recommended for Slope 93)



  - Geometry Curve Correction

    - Offset existing road 30-40 feet towards downhill

(Recommended for Slope 93)



Project Mitigation Methods

- Scaling
  - Removing loose materials using manual mechanical methods

(Recommended for Slopes 93, 118,119, 122, and 123)

- Rock Bolting
  - Installing metal or fiberglass bars

(Recommended for Slopes 93, 118,119, 122, and 123)

Project Mitigation Methods

- Rockfall sheds
  - Placing shed over road

- Shotcrete
  - Installing anchored shotcrete facing on slopes

- Slope geometry modification
  - Changing the angle of the slope

What Happens Next?

Milestone	Timeframe
Address Comments from Public Meeting and Stakeholders	January/February 2013
Preliminary design/environmental documentation	2013
Construction	2014

Other WFLHD projects in the Area	
Project	**Timeframe**
Rockfall mitigation project – Phase 1 • Rock Scaling and Wire Mesh on Slopes	Summer 2013
Davey's Bridge Replacement • Replacing the bridge structure due to low sufficiency rating	2012-2013

How to Stay Involved

- Website
  - Check out our website for updates on major milestones and construction delays

    www.wfl.fhwa.dot.gov/projects/id/banks-lowman
- Email
  - Join our online mailing list to receive e-mail updates on major milestones and construction delays

    Bankslowman.na@atkinsglobal.com
- Mail
  - Mail your comments to the Project Team

    Banks-Lowman Rockfall Hazard Mitigation Phase 2 Project Team
    Atkins
    4601 DTC Boulevard, Suite 700
    Denver, CO 80237

Questions/Comments?