

Montana Department of Transportation

PO Box 201001 Helena, MT 59620-1001

Memorandum

| To: | Dustin Rouse, P.E Engineering Preconstruction Engineer |
|----------|---|
| From: | J.R. Taylor, P.E. Consultant Projects Engineer ${\cal JRT}$ |
| Date: | January 7, 2021 |
| Subject: | STPB 81018(7) Smith Creek – 1mi W of Forsyth UPN 9554001 Work Type 221 - Bridge Replacement with no added capacity |

The Scope of Work Report for this project was released on 11/8/2020.

Attached are approvals and concurrence from: Shane Mintz, Dave Hoerning (for Rob Stapley), Scott Walter (for Stephanie Brandenberger), Damian Krings, Gabe Priebe, Paul Johnson (for Rob Stapley), Christopher Trautmann (for Shane Pegram), Jeff Jackson, Jon Swartz, and Tom Martin.

Comments received are shown below with responses following.

Comment from Right-of-Way/Utilities (Drew Nelson): Please include section b in the utilities section under Right-of-Way, and section c under the utilities section is not needed.

Response: Noted. Discussion of these items will be properly placed in future milestone reports.

Comment from Traffic & Safety (Gabe Priebe): Please include a reference in the traffic section of the report that pavement markings will be provided.

Response: Noted. Pavement markings will be provided.

Comment from Environmental (Tom Martin): Please update the following statement in the SOW document (page 5 of 9, under the Environmental Considerations section):

Update Section c to:

"The project requires demolition of the existing Smith Creek bridge. An asbestos inspection was conducted in March 2020 to evaluate for presence of asbestos-containing material (ACM). The inspection report indicates that no ACM is present. A special provision for bridge demolition notification (to Department of Environmental Quality) for the contractor is anticipated; however, a special provision for handling and disposal of ACM (or lead) is not anticipated".

Response: Noted. See section update above.

Comment from Glendive District (Shane Mintz): For this particular project I do not think an open house is necessary assuming we are still considering an on-site detour.

Response: An on-site detour will be utilized. The project website will be updated with project plans including the proposed detour and a News Release will be sent out informing the public of our progress and the updates to the website.

Comments From Highways (Damian Krings):

 Please clarify the length/limits of the project with a clearer description of the vertical alignment proposed.

Response: Updated horizontal and vertical alignment descriptions. Horizontal was updated to assist in understanding of the vertical.

b. Horizonal Alignment.

The horizontal curve begins at PC Sta.15+75.49, with transition from normal crown to 4% superelevation Sta. 15+56.29 to Sta. 16+04.29. The bridge will be fully superelevated at 4% for its length (Sta. 16+93.14 to Sta 17+96.50). The 4% superelevation of the roadway begins to transition to match into the existing roadway at Sta. 19+90.84, tying into the existing roadway at Sta. 20+71.00 which has an approximate -7.2% cross-slope in the westbound lane and about a +0.7% cross-slope in the eastbound lane.

c. Vertical Alignment.

The vertical alignment will include an approximate 2-ft grade raise across the bridge to accommodate the superstructure depth and required freeboard of the proposed bridge. The following table details the vertical curve information for the 4 curves used to transition the roadway from existing grades and up and over the required grade raise at the bridge. Vertical curve k-values and sight distance for the proposed vertical alignment meet the baseline criteria for a 50-mph design speed.

| Vertical Curve Information | | | |
|----------------------------|--------------|---------------|-------------------|
| VPI Sta | Grade In (%) | Grade Out (%) | Curve Length (ft) |
| 13+00.00 | 0.200 | 1.883 | 170 |
| 15+00.00 | 1.883 | 0.502 | 220 |
| 18+50.00 | 0.502 | 1.146 | 100 |
| 19+80.00 | 1.146 | 0.385 | 160 |

a. A 30 year bridge end is current proposed to the entire project length due to the limited bridge approach work and to provide a thicker roadway section that closer matches the existing thicker roadway section of 0.5-ft to 0.7-ft based on the existing pavement borings.

 Delete the comment about roadwork extending about 200 feet from each bridge end in the Context Sensitive Design section. The report does not include a section for Context Specific Criteria or Scope Specific Considerations. If the intent is to do something other than complete reconstruction to baseline criteria throughout the new vertical alignment, please clarify what is proposed by adding the appropriate section to the SOW for approval.

Response: Context Specific Criteria & Scope Specific Considerations section update.

It is planned to meet base line criteria throughout the new alignment therefore Context Specific Criteria and Scope Specific Considerations are not anticipated to be necessary. Due to the limited scope of the project road work will be limited to that necessary to tie into the existing roadway with the new bridge replacement.

Comment from Rail, Transit and Planning (Paul Johnson for Rob Stapley): Updated RP information to be included.

| Description | Signed Route | Department Route | Corridor Route | Reference Post + Offset | Accumulated Miles |
|---------------|----------------|---------------------|-------------------|----------------------------|----------------------|
| Project Begin | Old Highway 10 | X-81018A | C081018A | 24+0.448 | 24.600 |

Date 1/7/2022

| ١ | W Bridge End | Old Highway 10 | X-81018A | C081018A | 24+0.523 | 24.675 |
|---|--------------|----------------|----------|----------|----------|--------|
| | E Bridge End | Old Highway 10 | X-81018A | C081018A | 24+0.540 | 24.692 |
| I | Project End | Old Highway 10 | X-81018A | C081018A | 24+0.548 | 24.700 |

Response: Noted

Comments from Bridge (Scott Walter for Stephanie Brandenberger):

• Regarding subsection c. of the Environmental Considerations section, an asbestos inspection was performed on March 27, 2020, by Northern Industrial Hygiene and reported that no asbestos was found in the sampled materials of the bridge.

Response: See comments and update from Environmental.

 In the Other Projects section – Due to the close proximity to this project site, the Bridge over Railroad SW Edge of Forsyth should also be mentioned as part of the Glendive District Bridge Pres [CN 9551001] project. Work to be provided for this structure includes, Class A deck repair, polymer overlay, guard angle removal, and revisions to the bridge and bridge approach rail.

Response: Noted.

• In the Construction Cost Estimate, for bridge replacement projects CE is typically set at 15%.

Response: PPMS has been updated to reflect a CE percentage of 16% to account for contraction PI and CE work.

• In the Construction Cost Estimate the IDC rate should be listed for FY 2022.

Response: Noted.

With your approval we will take all action requested and proceed with the design accordingly.

Approval

for

al David T. Holien Dustin Rouse, PE

Preconstruction Engineer

Attachments: for Master File copy only (approvals and concurrence)

| Distribution (without attachments) (electronic only): | |
|--|--|
| Shane Mintz, Glendive District Administrator | Rob Stapley, Rail, Transit, & Planning Division Administrator |
| Stephanie Brandenberger, Bridge Engineer Damian Krings, Acting Highways Engineer | Jeff Jackson, Geotechnical and Pavement Bureau Chief Tom Martin, Environmental Services Bureau Chief |
| Gabe Priebe, Traffic and Safety Engineer | Ion Swortz Maintananaa Administratar |
| Robert Stapley, Right-of-Way Bureau Chief | Jon Swartz, Maintenance Administrator |
| | Shane Pegram, Construction Bureau – VA Engineer |
| cc: | |
| J.R. Taylor, EPS Project Manager, Glendive District Jeremy Fadness, City Water and Sewer Contrac | Glendive Master file (if different from Bureau Chief copy) Tom Cavanaugh, RPA Project Manager Larry Crowder, Mayor of Culbertson & Superintendent of |
| REV 6/22/2020 | |
| | |

Engineer, WWC Engineering

e-copies:

Dustin Rouse, Preconstruction Engineer Jake Goettle, Construction Engineer Bill Squires, Acting Highways Design Engineer Dave Hedstrom, Hydraulics Engineer Bill Weber, Supervisor, Photogrammetry & Survey Stanton Brelin, Traffic Operations Engineer Ivan Ulberg, Traffic Design Engineer Patricia Burke, Safety Engineer Vacant, Engineering Cost Analyst John Pirre, Engineering Information Services Megan Redmond, Communications Assistant John Mueller, Public Relations Specialist Sue Sillick, Research Section Supervisor

Lisa Hurley, Fiscal Programming Section

David Phillips, Engineering Division

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Carson Buffington/ Mike Skillestad, Maintenance Chief Thomas Christensen, Right of Way Design Supervisor Jay Fleming, Construction Ops Engineer Scott Walter, Bridge Area Engineer Bob Evans, Geotechnical Specialist Pat McCann, Geotechnical Engineering Manager Grant Rodway, Project Development Engineer Linda Switzer, District MCS Captain Greg Zeihen, Surfacing Design Christopher Trautmann, Constructability Reviewer