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ENVIRONMENTAL

June 17, 2013

Kevin L. McLaury
Division Administrator
Federal Highway Administration
585 Shepard Way
Helena, MT 59601-9785

MASTER FILE
COPY

Attention: Alan Woodmansey

Subject: Programmatic Categorical Exclusion (PCE) Concurrence Request
STPP 3-4(33)102
19 KM NW GLCR CO LINE-EROSION
CN: 7995000

Dear Kevin McLaury:

This submittal requests approval of the above-mentioned proposed project as a Categorical Exclusion under the provisions of 23 CFR 771.117(d) and the Programmatic Agreement as signed by the Montana Department of Transportation (MDT) and the Federal Highway Administration (FHWA) on April 12, 2001. This proposed action also qualifies as a Categorical Exclusion under ARM 18.2.261 (Sections 75-1-103 and 75-1-201, MCA).

The following form provides the documentation required to demonstrate that all of the conditions are satisfied to qualify for a PCE. A copy of the Alignment and Grade Review Report, dated June 10, 2013, and a project location map are attached. In the following form, "N/A" indicates not applicable; "UNK" indicates unknown.

NOTE: A response in a large box will require additional documentation for a Categorical Exclusion request in accordance with 23 CFR 771.117(d).

- | | <u>YES</u> | <u>NO</u> | <u>N/A</u> | <u>UNK</u> |
|---|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. This proposed project would have (a) significant environmental impact(s) as defined under 23 CFR 771.117(a). | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. This proposed project involves (an) unusual circumstance(s) as described under 23 CFR 771.117(b). | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. This proposed project involves one (or more) of the following situations where: | | | | |
| A. Right-of-Way, easements, and/or construction permits would be required. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
1. The context or degree of the Right-of-Way action would have (a) substantial social, economic, or environmental effect(s).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. There is a high rate of residential growth in this proposed project's area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. There is a high rate of commercial growth in this proposed project's area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Work would be on and/or within approximately 1.6 kilometers (1± mile) of an Indian Reservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. There are parks, recreational, or other properties acquired/improved under <i>Section 6(f)</i> of the 1965 <i>National Land & Water Conservation Fund Act</i> (16 USC 460L, <i>et seq.</i>) on or adjacent to the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of such <i>Section 6(f)</i> sites would be documented and compensated with the appropriate agencies. (<i>e.g.</i> : MDFWP, local entities, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Are there any sites either on, or eligible for the National Register of Historic Places with concurrence in determination of eligibility or effect under <i>Section 106</i> of the <i>National Historic Preservation Act</i> (16 USC 470, <i>et seq.</i>) by the State Historic Preservation Office (SHPO), which would be affected by this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. There are parks, recreation sites, school grounds, wildlife refuges, historic sites, historic bridges, or irrigation that might be considered under <i>Section 4(f)</i> of the 1966 <i>US DEPARTMENT OF TRANSPORTATION Act</i> (49 USC 303) on or adjacent to the project area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. The proposed project would not impact the site(s), so a 4(f) evaluation is not necessary.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. De minimis finding(s) is/are necessary for this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. "Nationwide" Programmatic <i>Section 4(f)</i> Evaluation forms for these sites are attached.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. This proposed project requires a full (<i>i.e.</i> : DRAFT & FINAL) <i>Section 4(f)</i> Evaluation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. The activity would involve work in a streambed, wetland, and/or other waterbody(ies) considered as "waters of the United States" or similar (<i>e.g.</i> , "state waters").	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
1. Conditions set forth in <i>Section 10</i> of the <i>Rivers and Harbors Act</i> (33 USC 403) and/or <i>Section 404</i> under 33 CFR Parts 320-330 of the <i>Clean Water Act</i> (33 USC 1251-1376) would be met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Impacts in wetlands, including but not limited to those referenced under Executive Order (E.O.) #11990, and their proposed mitigation would be coordinated with the US Army Corps of Engineers and other Resource Agencies (Federal, State and Tribal) as required for permitting. No wetland impacts are anticipated.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. A 124SPA Stream Protection Authorization would be obtained from the MDFWP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. There is a delineated floodplain in the proposed project area under FEMA's Floodplain Management criteria.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The water surface at the 100-year flood limit elevation would exceed floodplain management criteria due to an encroachment by the proposed project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Tribal Water Permit would be required.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Work would be required in, across, and/or adjacent to a river which is a component of, or proposed for inclusion in Montana's Wild and/or Scenic Rivers system as published by the US Department of Agriculture, or the US Department of the Interior.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The designated National Wild & Scenic River systems in Montana are:				
a. Middle Fork of the Flathead River (headwaters to South Fork confluence).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. North Fork of the Flathead River (Canadian Border to Middle Fork confluence).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
In accordance with <i>Section 7</i> of the <i>Wild and Scenic Rivers Act</i> (16 USC 1271 – 1287), this work would be coordinated and documented with either the Flathead National Forest (Flathead River), or US Bureau of Land Management (Missouri River).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
C. This is a "Type I" action as defined under 23 CFR 772.5(h), which typically consists of highway construction on a new location or the physical alteration of an existing route which substantially changes its horizontal or vertical alignments or increases the number of through-traffic lanes.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. If yes, are there potential noise impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. A Noise Analysis would be completed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. There would be compliance with the provisions of both 23 CFR 772 for FHWA's Noise Impact analyses and MDT's Noise Policy.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. There would be substantial changes in access control involved with this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, would they result in extensive economic and/or social impacts on the affected locations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. The use of a temporary road, detour, or ramp closure having the following conditions when the action(s) associated with such facilities:				
1. Provisions would be made for access by local traffic, and be posted for same.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Adverse effects to through-traffic dependant businesses would be avoided or minimized.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Interference to local events (e.g. festivals) would be minimized to all possible extent.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Substantial controversy associated with this pending action would be avoided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Hazardous wastes /substances, as defined by the US Environmental Protection Agency (EPA) and/or the Montana Department of Environmental Quality (MDEQ), and/or (a) listed "Superfund" (under CERCLA or CECRA) site(s) are currently on and/or adjacent to this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All reasonable measures would be taken to avoid and/or minimize substantial impacts from same.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G. The Stormwater Discharge conditions (ARM 17.30.1101-1117), including temporary erosion control features for construction would be met. The NPDES special provision will be included in the contract bid package.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Permanent desirable vegetation with an approved seeding mixture would be established on exposed areas.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
I. Documentation of an "invasive species" review to comply with both EO #13112 and the <i>County Noxious Weed Control Act</i> (7-22-2152, MCA), including directions as specified by the county(ies) wherein its intended work would be done.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. There are "Prime" or "Prime if Irrigated" Farmlands designated by the Natural Resources Conservation Service on or adjacent to the proposed project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the proposed work would affect Important Farmlands, then a CPA 106 Farmland Conversion Impact Rating form would be completed in accordance with the <i>Farmland Protection Policy Act</i> (7 USC 4201, <i>et seq.</i>).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
K. Features for the <i>Americans with Disabilities Act</i> (PL 101-336) compliance would be included.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
L. A written Public Involvement Plan would be completed in accordance with MDT's Public Involvement Handbook.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. This proposed project complies with the <i>Clean Air Act's Section 176(c)</i> (42 USC 7521(a), as amended) under the provisions of 40 CFR 81.327 as it's either in a Montana air quality:				
A. "Unclassifiable/Attainment" area. This proposed project is <u>not</u> covered under the EPA's September 15, 1997 Final Rule on air quality conformity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
and/or				
B. "Nonattainment" area. However, this type of proposed project is either exempted from the conformity determination requirements (under EPA's September 15, 1997 Final Rule), or a conformity determination would be documented in coordination with the responsible agencies (Metropolitan Planning Organizations, MDEQ's Air Resources Management Bureau, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Is this proposed project in a "Class I Air Shed" under 40 CFR 52.1382(c)(2-4) and 40 CFR 81.417? (Northern Cheyenne, Flathead, and Fort Peck Indian Reservations; Glacier and Yellowstone National Parks; Anaconda-Pintlar, Bob Marshall, Cabinet Mountains, Gates of the Mountains, Medicine Lake, Mission Mountain, Red Rock Lakes, Scapegoat, Selway-Bitterroot, and U.L. Bend Wilderness Areas)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
5. Federally listed Candidate, Threatened or Endangered (T/E) Species:				
A. There are recorded occurrences and/or critical habitat in this proposed project's vicinity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Would this proposed project result in a "jeopardy" opinion (under 50 CFR 402) from the Fish & Wildlife Service on any Federally listed T/E Species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project would not induce significant land use changes, nor promote unplanned growth. There would be no significant effects on access to adjacent property, nor to present traffic patterns.

This proposed project would not create disproportionately high and/or adverse impacts on the health or environment of minority and/or low-income populations (EO #12898). It also complies with the provisions of *Title VI* of the *Civil Rights Act* of 1964 (42 USC 2000d) under the FHWA's regulations (23 CFR 200).

In accordance with the provisions of 23 CFR 771.117(a), this pending action would not cause any significant individual, secondary, or cumulative environmental impacts. Therefore, the FHWA's concurrence is requested that this proposed project is properly classified as a Categorical Exclusion.



, Date: 6/17/13

Eric Thunstrom
Great Falls District Project Development Engineer
MDT Environmental Services Bureau

For 
Concur _____, Date: 6/18/2013
Heidi Bruner, P.E.
Engineering Section Supervisor
MDT Environmental Services Bureau

Concur 
_____, Date: 25 JUN 2013
Federal Highway Administration

Attachments: Alignment and Grade Review Report, Project location map

electronic copies without attachment (unless otherwise noted):

- | | |
|----------------------|--|
| Dave Hand | Great Falls District Administrator |
| Steve Prinzing, P.E. | Great Falls District Preconstruction Engineer |
| Tom Martin, P.E. | Environmental Services Bureau Chief |
| Heidi Bruner, P.E. | Environmental Services Bureau Engineering Section Supervisor |
| Kent Barnes, P.E. | Bridge Engineer |

Kevin L. McLaury
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June 17, 2013

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19 KM NW GLCR CO LINE-EROSION
CN: 7995000

Paul Ferry, P.E.	Highways Engineer
Mark Goodman, P.E.	Hydraulics Engineer
Robert Stapley	Right-of-Way Bureau Chief
Christie McOmber, P.E.	Great Falls District Projects Engineer
Suzy Price	Contract Plans Bureau Chief
Tim Tilton	Contract Section Supervisor
Lisa Hurley	Fiscal Programming Section Supervisor
Tom Erving	Fiscal Programming Section
Tim Holley	Great Falls District Environmental Engineering Specialist
Eric Thunstrom	Environmental Services Bureau Project Development Engineer
Montana Legislative Branch	Environmental Quality Council (EQC) (with attachment)

copies with attachment

File	Environmental Services Bureau
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Memorandum

To: Paul Ferry, PE
 Highways Engineer

From: Christie McOmer, PE *CWM*
 Projects Engineer

Date: June 10, 2013

Subject: STPP 3-4(33)102
 19 KM NW GLCR CO LINE - EROSION
 UPN 7995000
 Project Work Type 310: Roadway and Roadside Safety Improvement

Please Approve the Alignment and Grade Review for this project.

Approved Lesly Tribelhorn for Date 6/11/13
 Paul Ferry, P.E.
 Highways Engineer

We are requesting comments from the below distribution. If no comments are received within two weeks of the release date we will assume concurrence.

Distribution:

- | | |
|---|--|
| Dave Hand, District Administrator | Tom Martin, Environmental Services Bureau Chief |
| Kent Barnes, Bridge Engineer | Lynn Zanto, Rail, Transit, & Planning Division Administrator |
| Paul Ferry, Highways Engineer | Jake Goettle, Construction Engineering Services Bureau |
| Roy Peterson, Traffic and Safety Engineer | Matt Strizich, Materials Engineer |
| Robert Stapley, Right-of-Way Bureau Chief | Alan Woodmansey, FHWA-Operations Engineer |
| Jon Swartz, Maintenance Administrator | |

cc:

- | | |
|--|---|
| Robert Snyder, Project Design Man., Great Falls District | Dawn Stratton, Fiscal Programming Section |
| Damian Krings, Road Design Engineer | Glacier County Commissioners, |
| Don White, Blackfeet Tribal Planning Department, | 512 E Main St, Cut Bank, Mt 59427 |
| PO Box 850, Browning, MT 59417-0850 | |

e-copies:

- | | |
|---|---|
| Jim Walther, Engineering, Preconstruction Engineer | Jake Goettle, Construction Bureau – VA Engineer |
| Lesly Tribelhorn, Highways Design Engineer | Steve Prinzing, District Preconstruction Engineer |
| Mark Goodman, Hydraulics Engineer | Christie McOmer, District Projects Engineer |
| Kurt Marcoux, District Hydraulics Engineer | Stan Kuntz, G.F. District Materials Lab |
| Bill Semmens, Env. Resources Section Supervisor | Matt Ladenburg, Havre Maintenance Chief |
| Paul Sturm, District Biologist | Jerilee Weibel, District R/W Supervisor |
| Eric Thunstrom, Project Development Engineer | Phillip Inman, Utilities Engineering Manager |
| Danielle Bolan, Traffic Operations Engineer | David Hoerning, R/W Engineering Manager |
| Ivan Ulberg, Traffic Design Engineer | Greg Pizzini, Acquisition Manager |
| Gabe Priebe, District Traffic Project Engineer | Joe Zody, R/W Access Management Section Manager |
| Kraig McLeod, Safety Engineer | Matt Strizich, Materials Engineer |
| Stephanie Brandenberger, Bridge Area Eng, G.F. District | Daniel Hill, Pavement Analysis Engineer |
| Michael Grover, Engineering Cost Analyst | Lee Grosch, District Geotechnical Manager |
| Marty Beatty, Engineering Information Services | Bryce Larsen, Supervisor, Photogrammetry & Survey |
| Paul Grant, Public Involvement Officer | Paul Johnson, Project Analysis Bureau |
| Sue Sillick, Research Section Supervisor | Jean Riley, Planner |
| Alyce Fisher, Fiscal Programming Section | Dawn Stratton, Fiscal Programming Section |
| Mike Tooley, Tribal Coordination | Duane Williams, Motor Carrier Services Division Administrator |
| Doug Wilmot, G.F. District Construction Engineer | Linda Cline, District R/W Design |
| James Combs, District Traffic Engineer | Brendan Scott, District Utility Agent |

Alignment and Grade Report

STPP 3-4(33)102 19 KM NW GLCR CO LINE - EROSION

Project Manager: Christie McOmber, P.E.

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Introduction

This report was derived from information taken from the Alignment and Grade Review conducted on May 21, 2013, in the Great Falls District Construction Conference room with the following individuals in attendance, by Polycom or on speakerphone:

Dave Hand	District Administrator	Great Falls
Steve Prinzing	District Preconstruction Engineer	Great Falls
Christie McOmber	District Projects Engineer	Great Falls
Jeania Cereck	District Design Supervisor	Great Falls
Rich Hibl	District Construction Operations Engineer	Great Falls
Jerilee Weibel	Right Of Way Supervisor	Great Falls
Kurt Marcoux	Hydraulics	Helena
John Sharkey	Geotech	Helena
Doug Wilmot	District Construction Engineer	Great Falls
Tim Holley	District Environment Engineer Specialist	Great Falls
Phil Johnson	Reclamation Specialist	Helena
Eric Thunstrom	District Project Development Engineer	Helena
Gerry Brown	Construction Reviewer	Lewistown
Matt Ladenburg	Havre Maintenance Chief	Havre
Don McNett	Maintenance Superintendent	Havre
Will Locatelli	Road Designer	Great Falls

Scope of Work

The proposed scope of work for this project is to promote revegetation and provide erosion protection along State Primary Road 3/US-89 between RP 102.4 and 103.9 alongside the north and south sides of the highway.

Project Location and Limits

The project is in Glacier County on the Blackfeet Indian Reservation in Section 5 & 6, T31N, R9W and is 11 miles south of Browning and 1 mile north of the Two Medicine River along Highway 89 (P-3) between RP 102.4 and 103.9. The as-built project, ARRA 3-4(13)101 was built in metric with stationing running from south to north, beginning at RP 101.021 and proceeding to RP 110.402 at the junction with US Highway 2 (P-1). The functional classification of this roadway is Principal Arterial. The mile posts run south to north in this area. English stationing will proceed in the same direction as the mile posts.

Work Zone Safety and Mobility

At this time, Level 3 construction zone impacts are anticipated for this project as defined in the Work Zone Safety and Mobility (WZSM) guidance. The plans package will include a Transportation Management Plan (TMP) consisting mainly of a Traffic Control Plan (TCP). These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

Physical Characteristics

The project was built under ARRA 3-4(13)101 in 2009 and 2010. The highway is a two lane, 30' wide PTW in rolling rural terrain. The roadway fill slopes in this area vary from 3:1's to 6:1's with flat bottom ditches and high cut sections with back slopes of 1.5:1. A 350' turf reinforced ditch and multiple drainage chutes with riprap exist within the project limits. Work will take place on the both sides of the highway. The horizontal alignment of the existing PTW in the project area is partially on a 1391' spiral curve and the vertical alignment is on a +6.005% grade.

Alignment and Grade Report

Horizontal Alignment

Due to the scope of this project, the existing horizontal alignment of the PTW will not be altered. However, there are areas where the horizontal alignment of existing eroded drainage ditches and riprap lined chutes will be altered to allow for a “best fit” option for newly placed v-ditches and modified riprap drainage chutes. Since a new riprap basin will be placed outside the existing right-of-way, right-of-way acquisition or easements will be required to complete this work. The following is a list of horizontal alignment design features using this project’s approximate mainline station range and a description:

LEFT

1. Sediment Basin (STA 15+00 to 17+50) - New basin placed inside right-of-way for sediment collection and ease of maintenance.
2. Channel Grading and Lining (STA. 17+50 to 20+60) – Channel grading and lining may be required as recommended by the Hydraulics Section.
3. Grouted Class I Riprap Drainage Chute (STA 24+50 to 26+92) - Remove and reset existing riprap and add grout to form chute on a new alignment on the fill slope.
4. Ditch to Riprap Chute Transition (STA 26+92 to 27+47) - New transition from grouted riprap chute to new drainage ditch.
5. Ditch line (STA 27+47 to 61+82) - New 5:1/5:1 v-ditch with altered alignment for best fit.

RIGHT

1. Drain with Riser (STA 15+00 to 16+00) - Existing sediment basin with new riser to be cleaned out and deepened for additional volume. Modify the existing median inlet to act as a riser for sediment collection and ease of maintenance.
2. Class II Riprap Drainage Chute (STA 21+94 to 26+00) - New class II riprap chute on a new alignment. This area will require new right-of-way or easement at STA 22+00 where a riprap basin will be placed.
3. Ditch to Riprap Chute Transition (STA 26+00 to 26+57) - New transition from grouted riprap chute to new drainage ditch.
4. Ditch line (STA 26+57 to 60+80) - New 5:1/4:1 v-ditch with altered alignment for best fit.
5. Riprap Chute (STA 36+20) - Replace existing partially grouted riprap chute on the backslope with new grouted class I riprap chute maintaining same horizontal alignment.
6. Riprap Chute (STA 40+07) - Replace existing partially grouted riprap chute on the backslope with new Grouted Class I Riprap Chute maintaining same horizontal alignment.

Vertical Alignment

The proposed vertical alignment has gradients that vary throughout the project. Grades in the ditch-line are kept close to existing grades, to allow for maximum use of fill material and to possibly avoid any issue with rock shelves. At STA 26+50 (right), where a new Class II Riprap Chute is to be placed, there is a vertical alignment conflict with an existing telephone line. Arrangements will be made to relocate this telephone line.

Surfacing and Typical Section

Roadway surfacing data is not applicable due to the scope of the project. The typical section for the new v-ditch (left) will include a varied in-slope and back slope with a 5:1/5:1 v-ditch 18” deep. The typical section for the new ditch (right) will include a varied in-slope and back slope with a 5:1/4:1 v-ditch 18” deep. Erosion Repair is comprised of ditch reshaping, adding 2” of CAC, 1” of topsoil and 1” of compost. A layer of seed and fertilizer will be applied and the ditch line will be covered by TRM up to a ditch depth of 18” A design exception will be necessary for the V-ditch configuration.

Grading

Significant geotechnical involvement is not anticipated. The grading for this project will be accomplished by using Unclassified Excavation. Existing material will be re-graded to form new v-ditches with excess

Alignment and Grade Report

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Project Manager: Christie McOmer, P.E.

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material to be used to fill “rills” that exist between mainline STA 22+50 and 25+00 (right). This area contains several erosion cuts of up to 3’ in depth. Rock shelves appear regularly throughout the ditch line. If solid rock is encountered during construction, the base material may be reduced in thickness or the grade may be adjusted at the direction of the Project Manager to facilitate construction.

Hydraulics

Due to the nature of this project, hydraulic design does not affect the roadway alignment. There is a 24” RCP culvert which crosses under the PTW at mainline STA 12+60. The median drain inlet to this culvert begins at mainline STA 13+00 (right) and flows SE, exiting at mainline STA 12+20 (left) into a drainage channel. This culvert regularly becomes blocked with sediment and debris, but was recently fitted with a 4’ concrete riser in an effort to mitigate sediment and debris. The Two Medicine irrigation Canal exists outside the construction limits to the east of this project. Sediment from as-built project, ARRA 3-4(13)101 is suspected of causing a drainage culvert, which drains underneath the irrigation canal, to become plugged with sediment resulting in drainage flows overtopping into the canal. Early coordination with BIA Irrigation will be pursued in order to mitigate this issue prior to project letting.

Bridges

There is a bridge spanning the Two Medicine Irrigation Canal near the beginning of the project at approximately RP 102.7 (mainline STA 10+00). This bridge lies outside the project limits and this project does not have any impact on the structure.

Traffic

No Traffic involvement will be necessary due to the scope of the project.

Intelligent Transportation Systems (ITS) Features

There are no opportunities identified at this time for ITS solutions with this project.

Miscellaneous

This project was originally planned as a two phased project. This is no longer the case. All aspects of this project will be done in one phase.

Design Exceptions

A design exception is required for the proposed nonstandard v-ditch design for the PTW drainage ditch (left and right). The standard 20:1 ditch bottom at 10’ wide was originally constructed with the previous project. The erosion that has occurred has changed the configuration of the ditches. The new proposed v-ditch will reduce the amount of earthwork involved to rebuild the ditches. Each v-ditch centerline is beyond the PTW clear zone.

Right-of-Way

Right of way acquisition will be required to facilitate repairs. Right-of-Way acquisition will require the purchase of an easement from the Blackfoot Tribe. The existing right of way varies from 80’ to 213.25’ along the project limits. Minimum width will be considered for design and acquisition where necessary. Right-of-Way and Hydraulics will coordinate with BIA Irrigation to unplug a drainage pipe which passes under the Two Medicine irrigation canal and assist BIA Irrigation in making physical adjustments to their facility that will avoid future plugging. As there is only one location where a riprap chute will extend past r/w, final construction limits to r/w will be available before all detail on the remaining design is complete. This will allow more time to coordinate acquisition with the Tribal Authorities.

Utilities/Railroads

No railroad exists inside the project limits.

Alignment and Grade Report

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Project Manager: Christie McOmber, P.E.

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At STA 26+50 (right), where a new class II riprap chute is to be placed, there is a vertical alignment conflict with an existing telephone line. Arrangements will be made to lower this telephone line prior to construction. Since the utility is within existing r/w, the OPX2 schedule will be adjusted to show the activities beginning sooner in the schedule. Due to the limited involvement, the negotiation and relocation time will likely be shortened, advancing the project delivery date.

Environmental Considerations

The items in the proposed design are good concepts for containing the sedimentation. If treatment of the steep and unstable slopes is not included in the design and remain 1.5:1 or 2:1, the slopes will likely continue to erode. Environmental Services proposed two additional concepts to address the source of the sedimentation on the cut slopes:

- Flatten the steep slopes in order to develop a slope that is easier to revegetate and has a higher likelihood of successful revegetation and stabilization.
- Install large rock (Class III riprap) at the toe of the steep slope and build up the slope to the top with topsoil. Revegetate this slope with soil amendment and seed.

Response: These two concepts were considered during a March 15, 2013 Field Review. It was determined that laying back or buttressing the slopes was infeasible due to cost and varied materials and would still not fully mitigate the erosion. The remediation as designed with the sediment basins and riprap channels is the most cost effective and expedient treatment to contain the sediment on site. Maintenance will need to monitor and clean the two settling basins on a regular basis.

A Clean Water Act Section 404 permit and an Aquatic Lands Protection Ordinance 90-A permit were obtained for the original 19 KM NW of Glacier County Line-NE, ARRA 3-4(13)101, CN: 4046 project. Those permits are now expired. The proposed design (riprap basin at the outlet of the grouted riprap drainage chute, channel grading, and sediment basin) in the unnamed intermittent tributary on the south side of the highway will require a new Clean Water Act Section 404 permit and a new Aquatic Lands Protection Ordinance 90-A permit for this proposed project.

A wetland delineation is not required for the proposed project. This project will not impact any wetlands as the area to the south has already been impacted by a previous project. A delineation of the wetlands that were filled in from sediment runoff over the past few years will be required, but that is not associated with this project. An SPA 124 will be required for the placement of the riprap basin in the channel bottom on the south side of the PTW. The Environmental Services Bureau will complete a BRR.

MDT and the contractor jointly obtained coverage under an NPDES Storm Water Permit for the construction of the 19 KM NW of Glacier County Line-NE, ARRA 3-4(13)101, CN: 4046 project. On December 1, 2010, MDT assumed sole responsibility for the NPDES Storm Water permit. Because the site has not reached final stabilization, the NPDES Storm Water Permit remains in MDT's name. Because an open NPDES Storm Water permit exists on the project site, complications will exist with assigning responsibilities related to operational control at the site during the proposed work. Environmental Services will coordinate with the Construction Bureau to determine the appropriate NPDES Storm Water permit special provision for inclusion into the bid package.

The original Programmatic Categorical Exclusion for the 19 KM NW of Glacier County Line-NE, ARRA 3-4(13)101, CN: 4046 project was approved by FHWA on December 3, 2001 and re-evaluated on December 15, 2005 and on March 19, 2009. The Programmatic Categorical Exclusion expired on March 19, 2012 and the scope of work has changed; therefore, a new environmental document will be required. The anticipated level of environmental documentation for this proposed project will be a Programmatic Categorical Exclusion in accordance with 23 CFR 771.117(d).

Because the corridor has been previously analyzed, a cultural resource survey will not be necessary for this proposed project.

Alignment and Grade Report

Environmental Services will continue coordinating with the US Army Corps of Engineers, the Blackfeet Environmental Office, and the US EPA to collect their input on the previously constructed ARRA project and on the proposed project.

Experimental Features

There are no opportunities identified at this time for experimental features with this project.

Traffic Control

The work will take place off the PTW. A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP), a limited Transportation Operations (TO) component and a limited Public Information (PI) component is appropriate for this project.

One lane – 2-way traffic may be necessary during construction for work on the fill slopes and to protect workers. Two lane – two way traffic will be made available during non-working hours.

Public Involvement

Level A public involvement is recommended. This would include a news release explaining the project and including a department point of contact. A PSA has been obtained. The pre-bid will be waived.

Cost Estimate

The project was nominated at \$750,000.

Funding is no longer available under the 2013 Statewide Vegetation Management Program and work will not be let as a purchasing contract. For this reason, all aspects of this project will be included in a single phase. Included is the Alignment and Grade cost estimate combining both phase I & II. Erosion Repair is comprised of ditch reshaping, adding 2” of CAC, 1” of topsoil and 1” of compost. A layer of seed and fertilizer will be applied and covered by TRM. Quantities for the remaining grouted class I riprap chutes, class II riprap chutes and lower ditch with sediment basin have been roughly calculated, but are currently being designed. For this reason a 25% contingency factor is used.

The construction cost per mile is approximately \$296,067.50.

		Estimate	Inflation (INF)	w/INF + IDC
19 KM NW Gler Co Ln -Erosion		Costs	(from PPMS)	(from PPMS)
Erosion Repair		\$294,000		
Traffic Control		\$15,000		
Subtotal		\$309,000		
Mobilization	20%	\$61,800		
Subtotal		\$370,800		
Contingencies	25%	\$92,700		
Total CN		\$463,500	\$66,151	\$588,336
CE	20%	\$92,700	\$13,230	\$117,667
IDC:	11.08%		TOTAL	\$706,003
Inflation Factor (ppms)			<i>0.142719972</i>	

Note: Inflation is calculated in PPMS to the letting date. If there is no letting date, the project is assumed to be inside the current TCP and is given a maximum of 5 years until letting. IDC is calculated at 11.08% as of FY 2013.

Ready Date

The project is being designed in the Great Falls Design Unit and has a ready date of May 2014 with no
 REV 1/2/2013

Alignment and Grade Report

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Project Manager: Christie McOmer, P.E.

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scheduled letting date. We will request an earlier ready date in the Red Book process if the delivery date allows. OPX2 has a Plan Finish date of March 2014. This project is anticipated to be completed and ready in time for an early spring letting to facilitate construction before spring runoff. Right of Way and utility relocation activities have been accelerated in the schedule.

05/17/2013
Highways & Engineering
Division

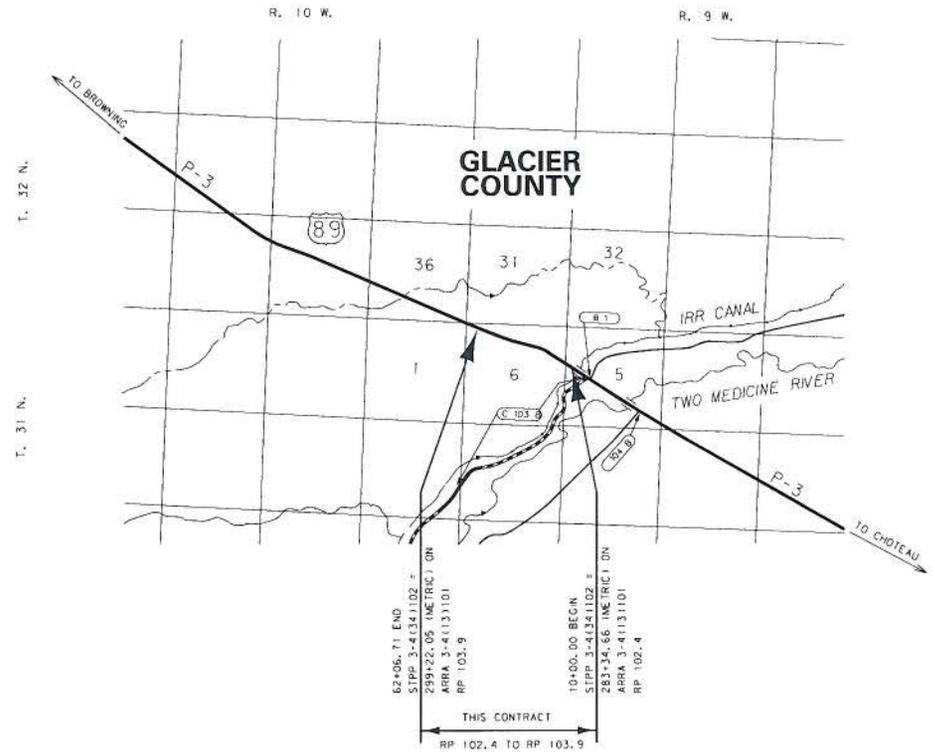
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MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT STPP 3-4(34)102
EROSION REPAIR
19 KM NW GLCR CO LINE - EROSION
GLACIER COUNTY

LETTING DATE: _____
CSF = 0.99952613



LENGTH 1.5 MILES



RELATED PROJECTS

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ASSOCIATED PROJECT AGREEMENT NUMBERS

R/W & I.C.	
P.E.	STPP 3-4(33)102

MONTANA DEPARTMENT OF TRANSPORTATION	
APPROVED:	_____ 20____
MICHAEL T. TOOLEY DIRECTOR OF TRANSPORTATION	
BY:	HIGHWAYS ENGINEER
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
APPROVED:	
DIVISION ADMINISTRATOR	DATE

MDT MONTANA DEPARTMENT OF TRANSPORTATION	C:\p\7995000\m8301.dgn	DESIGNED BY: M. LOCATELLI	4/23/2013	ROAD PLANS	PRELIMINARY AGR
	5/17/2013	REVIEWED BY:		UPN 7995000	
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