



June 7, 2010

Kevin McLaury
Division Administrator
Federal Highway Administration
585 Shepard Way
Helena MT 59601

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ENVIRONMENTAL

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**Subject: Programmatic Categorical Exclusion (PCE) Concurrence Request
Project Number not yet Determined
Armington Jct-N Slide Repair
Control Number: 7348000**

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 MDT and FHWA on April 12, 2001. This proposed action also qualifies as a Categorical Exclusion under ARM 18.2.261 (MCA 75-1-103 and MCA 75-1-201).

The following form provides documentation required to demonstrate that all of the conditions are satisfied to qualify for a Programmatic Categorical Exclusion. A copy of the Preliminary Field Review/Scope of Work Report, dated June 3, 2010, 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"/>
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. A high rate of residential growth exists in the area of the proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A high rate of commercial growth exists in the area of the proposed project.	<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 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. Parks, recreational, or other properties acquired/improved under Section 6(f) of the 1965 National Land & Water Conservation Fund Act (16 USC 460L, <i>et seq.</i>) are on or adjacent to the proposed project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of such Section 6(f) sites would be documented and compensated with the appropriate agencies (MDFWP, local entities, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Sites either on, or eligible for the National Register of Historic Places with concurrence in determination of eligibility or effect under Section 106 of the National Historic Preservation Act (16 USC 470, <i>et seq.</i>) by the State Historic Preservation Office (SHPO) would be affected by this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Parks, recreation sites, school grounds, wildlife refuges, historic sites, historic bridges, or irrigation that might be considered under Section 4(f) of the 1966 US Department Of Transportation Act (49 USC 303) are on or adjacent to the project area.	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. A de minimis finding has been secured for this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Nationwide Programmatic Section 4(f) Evaluation forms for those sites are attached.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. This proposed project requires a full Section 4(f) 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 water body (ies) considered as "waters of the United States" or similar (e.g., "state waters").	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. Conditions set forth in Section 10 of the Rivers and Harbors Act (33 USC 403) and/or Section 404 of the Clean Water Act (33 USC 1251-1376) codified at 33 CFR 320-330 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 (EO) #11990, and proposed mitigation would be coordinated with the US Army Corps of Engineers and other Resource Agencies (Federal, State, and Tribal) as required for permitting.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A 124SPA would be obtained from the MDFWP.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. A delineated floodplain exists 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. A Tribal Water Permit would be required.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Work would be required in, across, and/or adjacent to a river that 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"/>

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>UNK</u>
The designated National Wild and/or 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 Section 7 of the Wild and Scenic Rivers Act (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"/>
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. Substantial changes in access control would be associated with the proposed project. If yes, would they result in extensive economic and/or social impacts on the affected locations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 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"/>

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>UNK</u>
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.	<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"/>
I. Documentation of an invasive species review to comply with both EO #13112 and the County Noxious Weed Control Act (7-22-2152, MCA), including directions as specified by the county(ies) wherein its intended work would be done would be conducted.	<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. If the proposed work would affect Important Farmlands, then an AD 1006 Farmland Conversion Impact Rating form would be completed in accordance with the Farmland Protection Policy Act (7 USC 4201, <i>et seq.</i>).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. Features for the Americans with Disabilities Act (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 Clean Air Act's Section 176(c) (42 USC 7521(a), as amended) under the provisions of 40 CFR 81.327 as it is either in a Montana air quality:				
A. "Unclassifiable"/attainment area. This proposed project is not covered under the EPA's September 15, 1997 Final Rule on air quality conformity. and/or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Air Quality Division, 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)(3)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Federally listed Threatened or Endangered (T/E) Species:				
A. Recorded occurrences, and/or critical habitat are in the vicinity of the proposed project.	<input type="checkbox"/>	<input checked="" 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 and Wildlife Service on any Federally listed T/E Species?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

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). The project also complies with the provisions of Title VI of the Civil Rights Act of 1964 (42 USC 2000d) under FHWA regulations (23 CFR 200).

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

Eric Thunstrom

Date: 6/7/10

Eric Thunstrom
Environmental Services Bureau
Great Falls District Project Development Engineer

Heidy Bruner

Date: 4/7/10

Concur
Heidy Bruner, P.E.
Environmental Services Bureau
Engineering Section Supervisor

[Signature]

Date: 7 June 2010

Concur
Federal Highway Administration

Attachment

copies without attachment:

- | | |
|----------------------|--------------------------------------------------------------|
| Tom Martin, P.E. | Environmental Services Bureau Chief |
| Heidy Bruner, P.E. | Environmental Services Bureau Engineering Section Supervisor |
| Michael P. Johnson | Great Falls District Administrator |
| Kent Barnes, P.E. | Bridge Engineer |
| Paul Ferry, P.E. | Highways Engineer |
| Rob Stapley | Right-of-Way Bureau Chief |
| David W. Jensen | Fiscal Programming Section Supervisor |
| Dustin Rouse, P.E. | Road Design Area Engineer |
| Suzy Price | Contract Plans Bureau Chief |
| Steve Prinzing, P.E. | Great Falls District Engineering Services Supervisor |
| Stacy Hill, P.E. | Great Falls District Environmental Engineering Specialist |
| Walt Scott | Right-of-Way Bureau Utilities Section |

copies with attachment:

- | | |
|----------------------------------------------------------------|-------------------------------|
| File | Environmental Services Bureau |
| Montana Legislative Branch Environmental Quality Council (EQC) | |

MDT attempts to provide accommodation for any known disability that may interfere with a person participating in any service, program or activity of the Department. Alternative accessible formats of this information will be provided upon request. For further information, call 406.444.7228 or TTY (800.335.7592) or call Montana Relay at 711.



Memorandum

To: Distribution

From: Paul R. Ferry, P.E.
 Highways Engineer

Date: June 3, 2010

Subject: (Project Number not yet determined)
 Armington Jct.- N. Slide Repair
 UPN 7348000
 Work type: 140 – Reconstruction without added Capacity

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on June 4, 2010. We request that those on the distribution review this report and submit your concurrence by Tuesday, June 8, 2010.

Your comments and recommendations are also requested if you do not concur or concur subject to certain conditions. When all personnel on the distribution list have concurred, and the environmental documentation is approved, we will submit this report to the Chief Engineer for approval.

I recommend approval:

Approved _____ Date _____

Distribution:

- | | |
|-------------------------------------------------|--------------------------------------------------------------|
| Michael Johnson, District Administrator | Lynn Zanto, Rail, Transit, & Planning Division Administrator |
| Kent Barnes, Bridge Engineer | Jake Goettle, Construction Engineering Services Bureau |
| Tom Martin, Environmental Services Bureau Chief | Matt Strizich, Materials Engineer |
| Duane Williams, Traffic and Safety Engineer | Jon Swartz, Maintenance Administrator (PFR or SOW only) |
| Rob Stapley, Right-of-Way Bureau Chief | Allan Woodsmansley FHWA Operations Engineer (full oversight) |
| Paul Ferry, Highways Engineer | |

cc:

- Dave Jensen, Fiscal Programming Section Supervisor
- Dustin Rouse, Road Design Area Engineer
- Damian Krings, Road Design Engineer (if involved)
- Cascade County Commissioners 325 2nd Ave. N., Room 111 Great Falls, MT 59401

e-copies:

- | | |
|-----------------------------------------------------|---------------------------------------------------|
| Jim Walther, Preconstruction Engineer | Jason Sorenson, Engineering Cost Analyst |
| Lesly Tribelhorn, Highways Design Engineer | Jake Goettle, Construction Bureau – VA Engineer |
| Mark Goodman, Hydraulics Engineer | Walt Scott, R/W Utilities Section Supervisor |
| Kurt Marcoux, District Hydraulics Engineer | Amanda Brown, Acting R/W Design Manager |
| Bonnie Gundrum, Env. Res. Section Supervisor | Greg Pizzini, Acquisition Manager |
| Paul Sturm, District Biologist | Joe Zody, R/W Access Management Section Manager |
| Eric Thunstrom, G.F. District Environmental Eng. | Gary Larson, Project Analysis Bureau Chief |
| Danielle Bolan, Traffic Engineer | Susan Sillick, Research Section Supervisor |
| Ivan Ulberg, G.F. District Traffic Project Engineer | Steve Prinzing, District Preconstruction Engineer |
| Pierre Jomini, Safety Management Engineer | Christie McOmer, District Projects Engineer |
| Kevin McCray, Bridge Area Engineer, G.F. District | Stan Kuntz, G.F. District Materials Lab |
| Jon Watson, Pavement Engineer | Doug Wilmot, G.F. District Construction Engineer |
| Dan Hill, Pavement Design Engineer | Dave Hand, Great Falls District Maintenance Chief |
| Lee Grosch, District Geotechnical Manager | Jerilee Weibel, District R/W Supervisor |
| Bryce Larsen, Supervisor, Photogrammetry & Survey | James Combs, District Traffic Engineer |
| Marty Beatty, Engineering Information Services | Dennis Ghekiere, District Utility Agent |
| Paul Grant, Public Involvement Officer | Linda Cline, District R/W Design |

Jean Riley, Planner

Becky Duke, Traffic Data Collection Sect. Sup. (WIM)



Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

Memorandum

To: Paul R. Ferry, P.E.
Highways Engineer

From: Stephen Prinzing, P.E. *SP*
Preconstruction Engineer

Date: June 3, 2010

Subject: (Project Number not yet determined)
Armington Jct.- N. Slide Repair
UPN 7348000
Work Type: 140 – Reconstruction without added Capacity

Please approve the attached Preliminary Field Review Report/Scope of Work Report.

Approved Paul R. Ferry, P.E. Date 6/4/10
Paul R. Ferry, P.E.
Highways Engineer

The same report is also being distributed under a separate cover as a Scope of Work Report for comments and approval recommendations.

cc (w/attach.):
Damian Krings, Road Design Engineer
Dustin Rouse, Road Design Area Engineer

Preliminary Field Review/Scope of Work Report

{Project Number}

Project Manager : Stephen Prinzing, P.E.

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Introduction

The field reviews have been informal consisting of differing groups of experts and engineers. A field review was held impromptu on June 1, 2010 on site:

Christie McOmber	District Projects Engineer	Great Falls
Dave Hand	Maintenance Chief	Great Falls
Jeania Cereck	District Design Supervisor	Great Falls
Stacy Hill	District Environmental Engineer	Great Falls
Jerilee Weibel	District Right Of Way Supervisor	Great Falls
Rich Jackson	Geotechnical Engineer	Helena
John Sharkey	Geotechnical Engineer	Helena
Lee Grosch	Geotechnical Engineer	Helena

Data and comments have been received from:

Steve Prinzing	Preconstruction Engineer	Great Falls
Mick Johnson	District Administrator	Great Falls
Doug Wilmot	Construction Engineer	Great Falls
Kurt Marcoux	Hydraulic Engineer	Helena
Paul Sturm	District Biologist	Helena

Proposed Scope of Work

The project was nominated as an Emergency project to correct a slide, replace surfacing and buttress the fill slopes in an area where the ground has slid due to an over-saturated subgrade. Timing is essential as the road is currently closed and traffic is being routed through a narrow detour. The project will be designed in Metric. The proposed date to advertise is June 15th, 2010.

Purpose and Need

The purpose of the project is to install drainage and embankment to stabilize the fill slopes as well as reconstruct the roadway surface where the saturated soils have given way and caused the roadway to slide down the slope. Guardrail will be re-installed as well as new striping. Drainage upgrades will be necessary and may vary from lengthening culverts to building new ditches. The project also includes construction and potentially paving of a detour route generally along the existing county roads. The Geotechnical investigation and final Hydraulic recommendation are still underway.

Project Location and Limits

The project is located in Cascade County on N-60 (US 87) beginning at RP 71.82 and proceeds northerly for 0.6 miles to RP 72.42. The approximate metric stationing is 30+92.96 to 40+54.86. The stationing encompasses the Detour route.

The functional classification of N-60 is Principal Arterial (Non-Interstate). The as-built stationing goes against the reference post stationing. The plans will be designed in metric stationing and will proceed in the same direction as the reference posts.

The project beginning is 0.8 miles north of the Armington intersection of Jct. N-57, N-60 and P-60.

Preliminary Field Review/Scope of Work Report

{Project Number}

Project Manager : Stephen Prinzing, P.E.

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As-Builts:

Project ID	From		To		Year Built
	Station	RP	Station	RP	
#F-RRS-BRF 60-2(19)81	11+00.0	90.297	495+70.9	81.117	1989
%STPN-NH 60-2(52)71	n/a	71.219	n/a	87.283	1999
*STPHS 60-2(68)87	n/a	87.342	n/a	87.342	2006

#stationing runs west to east and reference posts run east to west

*metric project: 2001 - Electrical – Jct S-227

%metric project: Armington Junction - West

Equations:

F-RRS-BRF 60-2(19)81: 22+12.62BK = 22+13.6AH
 50+50.6 BK = 50+52.3 AH
 114+08.59 BK = 114+10.37 AH
 178+06.86 BK = 178+00.25 AH
 280+74.3 BK = 280+75.65 AH
 286+83.65 BK = 286+84.18 AH
 299+33.54 BK = 299+34.64 AH
 320+98.07 BK = 320+99.03 AH

PVMS Index Numbers & Recommended Treatment for survey year 2009 for 2010 construction:

<u>Section</u>	<u>Ride</u>	<u>Rut</u>	<u>ACI</u>	<u>MCI</u>
RP 71.018 to RP 73.227	76.9	64.8	82.9	97.6

The recommended treatment was crack seal and cover before the slide appearance.

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 limited Traffic Operations (TO) component and a limited Public Information (PI) component. These issues are discussed in more detail under the Traffic Control and Public Involvement sections. A detour route is accommodating traffic.

Physical Characteristics

The PTW traverses a rural area with level terrain that is residential and farm land.

Project History:

The project was constructed in 1954 under project FAP F-64(8). The typical section consisted of 7.3 meters of 50 mm compacted road mix bituminous surfacing on at 9.8 m roadway of 75mm compacted top course gravel and 205 mm compacted select base course gravel with 4:1 inslopes. The entire project receive a 75 mm plant mix base surfacing overlay and seal and cover in 1986 under project RTF 60-2(15)71.

In 1988 a 45 mm overlay was completed from RP 71.219 to RP 81.193 under project STPN-NH 60-2(52)71.

In 1999 the roadway was overlaid with 45 mm of plant mix surfacing between RP 71.219 and RP 87.283.

Existing fills are generally 4:1 but steepen to 1.5:1 in fills over 1.5 m height. According to the Geotechnical Engineer on site, the fill immediately adjacent to the slide is a 1:1.

Preliminary Field Review/Scope of Work Report

{Project Number}

Project Manager : Stephen Prinzing, P.E.

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Traffic Data

The traffic data listed is taken from the Belt N. & S. Project:

2008 ADT	=	3,510 Present
2032 ADT	=	5,020 Design Year
DHV	=	650
Com Trks	=	13.5%
ESAL	=	290
AGR	=	1.5% (annually)

Accident Analysis

Crash History from January 1991 to December 2002 between RP 71.018 and 87.285 compared to Statewide Averages (shown in parenthesis) for NHS Non-Interstate System routes including comparisons for truck crashes [shown in brackets] shows the following:

Accident Rate:	1.11 (1.36) [0.86 (1.15)]
Severity Index:	1.86 (2.35) [2.74 (2.33)]
Severity Rate:	2.06 (3.20) [2.35 (2.68)]
Total Accidents:	228 [trucks 19]
Fatal Accidents:	7

Correction of side slopes may improve the crash statistics for this area, but the purpose of the project is to restore traffic to the highway in the most expedient manner. All slopes will be an improvement over the existing conditions.

Major Design Features

- a. **Design Speed.** From the geometric design criteria for Principal Arterials in level terrain a 100 km/h design speed will be applied. The existing posted speed limit is 70 mph.
- b. **Horizontal Alignment.** The project is mostly in a tangent section and towards the end of the limits transition into a 1746.5 m radius curve to the left. The horizontal curve radii along the project mainline are larger than the Geometric Design Criteria for a Principal Arterial minimum radius of 395 m for level terrain at 100 km/h. The intent of the project is to not change the horizontal alignment of the roadway.
- c. **Vertical Alignment.** The project is on a vertical down grade of 1.552% and ends on a 3.577% down grade. Using the Geometric Design Criteria for a Principal Arterial the maximum grade is 3% for level terrain. The existing grade does exceed the desirable grade, so an exception to standards is requested. The intent of the project is to not change the vertical alignment of the roadway.
- d. **Typical Sections and Surfacing.**
The roadway will be built to the existing width of 9.2 m with 3.6 m travel lanes and 1.0 m shoulders. Guardrail will be reinstalled and the guardrail widening will be paved. The surfacing section will consist of 120 mm Plant Mix surfacing with 540 mm Crushed Aggregate Course. This is based on an R-value of 5.
- e. **Geotechnical Considerations.** The current slide zone measured at the right edge of the roadway surface extends from approximate stations 35+37.8 to 35+83.5. The slide is moving rapidly and also rotating. The immediate need is to buttress the steep fill slopes to stabilize the slide zone. The fill slopes will be flattened to a minimum of 3:1 at areas recommended on the right side. On the left side, there are also some steep fill slopes that will be flattened. Finally, regarding the ditch on the right side will facilitate drainage. There are some small slumps in the back slope and additional cross drains will likely be recommended by Hydraulics. Following construction of the fill, MDT's Geotechnical

Preliminary Field Review/Scope of Work Report

{Project Number}

Project Manager : Stephen Prinzing, P.E.

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- Section will install horizontal drains in the areas of the slide.
- f. **Hydraulics.** Hydraulics is currently investigating the need for culvert extensions or additional culverts to facilitate getting the drainage to the low (right) side of the slope as soon as possible. It is likely that additional cross drains will be added to drain the right ditch line to the left at recommended intervals. Regarding the ditches will also be necessary. It appears there is an existing cistern system at the bottom of the slide at approx. station 36+65. Hydraulics will investigate where the water in the cistern is coming from and how best to remove it from the fill zone. There may also be some issues with downstream drainage. Hydraulics recommendations are forthcoming.
 - g. **Bridges.** There are no bridges within project limits.
 - h. **Traffic.** New pavement markings will be required.
 - i. **Pedestrian/Bicycle/ADA.** There are no pedestrian, bicycle or ADA facilities located within the project.
 - j. **Miscellaneous Features.** Guardrail will be placed as it exists with W-beam on the right side and Cable rail on the left. There is also a WIM system and prepass site located at station between 27+55 and 31+45 that will not be disturbed.
 - k. **Context Sensitive Design Issues.** No context sensitive design issues will be addressed with this project.

Other Projects

The NH 60-2(89)81, Jct S-227/228-Mehmke Hill, UPN 6958000 has a letting date of July 29, 2010. The proposed scope is 0.25' Cold-in-Place Recycle with a 0.15' PMS overlay and Seal & Cover and Guardrail updates. The project will be in Reference Posts beginning at RP 81.7 (Existing PT of Curve at Fife Road) and proceeding west for approximately 5.6 miles to RP 87.3, just east of the junction with S-227/228.

Location Hydraulics Study Report

Hydraulic recommendations are forth coming.

Design Exceptions

The project is on a vertical down grade of 1.552% and ends on a 3.577% down grade. Using the Geometric Design Criteria for a Principal Arterial the maximum grade is 3% for level terrain. The existing grade does exceed the desirable grade, so an exception to standards is requested. To build the ditches on the left side a design exception may be needed to construct a nonstandard ditch to stay within existing right of way. Due to the nomination as an Emergency project, an exception to standards is requested.

Right-of-Way

Right of Way has completed an advance acquisition of a property listed for sale on the right side adjacent to the slide. This is the area that the slope stabilization will take place. There could be other right-of-way needs for drainage or fills, but every attempt will be made to complete the project within the available right of way.

Cold-In-Place Recycle

Since this is an Emergency slide Repair project, Cold in Place Recycle is not a viable option.

Access Control

Limited access control was acquired under right-of-way project F 60-2(18)81. Existing access control will not be modified with this project.

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Utilities/Railroads

An over head transmission /distribution line in the vicinity of the project will be in conflict with the repair. There are several NorthWestern Energy – Electric power poles that will need to be relocated. Additionally there are some 3 Rivers Communications – Telephone lines in the area that will also need to be relocated. The Utility Plan in Hand is scheduled for June 4th, 2010.

No Railroad exists within the vicinity of the project limits. The railroad right of way limits do encompass the county road that is being used as the detour.

Intelligent Transportation Systems (ITS) Features

There are no opportunities for ITS solutions with this project.

Survey

No survey will be required on this project. The survey that was completed for the Belt N & S (UPN 4043) project is being used for this one.

Public Involvement

Due to the limited scope of the project, a level “A” public involvement plan should suffice. This will include a news release to the local media.

Environmental Considerations

No apparent significant environmental issues have been identified. It is anticipated that the project meets the criteria for the Programmatic Categorical Exclusion.

Emergency reconstruction of highway fills and structures damaged by discrete events like floods and/or landslides may be exempt under Section 404 of the Clean Water Act (See 33 CFR 323.4(a)(2)). The exemption would not include modifications or changes to the pre-discrete event structure or fill. Environmental will document what is done so the Corps can review it after the emergency is passed and the transportation needs and safety issues are addressed. An after-the-fact permit may be required. Some minor wetlands will be filled in. However we have a wetland reserve in this watershed that will be used to mitigate the losses.

No cultural/historic resources will be impacted by the project.

Energy Savings/Eco-Friendly Considerations

There are no opportunities for Energy Savings/Eco-Friendly Considerations with this project.

Experimental Features

No apparent significant experimental features have been identified.

Traffic Control

Traffic has been shifted to a local county road in the vicinity of the project. A plant mix overlay will be placed on the detour to help carry the additional traffic loads. All signing will be in accordance with the Manual on Uniform Traffic Control Devices. Given the nature of the project, public information has already been provided by news services. The District has provided the TCP and TO plan necessary for maintenance to establish the detour. No additional components will be necessary.

Project Management

Stephen Prinzing, P.E. Preconstruction Engineer will be the Project Design Manager.

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This project is under full FHWA oversight.

Preliminary Cost Estimate

The items considered in the roadwork preliminary cost estimate: surfacing based on a 9.2 m FTW, hydraulic and geotechnical recommendations, guardrail upgrades, and new pavement markings. The cost per kilometer including CN and CE costs is approximately \$1,337,664; cost per mile \$2,152,763.

		Estimate	Inflation (INF)#	w/INF + IDC*
		Costs	(from PPMS)	(from PPMS)
Road work		\$558,329		
Detour		\$40,000		
Subtotal		\$598,329		
Mobilization	15%	\$89,749		
Subtotal		\$688,078		
Contingencies	25%	\$172,020		
Total CN		\$860,098	\$150,345	\$1,187,069
CE	10%	\$86,010	\$15,035	\$118,707
IDC:	17.48%			
Inflation Factor (ppms)			0.1748	
<p>Note: Inflation is calculated in PPMS to the letting date plus one year to estimate mid-point of construction. 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 calc</p>				

Ready Date

The project will not have an established ready date but will be prepared for contract as soon as possible. A short advertisement and notice to proceed date will facilitate the repair. The plans are anticipated to be complete by June 11, 2010. An advertised date is tentatively set for June 15th with the project open for bids by June 29th 2010.

Site Map

The project site map is attached.

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MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT

GRADE, GRAVE, PMS, DRAINAGE & EMBANKMENT

ARMINGTON JCT. - N. SLIDE REPAIR

CASCADE COUNTY

LENGTH 0.6 kilometers

