



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



**Memorandum**

To: Lisa Hurley  
Fiscal Programming Section Supervisor

From: *Fol* Heidi Bruner, P.E. *Bur 6/18/2013*  
Engineering Services Supervisor  
Environmental Services

Date: June 14, 2013

Subject: Categorical Exclusion (C) Determination  
SF 119 – SIGNING MULLAN RD  
HSIP 263-1(26)6  
Control Number: 7894 000

Environmental Services has reviewed the proposed project and concluded that it will not involve unusual circumstances as described under 23 CFR 771.117(b). As a result, the project qualifies as a Categorical Exclusion under the provisions of 23 CFR 771.117(c), part (8) which describes installation of fencing, sign, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.

The proposed project is located on Secondary 263 (Mullan Road) in Missoula County. The project is to address crash trends identified at three locations between RP 5.700 to RP 8.830 by installing advance curve warning signs, nameplates, chevrons and upgraded delineation. The attached Preliminary Field Review/Scope of Work Report contains a location map and a more complete scope of work. This proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201, M.C.A.).

In accordance with the Federal Highway Administration's (FHWA) letter of March 29, 1999, please notify FHWA that the proposed action is being processed in accordance with 23 CFR 771.117(c).

- copies:
- Ed Toavs, District Administrator- Missoula
  - Roy A. Peterson, P.E., Traffic and Safety Engineer
  - Gabe Priebe, P.E., Project Design Manager
  - Robert Stapley, Right-of-Way Bureau Chief
  - Suzu Price, P.E., Contract Plans Bureau chief
  - Tom Martin, P.E., Environmental Services Bureau Chief
  - Susan Kilcrease, Missoula Project Development Engineer
  - Gene Kaufman, P.E., FHWA Operations Engineer
  - Tom Erving - Fiscal Programming Section
  - Environmental Services Bureau File

e-copy: Montana Legislative Branch Environmental Quality Council



**Memorandum**

To: Distribution

From: Roy A. Peterson, P.E. [RAP]  
 Traffic and Safety Engineer

Date: May 17, 2013

Subject: SF 119 – SIGNING MULLAN RD  
 HSIP 263-1(26)6  
 UPN 7894000  
 Work Type 310 - Roadway & Roadside Safety Improvements

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on [May 28, 2013]. We request that those on the distribution review this report and submit your concurrence within two weeks of the approval date.

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 Preconstruction Engineer for approval.

I recommend approval:

Approved \_\_\_\_\_ Date \_\_\_\_\_

**Distribution:**

- |   |  |
|---|--|
| Ed Toavs, Missoula 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       |
| Robert Stapley, Right-of-Way Bureau Chief | Matt Strizich, Materials Engineer                            |
|   | Jon Swartz, Maintenance Administrator                        |

**cc:**

- |   |                         |
|---|-------------------------|
| Dawn Stratton, Fiscal Programming Section | Traffic and Safety File |
| Gabe Priebe, Project Design Manager       |                         |

**e-copies:**

- |  |   |
|--|---|
| Jim Walther, Engineering, Preconstruction Engineer     | Jake Goettle, Construction Bureau – VA Engineer   |
| Lesly Tribelhorn, Highways Design Engineer             | Shane Stack, District Preconstruction             |
| Mark Goodman, Hydraulics Engineer                      | Ben Nunnallee, District Projects Engineer         |
| KC Yahvah, District Hydraulics Engineer                | Darin Reynolds, District Materials Lab            |
| Bill Semmens, Env. Resources Section Supervisor        | Jack May, District Maintenance Chief - Missoula   |
| Pat Basting, District Biologist                        | Maureen Walsh, District Right of Way Supervisor   |
| Susan Kilcrease, District 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                 |
| William Squires, Project Engineer                      | Joe Zody, R/W Access Management Section Manager   |
| Kraig McLeod, Safety Engineer                          | Matt Strizich, Materials Engineer                 |
| Chris Hardan, Bridge Area Engineer, Missoula District  | Daniel Hill, Pavement Analysis Engineer           |
| Mike Grover, Engineering Cost Analyst                  | Bret Boundy, 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         |
| Mark Keffe, Bicycle/Pedestrian Coordinator             | Doug McBroom, Maintenance Operations              |



Montana Department of Transportation  
PO Box 201001  
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**Memorandum**

To: Roy A. Peterson, P.E.  
Traffic & Safety Engineer

From: Gabe B. Priebe, P.E. [GBP]  
Traffic Project Engineer

Through: Ivan Ulberg, P.E. [IBU]  
Traffic Design Engineer

Date: May 17, 2013

Subject: SF 119 – SIGNING MULLAN RD  
HSIP 263-1(26)6  
UPN 7894000  
Work Type 310 - Roadway & Roadside Safety Improvements

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

Approved [Signed by RAP] Date [5/28/13]  
Roy A. Peterson, P.E.  
Traffic & Safety 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.):  
Traffic & Safety Master File

## Preliminary Field Review/Scope of Work Report

SF 119 – SIGNING MULLAN RD; UPN 7894000

Project Manager: Gabe B. Priebe

Page 1 of 5

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### **Introduction**

A preliminary field review meeting was held in the Missoula office on April 16, 2013, followed by a field review. The following attended.

Gabe Priebe, Traffic Project Engineer, Traffic & Safety – Helena  
Glen Cameron, District Traffic Engineer - Missoula  
Patricia Burke, Safety Engineering, Traffic & Safety - Helena  
Sandie Stiffler, Safety Design, Traffic & Safety - Helena  
Allen Levens, Electrical, Traffic & Safety - Helena  
Jim Cornell, Signing, Traffic & Safety - Helena  
Ben Nunnallee, District Projects Engineer – Missoula (Office only)  
Jack May, District Maintenance Chief – Missoula (Office only)  
Steve Miller, District Maintenance – Missoula (Office only)

### **Proposed Scope of Work**

The proposed project has been nominated to provide safety enhancement by installing upgraded signing. Proposed enhancements include installing advance curve warning signs, nameplates, chevrons and upgraded delineation.

*This project is eligible for High Risk Rural Road Program funding.*

### **Purpose and Need**

The purpose of this project is address the main crash trend identified at this location which was single vehicle run-off-road crashes.

### **Project Location and Limits**

The project is located on Mullan Road (Secondary 263) in Missoula County.

Originally the project was nominated from RP 5.700 to RP 6.600 only; however upon Safety Engineering Section's review of additional crash information in the vicinity, it was decided this project would also include RP 6.900 to RP 7.382 and RP 7.609 to RP 8.830.

### **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. Since this project is being installed by maintenance forces and the sign installations will not require lane closures, no formal Traffic Control Plan will be required.

### **Physical Characteristics**

The existing terrain within this location is level, in a rural setting. The roadway was last improved in 2009 with STPS 263-1(25)11. The Montana Road Log shows a typical section that consists of two 12 foot travel lanes and no shoulders. The existing surfacing varies between 2 inches and 3.8 inches of Plant Mix over 6.0 inches of base course.

### **Traffic Data**

2013 (Present) AADT = 3,480  
2014 (Letting) AADT = 3,560  
2034 (Design) AADT = 5,730  
DHV = 800  
Truck% = 3.9%

## Preliminary Field Review/Scope of Work Report

SF 119 – SIGNING MULLAN RD; UPN 7894000

Project Manager: Gabe B. Priebe

Page 2 of 5

Equivalent Single Axle Load = 51

Annual Growth Rate = 2.4%

### Crash Analysis

#### *Reference Point 5.700 to Reference Point 6.600*

The Montana Highway Patrol records indicate a total of 24 crashes occurred along this section of roadway from January 1, 2000 through December 31, 2009. The main observed crash trend is run-off-the-road crashes on curves (12). Of these crashes, 8 resulted in the vehicle overturning; one vehicle struck a fence, one sideswipe opposite direction collision, one rear-end collision and one wild animal vehicle collision. These crashes were also evenly distributed based on vehicle direction of travel (7 westbound/5 eastbound). Of the 24 crashes occurring during this time period, a total of nine crashes occurred at the curve from reference post 5.8 to 6.1. All nine of these crashes were considered addressable by the installation of chevrons. These crashes resulted in two fatal crashes (with 2 fatalities) two injury crashes with six injuries and five property damage only crashes. The safety improvements in this area yielded a benefit-to cost ratio of 78.67, assuming a \$17,300 construction cost. One additional addressable crash occurred at this location for the dates January 1, 2010 through December 31, 2012

#### *Reference Point 6.900 to Reference Point 7.382*

The Montana Highway Patrol records indicate a total of 15 crashes occurred along this section of roadway from January 1, 2002 through December 31, 2011. The main observed crash trend is run-off-the-road crashes on curves (6). Of these crashes, 3 resulted in the vehicle striking a utility pole; one vehicle struck a fence, one struck a mailbox and one vehicle overturned. The majority of crashes (5) involved westbound vehicles. Of the 15 crashes occurring during this time period, a total of 6 crashes occurred at the curve from reference post 6.9 to 7.3. Five of these crashes were considered addressable by the installation of chevrons. These crashes resulted in one fatal crash (with 1 fatality), three injury crashes with three injuries and one property damage only crash. The safety improvements in this area yielded a benefit-to cost ratio of 31.83, assuming a \$17,850 construction cost. One additional domestic animal crash involving a cow occurred at this location for the dates January 1, 2012 through December 31, 2012.

#### *Reference Point 7.609 to Reference Point 8.830*

The Montana Highway Patrol records indicate a total of 42 crashes occurred along this section of roadway from January 1, 2002 through December 31, 2011. The main observed crash trend is run-off-the-road crashes on curves (24). Of these crashes, 10 resulted in the vehicle overturning; six vehicles struck a fence, seven struck a utility pole and one struck a mailbox. The majority of crashes (18) involved eastbound vehicles. Of the 42 crashes occurring during this time period, a total of 24 crashes occurred at the curve(s) from reference post 7.9 to 8.5. Twenty-two of these crashes were considered addressable by the installation of chevrons. These crashes resulted in six injury crashes with six injuries and 16 property damage only crashes. The safety improvements in this area yielded a benefit-to cost ratio of 40.13, assuming a \$23,100 construction cost. There have been four additional crashes (with one addressable) at this location for the dates January 1, 2012 through December 31, 2012.

### Major Design Features

- a. **Design Speed.** The design speed for a rural major collector with level terrain is 60 mph; the posted speed is 55 mph.
- b. **Horizontal Alignment.** The horizontal alignment will not be changed for this project.
- c. **Vertical Alignment.** The vertical alignment will not be changed for this project.
- d. **Typical Sections and Surfacing.** Typical sections and surfacing will not change with

## Preliminary Field Review/Scope of Work Report

SF 119 – SIGNING MULLAN RD; UPN 7894000

Project Manager: Gabe B. Priebe

Page 3 of 5

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- this project.
- e. **Geotechnical Considerations.** No Geotechnical involvement.
  - f. **Hydraulics.** No Hydraulic involvement.
  - g. **Bridges.** No Bridge involvement.
  - h. **Traffic.** Traffic will be the lead for this project. Advanced curve warning signs, speed plaques, chevrons and upgraded delineation will be installed.
  - i. **Pedestrian/Bicycle/ADA.** There is no ADA involvement.
  - j. **Miscellaneous Features.** There are no miscellaneous features.
  - k. **Context Sensitive Design Issues.** There are no known context sensitive design issues.

### **Other Projects**

See the discussion under Project Location and Limits.

### **Location Hydraulics Study Report**

No Location Hydraulic Study Report is required.

### **Design Exceptions**

No design exceptions are required.

### **Right-of-Way**

There is no right-of-way involvement.

### **Access Control**

There are no changes in access control.

### **Utilities/Railroads**

No railroads or utilities will be affected by this project.

### **Maintenance Items**

At the PFR meeting it was agreed that Maintenance will do this work; however the current CN cost estimate is \$58,250 which is above the \$50,000 threshold identified in the 9/14/2012 Public Interest Finding for “Safety Improvements Implemented by Maintenance Forces.” Following preliminary design, the estimate will be reviewed to revisit whether this project is eligible for installation by Maintenance forces.

### **Intelligent Transportation Systems (ITS) Features**

No ITS features will be included in this project.

### **Survey**

No survey will be needed for this project.

### **Public Involvement**

Level A public involvement is required. A news release will be sent to the local media which identifies an MDT point-of-contact.

### **Environmental Considerations**

No significant environmental impacts or issues were identified. A Categorical Exclusion is anticipated for this project.

## Preliminary Field Review/Scope of Work Report

SF 119 – SIGNING MULLAN RD; UPN 7894000

Project Manager: Gabe B. Priebe

Page 4 of 5

### Energy Savings/Eco-Friendly Considerations

There are no Energy Saving/Eco-Friendly considerations on this project.

### Experimental Features

There are no Experimental Features on this project.

### Traffic Control

Although no lane closures or other traffic control measures are anticipated, any necessary signing and/or flagging operations will be conducted by maintenance forces in accordance with the Manual on Uniform Traffic Control Devices.

### Project Management

Gabe Priebe will be the Project Design Engineer. This project does not require full FHWA oversight.

### Preliminary Cost Estimate

The estimate below is based on information provided by the Safety Engineering office and will be refined as design progresses.

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Signing & delineation	\$48,141		
Mobilization (10%)	\$4,814		
<b>Subtotal</b>	<b>\$52,955</b>		
Contingencies (10%)	\$5,295		
<b>Total CN</b>	<b><u>\$58,250</u></b>	<b><u>\$8,470</u></b>	<b><u>\$74,112</u></b>
<b>CE (15%)</b>	<b><u>\$8,738</u></b>	<b><u>\$1,270</u></b>	<b><u>\$11,116</u></b>
<b>TOTAL CN+CE</b>	<b><u>\$66,988</u></b>	<b><u>\$9,740</u></b>	<b><u>\$32,853</u></b>

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

A ready date will be set once the project is sent for overrides.

### Site Map

The project site map is attached.

# Preliminary Field Review/Scope of Work Report

SF 119 – SIGNING MULLAN RD; UPN 7894000

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