



*Environmental Services*  
MONTANA DEPARTMENT OF TRANSPORTATION  
Helena, Montana 59620

**Memorandum**

To: Lisa Hurley  
Fiscal Programming Section Supervisor

From: Heidi Bruner, P.E.  
Environmental Engineering Section Supervisor

Date: January 26, 2015

Subject: Categorical Exclusion (c)(23)  
SF 139-Whitefish SFTY IMPRV  
HSIP 5-3(122)122  
Control Number: 8629 000

Environmental Services Bureau 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 (23), which describes Federally-funded projects that receive less than \$5,000,000 of Federal funds. The proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201, MCA).

The project is located in the median of US Hwy 93 south of Whitefish between RP 122.2 and 122.5. The project is to install raised median and lighting on US-93 to address an opposite direction crash trend by closing the existing gap between the existing raised median and the depressed median. Right-of-way involvement will not be necessary. A cultural resource survey will not be necessary. The total estimated cost of the project at this time including CN + CE w/INF + IDC = \$111,020.

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

e-copies: Ed Toavs, Missoula District Administrator  
Roy Peterson, P.E., Traffic & Safety Engineer  
Gabe Priebe, P.E., Project Design Engineer  
Robert Stapley, Right-of-Way Bureau Chief  
Suzy Price, Contract Plans Bureau Chief  
Tom Martin, P.E., Environmental Services Bureau Chief  
Susan Kilcrease, Environmental Services Project Development Engineer  
Tom Erving, Fiscal Programming  
Montana Legislative Branch Environmental Quality Council

copy: Gene Kaufman, P.E., FHWA Operations Engineer  
Environmental Services Bureau File



**Memorandum**

To: Distribution

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

Date: October 15, 2014

Subject: SF 139 – WHITEFISH SFTY IMPRV  
 HSIP 5-3(122)122  
 UPN 8629000  
 Work Type 310 – Roadway & Roadside Safety Improvements

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on [10/22/14]. 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, District Administrator          | Tom Martin, Environmental Services Bureau Chief    |
| Kent Barnes, Bridge Engineer              | Lynn Zanto, Rail, Transit, & Planning Division Ad  |
| Paul Ferry, Highways Engineer             | Jake Goettle, Construction Engineering Services Bt |
| Robert Stapley, Right-of-Way Bureau Chief | Matt Strizich, Materials Engineer                  |

**cc:**

- |   |   |
|---|---|
| Gabe Priebe, Project Design Engineer<br>Traffic and Safety file | Dawn Stratton, Fiscal Programming Section |
|---|---|

**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                | Mike Dodge, District Materials Lab               |
| Bill Semmens, Env. Resources Section Supervisor        | Gary Engman, District Maintenance Chief - Kalisp |
| Joseph Weigand, Missoula 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, Lands Section Supervisor         |
| Ivan Ulberg, Traffic Design Engineer                   | Greg Pizzini, Acquisition Section Supervisor     |
| William Squires, Project Engineer                      | Joe Zody, R/W Access Management Section Mana     |
| Kraig McLeod, Safety Engineer                          | Matt Strizich, Materials Engineer                |
| Chris Hardan, Bridge Area Engineer, Missoula District  | Jim Davies, Pavement Analysis Engineer           |
| Mike Grover, Engineering Cost Analyst                  | Bret Boundy, District Geotechnical Manager       |
| Marty Beatty, Engineering Information Services         | Bryce Larsen, Supervisor, Photogrammetry & Surv  |
| 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        |
| Angela Zanin, Bicycle/Pedestrian Coordinator           | Matt Maze, ADA Coordinator                       |
| Suzy Price, Contract Plans Bureau                      | Doug McBroom, Maintenance Division Operations    |



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

**Memorandum**

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

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

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

Date: October 15, 2014

Subject: SF 139 – WHITEFISH SFTY IMPRV  
HSIP 5-3(122)122  
UPN 8629000  
Work Type 310 – Roadway & Roadside Safety Improvements

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

Approved [Signed by RAP] Date [10/22/14]  
Roy 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 and Safety Master file

## Preliminary Field Review/Scope of Work Report

SF 139 – WHITEFISH SFTY IMPRV; HSIP 5-3(122)122

Project Manager: Gabe B. Priebe

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### **Introduction**

A preliminary field review was held on August 27, 2014. The following attended the field review.

Gary Engman, Kalispell Maintenance – Kalispell (Office only)  
Tim Seelye, Communications – Kalispell (Office only)  
Shane Stack, Missoula District (Office only)  
Ben Nunnallee, Missoula District (Office only)  
James Freyholtz, Traffic Engineer – Kalispell  
Gabe Priebe, Traffic Project Engineer, Traffic & Safety – Helena  
Dan Cunningham, Electrical, Traffic & Safety – Helena  
Daniel Birlut, Safety Designer, Traffic & Safety – Helena

### **Proposed Scope of Work**

The proposed project has been nominated to install raised median and lighting on US-93 South of Whitefish to close the existing gap between the existing raised median and the depressed median.

### **Purpose and Need**

The purpose of this project is to install raised median and lighting on US-93 to address an opposite direction crash trend. The project is needed to enhance intersection safety for the traveling public.

### **Project Location and Limits**

This project is located south of Whitefish in Flathead County on US-93 (N-5) between RP 122.2 and 122.5.

### **Work Zone Safety and Mobility**

At this time, Level 2 construction zone impacts are anticipated for this project as defined in the Work Zone Safety and Mobility (WZSM) guidance. Although the project is on a Level 1 corridor, only short-term/off-peak through lane closures are anticipated for the inside through lanes to facilitate construction of the median. 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**

In 1997 US-93 was reconstructed through the project limits under project PLH-NH 5-3(62)123 F and last improved with a plant mix overlay and a seal and cover under project NH 5-3(109)122 in 2012.

The US-93 roadway top width is 78 feet and consists of four 12-ft travel lanes, two 8-ft shoulders and a 14-ft painted median which transitions to a raised median to the north and a depressed median to the south. The pavement consists of 0.4 feet of plant mix over 1.8 feet of base course.

The terrain along the project is rolling. The roadside adjoins mainly residential properties interspersed with a few commercial developments.

The US-93 alignment contains two horizontal curves separated by a short horizontal tangent in the vicinity of the project limits. The northern curve (radius 5,741 ft. and deflection angle of approximately 3.3 degrees) begins with a point of curvature 100 ft. south of the northern end of

## Preliminary Field Review/Scope of Work Report

SF 139 – WHITEFISH SFTY IMPRV; HSIP 5-3(122)122

Project Manager: Gabe B. Priebe

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the depressed median and extends 336 ft. north to a point of tangency approximately 256 ft. south of the southern end of the raised median. See Site Map at the end of this report.

The US-93 profile has a maximum grade of -1.856% (downgrade to the north) south of the raised median and features one crest vertical curve 1,640 feet long (K=511) with a VPI approximately 500 south of the northern end of the depressed median.

Three residential approaches intersect US-93 within the project limits. All three intersect from the east within the limits of the depressed median.

### Traffic Data

The traffic data listed below is for US-93 between RP 122.2 and 122.5.

2014 AADT	=	13,360 (Present)
2015 AADT	=	14,050 (Letting Year)
2035 AADT	=	25,680 (Design Year)
DHV	=	2,820
T	=	4.0 %
EAL	=	232
Growth Rate (Annual)	=	3.1%

### Crash Analysis

The Montana Highway Patrol records show 11 crashes along this section of roadway from January 1, 2007 through December 31, 2011. The main crash trends were wild animal crashes (4) and road departure crashes (4). Of the four road departure crashes, two resulted in a vehicle overturning, one was a head on collision, and one resulted in striking a fixed object. The two overturning crashes and the head on collision involved vehicles crossing over the depressed median. The remaining crashes were two right angle collisions and a sideswipe same direction collision.

One of the crashes was considered addressable by extending the concrete median and installing lighting. The addressable crash occurred north of the depressed median and resulted in a right angle fatal crash, with one fatality, one incapacitating injury, and one non-incapacitating injury. The safety improvements in this area yielded a benefit-to-cost ratio of 7.27, assuming a project cost of \$101,765.

There have been four additional non-addressable crashes within the study area for the time frame January 1, 2012 through December 31, 2013. Two of the crashes were fixed object collisions, resulting in a non-incapacitating injury crash and a property-damage only crash. Both were single vehicle collisions, with one vehicle overcorrecting and striking a delineator, and the other vehicle sliding off the right side of the road. The remaining two crashes were wild animal collisions.

### Major Design Features

- Design Speed.** The geometric design criteria for Rural Principal Arterials (National Highway System) indicate that the design speed should be 60 mph based on rolling terrain. The posted speed limit is 65 mph.
- Horizontal Alignment.** The horizontal alignment will not change with this project.
- Vertical Alignment.** The vertical alignment will not change with this project.
- Typical Sections and Surfacing.** The current surfacing will not be changed. Raised concrete median will be added to fill the gap between the existing raised median and

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the depressed median.

- e. **Geotechnical Considerations.** There are no known Geotechnical issues.
- f. **Hydraulics.** The proposed raised median falls within a superelevated portion of roadway which may require adding an inlet and cross drain or installing flow-thru median to facilitate drainage. Spread width analysis will be conducted during project design to determine what measures are necessary.
- g. **Bridges.** There are no bridges within the project limits.
- h. **Traffic.** Traffic will be responsible for roadway and lighting plans. Roadway plans will include adding a raised median between the existing raised median and depressed median. Since the northern end of the depressed median is not full width and the median begins within a horizontal curve we will explore adding raised curbing through the remainder of the curve to provide an additional visual and physical barrier. The electrical plans will extend the roadway lighting to encompass the limits of the proposed raised median and curb.
- i. **Pedestrian/Bicycle/ADA.** There are no dedicated pedestrian/bicycle or ADA facilities within the project and none are proposed.
- j. **Miscellaneous Features.** No miscellaneous features are anticipated.
- k. **Context Sensitive Design Issues.** There are no context sensitive design issues identified for this project.

### Other Projects

There do not appear to be any projects that will be under construction that could affect this project.

### Location Hydraulics Study Report

A Location Hydraulics Study Report will not be needed for this project.

### Design Exceptions

No design exceptions are anticipated for this project.

### Right-of-Way

No new right-of-way is anticipated with this project.

### Access Control

No changes to access control are proposed.

### Utilities/Railroads

No utility impacts are anticipated. MDT's Standard Specifications require the contractor to contact the Utilities Underground Location Center prior to excavation.

No railroad involvement is anticipated for this project.

### Maintenance Items

No maintenance involvement is anticipated.

### Intelligent Transportation Systems (ITS) Features

No ITS features are anticipated.

### Survey

A survey is not anticipated.

## **Preliminary Field Review/Scope of Work Report**

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### **Public Involvement**

The project will include a 'Level A' standard of public involvement. This includes a news release explaining the project and a Department point of contact.

### **Environmental Considerations**

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

### **Energy Savings/Eco-Friendly Considerations**

No Energy Savings/Eco-Friendly Considerations have been identified at this time.

### **Experimental Features**

No experimental features will be used on this project.

### **Traffic Control**

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. The final traffic control plan (TCP) will be discussed at the plan-in-hand with district personnel. The TCP will include a sequencing special provision that will provide a safe route for the travelling public at all times. All signing and/or flagging operations will be in accordance with the Manual on Uniform Traffic Control Devices.

### **Project Management**

Traffic & Safety – Helena will be responsible for developing the plans. Gabe Priebe is the project manager.

## Preliminary Field Review/Scope of Work Report

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### Preliminary Construction Cost Estimate

The estimate below is based on information provided during nomination and will be refined as design progresses.

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	\$54,815		
Traffic Control	\$10,000		
<b>Subtotal</b>	<b>\$64,815</b>		
Mobilization (10%)	\$6,481		
<b>Subtotal</b>	<b>\$71,296</b>		
Contingencies (8%)	\$5,704		
<b>Total CN</b>	<b><u>\$77,000</u></b>	<b><u>\$11,464</u></b>	<b><u>\$96,540</u></b>
<b>CE (10%)</b>	<b><u>\$11,550</u></b>	<b><u>\$1,719</u></b>	<b><u>\$14,480</u></b>
<b>TOTAL CN+CE</b>	<b><u>\$88,550</u></b>	<b><u>\$13,183</u></b>	<b><u>\$111,020</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 9.13% as of FY 2015.

### Preliminary Engineering

It is not anticipated the project will require a significant addition or reduction to the nominated PE amount.

### Project and Risk Management

Gabe Priebe will be the Project Design Engineer. This project is not a PoDI project by FHWA.

It is expected the overall level of risk is low to project costs and schedule.

### Ready Date

Ready and letting dates will be established after OPX-2 over-rides have been completed.

### Site Map

A project Site Map is attached.

# Preliminary Field Review/Scope of Work Report

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