



January 9, 2014

Kevin L. McLaury
Division Administrator
Federal Highway Administration
585 Shepard Way, Suite 2
Helena, MT 59601-9785

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ENVIRONMENTAL
FHWA
MONTANA DIVISION

Attention: Jeff Patten

Subject: Categorical Exclusion
WHITE SUPLHUR SPRINGS - EAST
STPP 14-2(38)43
Control Number: 8116000

This is to request approval of this proposed project as a Categorical Exclusion (CE) under the provisions of 23 CFR 771.117(d), and the Programmatic Agreement as signed by the Montana Department of Transportation (MDT) and the FHWA on April 12, 2001. A Copy of its Preliminary Field Review Report (PFRR) dated December 4, 2013 is attached. This proposed action also qualifies as a CE 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 Programmatic Categorical Exclusion Approval (PCE) as initially agreed by the (former) MONTANA DEPARTMENT OF HIGHWAYS (MDOH) and the FHWA on December 6, 1989. (Note: An "X" in the "N/A" column is "Not Applicable" to, while one in the "UNK" column is "Unknown" at the present time for this proposed project.)

NOTE: A response in a shaded 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 <u>23 CFR 771.117(a)</u> .	<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 <u>23 CFR 771.117(b)</u> .	<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 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>
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. There is a high rate of residential growth in this proposed project's area.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. There is a high rate of commercial growth in this proposed project's area.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
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 proposed 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 checked="" 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 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. 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 checked="" 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 checked="" 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 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>
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 <u>33 CFR Parts 320-330</u> of the <i>Clean Water Act</i> (33 USC 1251-1376) would be met.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. 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 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 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 type="checkbox"/>	<input type="checkbox"/>
c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge).	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 <u>23 CFR 772.5(h)</u> , 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 <u>23 CFR 772</u> for FHWA's Noise Impact analyses and MDT's Noise Policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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(<i>e.g.</i> : 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 <i>CERCLA</i> or <i>CECRA</i>) 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 Montana Pollutant Discharge Elimination System's conditions (<u>ARM 16.20.1314</u>), including temporary erosion control features for construction would be met.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H. Permanent desirable vegetation with an approved seeding mixture would be established on exposed areas.	<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>
I. Documentation of an "invasive species" review to comply with both EO #13112 and the <i>County Noxious Weed Control Act</i> (7-22-21, MCA), including directions as specified by the county(ies) wherein its intended work would be done.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 an AD-1006 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 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 <u>40 CFR 81.327</u> 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 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" (Indian Reservations) under <u>40 CFR 52.1382(c)(3)</u> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Federally listed 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 <u>50 CFR 402</u>) 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.

Barry Brosten, Date: 1/9/14
Barry Brosten - Butte District Project Development Engineer
MDT Environmental Services Bureau

Concur Heidy Bruner, Date: 1/13/14
Heidy Bruner, P.E. - Engineering Section Supervisor
MDT Environmental Services Bureau

Concur Jeffrey A. Patten, Date: 1/16/14
Federal Highway Administration

MDT attempts to provide accommodation for any known disability that may interfere with a person participating in any service, program or activity of the Dept. 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.

Attachment: PFRR

- Copy (w/o attach.):
- | | |
|--|---------------------------------------|
| Jeff Ebert | Butte District Administrator |
| Paul Ferry | Highway Engineer |
| Tom Martin | Chief, Environmental Services Bureau |
| Robert Stapley | Right-of-Way Bureau Chief |
| Suzy Price | Contract Plans Bureau Chief |
| Lisa Hurley | Fiscal Programming Section Supervisor |
| Tom Erving | Fiscal Programming Section |
| Barry Brosten | Environmental Services |
| Environmental Services File | |
| Montana Legislative Branch Environmental Quality Council (EQC) | |



Memorandum

To: Distribution

From: Paul Ferry, P.E. **LT**
 Highways Engineer

Date: December 4, 2013

Subject: **STPP 14-2(38)43**
White Sulphur Springs – East
UPN 8116000
Work Type – 160 – Minor Rehabilitation

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on **12/4/2013**. 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:

- | | |
|---|--|
| Jeff Ebert, 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 | Jon Swartz, Maintenance Division Administrator |

cc:

- | | |
|--|---|
| Jim Davies, Project Design Manager, Butte District Master file | Dawn Stratton, Fiscal Programming Section |
| | Damian Krings, Road Design Engineer |

e-copies:

- | | |
|--|---|
| Jim Walther, Engineering, Preconstruction Engineer | Jake Goettle, Construction Bureau – VA Engineer |
| Lesly Tribelhorn, Highways Design Engineer | Dustin Rouse, District Preconstruction |
| Mark Goodman, Hydraulics Engineer | Joe Walsh, District Projects Engineer |
| Walt Ludlow, District Hydraulics Engineer | Mike Walsh, District Materials Lab |
| Bill Semmens, Env. Resources Section Supervisor | Kyle DeMars, District Maintenance Chief |
| Deb Wambach, District Biologist | Therese Iwaniak, District Right of Way Supervisor |
| Barry Brosten, 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 |
| LeRoy Wosoba, District Traffic Project Engineer | Joe Zody, R/W Access Management Section Manager |
| Kraig McLeod, Safety Engineer | Matt Strizich, Materials Engineer |
| Nathan Haddick, Bridge Area Engineer, Butte District | Daniel Hill, Pavement Analysis Engineer |
| Michael Grover, Engineering Cost Analyst | Pat McCann, 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 | Duane Williams, Motor Carrier Services Division Administrator |
| Suzy Price, Contract Plans | |



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

Memorandum

To: Paul Ferry, P.E.
Highways Engineer

From: Damian Krings, P.E. **DK**
Road Design Engineer

Date: December 4, 2013

Subject: **STPP 14-2(38)43**
White Sulphur Springs – East
UPN 8116000
Work Type – 160 – Minor Rehabilitation

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

Approved **Lesly Tribelhorn** Date **12/4/2013**
For Paul 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
Master file

Preliminary Field Review/Scope of Work Report

STPP 14-2(38)43 White Sulphur Springs – East
Project Manager: Jim Davies

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Introduction

A preliminary field review for this project was held on August 22, 2013 with the following personnel in attendance:

Jim Davies – MDT – Road Design
Mark French – MDT – Road Design
Steve McEvoy – MDT – Pavement Analysis
Dustin Rouse – MDT – Engineering Services Supervisor
Joe Walsh – MDT – District Projects Engineer
Ray Sacks – MDT – Helena Construction
Geno Liva – MDT – Construction Operations Engineer
Deb Wambach – MDT – Environmental
Duane Liebel – MDT – Butte Construction
Ted Jones – MDT – Bozeman Maintenance
Joshua Dold – MDT – Road Design

Proposed Scope of Work

The proposed project has been nominated to provide an overlay with an isolation lift and seal and cover. The Helena Road Design Section will design this project. **This project will be developed in English units.**

Purpose and Need

The purpose of this project is to prolong the existing pavement life, and to provide additional skid resistance.

Project Location and Limits

The project is located in Meagher County on P-14 between White Sulphur Springs and Harlowton, (RP 42.7 to RP 48.9). The project begins leaving White Sulphur Springs city limits and ends 4 miles northeast of Junction P-60, leaving U.S. 89. The project ends 50 miles west of Harlowton. The length of the project is 6.2 miles. The functional classification is minor arterial. The project as-builts are as follows:

- F 8(11) year 1965

Reference posts run from west to east on this primary route, which corresponds with the stationing on the project. A map is attached at the end of this report.

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. The plans package will include a Transportation Management Plan (TMP) consisting mainly of a Traffic Control Plan (TCP). A limited Transportation Operations (TO) component and a limited Public Information (PI) component will also be included in the plan package. These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

Physical Characteristics

The physical characteristics for this rural two-lane minor arterial are described below:

1. Surfacing information is provided below:

<u>From</u>	<u>To</u>	<u>PMS Top Thickness (in)</u>	<u>Bottom Thickness (in)</u>	<u>Top Width (ft)</u>	<u>Number of Lanes</u>
RP 42.7	RP 43.8	4.8	20.0	44	2
RP 43.8	RP 45.1	4.8	14.0	40	2
RP 45.1	RP 48.9	4.8	18.2	40	2

Preliminary Field Review/Scope of Work Report

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 Project Manager: Jim Davies

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2. Existing Roadside Geometrics: The horizontal and vertical alignments will be perpetuated for this project. The general terrain is level in a rural area.

3. PvMS Index Numbers for 2013 & Recommended Treatment for 2015:

<u>Section</u>	<u>Ride</u>	<u>Rut</u>	<u>ACI</u>	<u>MCI</u>	<u>2015 Construction</u>	<u>2015 Maintenance</u>
RP 42.7 to RP 48.9	73.2	74.3	99.0	98.7	C AC Thin Overlay	M AC Thin Overlay

4. Route P-14 (U.S. 12, U.S. 89) was constructed in 1965 and was improved in 1990.

The following bridges are within the project limits:

	Bridge ID	Location	Feature Crossed	Const	Sufficiency
#				Year	Rating
	P00014048+09521	6 M NE WHITE SULPHUR SPRINGS	FOUR MILE CREEK	1937	87.2

Bridge rail will be upgraded on this structure with this project. Bridge approach sections and optional terminal sections will be upgraded. 100' of guardrail will be installed off the bridge ends at all four corners of the bridge to match the existing guardrail in place.

The Bridge Bureau will identify any additional bridge work to be included in the Scope of Work Approval.

Traffic Data

The 2013 traffic data is as follows:

2013 AADT = 1,080 Present
 2015 AADT = 1,100 Letting Year
 2035 AADT = 1,340 Design Year
 DHV = 170
 T = 9.8%
 EAL = 44
 AGR = 1.0%

Crash Analysis

ENGINEERING STUDY EVALUATION

DATE: August 28, 2013

DESCRIPTION: White Sulphur Springs-East

ROUTE & MP: State Primary 14 RP 42.7 – RP 48.9

DATE TIME FRAME: 01-01-2003 TO 12-31-2012

STATEWIDE AVERAGE FOR RURAL PRIMARY ROUTES (2008-2012) STUDY AREA
(2003-2012)

ALL VEHICLES CRASH RATE:	<u>1.11¹⁾</u>	<u>0.91</u>
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ALL VEHICLES SEVERITY INDEX:	<u>2.18²⁾</u>	<u>3.57</u>
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Preliminary Field Review/Scope of Work Report

STPP 14-2(38)43 White Sulphur Springs – East
Project Manager: Jim Davies

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ALL VEHICLES SEVERITY RATE:	<u>2.41</u> ³⁾	<u>3.25</u>
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TRUCK CRASHES:	<u>1</u>
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TOTAL RECORDED CRASHES:	<u>14</u>
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¹⁾ Crash rates are defined as the number of crashes per million vehicle miles.

²⁾ Severity index is defined as the ratio of the sum of fatal and incapacitating injury crashes times 8 plus the number of other injury crashes times 3 plus the number of property damage crashes to the total number of crashes.

³⁾ Severity rate is defined as the crash rate multiplied by the severity index.

I. VARIATIONS FROM AVERAGE OCCURRENCE:

- 42.9% of the crashes occurred during dark-not lit light conditions vs. 32.4% statewide average for Primary routes.

II. CRASH CLUSTERS AND SAFETY PROJECTS:

In 2003 and 2005, from reference point 44.9 to reference point 45.1, was identified as a crash cluster. The Safety Engineering Section recommended the advanced and overhead flashers located at the junction of P-14 and P-60 be upgraded along with the advanced stop ahead sign, guide sign and stop sign located on P-60, along with transverse rumble strips on P-60 prior to the junction with P-14. The project was completed in the summer of 2010.

III. REMARKS:

The main observed crash trend is single vehicle run-off-the-road crashes (10). Of these crashes, 5 resulted in overturning of the vehicle, 4 vehicles struck a ditch and or embankment and 1 vehicle struck a fence. There were also three wild animal collisions within this section of roadway during the study period.

Also, there were four recorded crashes at the intersection of US 12 and US 89. Three of the crashes involved southbound vehicles failing to stop at the intersection and striking roadside objects. The remaining crash involved an eastbound commercial motor vehicle overturning while making a left hand turn at the intersection to travel northbound on US 89. The severity of the crashes at the intersection includes a fatal crash with one fatality and two incapacitating injuries and three property damage only crashes. Since the safety improvements have been installed there has been one property damage only crash.

Major Design Features

a. **Design Speed.**

The design speed is 60 mph, and the posted speed is:

- 35 mph from RP 42.7 to 42.8

Preliminary Field Review/Scope of Work Report

- 45 mph from RP 42.8 to 43.0
- 70 mph from RP 43.0 to 48.9

b. **Horizontal Alignment.**

The horizontal alignment will be perpetuated with this project.

c. **Vertical Alignment.**

The vertical alignment will be perpetuated with this project.

d. **Typical Sections and Surfacing.**

The proposed typical section is as follows:

- Overlay 0.15' with 0.07' isolation lift full width from reference post 42.7 to 48.9.
- Seal and cover (chip seal type I) full width from reference post 42.7 to 48.9.

The typical section listed above has been designed based on the results from core analysis. The district materials lab collected cores on the bridge deck with a plant mix overlay and alternate lanes every ½ mile interval to help further refine the surfacing section.

Soil survey has been requested from reference post 44.5 to 45.5 on this project. It is possible that a digout will be required in this location. See geotechnical considerations for possible digout locations.

The existing surfacing top width is 44 feet from reference post 42.7 to 43.8. There are two – 12 foot driving lanes, one – 8 foot shoulder and one – 12 foot shoulder. The existing surfacing top width is 40 feet from reference post 43.8 to 48.9. There are two – 12 foot driving lanes and two – 8 foot shoulders.

The proposed overlay total thickness of 0.22 feet will reduce the top surface of each typical listed above by 2.64 feet.

e. **Geotechnical Considerations.**

Geotechnical has requested further evaluation of the site to determine potential digout locations. A soil survey has been requested from reference post 44.5 to 45.5 full width of roadway. Digouts may be required at isolated locations within the project limits, pending the results of District Soil Survey work. Potential digouts are located from reference post 44.5-45.5. The extent of this work will be identified in the Scope of Work Approval.

f. **Hydraulics.**

No Hydraulic considerations are anticipated on this project.

g. **Bridges.**

Bridge rail will be upgraded on this structure with this project. Bridge approach sections and optional terminal sections will be upgraded. 100' of guardrail will be installed off the bridge ends at the four corners of the bridge to match the existing guardrail in place. Road Design will be using 8 ½" x 11" plan sheets on this project.

The Bridge Bureau will identify any additional bridge work to be included in the Scope of Work Approval.

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h. **Traffic.**

Pavement markings and delineation will be upgraded with this project. Signs will be upgraded as deemed appropriate by the Traffic Section. Road Design will be using 8 ½” x 11” plan sheets on this project.

i. **Pedestrian/Bicycle/ADA.**

Primary 14 has no pedestrian or bicycle facilities, therefore no pedestrian or bicycle facilities accommodations will be made at this time.

j. **Miscellaneous Features.**

All millings generated by the project will be disposed of in accordance with the MDT millings disposal policy.

Shoulder rumble strips will be installed throughout this project.

k. **Context Sensitive Design Issues.**

The intent of this project is to increase the service life of the pavement and do minor repairs and upgrades as needed to reduce maintenance costs and improve safety. The majority of the work will occur on the paved roadway surface. Therefore, no significant changes will occur to the context of the area the roadway passes through once construction is completed.

Other Projects

There is a resurfacing asphalt project on P-60 north from the junction of P-14. This project is called N of White Sulphur Springs N, STPP 60-1(23)0, CN 8109000. The junction of the two routes is reference post 0.0 on P-60 and 45.1 on P-14.

No other projects are planned in the vicinity of this project.

Location Hydraulics Study Report

There will be no LHSR for this project as it is an overlay project.

Design Exceptions

No design exceptions are anticipated.

Right-of-Way

No additional right-of-way will be required for this project.

Access Control

No changes to access control with this project.

Utilities/Railroads

There will be no utility or railroad involvement on this project.

Maintenance Items

There are no maintenance items that were discussed during the review to be completed prior to construction of this project.

Intelligent Transportation Systems (ITS) Features

There will be no ITS solutions to be considered as part of the design process.

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Survey

It is not anticipated that any survey will be needed on this project. No survey will be needed on this project as the only guardrail installation will be guardrail replacement and the posts will go back in similar, if not the same, post holes. The proposed guardrail run will be the same length as the existing guardrail.

Public Involvement

The level of public involvement will be level A, which includes the following:

Level A

1. News release explaining the project and including a department point of contact.

Environmental Considerations

This project meets the criteria for a statewide programmatic categorical exclusion under the pavement preservation agreement with FHWA. In lieu of the environmental checklist, due to potential for digouts we have decided to submit a programmatic categorical exclusion rather than submit a pavement preservation checklist for this project. The scope of work approval will wait for completion of the categorical exclusion.

As proposed, no CWA 404 permits or SPA 124 notifications are anticipated for this project. The Protection of Aquatic Resources supplemental specification applies to this project, specifically to Willow Creek and associated wetlands adjacent to the highway, Four Mile Creek, and several intermittent drainages and irrigation facilities crossing the highway within the project limits. No impacts to aquatic resources are anticipated. Any bridge work, and tree or shrub clearing must occur in compliance with the Migratory Bird Treaty Act.

Energy Savings/Eco-Friendly Considerations

At this time, no savings or considerations have been identified.

Experimental Features

At this time, no experimental features have been identified.

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. Traffic will be maintained throughout construction through the use of part width construction and lane closures. No detours are anticipated. If digouts are deemed necessary, the quantity of traffic control will be adjusted accordingly in the Scope of Work Approval. The Transportation Operations (TO) plan will make use of lane closure devices and signs based on the *Manual of Uniform Traffic Control Devices* (MUTCD).

Project Management

Helena Road Design will be the lead on this project and the project design manager will be Jim Davies. This project is not under full FHWA oversight.

Preliminary Cost Estimate

This cost estimate does not include any work associated with digouts. If digouts are included, the Scope of Work Approval will reflect the cost of digouts and associated traffic control. There are unknown costs associated with digouts and guardrail which will be defined in the Scope of Work

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Approval. Contingencies and miscellaneous work were increased to account for unexpected situations.

PFR Estimate	Estimated Cost	Inflation (INF) (from PPMS)	TOTAL Costs w/INF + IDC (from PPMS)
Road Work	1,606,433.00		
Traffic Control	96,385.98		
Subtotal	1,702,818.98		
Mobilization (10%)	170,281.90		
Subtotal	1,873,100.88		
Contingencies (15%)	280,965.13		
Total CN	<u>2,154,066.01</u>	\$ 350,820	\$ 2,733,331
CE (10%)	<u>215,406.60</u>	\$ 35,082	\$ 273,333
TOTAL CN + CE	<u>2,369,472.61</u>	\$ 385,902	\$ 3,006,664

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 9.12% for FY 2014.

Ready Date

The current Ready Date in OPX2 is shown as October 1, 2014. Recently the District offered this project as a priority 2 backup project for 2014.

Letting Date:

The Letting Date is January 1, 2020.

Site Map

The project site map is attached.

