



October 27, 2014

Montana Department of Transportation

2701 Prospect Avenue  
PO Box 201001  
Helena MT 59620-1001

Michael T. Tooley, Director  
Steve Bullock, Governor

Brian Hasselbach  
Federal Highway Administration (FHWA)  
585 Shepard Way, Suite 2  
Helena, Montana 59601

Subject: Statewide Programmatic Categorical Exclusion for Pavement Preservation Project  
JCT MT 28 - South  
STPS 382-1(14)11  
Control Number: 8776000

Dear Brian Hasselbach:

The MDT Environmental Services Bureau has reviewed the Preliminary Field Review/Scope of Work Report (PFR/SOW) for the subject project. Based on the completed Environmental Checklist for Pavement Preservation Projects (Checklist), we conclude that the Statewide Programmatic Categorical Exclusion for these types of projects would cover this project. For your information, I have attached a copy of the PFR/SOW (including the location map) and the signed Environmental Checklist. Environmental-related Special Provisions are not anticipated at this time.

If you have questions or concerns, please contact Susan Kilcrease at 523.5842 or me at 444.7203. We will be pleased to assist you.

Sincerely,

Heidi Bruner, P.E.  
Environmental Services Bureau Engineering Section Supervisor

Attachments: PFR/SOW Report, Environmental Checklist

e-copies w/checklist encl.:

Ed Toavs, Missoula District Administrator  
Tom Martin, P.E., Environmental Service Bureau Chief  
Heidi Bruner, P.E., ESB Engineering Section Supervisor  
Paul Ferry, P.E., Highways Engineer  
Kevin Christensen, P.E., Construction Engineer  
Suzy Price, Contract Plans Bureau Chief  
Lisa Hurley, Fiscal Programming Section Supervisor  
Tom Erving, Fiscal Programming Section  
Susan Kilcrease, Missoula District Project Development Engineer  
Donny Pfeifer, P.E., Project Design Manager  
Montana Legislative Branch Environmental Quality Council

File

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(FOR PROJECTS WITH NO RIGHT-OF-WAY INVOLVEMENT)

Applicant cannot be authorized to proceed with the proposed work until ALL of the conditions of the checklist have been satisfied.

ENVIRONMENTAL CHECKLIST FOR PAVEMENT PRESERVATION PROJECTS  
(CRACK SEALING, SEAL & COVER, THIN OVERLAYS, MILL & FILL, PLANT MIX LEVELING, MILL OGFC, MICRO SURFACING, FOG SEAL)

Project Number: STPS 382-1(14)11 Control No 8776000 Project Name: JCT MT 28 - South  
Reference Post (Station): 10.5 (569+58.00) To Reference Post (Station): 15.6 (849+09.00)  
Applicant's Name: Montana Department of Transportation Address: PO Box 201001; Helena, MT 59620-1001  
Type of Proposed Pavement Preservation Activity: Mill & Fill, Seal & Cover

Table with 3 columns: Impact Questions, Yes, No, Comment. Contains 14 rows of questions regarding environmental impacts like Wild or Scenic Rivers, species, water quality, wetlands, and air quality.

Checklist prepared by:

Ben Nunnallee  
Applicant

Project Design Engineer  
Title

10/17/2014  
Date

Approved by: [Signature]  
Environmental Services

ENVIRONMENTAL ENGINEERING  
SECTION SUPERVISOR  
Title

10/28/14  
Click here to enter a date.  
Date

(When any of the above questions are checked "Yes")

The Applicant is **not** authorized to proceed with the proposed work until the checklist has been reviewed and approved, as necessary, and any requested conditions of approval have been incorporated.

- A. Complete the checklist items 1 through 7, indicating "Yes" or "No" for each item. Include comments, explanations, information sources, and a description of the magnitude/importance of potential impacts in the right hand column. Attach additional and supporting information as needed. The checklist preparer, by signing, certifies the accuracy of the information provided.
- B. When "Yes" is indicated on any item, the checklist preparer must explain why and provide the appropriate documentation, evaluation, permit, and/or mitigation measures required to satisfy environmental concerns for the project. Use attachments if necessary. **Any proposed mitigation measures will become a condition of approval.**
- C. If the applicant checks "Yes" for any one item, the checklist and MDT's mitigation proposal, documentation, evaluation and/or permit shall be submitted to MDT Environmental Services Bureau. Electronic format is preferred. Contact Number 444-7228.
- D. When the applicant checks a "Yes" item, MDT cannot be authorized to proceed with the proposed work until Environmental Services Bureau reviews the information and signs the checklist.
- E. MDT will obtain all necessary permits or authorizations from other entities with jurisdiction prior to beginning the Pavement Preservation Activity.
- F. The links above are provided as a starting point for potential sources of information for completing the checklist. The Applicant is encouraged to consult Environmental Services Bureau and/or other information sources.



**Memorandum**

To: Distribution

From: Paul Ferry, P.E.  
 Highways Engineer

Date: October 20, 2014

Subject: STPS 382-1(14)11  
 JCT MT 28 - SOUTH  
 UPN 8776000  
 Work Type 160 – Minor Rehabilitation

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on \_\_\_\_\_. 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 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 Administrator                        |

**cc:**

- |   |  |
|---|--|
| Dawn Stratton, Fiscal Programming Section | Bill Squires, District Road Design Area Engineer |
| Donny Pfeifer, Project Design Manager     |  |

**e-copies:**

- |   |   |
|---|---|
| Jim Walther, Preconstruction Engineer                 | Jake Goettle, Construction Bureau – VA Engineer         |
| Lesly Tribelhorn, Highways Design Engineer            | Shane Stack, District Preconstruction Engineer          |
| Mark Goodman, Hydraulics Engineer                     | Ben Nunnallee, District Projects Engineer               |
| K.C. Yahvah, District Hydraulics Engineer             | Mike Dodge, District Materials Supervisor               |
| Bryce Larsen, Supervisor, Photogrammetry & Survey     | Steve Felix, Dist. Maintenance Chief (Missoula)         |
| Joe Weigand, District Biologist                       | Maureen Walsh, District R/W Supervisor                  |
| Susan Kilcrease, Dist. Environmental Project 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            |
| Gabe Priebe, District Traffic Project Engineer        | Joe Zody, R/W Access Management Section Manager         |
| Kraig McLeod, Safety Engineer                         | Matt Strizich, Materials Engineer                       |
| Chris Hardan, District Bridge Area Engineer           | Jim Davies, Pavement Analysis Engineer                  |
| Vacant, Engineering Cost Analyst                      | Darin Reynolds, Surfacing Design Supervisor             |
| Vacant, Engineering Information Services              | Jeff Jackson, Geotechnical Engineer                     |
| Paul Grant, Public Involvement Officer                | Bret Boundy, Missoula District Geotechnical Manager     |
| Sue Sillick, Research Section Supervisor              | Paul Johnson, Project Analysis Bureau                   |
| Alyce Fisher, Fiscal Programming Section              | Jean Riley, Planner                                     |
| Dawn Stratton, Fiscal Programming Section             | Glen Cameron, District Traffic Engineer (Missoula)      |
| Bob Vosen, District Construction Engineer             | Patricia Hogan, District Utility Engineering (Missoula) |
| Dean Jones, Asst. District Construction Engineer      | Suzan Foley, R/W Design Supervisor                      |
| Ray Sacks, Construction Bureau                        | Angela Zanin, Bicycle/Pedestrian Coordinator            |
| Suzy Price, Contract Plans Bureau Chief               | Matt Maze, ADA Coordinator                              |



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

**Memorandum**

To: Paul Ferry, P.E.  
Highways Engineer

From: Shane Stack, P.E.  
Missoula District Preconstruction Engineer

Date: October 16, 2014

Subject: STPS 382-1(14)11  
JCT MT 28 - SOUTH  
UPN 8776000  
Work Type 160 – Minor Rehabilitation

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

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

## Preliminary Field Review/Scope of Work Report

UPN 8776000, STPS 382-1(14)11, JCT MT 28 - SOUTH  
Project Manager: Donny Pfeifer

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### Introduction

An onsite field review was held on August 28, 2014. The following people attended:

Ben Nunnallee – Missoula District Projects Engineer  
Donny Pfeifer – Missoula District Design Supervisor  
Jim Davies – Pavement Analysis Engineer  
Tanya Gates – Missoula District Road Design  
Nate Walters – Missoula District Road Design  
Dave Krause – Missoula District Road Design

### Proposed Scope of Work

The proposed project has been nominated to preserve the asphalt pavement and to extend the service life of the roadway. A 0.15 ft. overlay and seal & cover is proposed for this project. In select areas where there is existing additional pavement distress, a 0.20' mill and fill will be completed prior to the 0.15' overlay. Replacement of the signing and pavement markings will also be included.

### Purpose and Need

The purpose of this project is to preserve the existing pavement to extend the service life of the existing asphalt surfacing. This section of highway is due for pavement resurfacing before the deterioration of the pavement begins to accelerate.

### Project Location and Limits

This project is located in Sanders County, beginning approximately 9.9 miles south of the town of Hot Springs, MT on S-382 (MT Hwy 382) and about 0.2 miles north of Big Gulch Rd. The project begins at Reference Post (RP) 10.524±, English Station 569+58.0 on As-Built plans S-58(1). The project extends northerly 5.1 miles to the intersection with P-36 (MT Hwy 28) at RP 15.641±, English Station 849+09 on As-Built plans S-58(1). The project is located entirely within the Flathead Indian Reservation. On this project, stationing and reference points increase from south to north. This segment of road is located in Township 20 N, Range 24 W (Sections 11, 12, and 21); Township 21 N, Range 23 W (Section 31); Township 21 N, Range 24 W (Section 36); and in Township 21 N, Range 24 W (Sections 23, 24, and 25).

S-382 is on the State Secondary Highway System and is functionally classified as a Rural Major Collector. See the attached location map.

### 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 of a Traffic Control Plan (TCP). A limited Public Information (PI) component to address public notification will also be included. These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

### Physical Characteristics

The existing terrain within the project limits is level at the beginning of the project but changes to rolling terrain from RP 11.8 to RP 15.6. There are three gravel turnouts within the project. There are approximately 17 private farm field and/or resident approaches located throughout the project length.

As-Built information shows that roadway was constructed to its current geometry in 1947 under project S-58(1). Then under project S-58(2) the roadway was widened to its current width. The

## Preliminary Field Review/Scope of Work Report

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Project Manager: Donny Pfeifer

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pavement Preservation maps show the section was last improved in 1996. The design speed for this project per the Highway Design Manual is 60 mph in the level terrain and 50 mph in the rolling terrain.

There is basically one typical section along this section of highway though there are discrepancies between the sources as to the width. The roadway as-built shows the roadway is nominally 24' wide with no shoulders. The TIS Road Log shows that the road is only 20' wide with no shoulders. The TIS Road Log also shows that the existing asphalt surfacing is 2.5" thick with 8.3" of base depth. The TIS Road Log does not show any changes in width or surfacing through the entire section of the project. The Pavement Analysis Section shows that the roadway width is 24.5', which is consistent with the as-built plans. Due to variations in the roadway width reporting, roadway width verification was conducted at mile intervals after the PFR and it was determined that the average pavement width was 24.6', ranging from 23.4' to 25.0'. The travel lanes were consistently 11' wide with 1.3' wide shoulders on each side.

The TIS Road Log indicates the following existing roadway information:

Reference Posts	Improvement Project ID	Total Width	Lanes	Surf. Depth	Base Depth	Left	Right
RP 10.5 to 15.6	S-58(2)	20'	2-10'	2.5"	8.3"	ditch	ditch

The existing surfacing consists of: 2.5 in. Bituminous Plant Mix  
8.3 in. Crushed Base Course

Surfacing depths determined from core samples taken in September 2014 by the MDT Missoula District Materials Lab in Missoula indicate the existing asphalt thicknesses from RP 10.5 to RP 15.6 range from 0.33 ft. to 0.69 ft. (0.47' avg. depth). The average depth of the top layer of asphalt was 0.18' with some moisture damage but no stripping. The bottom layers of asphalt exhibit stripping.

Surfacing inslopes are 6:1 with steep adjacent fill and cut slopes. There is one section of new guardrail located from RP 14.9 to 15.1 on the east side of the roadway that was installed with project UPN 7512000, HSIP 382-(13)15, SF109 – Grail – S of Hot Springs in 2013.

There are no structures on this project.

There are six horizontal curves on the project. The majority of the horizontal curves do not meet current design standards for the reasons below. The 50 MPH design speed on this section of roadway requires a minimum radius of 760'. All of the horizontal curves meet the minimum radius required. However, the as-built plans show that the horizontal curves are all simple curves and do not have spirals. The roadway design manual requires all curves with  $R > 3820'$  to use spirals. Curves 2, 3, 4, and 6 (shown in the table below) all need spirals to meet current design standards. Secondly, curves 2 and 3 are compound curves sharing a PCC at 722+25.0. Current standards do not allow for compound curves. Lastly, the as-built plans do not list whether any of the horizontal curves has any superelevation. A field visit indicated that the curves do have some superelevation, but it is unknown whether the superelevation rates are sufficient for the design speed.

## Preliminary Field Review/Scope of Work Report

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Horizontal Curves							
Curve No.	As-Built PI Station	Radius (ft)	Length (ft)	Length of Spiral (ft)	As-Built Super (%)	Super (%) (meeting current standards)	Design Speed Provided (mph)
1	650+09.5	5730	508.0	0	?	3.0	?
2	711+93.0	2865	2175.0	0	?	4.0	?
3	730+35.7	1910	1533.3	0	?	6.0	?
4	758+69.7	1146	1874.7	0	?	8.0	?
5	779+75.0	5730	621.7	0	?	3.0	?
6	815+50.0	1910	928.3	0	?	6.0	?

In general the section of roadway travels across a flat from the start of the project until Station 675+00 where the roadway begins to ascend over a hill. The roadway climbs constantly for approximately 2 miles at grades as steep as 7.00% until Station 778+65.0 where it begins a constant 1.3 mile descent, also with grades as steep as 7.00%. The roadway is still descending when it ties into P-36 at the end of the project. In total there are 18 vertical curves on this project. Five of these vertical curves (PIs at 697+06.10, 751+50.00, 768+31.00, 778+65.00, and 848+04.27) do not meet the current required SSD (Crest K of 84 and Sag K of 96). Also, there are 7 locations where minor changes in grade do not have vertical curves, and this is not currently allowed on rural highways by the design manual. There are no areas on the project that exceed the maximum allowable grade of 7.00%. The maximum gradient on the project is 7.00%. Following is a table summarizing the vertical curves.

Vertical Curves				
As-Built PI Station	Length (ft)	Grade <sub>1</sub> (%)	Grade <sub>2</sub> (%)	K-Value
577+24.53	200	0.27	0.09	1111
640+34.88	400	0.67	2.51	217
653+68.51	400	2.71	2.31	1000
658+80.06	200	2.31	3.10	253
676+50.00	300	3.60	2.47	265
687+68.14	200	2.84	3.98	175
692+88.00	200	3.98	3.612	543
697+06.10	200	3.612	6.09	81*
705+47.00	200	5.09	7.00	105
713+08.00	300	7.00	6.08	326
723+40.00	200	6.08	7.00	217
740+50.00	800	7.00	-0.31	109
751+50.00	300	-0.31	3.23	85*
759+16.48	800	3.23	-1.115	184
768+31.00	300	-1.115	4.7164	51*
778+65.00	800	4.7146	-7.00	68*
829+50.00	200	-7.00	-6.54	435
848+04.27	200	-6.54	-3.18	60*

\*Does not meet current design standards

## Preliminary Field Review/Scope of Work Report

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Project Manager: Donny Pfeifer

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The Pavement Management System generated the following performance indices for the survey year 2013 and treatment recommendations for the years 2014 and 2016:

### TREATMENT YEARS 2014 & 2016

BEG RP	END RP	RIDE	RUT	ACI	MCI	CONST. TREAT. REC.
10.625	15.766	63.4 (fair)	69.1 (good)	94.8 (good)	98.1 (good)	AC Thin Overlay ('14), AC Thin Overlay ('16)

### Traffic Data

2014 AADT = 540 (Present)  
2017 AADT = 580 (Letting Year)  
2037 AADT = 940 (Design Year)  
DHV = 120  
Com Trucks = 7.5%  
Growth Rate = 2.4% (Annual)  
ESAL's = 23

### Crash Analysis

Safety Management completed a crash analysis for the ten-year period from 01/01/04 through 12/31/13 for the segment RP 10.5 to RP 15.6:

Total Recorded Crashes:	27
Fatal Injury Crashes:	0 (0 fatalities)
Incapacitating Injury Crashes	3 (3 injuries)
Non-Incapacitating Injury Crashes	6 (7 injuries)
Injury Crashes:	16 (19 injuries)
Property Damage Only Crashes:	11

The crash rate in this section from 2004 through 2013 is 3.05. The crash severity index for this section is 2.74. The crash severity rate for this section is 8.36.

This portion of S-382 from RP 10.5 to 15.6 was analyzed in two segments (RP 10.5 – 13.05 and RP 13.05 – 15.6). Both the total project and both segments are performing at a Level of Service of Safety (LOSS) IV for total crashes and for severe (fatal and injury) crashes. LOSS IV indicates there is a high potential for crash reduction. The LOSS is also a IV for total road departure crashes and severe (fatal and injury) road departure crashes for the total project and for both segments.

Twenty-six of the 27 crashes were non-intersection related. Of those 26 crashes, the following crash patterns were observed:

- Injury crashes (Entire project, Segment 1, Segment 2)
- Off Road (RT side) crashes (Entire project, Segment 2)
- Off Road (LT side) crashes (Entire project)
- Overturning crashes (Entire project, Segment 1, Segment 2)
- Embankment crashes (Entire project)
- Snow/sleet/hail weather conditions crashes (Entire project)
- Alcohol Involved crashes (Entire project)
- Driver preoccupied crashes (Entire project, Segment 2)
- Dark – Unlighted crashes (Entire project, Segment 1)
- Single Vehicle crashes (Entire project, Segment 1, Segment 2)

## Preliminary Field Review/Scope of Work Report

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There were two main concentrations of crashes along this section of roadway. They were between RP 13.0 and 14.2 and between RP 15.0 and 15.5. All of the crashes in these areas were road departure crashes. There is also an observed off road crash pattern between RP 12.208 and 15.638 that was identified by the consultant who developed MDT's SPF and pattern recognition tools.

Throughout this section of S-382 there have been various crash clusters and safety improvement projects within this section.

- In 2012, the section between RP 13.8 and 14.308 was identified as a crash cluster. No feasible countermeasures were identified to address any observed crash trends.
- In 2014, the section between RP 13.3 and 14.008 was identified as a crash cluster again. This section was field reviewed by Safety Engineering Section (SES) personnel in August 2014. As a result, a potential slope flattening and guardrail project may be nominated as part of the 2014 HSIP list. If nominated, this work would be developed under a separate project. If the project scheduling and funding allow, the safety project could be tied with this pavement preservation project.
- In 2012, the section between RP 14.9 and 15.1 was identified as a crash cluster. To address the observed crash trends in this area, the SES recommended shoulder widening and the installation of guardrail on the outside of the curve from RP 14.9 to 15.1. The improvements were installed summer of 2013 under project HSIP 382-(13)15, UPN 7512000.
- In 2010, UPN 7493000, SF 109 – MSLA Horizontal Curve Signing project was nominated. This project proposes to upgrade all horizontal curve signing throughout the Missoula District to current MUTCD standards. This project has been let and is anticipated to be complete by the beginning of 2016.
- In 2014, the curve at RP 15.0 was identified as a crash cluster. As mentioned above, the recently let horizontal curve signing safety project should address the observed crash trend.
- In 2012, the section along P-36 between RP 16.090 to 16.590, which includes the intersection with S-382, was identified as a crash cluster. No feasible countermeasures were identified to address any observed crash trends.
- In 2014, the section between RP 16.2 and 16.5 came to the attention of the SES from a District request. The section identified as part of the 2014 HSIP list was combined with the crash cluster identified along S-382 at RP 15.0.

The following are suggestions that Traffic and Safety would like to be examined (followed by our responses addressing each suggestion):

- Based on the identified off road crash patterns, the Safety Engineering Section recommends installation of centerline rumble strips in accordance with the detail drawings.
  - *Response: These will be included with this project.*

## Preliminary Field Review/Scope of Work Report

### Major Design Features

This project will be developed in accordance with the latest Guidelines for Nomination and Development of Pavement Projects. The plans will be developed in English units.

- a. **Design Speed.** The geometric design criteria for Rural Collector Roads (Secondary System) indicate that the design speed should be 50 mph based on the rolling terrain. The posted speed limit throughout the project is 60 mph. Design speed is not an applicable design criterion for pavement preservation projects.
- b. **Horizontal Alignment.** The existing horizontal alignment will not be changed with this pavement preservation project.
- c. **Vertical Alignment.** The existing vertical alignment will not be changed with this pavement preservation project.
- d. **Typical Sections and Surfacing.** The current typical section widths will remain unchanged. The roadway will receive a full width (24.6' wide) 0.15' depth overlay (Grade S – 3/4" and PG Binder 64-28) followed by a chip seal (Cover Type 1 and CRS-2P seal oil). In select locations with existing additional pavement distress, a 0.20' mill and fill will be completed prior to the overlay (there are five locations totaling about 7,900' in length of mill and fill work). The project will utilize 1.5:1 pavement edge slopes (safety edge) and shoulder gravel to keep the current typical section widths unchanged. The shoulder gravel will be placed at a 4:1 inslope from the top of the new pavement surface and will catch on top of the existing shoulders. Beyond a minor amount of shoulder gravel to level out the overlay pavement edges, shoulder widening earthwork will not be required for this project. The location with guardrail will receive the overlay out to the face of the guardrail posts.
- e. **Geotechnical Considerations.** There are no geotechnical considerations for this pavement preservation project. The existing roadside slopes will not be disturbed and there are no grading considerations.
- f. **Hydraulics.** There are no hydraulics considerations for this pavement preservation project.
- g. **Bridges.** There are no bridges on this segment of S-382.
- h. **Traffic.** The existing pavement marking layout will be used to re-stripe the roadway. Traffic Engineering will provide the quantities, details, and specifications for interim paint and final epoxy. These items will be included in the road plans package. Traffic Engineering also will provide the necessary plans, quantities, details, and specifications for upgrades to the signing and delineation.
- i. **Pedestrian/Bicycle/ADA.** There are no dedicated pedestrian or bicycle facilities. There are no paved shoulders on this project that are wide enough to accommodate bicyclists. Due to the nature of this pavement preservation project, no new accommodations will be added.
- j. **Miscellaneous Features.**
  - There are 3 existing gravel turnouts (2 truck and 1 recreational). Due to the low traffic volume, these areas will remain as is.
  - It is anticipated that this project will generate about 1500 CY of millings. There may be an opportunity to use some of them on this project as shoulder gravel. MDT Maintenance has indicated that they do not have any need for them. We are currently coordinating with Sanders County to see if they have a need for any of the millings.
  - The current roadway has virtually no shoulder and therefore no room to install shoulder rumble strips.
  - As stated at the end of the Crash Analysis section, centerline rumble strips will be installed with this project.
  - The guardrail from RP 14.9 to 15.1 was installed in the summer of 2013 and is in

## Preliminary Field Review/Scope of Work Report

UPN 8776000, STPS 382-1(14)11, JCT MT 28 - SOUTH  
Project Manager: Donny Pfeifer

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good condition with appropriate end treatments. The rail height will still be acceptable after the overlay and no guardrail adjustment is anticipated.

- k. **Context Sensitive Design Issues.** There are no special context sensitive design issues identified for this pavement preservation project.

### **Other Projects**

Currently, there are several other projects in the vicinity of this project.

- UPN 8145000, Lonepine - South, P-36, RP 21.2 - 26.1, Microsurfacing (2015)
- UPN 8733000, Plains – NW, P-6, RP 64.9 - 75.7, Seal and Cover (2016)
- UPN 8735000, Plains – S of Hot Springs, P-36, RP 0.0 - 16.2, Mill/Fill, Seal and Cover (2016)
- UPN 8775000, JCT MT 200 – South, P-35, RP 17.5 - 21.5, Hot In-Place Recycle, Seal & Cover (2017)
- UPN A011, Paradise – East (E. Section), P-6, RP 85.4 – 90.6, Reconstruction (Beyond 2018)

Depending on funding and project delivery schedules, the JCT MT 28 – South project could be tied to other projects.

### **Location Hydraulics Study Report**

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

### **Design Exceptions**

The design exception process does not apply to pavement preservation projects. However, as previously noted, five of the vertical curves do not meet current design standards and the horizontal curves should have spiral transitions. It is unknown whether the horizontal curves have sufficient superelevation.

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

There will be no right-of-way involvement on this pavement preservation project.

### **Access Control**

This section of highway is not an access controlled facility. This project will not include access control.

### **Utilities/Railroads**

Utilities –There will be no utility involvement on this pavement preservation project.

Railroads –There are no railroads located within the project limits.

### **Maintenance Items**

No specific work is required by Maintenance forces in association with this project.

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

Implementation of ITS solutions will not be included with this pavement preservation project.

### **Survey**

Survey will not be required for this pavement preservation project.

### **Public Involvement**

A Level A public involvement plan is appropriate for this project. A News Release explaining the

## Preliminary Field Review/Scope of Work Report

UPN 8776000, STPS 382-1(14)11, JCT MT 28 - SOUTH

Project Manager: Donny Pfeifer

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project and including a department point of contact will be distributed to the local media.

### **Environmental Considerations**

No significant environmental impacts or issues were identified. We reviewed the project and determined it meets the criteria for the Programmatic Agreement as a Categorical Exclusion under the provisions of 23 CFR 771.117(d) as signed by MDT on February 18, 2005 and concurred by FHWA on March 4, 2005. The Environmental Checklist for Pavement Preservation Projects has been submitted separately.

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

As discussed previously, some of the millings may be utilized as shoulder gravel on this project, and the rest may be given to Sanders County if they want them so that this asphalt pavement may be recycled and used on another project.

### **Experimental Features**

There are no experimental features identified for this pavement preservation project.

### **Traffic Control**

Traffic will be maintained through the construction of the project with appropriate signing, flagging, pilot cars, etc., in accordance with the Manual on Uniform Traffic Control Devices. The work zone will require single lane closures during construction operations. A minimum of one lane will remain open for traffic at all times during the construction of this project. Possible stipulations governing the time of year, the days of the week during which construction activities may take place, time of day, and maximum length of roadway that may be under construction at a time may be specified in the contract in order to minimize public impact.

A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP) is appropriate for this project. Due to the relatively simple nature of the work, the TCP will consist of only special provisions.

### **Project Management**

The Missoula District Design Crew will be responsible for developing the plans. Donny Pfeifer will manage the design of this project. See contact information below:

Donny Pfeifer  
Montana Department of Transportation  
2100 West Broadway, PO Box 7039  
Missoula, MT 59807-7039  
(406) 523-5833  
e-mail: dpfeifer@mt.gov

This project is not considered a Project of Division Interest (PoDI) by FHWA.

### **Preliminary Cost Estimate**

The nomination cost estimate (without IDC) that was originally programmed for this project was \$1,547,000 (CN = \$1,406,000 and CE = \$141,000). The total nomination cost estimate including IDC was \$1,844,618 (includes 2 years of inflation).

## Preliminary Field Review/Scope of Work Report

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### *Current Cost Estimate:*

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	\$1,067,000		
Traffic Control	\$30,000		
<b>Subtotal</b>	<b>\$1,097,000</b>		
Mobilization (10%)	\$110,000		
<b>Subtotal</b>	<b>\$1,207,000</b>		
Contingencies (8%)	\$97,000		
<b>Total CN</b>	<b>\$1,304,000</b>	<b>\$51,156</b>	<b>\$1,478,881</b>
<b>CE (10%)</b>	<b>\$130,000</b>	<b>\$5,099</b>	<b>\$147,433</b>
<b>TOTAL CN+CE</b>	<b>\$1,434,000</b>	<b>\$56,255</b>	<b>\$1,626,314</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 2014. The Inflation costs currently shown are based on the 5 year maximum because a Let Date has not yet been entered into PPMS.

### Preliminary Engineering

The anticipated level of Preliminary Engineering for this project will not be too significant seeing as this pavement preservation project is relatively simple to design and does not have any complex design issues. The nominated PE amount for this project should suffice.

### Project and Risk Management

There are no current risks to the project cost and schedule. This is a relatively simple design project and there is no active management strategy.

### Ready Date

This project has a Ready Date of March 1, 2015. The Letting Date currently established for this project is March 25, 2017. The project is currently on schedule in OPX2.

### Site Map

The project site map follows.

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