MDT

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Timothy W. Reardon, Director
Brian Schweitzer, Governor

October 17, 2011

Brian Hasselbach
Federal Highway Administration (FHWA)
585 Shepard Way
Helena MT 59601-9785

Subject: Statewide Programmatic Categorical Exclusion for Pavement Preservation Project
Libby - West
NH 1-1(90)21
Control Number: 7605 000

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 Checklist. We have supplied environmental-related Special Provisions to the Contract Plans Bureau for inclusion in the project plans.

If you have questions or concerns, please contact Susan Kilcrease at (406)523-5842. She will be pleased to assist you.

Sincerely,

Heidy Bruner

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

Attachments: PFR/SOW Report, Environmental Checklist

copies: w/signed checklist:	Paul Ferry, P.E.	Highway Engineer
	Ben Nunnallee, P.E.	Project Design Manager
	Doug Moeller	Missoula District Administrator
	Susan Kilcrease	Missoula District Project Development Engineer
	Montana Legislative Branch	Environmental Quality Council (and w/PFR/SOW)
	Environmental Services File	
copies:	Tom Martin, P.E.	Environmental Services Bureau Chief
	Kevin Christensen, P.E.	Construction Engineer
	Suzy Price	Contract Plans Bureau Chief
	Dawn Stratton	Fiscal Programming Section
	Alyce Fischer	Fiscal Programming Section
	Gene Kaufman, P.E.	FHWA Operations Engineer

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

Memorandum

To: Tom S. Martin, P.E, Chief, Environmental Services Bureau

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

Date: October 4, 2011

Subject: NH 1-1(90)21
Libby - West
UPN: 7605000
Work Type: 180 – Resurfacing – Asphalt (Thin Lift≤0.20 ft)(Incl Saf Imp)(Pave Pres)

Attached is the Preliminary Field Review/Scope of Work Report for the subject project. The project meets the criteria for the Statewide Programmatic Categorical Exclusion for pavement preservation projects and the environmental checklist is attached.

Please send the notification for the environmental documentation on this project to the FHWA. If you need additional information, contact Ben Nunnallee at 406-523-5846.

Attachments (Environmental Checklist and PFR)

copies: Damian Krings, w/attach (checklist only)
Ben Nunnallee, Missoula District Project Design Manager
Highways File

(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: NH 1-1(90)21 **Control No** 7605000 **Project Name:** Libby - West

Reference Post (Station): RP 20.122 (456+00) **To Reference Post (Station):** RP 29.902 (969+56)

Applicant's Name: Montana Department of Transportation **Address:** PO Box 201001; Helena, MT 59620-1001

Type of Proposed Pavement Preservation Activity: Mill, Overlay, Seal & Cover

IMPACTS ON THE PHYSICAL ENVIRONMENT (TO BE COMPLETED BY APPLICANT)

	Impact Questions	[Y/N] There are Potential Impacts, or Item Requires Documentation, Evaluation, Mitigation Measures, and/or (a) Permit(s).		
		Yes	No	Comment (Use attachments if necessary)
1.	Does the proposed action require work in, across, and/or adjacent to a listed or proposed Wild or Scenic River? (See http://www.rivers.gov/wildriverslist.html)	☐	☒	
2a.	Are there any listed or candidate threatened or endangered species in the vicinity of the proposed activity?	☐	☐	☒ Unknown
2b.	Will the proposed action adversely affect listed or candidate threatened or endangered species, or adversely modify critical habitat?	☐	☒	☐ Unknown
3.	Will the proposed action have potential to affect water quality? If 'Yes', an environment-related permit or authorization may be required. If 'No', go to question 4.	☐	☒	
3a.	If the answer to question 3 is yes, is a Clean Water Act Section 402 permit (i.e., MPDES or NPDES permit)required? (Need for an MPDES or NPDES is generally triggered by a disturbance area equal to or greater than one acre.)	☐	☐	☒ N/A
3b.	Is the proposed project within an MS4 Permit Area? (See http://deq.mt.gov/wqinfo/MPDES/StormWater/ms4.mcpx). (Billings, Great Falls, and Missoula Urbanized areas, and Butte, Bozeman, and Helena)	☐	☒	
4.	Does the proposed project have impacts to wetlands , streams, or other water bodies? If 'No', go to question 5.	☐	☒	
4a.	If the answer to question 4 is 'Yes', is a Clean Water Act Section 404 permit authorization required?	☐	☐	☒ N/A
4b.	If the answer to question 3 or 4 is 'Yes', is a Stream Protection Act 124SPA consultation required?	☐	☐	☒ N/A
5.	Are solid wastes, hazardous materials or petroleum products likely to be encountered? (For example, project occurs in or adjacent to Superfund sites, known spill areas, underground storage tanks, or abandoned mines.) (See http://nris.mt.gov/deq/remsitequery/portal.aspx)	☐	☒	
6.	Is the proposed activity on and/or within approximately 1 mile of an Indian Reservation? If answer is 'No', go to question 7.	☐	☒	
6a.	Are any Tribal water permits required?	☐	☐	☒ N/A
7.	Is the proposed project in a "Class I Air Shed" or a nonattainment area? (See http://deq.mt.gov/AirQuality/Planning/AirNonattainment.mcpx) (Class I Air Sheds include the Northern Cheyenne, Flathead, and Fort Peck Reservations; Glacier and Yellowstone National Parks; Anaconda-Pintlar, Bob Marshall, Cabinet Mountains, Gates of the Mountains, Medicine Lake, Mission Mountain, Red Rock Lakes, Scapegoat, Selway-Bitterroot, and U.L Bend Wilderness Areas)	☐	☒	

Checklist prepared by:

Ben Nunnallee	Project Design Engineer	10/4/2011
Applicant	Title	Date
Approved by: Heidi Brunell	ENVIRONMENTAL ENGINEERING SECTION SUPERVISOR	10/18/11
Environmental Services	Title	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.

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 4, 2011

Subject: NH 1-1(90)21
Libby - West
UPN: 7605000
Work Type: 180 – Resurfacing – Asphalt (Thin Lift≤0.20 ft)(Incl Saf Imp)(Pave Pres)

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

Approved Paul Ferry Date 10/7/11
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

Introduction

An onsite field review was held on August 30, 2011. The following people attended:

Ben Nunnallee – Missoula District Projects Engineer - Missoula
Sandy Dorsett - Missoula District Engineering and Design Manager - Missoula
Jacquelyn Smith - Missoula District Road Design - Missoula
Sue Cusker – Missoula District Road Design – Kalispell
Steve McEvoy – MDT Surfacing Design - Helena

Proposed Scope of Work

The proposed project has been nominated to preserve the asphalt pavement and to extend the service life of the roadway. The roadway will be leveled with asphalt to address existing rutting and followed by a 0.15 ft. plant mix overlay. The roadway at RP 24.5 and at RP 25.0 will receive a 2-lane width 0.15 ft. mill, 0.15 ft. plant mix overlay to address old maintenance patching areas (these two areas may be digouts if cores warrant). A seal and cover will be placed throughout the entire project length and will include the paved pullout areas. Taper milling the shoulder in front of existing concrete barrier rail will be included. Replacement of existing substandard sections of guardrail and replacement of the pavement markings, signing, and delineation will also be included. Rumble strips will be placed on the shoulders from RP 20.1 to RP 27.4 and RP 28.6 to RP 29.7.

The Safety Engineering Section has recommended the installation of centerline rumble strips due to the number of crashes involving vehicles crossing the centerline – 14 total reported crashes, 5 of which resulted in fatalities. The Missoula District does not support the installation of centerline rumble strips because they may cause premature pavement deterioration. I support the installation of the centerline rumble strips. We are seeking comments on this issue, as it needs to be resolved before the final approval.

The project limits were revised to add approximately one-half mile of 2-lane width mill and fill on the west end of the project to address old maintenance patching.

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 Lincoln County on N-1 (U.S. Hwy 2). It begins at RP 20.122, English Sta. 456+00.00 on As-Built plans RTF-BRF 1-1(31)14. The project extends southeasterly to RP 29.902, English Sta. 969+56.00 on As-Built plans RTF-BRF 1-1(32)23. This segment of roadway begins in Township 31 North, Range 33 West and section 14. The roadway crosses the Cedar Creek Bridge and ends within the city limits of Libby in Township 31 North, Range 31 West and section 32. A portion of Township 31 North, Range 32 West is located in the Kootenai National Forest and is currently un-surveyed by the Government Land Office (GLO). The total project length is approximately 9.7 miles.

N-1 is on the National Highway System and is functionally classified as a Principal Arterial – Non-Interstate. The geometric design criteria for Rural Principal Arterials (NHS – Non-Interstate) will be used. 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 rolling. The roadside environment is primarily rural forested land with intermittent rural residential land. A portion of the project has the Kootenai National Forest on both sides of the roadway. The Kootenai River and the BNSF Railway are located north and adjacent to the roadway and both run the entire length of the project.

In 1990, the roadway was reconstructed from RP 13.681 (Sta. 116+69.0) to RP 22.907 (Sta. 603+00.0) under RTF-BRF 1-1(31)14 and the project was called Troy – Libby (West Section). The design speed for this project was 60 mph. The TIS road log indicates the roadway width to be 42' with a plant mix depth of 3.6 in. and the base gravel is listed as 10.2 in.

Also in 1990, the roadway was reconstructed from RP 22.907 (Sta. 603+00.0) to RP 29.902 (Sta. 969+56.0 under F 1-1(32)23 and the project was called Troy – Libby (East Section). The design speed for this project was 60 mph. The TIS road log indicates the roadway width to be 42' with a plant mix depth of 3.6 in. and the base gravel is listed as 10.2 in.

In 1992 a 50' long bridge was constructed over Cedar Creek under project RTF-BRF 1-1(32)23. The as-built plans indicate the roadway width to be 39.3'with concrete barrier rail on each side. The bridge ends are at RP 27.780 (Sta. 859+37.5) and RP 27.789 (Sta. 859+88.5).

Maintenance Section Supervisor Dave Rauser indicated that no overlays have been placed on this project since the 1990 reconstruction project, however the roadway did receive a chip seal in 1998

The roadway primarily has a top width of 41.6' consisting of two 12' travel lanes and two 8.8' shoulders. A number of paved pull-outs are located throughout the project limits. This project will utilize the existing lane configurations.

Core samples were request on August 31, 2011. These samples have not yet been received. They will be completed prior to the SOW Approval Memo for this project being sent out and any modifications to the project due to the results of the pavement cores will be documented then.

Surfacing inslopes are 6:1 with steep adjacent fill and cut slopes. There is guardrail and concrete barrier rail located in various locations throughout the project length.

The guardrail and guardrail end sections will be upgraded to conform to current standards.

There is one structure on this project:

Bridge Number	Feature Crossed	Reference Post	English As-Built Stationing	Width x Length
P00001027+08701	Cedar Creek	27.8	859+37.5 to 859+88.5	39.3' x 50'

There are a total of fifteen horizontal curves in this project section. The as-built plans show superelevations ranging from 2% to 7%. No adverse issues were noted in the field in relation to the existing superelevation rates. Eight of the fifteen horizontal curves meet or exceed MDT design criteria for a 60 mph design speed (for rolling terrain) that requires a minimum radius of 1200'. The other seven of the fifteen horizontal curves meet or exceed MDT design criteria for a 50 mph design speed (for mountainous terrain) that requires a minimum radius of 760'. Following is a table summarizing the horizontal curve data.

Horizontal Curves						
As-Built PI Station	**Radius (ft)**	**Length (ft)**	**Length of Spiral (ft)**	**As-Built Super (%)**	**Super (%)** (meeting current standards)	**Design Speed Provided (mph)**
498+65.1	2546.5	2276.8	200	6% RT	6%	60
576+95.5	3819.7	811.0	200	4% RT	5%	59.4
594+01.9	2864.8	1212.5	200	5% LT	6%	59.0
620+71.2	4583.7	472.6		3% LT	4%	55.0
634+78.0	7639.4	1489.2		2% RT	3%	56.9
685+76.5	11459.2	661.8		2% RT	2%	60
714+21.1	7639.4	596.1		2% RT	3%	56.9
742+25.9	5729.6	2011.0		3% LT	3%	60
760+79.4	1909.9	1143.1	200	7% RT	7%	60
799+19.4	11459.2	2235.9		2% LT	2%	60
822+43.8	2291.8	811.6	200	6% RT	7%	59.6
840+79.1	5729.6	1101.7		3% LT	3%	60
871+40.0	11459.2	1392.5		2% LT	2%	60
911+27.4	1909.9	917.0	200	7% RT	7%	60
964+62.9	2291.8	898.1	200	6% LT	7%	59.6

The vertical alignment meets or exceeds MDT design criteria for a 60 mph design speed, except for the last three vertical curves that meet MDT design criteria for a 50 mph design speed. There are no areas on the project that exceed the maximum allowable grade. The maximum gradient on the as-built plans is -4.819%. Following is a table summarizing the vertical curves.

Vertical Curves			
As-Built VPI Station	**Length (ft)**	**$Grade_1$ (%)**	**$Grade_2$ (%)**
493+50	700	0.3	1.88
518+50	1400	1.88	-1.82
540+00	1000	-1.82	-2.522
560+00	1400	-2.522	3.039
573+00	1200	3.039	-2.325
589+00	1000	-2.325	1.42
598+00	800	1.42	-0.776
614+00	400	-0.776	1.491
631+00	1000	1.491	-1.63
641+00	800	-1.63	0.612
657+00	1300	0.612	-0.251
668+00	800	-0.251	3.111

681+00	1600	3.111	-2.169
704+50	1200	-2.169	1.321
738+00	1200	1.321	-2.249
753+57.8	500	-2.249	0.4133
777+00	300	0.4133	2.0
789+00	1000	2.0	-0.2386
817+00	600	-0.2386	1.4906
828+50	1200	1.4906	-1.781
843+50	500	-1.781	1.34
859+50	1000	1.34	-1.92
870+00	300	-1.92	0.222
890+00	300	0.222	1.776
912+00	700	1.776	-0.337
936+00	600	-0.337	1.025
956+50	1700	1.025	-4.819
967+25	485	-4.819	-0.77
1737+88.60	100	-0.77	0.4
1750+93.60	100	0.4	-0.6

The Pavement Management System generated the following performance indices for the survey year 2010 and treatment recommendations for the year 2011 and 2013:

TREATMENT YEAR 2011/13

BEG MP	END MP	RIDE	RUT	ACI	MCI	CONST. TREAT. REC.
13.716	29.937	75.0 (fair)	59.4 (fair)	97.6 (good)	95.8 (good)	Do Nothing ('11), Crack Seal & Cover ('13)

Traffic Data

2011 AADT = 2,600 (Present)
2012 AADT = 2,630 (Letting Year)
2032 AADT = 3,200 (Design Year)
DHV = 420
Com Trucks = 8.9%
Growth Rate = 1.0% (Annual)
ESAL's = 111

Crash Analysis

Safety Management completed a crash analysis for the ten-year period from January 1, 2001 through December 31, 2010 for the segment RP 20.6 to RP 29.9:

Total Recorded Crashes:	89
Fatal Injury Crashes:	8 (13 fatalities)
Incapacitating Injury Crashes:	14 (29 injuries)
Non-incapacitating Injury Crashes:	9 (16 injuries)
Other Injury Crashes:	6 (12 injuries)
Property Damage Only Crashes:	52

The crash rate was 0.91 as opposed to a statewide average of 1.07, the severity index was 3.07 as opposed to a statewide average of 2.14, and the severity rate was 2.79 as opposed to a statewide average of 2.29.

Three variations from the average occurrence on NHS Non-Interstate routes were identified:

- 24.7% of the crashes occurred during wet road conditions vs. 8.2% statewide average for rural NINHS routes.
- 30.3% of the crashes occurred during icy, snowy or slushy road conditions vs. 22.5% statewide average for rural NINHS routes.
- 14.6% of the crashes occurred during rainy weather conditions vs. 3.3% statewide average for rural NINHS routes.

In 2005 the section between reference points 20.5 and 21.0 was identified as a crash cluster. There was no feasible countermeasure identified to address any specific crash trend.

In 2009 the section between reference points 28.2 and 28.6 was identified as a crash cluster. There was no feasible countermeasure identified to address any specific crash trend.

In 2005 the section between reference points 29.3 and 29.8 was identified as a crash cluster. There was no feasible countermeasure identified to address any specific crash trend.

In 1993, 2003 and 2005 the section between reference points 29.6 and 29.9 was identified as a crash cluster. As a result, the Safety Engineering Section recommended a new chip seal and new pavement markings for the extension of the existing two-way left-turn lane (TWLTL) westbound along US 2 (N-1) to Westgate Street. The improvements were installed by maintenance forces in 2007.

The following is a breakdown of the 89 crashes:

- 55 of the 89 reported crashes were single-vehicle run-off-the road crashes.
- 27 of the 89 reported crashes cited overturn as the first harmful or most harmful factor in the crash.
- 17 of the 89 reported crashes involved a collision with a wild animal.
- 13 of the 89 crashes involved vehicles impacting a guardrail face or guardrail end.
- 3 of the 89 crashes involved vehicles impacting a rock or boulder on the roadway.

Single vehicle run-off-the road crashes is the main crash trend for this segment of roadway. Of these crashes, 6 struck a tree, 5 struck a rock or boulder, 6 struck an embankment (rock face) and 8 struck a ditch. The single-vehicle run-off-the road crashes occurred throughout the study area with no specific areas identified.

Three of the six crashes involving vehicles impacting a rock face occurred from reference point 25.6 to reference point 26.2. A total of 9 crashes occurred within this area during the ten-year study period.

Fourteen of the crashes involved vehicles crossing the centerline. Of these 14, nine made contact with a vehicle travelling in the opposite lane and five were single-vehicle run off-the-road crashes.

There were eight fatal crashes within the study area during the study period. Five of these crashes were the result of vehicles crossing the centerline and impacting another vehicle resulting either in a sideswipe opposite direction or head-on collision. The remaining fatal crashes involved motorcycles (2 crashes), one rear end and one single-vehicle off-road collision with an embankment, and a deer being struck and thrown into an oncoming vehicle's windshield.

Please note the severity index and severity rate for this corridor are higher than average for a rural state NINHS route. Two locations (RP 20.38 - 20.68 and RP 26.9 - 27.02) are listed within the Top 100 sites as determined by the RHRS contained in the Rockfall Hazard Classification and Mitigation System Report, September 2005.

The Safety Engineering Section offers the following recommendations for consideration by the Design Team during project development:

- To address the crashes occurring from RP 25.6 to 26.2, install jersey rail on the inside of the curve to protect the rock face.
- *Response: Upon field review of this project, the design team could not see any indications why jersey rail would be warranted in this one particular location and not in the numerous other locations throughout the project that have the exact same roadside condition (rock face parallel to the roadway). Also, this rock face is on the inside of a horizontal curve where there is jersey rail on the outside of the curve and looks to be less likely a location for crashes than many others throughout the project length. Jersey rail will not be installed at this particular location with this project.*
- Install centerline rumble strips in all no passing zone (double yellow) areas.
- *Response: The Missoula District does not support the installation of centerline rumble strips over long stretches of roadway without a very specific location identified and a demonstrated crash trend for that specific location for which these would be an effective countermeasure. The Missoula District has experienced accelerated asphalt deterioration, difficulty with motorcycles crossing them, and poor striping retro-reflectivity with rumble strips and do not support their installation in the centerline of this project. However, this stretch of highway currently does not have shoulder rumble strips, yet the shoulders are wide enough to accommodate them. We will install shoulder rumble strips with this project.*
- Install "No Passing Zone" pennants consistently throughout the project.
- *Response: All signing will be upgraded with this project.*

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 Principal Arterials – Non-Interstate indicate that the design speed should be 60 mph based on the rolling terrain. The existing posted speed limit is 70 mph. Design speed is not an applicable design criterion for preventative maintenance projects.

b. **Horizontal Alignment**. The existing horizontal alignment will not be changed with this pavement resurfacing preventative maintenance project.

c. **Vertical Alignment**. The existing vertical alignment will not be changed with this pavement resurfacing preventative maintenance project.

d. **Typical Sections and Surfacing**. With this overlay, the typical section widths will include two 12' travel lanes and two 8' shoulders. Surfacing Design will provide a recommendation for overlay or mill/fill in certain locations (especially areas that have been previously patched by Maintenance), contingent upon pending core information. Currently, the roadway will receive asphalt leveling and then receive a full width 0.15'

overlay (Grade S – 3/4" and PG Binder 64-28) followed by a chip seal (Cover Type 1 and CRS-2P seal oil) and the shoulders in front of all concrete barrier rails will receive a taper mill. Longitudinal taper mills will be provided at the bridge ends and at the project ends. Due to past history of chip loss in this corridor, Surfacing Design is considering whether the project should receive a leveling course and then a 0.1' plant mix wearing course instead of the overlay and chip seal. This determination is also pending the results of the pavement cores.

e. **Geotechnical Considerations**. There are no geotechnical considerations for this resurfacing 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 resurfacing preventative maintenance project.

g. **Bridges.** There is one bridge over Cedar Creek (P00001027+08701, built in 1992) at RP 27.785. The structure has a concrete deck but will not receive a HMWM crack seal treatment with this project.

h. **Traffic.** The existing pavement marking layout will be used to re-stripe the roadway. Traffic Engineering Consultant (RPA) 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 Consultant (RPA) 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. The paved shoulders are generally 8' wide or wider and could accommodate bicyclists. Due to the nature of this preventative maintenance project, no new accommodations will be added.

j. **Miscellaneous Features**.
- There are 13 existing paved pullouts and all of these areas will receive a full width chip seal (Cover Type 1 and CRS-2P seal oil).
- The guardrail and guardrail end sections will be upgraded to conform to current standards.
- It is anticipated that this project will generate about 620 yd^3 of millings. At this time, MDT Maintenance has requested the millings be stockpiled at the local MDT Maintenance yard.

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

Other Projects

There is another pavement preservation project adjacent to the west end of this project: **Jct Hwy 56 – E&W, UPN 7647000,** from RP 74.2 to RP 77.9. However, due to funding projections at this time, that project is planned for construction in a subsequent year to this project.

Location Hydraulics Study Report

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

Design Exceptions
The design exception process does not apply to pavement preservation projects. No design exceptions will be required for this project.

Right-of-Way
There will be no right-of-way involvement on this project.

Access Control
This section of highway is not an access control facility.

Utilities/Railroads
Utilities – A utility locate survey will be requested to determine if utilities are located in the areas of the guardrail work. There will likely be no utility involvement on this project. The existing drop inlets within the roadway will be protected so that they will not be impacted by the pavement resurfacing.

Railroads – The BNSF Railway roughly parallels US 2 on the north side, however the project will not have any construction activities that take place on railroad right-of-way. At some locations, the railroad is within 50 feet of the highway and a railroad agreement will be required.

Intelligent Transportation Systems (ITS) Features
Implementation of ITS solutions will not be included with this project.

Survey
A utility locate survey will be requested to determine if utilities are located in the areas of the guardrail work.

Public Involvement
A Level A public involvement plan is appropriate for this project. A News Release explaining the 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 Statewide 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
Cold millings may be used in the digout areas in place of crushed aggregate course. If no digouts are required, the millings will be stockpiled at the local MDT Maintenance yard so that this asphalt pavement may be recycled and used on other projects.

Experimental Features
There are no experimental features identified for this pavement resurfacing preventative maintenance 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 in each direction 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. Ben Nunnallee will manage the design of this project. See contact information below:

Ben Nunnallee, P.E.
Montana Department of Transportation
2100 West Broadway, PO Box 7039
Missoula, MT 59807-7039
(406) 523-5846
e-mail: bnunnallee@mt.gov

This project is not under full FHWA oversight.

Preliminary Cost Estimate

The nomination cost estimate (without IDC) that was originally programmed for this project was $4,217,000 (CN = $3,834,000 and CE = $383,000). The total nomination cost estimate including IDC was $5,071,070.

Current Cost Estimate:

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	$2,557,000		
Traffic Control	$63,000		
Subtotal	**$2,620,000**		
Mobilization (10%)	$262,000		
Subtotal	**$2,882,000**		
Contingencies (8%)	$231,000		
Total CN	**$3,113,000**	**$519,216**	**$3,982,361**
CE (10%)	**$311,000**	**$51,871**	**$397,851**
TOTAL CN+CE	**$3,424,000**	**$571,087**	**$4,380,212**

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 9.64% as of FY 2012. The Inflation costs currently shown are based on the 5 year maximum because a Let Date has not yet been entered into PPMS.

Ready Date

This project has a Ready Date of February 1, 2012. This project was originally nominated for construction in 2013 but due to previous pavement preservation projects being Let early, it is

currently being designed so that it could be constructed in 2012 if funding is made available during the update to the Tentative Construction Plan this fall. The project is currently on schedule in OPX2.

Site Map

The project site map follows.