serving you with pride

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

Jim Lynch, Director
Brian Schweitzer, Governor

July 21, 2010

Alan Woodmansey, P.E.
Great Falls and Billings Districts Operations Engineer
Federal Highway Administration (FHWA)
585 Shepard Way
Helena MT 59602

MASTER FILE COPY

Subject: Statewide Programmatic Categorical Exclusion for Pavement Preservation Projects
NH 1-6(80)355
West of Havre-East
Control Number: 6962000

Dear Alan Woodmansey:

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 will be included in the contract plans.

If you have questions or concerns, please contact Eric Thunstrom at 444-7648. He will be pleased to assist you.

Sincerely,

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

Attachments: Environmental Checklist, PFR/SOW Report

copies with attachment (Checklist only, unless noted):

Michael P. Johnson	Great Falls District Administrator
Tom Martin, P.E.	Environmental Services Bureau Chief
Heidy Bruner, P.E.	Environmental Services Bureau Engineering Section Supervisor
Eric Thunstrom	Environmental Services Bureau Project Development Engineer
Paul Ferry, P.E.	Highways Engineer
Christie McOmber, P.E.	Great Falls District Projects Engineer
Kevin Christensen, P.E.	Construction Engineer
Suzy Price	Contract Plans Bureau Chief
David Jensen	Fiscal Programming Section Supervisor
Montana Legislative Branch Environmental Quality Council (w/ PFR/SOW also)	
File	Environmental Services Bureau

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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 No.: NH 1-6(80)355 ID: UPN 6962000 Project Name: West of Havre - East

Reference Post (Station) RP 354.6 to Reference Post (Station) RP 378.96

Applicants Name: Montana Department of Transportation Address: PO Box 201001, Helena, MT 59620-1001

Type of Proposed Pavement Preservation Activity: Work Type 183: Resurfacing 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 or List Documentation, Evaluation, Mitigation Measure, and/or (a) Permit(s) Required for Items 1 through 7.(Use attachments if necessary)
1.	Does the proposed action require work 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. (See listing on page 3)	☐	☒	
2.	Are there any recorded occurrences, and/or critical habitat for Federally-listed Threatened and Endangered Species in the vicinity of the proposed activity?	☐	☒	
3.	Does the proposed action have an impact on water quality? If answer is NO go to question 4.	☐	☒	
3a.	If the answer to number 3 is yes, is a Clean Water Act ' Section 402 permit required? (MPDES issued by MDEQ)	☐	☐	☒ N/A
4.	Does the proposed project have impacts to wetlands or waters of the U.S.? If answer is NO go to question 5.	☐	☒	
4a.	If the answer to number 4 is yes, is a Clean Water Act ' 404 permit authorization required?	☐	☐	☒ N/A
4b.	If the answer to number 3 or 4 is yes, is a Stream Protection Act ' 124SPA permit required? (Issued by MDFWP)	☐	☐	☒ N/A
5.	Does the proposed project involve hazardous waste site[s]? (Superfund, spills, underground storage tanks, etc.)	☐	☒	
6.	Is the proposed activity on and/or within approximately 1.6 Km (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" (Some Indian Reservations)?	☐	☒	☐ N/A

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8. Magnitude and significance of potential impacts: To be completed by applicant.

Checklist prepared by: Christie McOmber — District Project Engineer — July 7, 2010

Applicant — Title — Date

Approved by: ENVIRONMENTAL ENGINEERING SECTION SUPERVISOR — JUL 22 2010

Environmental Services — Title — Date

(when items 1, 2, 3, 3a, 4, 4a, 4b, 5, 6, 6a, or 7 are checked "Yes")

A. The applicant shall complete the checklist indicating a "Yes" or "No" for each item, except number 8

which may require a narrative response.

B. **When a "Yes" is indicated on any number of items 1 through 7, MDT 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.**

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. 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 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.**

Montana's Wild and/or Scenic Rivers system as published by the U.S. DEPARTMENT OF AGRICULTURE (USDA), or the U.S. DEPARTMENT OF THE INTERIOR (USDoI)

1. Middle Fork of the Flathead River (headwaters to South Fork of the Flathead River confluence)
2. North Fork of the Flathead River (Canadian Border to Middle Fork of the Flathead River confluence)
3. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir)
4. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge)

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

Memorandum

To: Distribution

From: Paul R. Ferry, P.E. Lesly Tribelhorn 7/8/10
Highways Engineer

Date: July 8, 2010

Subject: NH 1-6(80)355
West of Havre - East
UPN 6962000
Work Type 183: Resurfacing Seal & Cover

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on July 8, 2010. 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 Chief Engineer for approval.

I recommend approval:
Approved _____ Date _____

Distribution:

Michael Johnson, District Administrator
Kent Barnes, Bridge Engineer
Tom Martin, Environmental Services Bureau Chief
Duane Williams, Traffic and Safety Engineer
Robert Stapley, Right-of-Way Bureau Chief
Lynn Zanto, Rail, Transit, & Planning Division Administrator
Jake Goettle, Construction Engineering Services Bureau
Matt Strizich, Materials Engineer
Jon Swartz, Maintenance Administrator
Paul Ferry, Highways Engineer

cc:

Dave Jensen, Fiscal Programming Section Supervisor
Dustin Rouse, Road Design Area Engineer
Damian Krings, Road Design Engineer
Hill County Commissioners
315 4th St. Havre MT 59501-3999

e-copies:

Jim Walther, Preconstruction Engineer
Lesly Tribelhorn, Highways Design Engineer
Mark Goodman, Hydraulics Engineer
Kurt Marcoux, District Hydraulics Engineer
Bonnie Gundrum, Env. Res. Section Supervisor
Paul Sturm, District Biologist
Eric Thunstrom, G.F. District Environmental Eng.
Danielle Bolan, Traffic Engineer
Ivan Ulberg, G.F. District Traffic Project Engineer
Pierre Jomini, Safety Management Engineer
Stephanie Brandenberger, Bridge Area Eng, G.F. District
Jon Watson, Pavement Engineer
Dan Hill, Pavement Design Engineer
Lee Grosch, District Geotechnical Manager
Marty Beatty, Engineering Information Services
Paul Grant, Public Involvement Officer
Jean Riley, Planner
Becky Duke, Traffic Data Collection Supervisor
Jason Sorenson, Engineering Cost Analyst
Jake Goettle, Construction Bureau – VA Engineer
Walt Scott, R/W Utilities Section Supervisor
David Hoerning, R/W Engineering Manager
Greg Pizzini, Acquisition Manager
Joe Zody, R/W Access Management Section Manager
Paul Johnson, Project Analysis Bureau Chief
Susan Sillick, Research Section Supervisor
Steve Prinzing, District Preconstruction Engineer
Christie McOmber, District Projects Engineer
Stan Kuntz, G.F. District Materials Lab
Doug Wilmot, G.F. District Construction Engineer
Jerilee Weibel, District R/W Supervisor
James Combs, District Traffic Engineer
Michael MacDonald, Havre Maintenance Chief
Dennis Ghekiere, District Utility Agent
Linda Cline, District R/W Design
Alan Woodmansey, Operations Engineer

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

Memorandum

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

From: Christie W. McOmber, PE
District Projects Engineer CWM

Date: July 8, 2010

Subject: NH 1-6(80)355
West of Havre - East
UPN 6962000
Work Type 183: Resurfacing Seal & Cover

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

Approved Lesly Tribelhorn for _____ Date July 8, 2010 _____
Paul R. Ferry
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
Dustin Rouse, Road Design Area Engineer

Introduction

This report was derived from information taken from the Preliminary Field Review conducted on January 25, 2010, with the following individuals in attendance:

Steve Prinzing	District Preconstruction Engineer	Great Falls
Christie McOmber	District Projects Engineer	Great Falls
Steve McEvoy	Pavement Analysis	Helena
Gerry Brown	Construction Engineering Services	Lewistown
Jeania Cereck	District Design Supervisor	Great Falls

Proposed Scope of Work

This project was nominated as a preventative maintenance seal and cover. During the field review it was determined that a better treatment is needed to extend the life of the facility. Two options will be designed. Option #1 will be Micro-Mill of ¾" with a Seal & Cover applied and Option #2 will be microsurface treatment with a scratch course.

- Micro Mill, Crack Seal, and Seal & Cover
  - Cracks will need to be sealed following the ¾' Micro-mill. Some surface structure will be removed, but the rutting is expected to be mostly corrected by milling.
- Microsurfacing.
  - Microsurfacing is applied in two lifts and can restore the proper surface profile, fill ruts 1.5" deep, provide transverse surfacing leveling, can be applied in a broad range of temperature and weather conditions. The life expectancy usually exceeds 7 years, and traffic is permitted within one hour. This treatment will fill in the ruts, improve the ride, seal the cracks, increase friction, and maintain the existing top width.

Purpose and Need

The intent of this project is to extend the life of the pavement by alleviating the ruts and filling the cracks that have accumulated on the existing roadway.

Project Location and Limits

The project is located in Hill County on N-1/US 2. The plans for the proposed project will be in Reference Posts beginning at RP 354.57, East of Gildford, and proceed east for approximately 24.39 miles to RP 378.96, 0.2 miles west of the intersection with N-10 (US-87). The functional classification of N-1 is Principal Arterial (Non-Interstate).

The existing horizontal and vertical alignment will be used throughout this project.

As-Builts:

Project ID	From		To		Year Built
	Station	RP	Station	RP	
FAP 95-C (RECON)	1500+00.00	354.598	540+00.00	372.142	1936
F-95(10)	179+54.40	375.484	255+55.60	377.048	1954
F-FG-95(11)	0+00.00	372.142	377+13.00	379.306	1960
EACF 1-6(11)355	1467+07.20	354.605	359+76.90	378.962	1988

Equations:

FAP 95-C (RECON) –	Sta. 633+49.0 BK = 634+00.0 AH (EQ= -51.0')
	Sta.1496+68.1 BK = 1496+72.7 AH (EQ = -4.6')
F-FG-95(11) -	Sta. 540+00.0 BK = 0+00.0 AH
	Sta. 31+35.8 BK = 31+35.6 AH (EQ = +0.2')
	Sta. 339+97.7 BK = 340+00.0 AH (EQ = -8.3')
EACF 1-6(11)355 -	Stationing runs east to west between stations 1467+07.20 to 540+00 and then runs west to east from EQ. 540+00 = 0+00.00 to station 359+76.90. This was an overlay project.
	Sta. 1362+45.6 BK = 1362+49.4 AH (EQ = -3.8')
	Sta. 1150+78.0 BK = 1150+85.0 AH (EQ = -7.0')
	Sta. 633+49.0 BK = 634+00.0 AH (EQ = -51.0')
	Sta. 31+35.8 BK = 31+35.6 AH (EQ = +0.2')

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 that includes a Traffic Control Plan, a limited Transportation Operations (TO) component and a limited Public Information (PI) component. These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

Physical Characteristics

a. The P.T.W. traverses a rural area with level terrain.
b. Project History:

The Project was constructed in **1936** under FAP 95-C(RECON) from sta. 1500+00 (RP 354.6) to sta. 540+00 (RP 372.1). The typical had a 31.3' finish top width, 4:1 inslopes, which consisted of 2" of top course and 5" subbase material.

In **1954** the roadway was widened with project F-95(10) between sta. 179+54 (RP 375.5) and sta. 255+55 (RP 377.0) which included construction of the bridge over Big Sandy Creek. The typical width was constructed to 32' top width with 4:1 inslopes. The surfacing was made up of 5" of top course and 10" of base course material. A double shot was applied to the finish surface. An extra 12' of widening was applied to the north side with widening material.

In **1960** the roadway was constructed under F-FG-95(11) from sta. 0+00 (RP 372.1) (540+00 = 0+00) to sta. 377+13 (RP 379.3) including constructing the bridge over The Great Northern Railway.

a) Between sta. 0+00 and 179+54, stations 255+55 to 368+00, and stations 375+13 to 377+13 the finish top width was 32'with 5:1 inslopes. The surfacing was built with 0.25' PMS, 0.15' top surfacing, and 1.10' base surfacing.
b) Between sta. 179+54 and 255+55 an overlay of 0.125' was applied over the existing 1'-3" surfacing depth creating a 30' finish top width.
c) Between sta. 368+00 to 375+13 (intersection of N-1 and N-10) the finish top width was constructed at 56'with 5:1 inslopes. The surfacing was built with 0.25' PMS, 0.15 top surfacing, and 1.10' base surfacing.

In **1988** a Plant mix overlay was completed with project EACF 1-6(11)355 between sta. 1467+07 (RP 354.6) and sta. 359+76 (RP 378.9). An Overlay of 0.3' was applied along

with 5:1 fill slopes creating a 32' finish top between sta. 1467+07 to 540+00 = 0+00 to 316+85 transitioning to a 28' top before and after the two bridges (RP 376.3 and RP 378.1). An overlay and widening section then transitioned from 316+85 at 28' to 320+45 at 40' and holding 40' finish top between stations 320+45 and 323+75 with 2:1 f ill slopes, and then transitioning to a 44' finish top width to sta. 359+76 with 6:1 fill slopes.

In **1999** an overlay was placed by MDT Maintenance between RP 372.14 and RP 378.9 and then a Seal & cover was placed in **2007**.

c. PVMS Index Numbers & Recommended Treatment for 2010:

Section	Ride	Rut	ACI	MCI
RP 354.598 to RP 372.142	72.9	53.9	96.5	96.8
RP 372.142 to RP 378.278	84.2	54.8	96.9	91.9
RP 378.278 to RP 379.167	78.3	63.9	99.6	90.0

Recommendations:

Section	Construction	Maintenance
RP 354.598 to RP 372.142	Minor Rehab Rut	Rut Fill
RP 372.142 to RP 378.278	Crack Seal & Cover	Crack Seal & Cover
RP 378.278 to RP 379.167	Crack Seal & Cover	Crack Seal & Cover

d. The existing horizontal alignment meets the 70 mph design speed geometric design criteria minimum radius of 1810'. The radii vary between 1910' and 5730'.
e. The existing vertical alignment varies between 0.00% and 6.00%. The vertical grades do not meet the geometric design criteria of 3% between stations: 1488+30 to 1477+20 is 5.3%, 1456+50 to 1452+24 is 3.8%, 1425+20 to 1414+38 is 6.0%, 1401+40 to 1389+24 is 5.2%, 1206+50 to 1202+00 is 3.2%, 822+68 to 816+46 is 4.44%, 545+45 to 540+50 is 3.2%, and 219+09 to 232+68 is 4.51% (east of Big Sandy Creek).
f. No bridge issues will be addressed with this project. The following bridges are within the project limits:

Feature Crossed	Road Width (feet)	Length (feet)	Year Built	Reference Post
Big Sandy Creek	28.0'	146'	1954	376.29
BNSF Railway	28.0'	311.5'	1960	378.09

Traffic Data

2010 ADT = 1,480 Present
2010 ADT = 1,480 Letting Year
2030 ADT = 1,800 Design Year
DHV = 220
Com Trks = 9.7%
ESAL = 72
AGR = 1.0%

Accident Analysis

The accident analysis for Non- Interstate National Highway Route 1 from RP 354.6 to RP 379.2 was taken for the dates of July 1, 1999 through June 30, 2009.

a. The all vehicle crash rate is 0.94, severity index is 1.90 and the severity rate is 1.79, compared to the NI-NHS system study of 0.82, 2.55 and 2.09 respectfully.
b. The Truck crash rate is 0.58, severity index is 1.88 and the severity rate is 1.10, compared to the NI-NHS system study of 1.10, 2.33 and 2.56 respectfully.
c. There were 119 total recorded crashes of which 15 were truck crashes.
d. No major Variances from statewide averages.
e. Variations from Average Occurrences:
    1. From RP 377.7 to RP 378.1 was identified as a cluster location in 1999. 6 of the 10 crashes were related to an intersection. 4 of the crashes were due to single vehicles losing control on or near the bridge and striking the rail. No addressable crash trend was identified to make recommendations.
    2. From RP 378.1 to RP 378.5 was identified as a cluster location in 2003. The main crash trend was single vehicle crashes. Of the 15 single vehicle crashes, 3 struck rocks, 5 involved animals, and the reminder went off road. No addressable crash trend was identified to make recommendations.
    3. From RP 278.5 to RP 278.9 was identified as a cluster location in 2005. The two crash trends were intersection related crashes, and single vehicle off road crashes. No recommendations were made.
    4. From RP 279.1 to RP 279.2 was identified as a cluster location in 2004. The original recommendation was to build a roundabout. The current scope proposes to upgrade the flasher and signing to address crashes at the intersection. The scope of work for the project was approved in October, 2009. The project is HSIP 1-6(67)379, UPN 6055000.
f. Remarks:
    The main crash trend is single vehicle run off the road crashes. 83 of the 119 reported crashes involved a single vehicle, with 21 citing overturns as the first or most harmful event, 30 citing wild animal as the first or most harmful event, and 16 citing ditch or embankments at the first or most harmful event. 48 of the 119 reported crashes cited dark-not lighted conditions. 10 crashes were reported as occurring from RP 379.1 to RP 379.2. 30 of the crashes occurred either in or were related to an intersection or driveway.

    1. Upgrade the signing, delineation, pavement markings. Do not extend the pavement markings across intersections. Check feasibility to widen the road and restripe the right turn lane by RP 379.1 per figure 28.4K in the Traffic Engineering Manual. *Due to the fact that this is a pavement preservation project widening of the shoulder is outside the guidelines of a pave pres project. Pavement markings will be updated. Delineation is fine as it exists.*
    2. Check the feasibility to widen the shoulder width, to accommodate bicyclists and to allow the installation of shoulder rumble strips. Check if existing rumble strips can be perpetuated. *The shoulder is currently 4.0' wide except in the area of the bridges where it is 2.0'. Rumble strips will be applied to the 4.0' shoulder. Widening of the shoulder can be addressed in a future reconstruction project since widening of the shoulder is outside the guidelines of a pave pres project.*
    3. Check the side slopes. *Due to the fact that this is a pavement preservation project flattening of the side slopes is outside the guidelines of a pave pres project and is intended for a more in-depth project.*

4. Upgrade guardrail end treatments and check guardrail height. *Guardrail end treatments will be brought up to standards.*
5. Upgrade mailbox supports. Relocate the mailbox at RP 376.3 +/-. *Mailboxes and supports will remain as exists. Maintenance will be requested to review to ensure any non-standard supports in the clearzone are addressed.*
6. Remove trees in the clearzone in consultation with District Biologist. Check if utility poles are in the clearzone in the area of RP 373.0 to RP 374.0. *The Traffic Engineer can assist maintenance with checking the clearzone for obstructions. Moving any utilities is outside the guidelines of a pave pres project. This can be addressed in a future reconstruction project. MDT Maintenance will inspect the clearzone for trees in conflict and remove/trim trees where necessary.*
7. The District had received request for left turn bays between RP 374.0 to 377.0. Check if scope of the project would allow the review of the left turn volumes and needs for left turn bays. *The scope of this project will not justify inclusion of additional lanes.*

Major Design Features

a. **Design Speed.** From the geometric design criteria for Principal Arterials in level terrain a 70 mph design speed will be applied. The existing posted speed limit is 70 mph to RP 378.7 and then posted at 55 mph to the end.
b. **Horizontal Alignment**. No changes are proposed to the existing horizontal alignment with this project. All horizontal curve radii along the project mainline are larger than then the Geometric Design Criteria for a Principal Arterial minimum radius of 1810' for level terrain at 70 mph.
c. **Vertical Alignment**. No changes are proposed to the existing vertical alignments with this project.
d. **Typical Sections and Surfacing**. The project has a finished width of 32'(2 -12' travel lanes, 4.0' shoulders), transitioning to 28' in and out of the bridge ends (2 -12' travel lanes, 2.0' shoulders) then transitioning to 40'at the Country Club approach (3 -12' travel lanes, 2.0' shoulders), then to 44' for the shoulder widening at the Airport Road approach and holding that width to the Weigh Station approach transition at the end of the project (3 -12' travel lanes, 4.0' shoulders).
   The project will be designed with 2 Optional typical sections.
   - Option #1 will be Micro-Mill of ¾" with Crack Sealing and a Seal & Cover applied. Millings will likely be donated to the County.
   - Option #2 will be Microsurfacing with a scratch course. The scratch course will be applied first and will serve to fill in the ruts. A top lift, to finish the profile will then be applied. Only the ¼" or larger cracks will need sealed. The smaller cracks will be covered with the Microsurfacing.
e. **Geotechnical Considerations**. No geotechnical issues will be addressed with this project. Cores were taken and the ratings are mostly 2's in the top surfacing with a few 3's and continue with 2's in the rest of the layers with a few 1's. Depths of PMS range from 0.46' (6 inches) to 0.80' (10 inches) throughout the project limits.
f. **Hydraulics**. Hydraulic considerations are not anticipated for this project. According to asbuilts (EACF 1-6(11)355) the existing cross drains are either 15", 18" or 24" and most have R.A.C.E.T. pipe ends with some F.E.T.S. or square ends.
g. **Bridges.** No bridge issues will be addressed with this project. The following bridges are within the project limits:

Feature Crossed	Road Width (feet)	Length (feet)	Year Built	Structure Status
Big Sandy Creek (RP376.29)	28.0’	146’	1954	Not Deficient
BNSF Railway (RP 378.09)	28.0’	311.5’	1960	Not Deficient

h. **Traffic.** An Automatic Traffic Recorder is located 9 miles west of Havre at RP 372.9 and may be disturbed. Also, there are some paved approaches that cross the railroad tracks and the railroad pavement markings are getting warn. It is requested to have the striping reviewed and a recommendation for the ATR is appreciated.
Remarks from the Accident Data state:
   - to upgrade the signing, delineation, pavement markings. *All new pavement markings will be applied. The Delineation will remain as is.*
   - to not extend the pavement markings across intersections

i. **Pedestrian/Bicycle/ADA**. The width of the existing roadway will not be reduced by this project. With rumble strips being installed the shoulder should have enough room for bicycle travel. The majority of the roadway has 4’ shoulders but transitioning into the structures the shoulders are only 2’. There are no ADA facilities located within the project.

j. **Miscellaneous Features**. Guardrail end treatments will be updated. Rumble Strips will be added to the left and right shoulders throughout the project limits. The pullouts left and right at the beginning of the project will have the same treatment as mainline. No work to the mailboxes or mailbox turnouts will be addressed with this project.

k. **Context Sensitive Design Issues**. No context sensitive design issues will be addressed with this project.

Other Projects

NH 1-6(58)384 Havre – East – Phase 1 - This project will start in the fall of 2010 with the preloading of fill in areas east of Havre and the actual reconstruction of the roadway will commence in spring of 2011.

NH 1-6(58)384 Havre – East – Phase 2 – This project is a reconstruct of the Suburban and Rural area east of Havre. The anticipated Construction date has not been set but is expected to be 2012 or beyond.

STPU 5799(23) Blvd-16th W-W 11th St. – Havre – This project is a rehabilitation project on urban streets in Havre. The anticipated Construction date has not been set.

HSIP 1-6(67)379, SF069-Flasher – US 87 – W of Havre - The project proposes to upgrade the flasher and signing to address crashes at the intersection of N-1 and N-10. The anticipated Letting date is December of 2011. This project will adjoin the east edge of the subject project.

Location Hydraulics Study Report

No hydraulic issues are anticipated with this project.

Design Exceptions

The existing vertical alignment varies between 0.00% and 6.00%. The vertical grades do not meet the geometric design criteria of 3% between stations: 1488+30 to 1477+20 is 5.3%, 1456+50 to

1452+24 is 3.8%, 1425+20 to 1414+38 is 6%, 1401+40 to 1389+24 is 5.2%, 1206+50 to 1202+00 is 3.2%, 822+68 to 816+46 is 4.44%, 545+45 to 540+50 is 3.2%, and 219+09 to 232+68 is 4.51% (east of Big Sandy Creek). Due to the nomination as a pavement preservation project, the steep grades will not be adjusted and an exception to standards is requested. No formal design exception is anticipated for this project.

Right-of-Way
No new right-of-way will be required for this project. Existing Right-of-Way was purchased under projects F 132(6), FAP 95C and F 95(11). Right-of-Way north of centerline varies between 31' and 110' and south of centerline varies between 50' and 110'.

Cold-In-Place Recycle The expense of a long cold-in-place recycle project was one factor although the necessity for an overlay and the resulting reduction in width also contributed to the decision to not utilize CIR.

Access Control
The existing access control falls under regulated access for the route included in this project. There will be no modifications to the existing access control. We are not pursuing limited access control on this project.

Utilities/Railroads
A. No utility involvement is anticipated with this project. Power, Telephone and Natural Gas exist within the project limits. During construction underground utilities will need to be located within the area where new guardrail is installed.
B. The railroad parallels the highway through most of the project limits. The closest track according to asbuilts is 129' from the roadway centerline. The project crosses the BNSF Railway tracks on a 311.5' bridge at asbuilt station RP 378.09. There will be pavement marking work on the structure. According to asbuilt RTF 1-6(11)355 the centerline of roadway is approximately 27 feet above the track centerline elevation. Since we may be within 25' vertically of the tracks if any adjustments have occurred to the tracks, a flagging agreement to cover the pavement marking work and to cover Railroad insurance should be included. Also, there are some paved approaches that cross the railroad tracks and the railroad pavement markings are getting warn and may need repainted.

Intelligent Transportation Systems (ITS) Features
There are no opportunities for ITS solutions with this project.

Survey
No survey will be required on project.

Public Involvement
Due to the limited scope of the project, a level "A" public involvement plan should suffice. This will include a news release explaining the project and including a department point of contact.

Environmental Considerations
No apparent significant environmental issues have been identified. It is anticipated that the project meets the criteria for the Statewide Programmatic Categorical Exclusion. An environmental checklist is being supplied with the Preliminary Field Review/Scope of Work Report.
Due to the project scope, no effects on any threatened, endangered, proposed, candidate or

sensitive species are anticipated with this project. No wetlands, streams, or other aquatic resources will be affected. Therefore, a Stream Protection Act 124 and Clean Water Act 40 permit will not be required.

Energy Savings/Eco-Friendly Considerations

Microsurfacing requires less energy than other pavement preservation options, such as a mill and overlay. The energy savings is largely due to lower consumption of petroleum products and reduction in millings disposal.

Traffic Control

Traffic will be maintained on the existing PTW throughout the project during construction with the appropriate signing, flagging, etc. Traffic control for the micro-mill will include a milling pass, cracksealing, chipsealing and sweeping operations. The Microsurfacing option will include two passes of surfacing (scrape lift and final lift) as the majority of cracks will be filled by the microsurfacing. The plans package will include a limited Transportation Operations (TO) component and a limited Public Information (PI) component. All signing will be in accordance with the Manual on Uniform Traffic Control Devices.

Project Management

Road Design staff in Great Falls will be designing the project, with Christie McOmber, P.E., as the Great Falls District Projects Engineer.

This project is not under full FHWA oversight.

Preliminary Cost Estimate

The nominated project cost per mile for just a seal & cover is approximately $41,100. After the Preliminary Field review a more extensive treatment was decided on.

For Option #1 (Micromill) the following items were considered in the roadwork preliminary cost estimate: Micromill, cover, seal, crack sealing, pavement markings, rumble strips and guardrail ends. The cost per mile is approximately $71,943.

		Estimate Costs	Inflation (INF)# (from PPMS)	w/INF + IDC* (from PPMS)
Road work		$1,389,728		
Remove Structure		$0		
New Structure		$0		
Traffic Control		$100,000		
Subtotal		**$1,489,728**		
Mobilization	10%	$148,973		
Subtotal		**$1,638,701**		
Contingencies	8%	$131,096		
Total CN		**$1,769,797**	**$225,144**	**$2,261,265**
CE	10%	**$176,980**	**$22,514**	**$226,127**

IDC: 13.35%

Inflaction Factor (ppms) 0.1272145

Note: Inflation is calculated in PPMS to the letting date plus one year to estimate mid-point of construction. 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 calc

For Option #2 (Microsurfacing) the following items were considered in the roadwork preliminary cost estimate: Microsurfacing aggregate & emulsion, crack sealing only major cracks, pavement markings, rumble strips and guardrail. The cost per mile is approximately $70,397.

		Estimate Costs	Inflation (INF)# (from PPMS)	w/INF + IDC* (from PPMS)
Road work		$1,452,954		
Remove Structure		$0		
New Structure		$0		
Traffic Control		$90,000		
Subtotal		**$1,542,954**		
Mobilization	10%	$154,295		
Subtotal		**$1,697,249**		
Contingencies	8%	$135,780		
Total CN		**$1,833,029**	**$233,188**	**$2,342,057**
CE	10%	**$183,303**	**$23,319**	**$234,206**

IDC: 13.35%

Inflaction Factor (ppms) 0.1272145

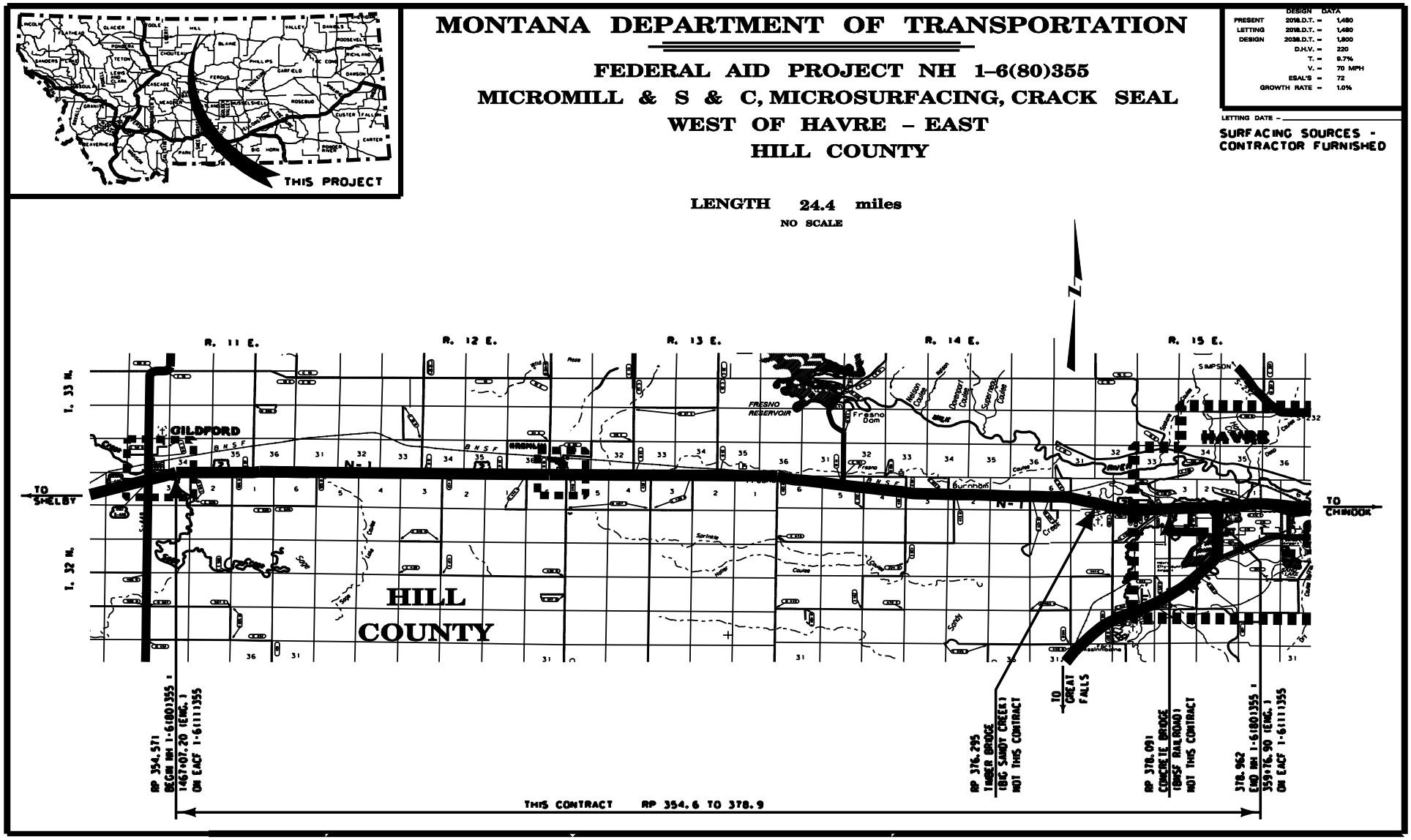
Note: Inflation is calculated in PPMS to the letting date plus one year to estimate mid-point of construction. If there is no letting date, the project is assumed to be inside the current TCP and is given a maximum of 5 years until letting. IDC is calc

Ready Date

The project is being designed in the Great Falls District and has a ready date of November 2010 and an anticipated let date has not yet been determined.

Site Map

The project site map is attached.


THIS PROJECT
MONTANA DEPARTMENT OF TRANSPORTATION
FEDERAL AID PROJECT NH 1-6(80)355
MICROMILL & S & C, MICROSURFACING, CRACK SEAL
WEST OF HAVRE – EAST
HILL COUNTY
LENGTH 24.4 miles
NO SCALE
DESIGN DATA
PRESENT 2018.D.T. = 1,480
LETTING 2018.D.T. = 1,480
DESIGN 2038.D.T. = 1,800
D.H.V. = 220
T. = 9.7%
V. = 70 MPH
ESAL'S = 72
GROWTH RATE = 1.0%
LETTING DATE –
SURFACING SOURCES - CONTRACTOR FURNISHED
R. 11 E.
R. 12 E.
R. 13 E.
R. 14 E.
R. 15 E.
T. 33 N.
T. 32 N.
GILDFORD
HAVRE
SIMPSON
FRESNO RESERVOIR
Fresno Dam
TO SHELBY
TO CHINOOK
TO GREAT FALLS
HILL COUNTY
RP 354.571
BEGIN NH 1-6(80)355 =
1467+07.20 (ENG.)
ON EACF 1-61(11)355
RP 376.295
TIMBER BRIDGE
(BIG SANDY CREEK)
NOT THIS CONTRACT
RP 378.091
CONCRETE BRIDGE
(BNSF RAILROAD)
NOT THIS CONTRACT
378.962
END NH 1-6(80)355 =
359+76.90 (ENG.)
ON EACF 1-61(11)355
THIS CONTRACT RP 354.6 TO 378.9