



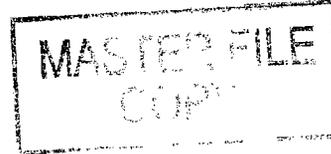
Montana Department of Transportation

2701 Prospect Avenue  
PO Box 201001  
Helena MT 59620-1001

Jim Lynch, Director  
Brian Schweitzer, Governor

August 24, 2005

Carl James  
Federal Highway Administration (FHWA)  
2880 Skyway Drive  
Helena MT 59602



Subject: Statewide Pavement Preservation Projects Concurrence

**STPP 66-2(6)16**  
**Hays – FT. Belknap**  
**CN 5570**

The Environmental Services Bureau of the Montana Department of Transportation has reviewed the Preliminary Field Review/Scope of Work Report and the Environmental Checklist for Pavement Preservation Projects. We have determined that the Statewide PCE for these types of projects would cover this project.

I have attached the Preliminary Field Review/Scope of Work Report, Checklist and the location map for your information.

If you have any questions concerning this letter, please contact me at 444-0456.

Thomas L. Hansen, P.E.  
Engineering Section Supervisor  
Environmental Services Bureau

**RECEIVED**

AUG 26 2005

LEGISLATIVE ENVIRONMENTAL  
POLICY OFFICE

Attachments:

tlh:s:\5570ENPCE-Pave Pres FHWA Cover Ltr.doc

copies: Mick Johnson – Great Falls District Administrator  
Paul Ferry, P.E. - Highway Engineer  
Mark Wissinger, P.E. - Construction  
Bob Seliskar - FHWA  
Suzy Althof - Contract Plans  
Dave Jensen - Fiscal Planning  
Jean A. Riley, P.E. – Environmental Services  
Russ McDonald - Tribal Coordinator  
Don White, Planner, Blackfeet Tribal Planning Department  
PO Box 850  
Browning, MT 59417-0850  
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 No.: 5570000 ID: STPP 66-2(6)16 Project Name: Hays - Ft. Belknap

MASTER FILE COPY

Reference Post (Station) 15.74 to Reference Post (Station) 50.02

Applicants Name: Montana Department of Transportaion Address: 2701 Prospect Ave., Helena, MT 59620

Type of Proposed Pavement Preservation Activity: 181- Resurfacing (Thin lift overlay <= 0.15')

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

Table with 2 main columns: Impact Questions and [Y/N] There are Potential Impacts; or Item Requires Documentation, Evaluation, Mitigation Measures, and/or (a) Permit(s). Includes rows for river impacts, species, water quality, wetlands, hazardous waste, and Indian Reservations.

8. Magnitude and significance of potential impacts: No impacts anticipated

Checklist prepared by: Damian Krings Applicant (Design Project Manager)

Approved by: [Signature]

Environmental Services

Road design Engineer Title ENVIRONMENTAL ENGINEERING SECTION SUPERVISOR

Title

01 - Aug - 05 Date

8/24/05

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 (USDol)**

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

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AUG - 3 2005

Memorandum

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

**ENVIRONMENTAL**

MASTER FILE  
 COPY

Date: August 1, 2005

Subject: STPP 66-2(6)16  
 Hays - Ft. Belknap  
 Control No. 5570000  
 Work Type 181 Resurfacing - Asphalt (Thin Lift <= 0.20')(Scheduled Maintenance)

The combined Preliminary Field Review (Revised)/Scope of Work Report for the subject project has hereby been released on 8/2 2005. We request that those on the distribution review this report and submit your concurrence within **two weeks** of the above release date.

Your comments and/or recommendations are also requested, if you do not concur, or concur subject to certain conditions. When all the personnel on the distribution list have submitted their concurrence, this report will be submitted to the Administrator, Highways Division for final approval.

PRF:DMK:JJS:LJD:server:5570000RDPFRSOW.DOC

Distribution w/Attach:

- John Blacker, Maintenance
- Kent Barnes, Bridge
- John Horton, Right-of-Way
- Sandra Straehl, Planning
- Mick Johnson, Great Falls District Administrator
- Jean Riley, Environmental
- Matt Strizich, Materials
- Duane Williams, Traffic & Safety
- Mac McArthur, Construction (2 copies)

I Recommend Approval:

Date (w/out comments)

cc: All w/ Attach

- Steve Prinzing, G.F. D.E.S.E.
- Dave Hand, Havre Maintenance
- Bob Seliskar, FHWA(HOP-MT)
- Highways File

Return To Bill When "Initials Column" Completed By 8-16-05

Comments?	Y	N	Initials / Date
Biological		X	DS. 8/15
Cultural Seeding		X	Jan 8/13
<del>                    </del>			
Erosion Control		X	JA 8/15
Engineer <u>TORH</u>		X	JJ. 8/8

checklist OK, special sent to contract plans 8/15

Form to me last

PCE Check List Attached - Please Review Both



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

**Revised Preliminary Field Review/Scope of Work**

STPP 66-2(6)16  
Hays – Ft. Belknap  
UPN 5570000

**I. Introduction**

This report was developed from information taken from the preliminary field review conducted on May 23, 2005 with the following personnel in attendance:

Christie McOmber	District Design	MDT - Great Falls
Jeania Cereck	District Design	MDT - Great Falls
Keri O'Reilly	District Design	MDT - Great Falls
Scott Bunton	District Design	MDT - Great Falls
Jere Stoner	Road Design	MDT - Helena
Ed Shea	Pavement Management	MDT - Helena
Jim Cornell	Traffic & Safety	MDT - Helena
Kevin McCray	Bridge	MDT - Helena
Tom Gocksch	Environmental	MDT - Helena
Gerry Brown	CES Bureau	MDT - Lewistown
John Yeoman	Construction	MDT - Havre

**II. Proposed Scope of Work:**

- A. This project is nominated as a preventative maintenance overlay. The intent is to overlay the existing roadway with 0.15' of plant bituminous surfacing (Grade S ½"), and apply a seal and cover.
- B. New guardrail and bridge rail will be installed on the seven bridges within the project limits.
- C. The plans for the proposed project will be in English units. The existing horizontal and vertical alignment will be used throughout the project.
- D. The current ready date of the project is July 2005. A cost breakdown is provided on the last page of the report.

**III. Project Location and Limits:**

- A. This project is located in Blaine County on Primary Route 66. It begins at RP 15.74 and proceeds north for approximately 34.28 miles, to RP 50.02. The entire project is located within the Fort Belknap Indian Reservation.
- B. The Reference Posts have been measured using a distance meter from a recorded point of origin from the road log, and may not match the image viewer.

**IV. Physical Characteristics:**

- A. The functional classification is a minor arterial. The P.T.W. traverses level and rolling terrain and the land adjacent to the project primarily consists of farm and rangeland.
- B. The existing roadway was constructed in 1959 under S-187(6). The surfacing consists of 0.25' plant mix bituminous surfacing, 0.15' of top course, and 1.00' of total S.B.B.C.
- C. Two additional projects have been constructed in the project length. The first was from RP 15.752 to RP 26.00 and was completed in 1995 under 66-2(1). The second was from RP 26.000 to RP 36.00 and was completed in 1996 under 66-2(3). Although no as-built records for either 66-2(1) or 66-2(3) could be located, it is probable that these projects were thin lift overlays. The roadlog shows the area between RP 15.752 to RP 26.000 as currently having a 5.4" (0.45') surfacing thickness. The roadlog also shows the area between RP 26.000 to RP 36.000 as currently having a 4.8" (0.40') surfacing thickness.
- D. The horizontal alignment meet minimum standards for 60 mph design. The grades on the vertical alignment range from -7.00% to +6.18%.
- E. **PVMS Data:** The recommended treatment in the Pavement Analysis Section's 2004 Pavement Conditions/2005 Pavement Treatment Report is AC Crack Seal & Cover for construction and AC Crack Seal & Cover for maintenance activities. The indices and condition levels for the 2004 survey year are given in the following table:

**RP 15.7 TO RP 26.0**

PVMS INDICES	
Ride	74.3 (Fair)
Rut	69.0 (Good)
Alligator Cracking	100.0 (Good)
Miscellaneous Cracking	99.8 (Good)

**RP 26.0 TO RP 36.0**

PVMS INDICES	
Ride	73.6 (Fair)
Rut	86.8 (Good)
Alligator Cracking	100.0 (Good)
Miscellaneous Cracking	99.3 (Good)

**RP 36.0 TO RP 50.018**

PVMS INDICES	
Ride	73.3 (Fair)
Rut	84.4 (Good)
Alligator Cracking	100.0 (Good)
Miscellaneous Cracking	99.2 (Good)

1. Cracks from 15.738 to 36.062 were recently filled by maintenance.
2. From 15.738 to 35.000 the treatment will be Seal & Cover as recommended by PVMS.
3. From 35.000 to 36.062 the roadway is in worse condition than the surrounding areas. This section of roadway was part of a cold recycle and overlay project (RTF 66-2(3)26) that was done in 1996. It is thought that a test section from RP 35 to RP 36 included a cold recycle with a chip seal only. An analysis of this test section was never completed. The recommended scope is to overlay 0.15', Seal and Cover.
4. From 36.062 to 50.018 the recommended scope is Overlay 0.15' and S. & C.
5. Although some of the project is over 20 years old, it has been nominated for the Pavement Preservation Program due to the relatively good condition of the overall roadway.

**IV. Traffic Data:**

The Traffic Data for this project is as follows:

2005 ADT = 410 Letting Year  
2025 ADT = 510 Design Year  
DHV = 70  
Com Trks = 13.7%  
ESAL = 34  
AGR = 1.0%

**V. Accident History:**

- A. A computer accident analysis was conducted for the project. The analysis was performed on P-66 from RP 15.74 to RP 50.02 for the ten-year period from July 1<sup>st</sup> 1994 to June 30<sup>th</sup> 2004. The following table shows how the data in the study area compared to the statewide averages:

	Statewide Average for Rural State Primary	Study Area
All Vehicles Accident Rate:	1.30	0.24
All Vehicles Severity Index:	2.32	4.12
All Vehicle Severity Rate:	302	0.99
Truck Accidents	5	
Total Recorded Accidents	33	

**B. Variations from Average Occurrence:**

- 21.2% Incapacitating Injuries (Accident Severity) vs. 11.1% Statewide rural state primary average.
- 18.2% Fatal Accidents (Accident Severity) vs. 2.0% Statewide rural state primary average.
- 93.9% Dry (Road Condition) vs. 68.6% State wide rural state primary average.
- 72.7% Clear (Weather Condition) vs. 53.2% State wide rural state primary average.
- 33.3% Overturn (Most Harmful) vs. 22.9% State wide rural state primary average.
- 18.2% Domestic Animal (Most Harmful) vs. 0.0% State wide rural state primary average.

**C. Clusters:**

No accident clusters were identified in this study area.

There were no safety improvement projects within this location during the ten-year study period based on the criteria of the Safety Engineering Improvement Program and the information from the Safety Management Program.

**D. Remarks:**

This section of roadway had 33-recorded accidents between the dates July 1, 1994 and June 30, 2004. Out of the 33-recorded crashes there were six fatal crashes.

This roadway segment shows a high incidence of off roadway crashes, and a higher severity than the rural state primary average.

There were six domestic animal-vehicle crashes involving calves (2), cows (2) and horses (2). There was one fatal crash, one injury crash, and four property damage only crashes. In all six crashes the animals were in the fenced right-of-way. The Great Falls District is leading a research project to address this issue.

This roadway segment is within the Fort Belknap Reservation and the Montana Highway Patrol may not have all the accident investigator's reports.

**VI. Major Design Features:**

**A. Design Speed:**

Design speed is not an applicable design criterion since this project is a preventative maintenance overlay.

**B. Alignment:**

The existing horizontal and vertical alignments are adequate for a preventative maintenance overlay. Due to the limited scope of the project, no changes are proposed.

**C. Typical Section:**

The minimum roadway width for a rural minor arterial is 28 feet. The existing surface widths according to the survey are as follows:

MP to	MP	Length/mi	FTW/ft
15.738	35.000	19.262	28.0
35.000	43.958	8.958	29.4
43.958	49.270	5.312	28.8 (min. width)
49.270	49.528	0.258	44.4
49.528	50.018	0.470	29.4

The new designed widths will be as follows:

RP to	RP	Bottom Width/ft	FTW/ft	Work Performed
15.738	35.000	28.0	28.0	Seal & Cover
35.000	43.958	29.4	28.0	Overlay, S. & C.
43.958	49.270	28.8	28.0	Overlay, S. & C., Inslope Dressing
49.270	49.528	44.4	43.0	Overlay, S. & C.
49.528	50.018	29.4	28.0	Overlay, S. & C.

**D. Surfacing Design:**

1. Due to the nature of this project, no surfacing design was requested.
2. Milling is required on connections to the P.T.W. Milling is also required at the bridges in the overlay section (RP 40.949 to RP 41.001 and RP 47.295 to RP 47.353).
3. A leveling course, not to exceed 25% of the plant mix overlay quantity, is proposed to correct irregularities in the surface in the overlaying section of the project.
4. The removed cold milled material will be utilized within the vicinity of the milled areas on gravel public approaches as a surface dressing to

correct surface irregularities, in guardrail sections or donated to public entities.

5. A 7.5' plant mix apron on a 50:1 taper will be placed on all adjacent approaches.

**E. Slope Design:**

1. Generally, the existing surfacing in-slopes will not be altered. In the overlay sections, in-slopes of 4:1 will be used on top of the existing roadway surface.
2. There will be no disturbance to slopes outside of the existing finish top surface, except for minor shaping of shoulders, approaches, inslope dressing between RP 43.958 and RP 49.250, and for shoulder gravel in the guardrail areas. All disturbed shoulder areas will be re-vegetated where necessary.
3. Shoulder gravel will be used as a shoulder dressing throughout the overlay sections and in guardrail sections.
4. Inslope dressing will be placed as needed to achieve a 28.0' finished top width with the use of shoulder gravel and plant mix between RP 43.958 and RP 49.270.

**F. Grading:**

There is no grading involved with this project. Minor widening with Shoulder Gravel will be required in all guardrail locations.

**G. Hydraulics:**

Due to the nature of this project, hydraulic considerations will not be addressed.

**H. Geotechnical Considerations:**

Due to the nature of this project, Geotechnical recommendations are not necessary.

**I. Bridges:**

<i>Bridge</i>	<i>MP</i>	<i>MP</i>
Little Peoples Creek	16.642	16.647
Little Peoples Creek	18.037	18.042
Little Peoples Creek	22.397	22.405
South Fork Peoples Creek	26.297	26.316
Peoples Creek	31.630	31.649

White Bear Creek	40.968	40.982
Three Mile Coulee	47.314	47.334

All existing bridges need new bridge rail installed and the length of need checked. None currently have bridge approach sections or end treatments.

**J. Traffic and Safety:**

New pavement markings will be required. No signing or delineation are proposed on this project.

**K. Safety Enhancements:**

1. No trends or clusters were identified that require a safety upgrade.
2. All guardrail end sections will be updated to present standards as required.
3. No revisions to existing fill slopes or clear zone encroachments will be made.
4. New advancement lengths for the new bridge rail will be required.
5. The NW bridge end at RP 18.042 and the SW bridge end at RP 31.630 are located too close to existing approaches to allow for the installation of a bridge approach guardrail section and an OTS. Since the scope of pavement preservation projects does not allow for the realignment of an approach but still requires a safety upgrade of the bridge end hazards, an IRT will be attached to the bridge approach section at both of these locations.

**VII. Design Exceptions:**

The design exception process does not apply to Pavement Preservation projects.

**VIII. Right-of-Way:**

No new Right-of-Way will be required for this project.

**IX. Utilities/Railroad:**

- A. There is a telephone utility line located on the bridge at MP 16.6. A special on how to address the line during construction will be written by the Bridge Bureau.
- B. There are no railroads in the vicinity of the project.

**X. Environmental Considerations:**

No apparent significant environmental issues have been identified. The project meets the criteria for the Statewide Programmatic Categorical Exclusion, and the checklist

has been distributed for approval.

**XI. Memorandum of Understanding**

A MOU and a PSA with the Fort Belknap Tribe are currently being negotiated and will be required.

**XII. Traffic Control:**

Traffic will be maintained throughout the project during construction with the appropriate signing, flagging, etc. All signing will be in accordance with the Manual on Uniform Traffic Control Devices.

**XIII. Public Involvement:**

Due to the limited scope of the project, a Level "A" public involvement plan should suffice. This will include a news release to the local media.

**XIV. Ready Date:**

The current ready date for the project is July 1, 2005.

**XV. Cost Estimate:**

Roadwork	\$ 1,777,763
Subtotal	\$ 1,777,763
Mobilization (10%)	\$ 177,776
Subtotal	\$ 1,955,539
Traffic Control	\$ 120,000
Contingency (5%)	\$ 97,777
Subtotal	\$ 2,173,316
Inflation (3% per year for 1 year)	\$ 65,199
<b>Construction Total</b>	<b>\$ 2,238,515</b>
Construction Engineering (10%)	\$ 223,852
<b>Total Project Estimate</b>	<b>\$ 2,462,367</b>

FEDERAL AID PROJECT NO. STPP 66-2(6)16  
WORK TYPE 181 RESURFACING - ASPHALT (THIN LIFT)  
HAYS - FT. BELKNAP  
BLAINE COUNTY & FORT BELKNAP  
INDIAN RESERVATION

UPN 5570000  
34.3 miles

