



2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

RECEIVED

August 11, 2006

AUG 18 2006

Carl James
Federal Highway Administration
585 Shepard Way
Helena, MT 59601-9785

**LEGISLATIVE ENVIRONMENTAL
POLICY OFFICE**

Subject: Statewide Pavement Preservation Projects Concurrence
STPP 87-1(8)0
HEBGEN LAKE – E & W
CN 5960000

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.

The following special provisions will be included in this project:

- Protection of Wetland Areas and Other Drainages
- Threatened and Endangered Species
- Environmental Mitigation and Coordination Measure for Work within the Greater Yellowstone Ecosystem
- Environmental Mitigation for State Species of Special Concern

I have attached the Preliminary Field Review/Scope of Work Report, location map, Environmental Checklist for Pavement Preservation Projects, and the special provision listed above.

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

fol 

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

Attachments:

TLH:tgg: S:\PROJECTS\BUTTE\5000\5960\5960000\FHWCOV01.DOC

copies: Jeffrey M. Ebert, P.E. - District Administrator-Butte
 Loran Frazier, P.E. – Chief Engineer
 Paul Ferry, P.E. – Highway Engineer
 Jean A. Riley, P.E. – Environmental Services
 Mark Wissinger, P.E. – Construction
 Suzy Price – Contract Plans Bureau Chief
 Dave Jensen – Fiscal Planning
 ✓ Environmental Quality Council
 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.: 5960000 ID: STPP 87-1(8)0 Project Name: Hebgen Lake E&W

Reference Post (Station) 0.00 To Reference Post (Station) 22.5

Applicants Name: MDT Address: 2701 Prospect Ave. Helena, MT 59620

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

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). The table contains 13 rows of questions regarding environmental impacts like water quality, wetlands, and hazardous waste.

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

With the inclusion of special provisions for protection of wetland areas, and T&E species, this project will not have any significant impacts, and the Statewide Programmatic Categorical Exclusion for Pavement Preservation projects is the appropriate Environmental Document for the proposed work.

Checklist prepared by: Jim Davies Applicant Project Design Engineer Title 7/24/06 Date

Approved by:


ACTING ENGINEERING SECTION SUPERVISOR
8/17/06

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 (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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JUL 28 2006

STPP

To: Distribution
From: Paul Ferry, P. E. 
Highways Engineer
Date: July 24, 2006
Subject: **STPP 87-1(8)0**
Hebgen Lake-E & W
CN 5960000
Work Type 181-Resurfacing Asphalt

Scope of Work Report

The Scope of Work Report for the subject project, dated July 24, 2006 is attached. We request that those on the distribution review this Report and submit your concurrence two weeks from the above-signed 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 submitted their concurrence, this Report will be submitted to the Engineering Division Administrator for final approval

Distribution, all w/attachment:

- Jeff Ebert, Butte D. A.
- John Horton, Right of Way
- Mac McArthur, Construction
- Matt Strizich, Materials
- John Blacker, Maintenance
- Sandy Straehl, Planning
- Duane Williams, Traffic
- Jean Riley, Environmental

I Recommend Approval

Date _____

Cc (all with attachment):

- Loran Frazier, Engineering
- Dave Jensen, Fiscal Programming FHWA
- Highways File

Scope of Work Report

Proposed Scope of Work

This project is programmed as a Pavement Preservation project on State Primary Route 87/US 287 consisting of a seal & cover from Reference Post 0.0 to Reference Post 6.7; and a mill, overlay, and seal & cover from Reference Post 6.7 to Reference Post 22.5. From Reference Post 6.7 to Reference Post 22.5, this project was considered for a cold or hot in-place recycle alternate treatment. Due to weather constraints it has been decided the project will remain as a mill, overlay, and seal & cover. The following work is proposed:

- Seal & cover from RP 0.0 to RP 6.702
- Mill 0.2 ft, overlay 0.2 ft, and seal & cover from RP 6.702 to 22.451
- Guardrail terminal section upgrades
- Short sections of jersey rail replaced with metal guardrail
- Pavement markings
- Transverse rumble strips

Project Location and Limits

Information for seal & cover portion of project is listed below.

- Location: Madison County on State Primary Route 87/US 287, in the following townships, ranges, and sections:
T 11 S, R 2 E, sections 25, 33, 34, 35, 36
- Begin: Junction with P 13/MT 87 RP 0.00±, English as-built station 458+00.0 on STPP 87-1(5)0
- End: Madison-Gallatin county line RP 6.702±, English as-built station 383+20+00.0 on STPP 87-1(5)0
- Length: 6.702± miles

Information for mill, overlay, and seal & cover portion of project is listed below.

- Location: Gallatin County on State Primary Route 87/US 287, in the following townships, ranges, and sections:
T 11 S, R 3 E, sections 15, 16, 19, 20, 21, 22, 23, 25, 26, 29, 30
T 11 S, R 4 E, sections 30, 31, 32
T 12 S, R 4 E, sections 4, 5, 9, 10, 11, 12
T 12 S, R 5 E, sections 7, 8, 15, 16, 17
- Begin: Madison-Gallatin county line RP 6.702±, English as-built station 383+20+00.0 on STPP 87-1(5)0
- End: Junction with NH 50/US 191 at RP 22.451±, English as-built station 1205+73.4 on STPP 87-1(5)0
- Length: 15.749± miles
- Combined length: 22.451 miles

**STPP 87-1(8)0
Hebgen Lake-E & W
CN 5960000**

Stationing runs west to east in accordance with the reference posts on the project. The functional classification is minor arterial. A map is attached at the end of this report.

As-built Projects

RP 0.000 to RP 22.451 STPP 87-1(5)0, year 1992

Physical Characteristics

1. Surfacing information is provided below:

<u>From</u>	<u>To</u>	<u>Top Thickness Bituminous (in)</u>	<u>Gravel Base Course(in)</u>	<u>Top Width (ft)</u>
RP 0.0	RP 1.4	2.0	10.0	29
RP 1.4	RP 6.9	3.0	9.0	29
RP 6.9	RP 7.1	3.9	10.0	56
RP 7.1	RP 22.4	4.8	8.0	30.5

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

3. PvMS Index Numbers & Recommended Treatment for 2006:

<u>Section</u>	<u>Ride</u>	<u>Rut</u>	<u>ACI</u>	<u>MCI</u>	<u>Construction</u>	<u>Maintenance</u>
RP 0.00 to RP 7.09	73.6	84.0	83.7	57.4	Minor Rehabilitation	Reactive Maintenance
RP 7.09 to RP 22.45	71.9	76.2	55.9	35.7	Minor Rehabilitation	Reactive Maintenance

The PvMS recommended treatment at the time of the nomination (2005) between RP 0.00 to RP 7.09 was seal and cover. The project will remain as seal and cover for this portion. The design team agreed this treatment was appropriate at the PFR.

4. There are three bridges located within the project limits.

<u>Structure ID</u>	<u>Intersection</u>	<u>Location</u>
P00087007+01971	Beaver Creek	24 mi NW W. Yellowstone
P00087008+05951	Cabin Creek	23 mi NW W. Yellowstone
P00087020+02541	Grayling Creek	10 mi NW W. Yellowstone

Traffic Data

2006 ADT=	<u>860</u>	Present
2007 ADT=	<u>890</u>	Letting Year
2027 ADT=	<u>1,760</u>	Design Year
DHV=	<u>600</u>	
D=	<u> </u>	
T=	<u>3.8%</u>	
ESAL=	<u>22</u>	
AGR=	<u>3.5%</u>	

Accident History

The accident rate for the study area is 1.45 as compared to the statewide average of 0.78. The severity index was 2.39 as compared to the statewide average of 2.49. The severity rate is 3.46 as compared to the statewide average severity rate of 1.94. The data time frame occurred from 1/1/96 to 12/31/05.

The section of P-87 from reference point 16.3 to 16.8 was identified as an accident cluster in 2001 and 2002. No feasible countermeasures to address a specific crash trend could be identified.

The section of P-87 from 22.4 to 22.451 was identified as a cluster in 2004. A safety improvement to install transverse rumble strips on the approach to N-50 is to be incorporated with this project.

A maintenance project was programmed in 2001 to install new signing and a flasher on P-13 on the approach to the intersection with P-87. This project was completed in July 2004.

Four crashes were recorded at the intersection of P-87 and P-13. Due to accident coding, these crashes plus five crashes that occurred at the intersection of P-87 and N-50 were not included in the above analysis.

The majority of recorded crashes during this time period can be classified as single vehicle off road.

Major Design Features:

Design Speed

The design speed for this project is 45 mph based on MDT standards for Non-NHS Primary roads in mountainous terrain.

Alignment

Both the horizontal and vertical alignments will be perpetuated with this pavement preservation project.

Typical Section

There are no proposed changes to the typical section as this project is either seal & cover; or 0.2 ft mill, 0.2 ft overlay, and seal & cover project.

There are shoulder rumble strips from RP 0.000 to RP 0.253; the rest of the project does not have rumble strips. Shoulder rumble strips will not be installed with this project due to shoulder widths less than 4 ft. Transverse rumble strips will be installed in the eastbound lane at the intersection of N-50.

The pullout at RP 7.9 will be overlaid, sealed and covered. All other pullouts and approaches will be sealed and covered with this project.

Asphalt cores were taken on this project. The materials engineer has stated the results show stripping, and has recommended a mill/fill would be the best fix for this project.

**STPP 87-1(8)0
Hebgen Lake-E & W
CN 5960000**

Guardrail

Guardrail end sections will be upgraded with this mill and overlay project.

The project has the following number of guardrail BCTs that will be upgraded:

- Westbound lane 12
- Eastbound lane 43

The eastbound lane has an additional 9 BCTs that will remain as-is, because they flare into the pullouts and are well outside the clear zone. The designer will verify with the image viewer, the as-builts, and the project design engineer where the stations are located for these BCTs.

At RP 4.6 there are several sections of concrete jersey rail on the eastbound lane shoulder. These jersey rails were connected to the adjacent metal guardrail, and should be replaced with metal guardrail. A photo of the jersey rail was taken at the review and is located on the rdadmin share directory.

Geotechnical Considerations

There will be geotechnical involvement with a potential small digout at Beaver Creek, RP 7.0.

Hydraulics

No hydraulic considerations are anticipated on this project.

Bridges

There are three bridges located within the project limits, and they will be left in place. The bridge rail meets current standards; however, the approach rail does not meet current standards. The approach rail appeared to be in very good condition at the review and will not be replaced with this project. The terminal sections of the bridge guardrail will be upgraded.

The bridge deck treatment is as follows:

- Beaver Creek Bridge has a concrete deck and will be left as-is.
- Cabin Creek Bridge has 2 in. plant mix on the deck that will be milled and replaced with a membrane and a new overlay.
- Grayling Creek Bridge has 1 in. plant mix on the deck that will be milled and replaced with a membrane and new overlay.

Safety Enhancements

The Safety Management Section had no specific recommendations for this project. The upgrading of guardrail terminal sections, addition of transverse rumble strips at the P-87/N-50 "T" intersection, and new skid resistant surfacing will all enhance the safety of the roadway segment.

Traffic

Pavement markings will be upgraded on this project.

Miscellaneous

Maintenance will crack seal the project from RP 0.0 to RP 6.7 prior to seal and cover.

At the review, asphalt curb was observed at RP 8.3 under the guardrail. It was recommended to leave the curb in-place and undisturbed.

Transverse rumble strips will be installed in the eastbound lane at the intersection of N 50.

Design Exceptions

No design exceptions are anticipated for this pavement preservation project.

Right-of-Way

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

Utilities/Railroads

There are overhead and underground utilities within the project limits. If the Beaver Creek digout at RP 7.0 is required, there may be utility involvement.

There are no railroads on this project.

Access Control

Access Control is not being implemented on this project.

Environmental Considerations

This project meets the criteria for a statewide programmatic categorical exclusion under the pavement preservation projects agreement with the FHWA. No water quality permits are anticipated at this time. To address potential storm water erosion and sediment deposits, the following note will be include in the plans:

‘If situations are observed during construction that may potentially impact water quality, including wetland areas, utilize Best Management Practices (BMP) and/or temporary erosion control measures as necessary to protect the resource. Refer to Section 208 of the MDT Detailed Drawings for erosion and sediment control Best Management Practices. The installation of temporary erosion control measures will be paid as “Miscellaneous Work.”’.

Traffic Control

A traffic control plan will be developed as the design of the project progresses. Traffic will be maintained during construction activities throughout the project.

Appropriate traffic control devices and signing will be used throughout the project in accordance with the *Manual of Uniform Traffic Control Devices*.

Public Involvement

This will be Level A public involvement: a news release explaining the project and including a department point of contact. The National Forest Service will also be notified of this project.

**STPP 87-1(8)0
Hebgen Lake-E & W
CN 5960000**

Cost Estimate and Ready Date

The preliminary cost estimate for this project in the construction year of 2007 is listed below:

	w/o ICAP	w/ICAP (10.91%)
Road Work (mill, overlay, seal & cover, guardrail)	\$3,316,000	
Traffic Control	\$30,000	
Subtotal	\$3,346,000	
Mobilization (10%)	\$335,000	
Subtotal	\$3,681,000	
Contingencies (15%)	\$552,000	
Subtotal	\$4,233,000	
Inflation (3% x1 yr)	\$127,000	
Total CN	\$4,360,000	\$4,836,000
CE (10%)	\$436,000	\$484,000

The ready date for this project is October 2006.

HEBGEN LAKE-E&W

UP# 5960

