



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

County GALLATIN

May 6, 2005

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LEGISLATIVE ENVIRONMENTAL
POLICY OFFICE

To Whom It May Concern:

Subject: Cooperating Agency Environmental Documentation

As a Cooperating Agency under the provisions of 23 CFR 771.111 the Montana Department of Transportation (MDT) is providing you a copy of this project's environmental documentation.

This environmental documentation complies with the provisions of 23 CFR 771.117(a) and (d) for categorically excluding this proposed project from further National Environmental Policy Act (NEPA) (42 U.S.C. 4321, et seq.) documentation requirements. The attached also complies with the provisions of 75-1-103 and 75-1-201, MCA (see ARM 18.2.237 and 18.2.261, MEPA "Actions that qualify for a Categorical Exclusion" as applicable to the MDT).

If you have any questions concerning the attached environmental documentation please call the MDT Environmental Services Division at (406) 444-7228.

Sincerely,

Jean A. Riley, P.E.
Engineering Bureau Chief
Environmental Services Division

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Attachment

Gallatin



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

April 25, 2005

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ENVIRONMENTAL

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APR 28 2005
FHWA
MONTANA DIVISION

Janice W. Brown, Division Administrator
Federal Highway Administration (FHWA)
2880 Skyway Drive
Helena, MT 59602

Subject: **STPHS 86-1(31)19
2002-GUARDRAIL-NE OF BOZEMAN
(P.M.S. Control # 5377)**

This is to request approval of this proposed project as a Categorical Exclusion (CE) under the provisions of 23 CFR 771.117(d), and the Programmatic Agreement as signed by the MONTANA DEPARTMENT OF TRANSPORTATION (MDT) and the FHWA on April 12, 2001. Copies of its Preliminary Field Review Report (dated March 31, 2005) and Project Location Map are attached. This proposed action also qualifies as a CE under ARM 18.2.261 (Sections **75-1-103** and **75-1-201, MCA**).

The following form provides the documentation required to demonstrate that all of the conditions are satisfied to qualify for a Programmatic Categorical Exclusion Approval (PCE) as initially agreed by the (former) MONTANA DEPARTMENT OF HIGHWAYS (MDOH) and the FHWA on December 6, 1989. (Note: An "X" in the "N/A" column is "Not Applicable" to, while one in the "UNK" column is "Unknown" at the present time for this proposed project.)

NOTE: A response in a box will require additional documentation for a Categorical Exclusion request in accordance with 23 CFR 771.117(d).

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
1. This proposed project would have (a) significant environmental impact(s) as defined under <u>23 CFR 771.117(a)</u> .	<input type="checkbox"/>	<u>X</u>		
2. This proposed project involves (an) unusual circumstance(s) as described under <u>23 CFR 771.117(b)</u> .	<input type="checkbox"/>	<u>X</u>		
3. This proposed project involves one (or more) of the following situations where:				
A. Right-of-Way, easements, and/or construction permits would be required.	<u> </u>	<u>X</u>		
1. The context or degree of the Right-of-Way action would have (a) substantial social, economic, or environmental effect(s).	<input type="checkbox"/>	<u> </u>	<u>X</u>	
2. There is a high rate of residential growth in this proposed project's area.	<u> </u>	<u> </u>	<u>X</u>	<u> </u>

Environmental Services
Phone: (406) 444-7228
Fax: (406) 444-7245

Web Page: www.mdt.state.mt.us
Road Report: (800) 226-7623
TTY: (800) 335-7592

YES NO N/A UNK

3. There is a high rate of commercial growth in this proposed project's area.

___ ___ X ___

4. Work would be on and/or within approximately 1.6 kilometers (1± mile) of an Indian Reservation.

___ X ___

5. There are parks, recreational, or other properties acquired/improved under *Section 6(f)* of the 1965 *National Land & Water Conservation Fund Act (16 U.S.C. 460L, et seq.)* on or adjacent to proposed the project area.

___ X ___

The use of such *Section 6(f)* sites would be documented and compensated with the appropriate agencies. (e.g.: MDFW&P, local entities, etc.).

___ X

6. Are there any sites either on, or eligible for the National Register of Historic Places with concurrence in determination of eligibility or effect under *Section 106* of the *National Historic Preservation Act (16 U.S.C. 470, et seq.)* by the State Historic Preservation Office (SHPO), which would be affected by this proposed project.

___ X ___

7. There are parks, recreation sites, school grounds, wildlife refuges, historic sites, historic bridges, or irrigation that might be considered under *Section 4(f)* of the 1966 U.S. *DEPARTMENT OF TRANSPORTATION Act (49 U.S.C. 303)* on or adjacent to the project area.

___ X ___

a. "Nationwide" Programmatic *Section 4(f)* Evaluation forms for these sites are attached.

___ X

b. This proposed project requires a full (i.e.: DRAFT & FINAL) *Section 4(f)* Evaluation.

 ___ X

B. The activity would involve work in a streambed, wetland, and/or other waterbody(ies) considered as "waters of the United States" or similar (e.g.: "state waters").

___ X ___

1. Conditions set forth in *Section 10* of the *Rivers and Harbors Act (33 U.S.C. 403)* and/or *Section 404* under 33 CFR Parts 320-330 of the *Clean Water Act (33 U.S.C. 1251-1376)* would be met.

___ X

2. Impacts in wetlands, including but not limited to those referenced under Executive Order (E.O.) #11990, and their proposed mitigation would be coordinated with the Montana Inter-Agency Wetland Group.

___ X

YES NO N/A UNK

D. There would be substantial changes in access control involved with this proposed project.

___ X

If yes, would they result in extensive economic and/or social impacts on the affected locations?

 ___ X

E. The use of a temporary road, detour, or ramp closure having the following conditions when the action(s) associated with such facilities:

1. Provisions would be made for access by local traffic, and be posted for same.

X ___

2. Adverse effects to through-traffic dependant businesses would be avoided or minimized.

X ___

3. Interference to local events(e.g.: festivals) would be minimized to all possible extent.

X ___

4. Substantial controversy associated with this pending action would be avoided.

X ___

F. Hazardous wastes /substances, as defined by the U.S. Environmental Protection Agency (EPA) and/or the Montana Department of Environmental Quality (MDEQ), and/or (a) listed "Superfund" (under CERCLA or CECRA) site(s) are currently on and/or adjacent to this proposed project.

___ X

All reasonable measures would be taken to avoid and/or minimize substantial impacts from same.

___ X

G. The Montana Pollutant Discharge Elimination System's conditions (ARM 16.20.1314), including temporary erosion control features for construction would be met.

X ___

H. Permanent desirable vegetation with an approved seeding mixture would be established on exposed areas.

___ ___ X

I. Documentation of an "invasive species" review to comply with both E.O.#13112 and the *County Noxious Weed Control Act (7-22-21, M.C.A.)*, including directions as specified by the county(ies) wherein its intended work would be done.

___ X

J. There are "Prime" or "Prime if Irrigated" Farmlands designated by the Natural Resources Conservation Service on or adjacent to the proposed project area.

___ X ___

If the proposed work would affect Important Farmlands, then an AD-1006 Farmland Conversion Impact Rating form would be completed in accordance with the *Farmland Protection Policy Act (7 U.S.C. 4201, et seq.)*.

___ X ___

K. Features for the *Americans with Disabilities Act (P.L. 101-336)* compliance would be included.

___ X ___

L. A written Public Involvement Plan, would be completed in accordance with MDT's Public Involvement Handbook.

X

4. This proposed project complies with the *Clean Air Act's Section 176(c) (42 U.S.C. 7521(a))*, as amended) under the provisions of 40 CFR 81.327 as it's either in a Montana air quality:

A. "Unclassifiable"/attainment area. This proposed project is not covered under the EPA's September 15, 1997 Final Rule on air quality conformity.

X ___

and/or

B. "Nonattainment" area. However, this type of proposed project is either exempted from the conformity determination requirements (under EPA's September 15, 1997 Final Rule), or a conformity determination would be documented in coordination with the responsible agencies: (Metropolitan Planning Organizations, MDEQ's Air Quality Division, etc.).

___ X ___

C. Is this proposed project in a "Class I Air Shed" (Indian Reservations) under 40 CFR 52.1382(c)(3)?

___ X ___

5. Federally listed Threatened or Endangered (T/E) Species:

A. There are recorded occurrences, and/or critical habitat in this proposed project's vicinity.

X ___

B. Would this proposed project result in a "jeopardy" opinion (under 50 CFR 402) from the Fish & Wildlife Service on any Federally listed T/E Species?

X

The proposed project would not induce significant land use changes, nor promote unplanned growth. There would be no significant effects on access to adjacent property, nor to present traffic patterns.

This proposed project would not create disproportionately high and/or adverse impacts on the health or environment of minority and/or low-income populations (E.O.#12898). It also complies with the provisions of Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) under the FHWA's regulations (23 CFR 200).

In accordance with the provisions of 23 CFR 771.117(a), this pending action would not cause any significant individual, secondary, or cumulative environmental impacts. Therefore, the FHWA's concurrence is requested that this proposed project is properly classified as a Categorical Exclusion.



Tom Hansen, P.E.
Engineering Section Supervisor
MDT Environmental Services

Concur Jeffrey A. Patten, Date: 5-3-05
Federal Highway Administration

Attachments

"ALTERNATIVE ACCESSIBLE FORMATS OF THIS DOCUMENT WILL BE PROVIDED ON REQUEST."

cc: Jeff Ebert, Butte Administrator - MDT
Kent Barnes, P.E. - MDT Bridge Engineer
Paul Ferry, P.E. - MDT Highway Engineer
John H. Horton - MDT Right-of-Way Bureau Chief
Suzy Althof - MDT Contract Plans Section Supervisor
David W. Jensen, Supervisor - MDT Fiscal Programming Section
Tom Hansen - MDT Engineering Section Supervisor
file

Environmental Services
Montana Department of Transportation
Helena, Montana 59620-1001

Memorandum

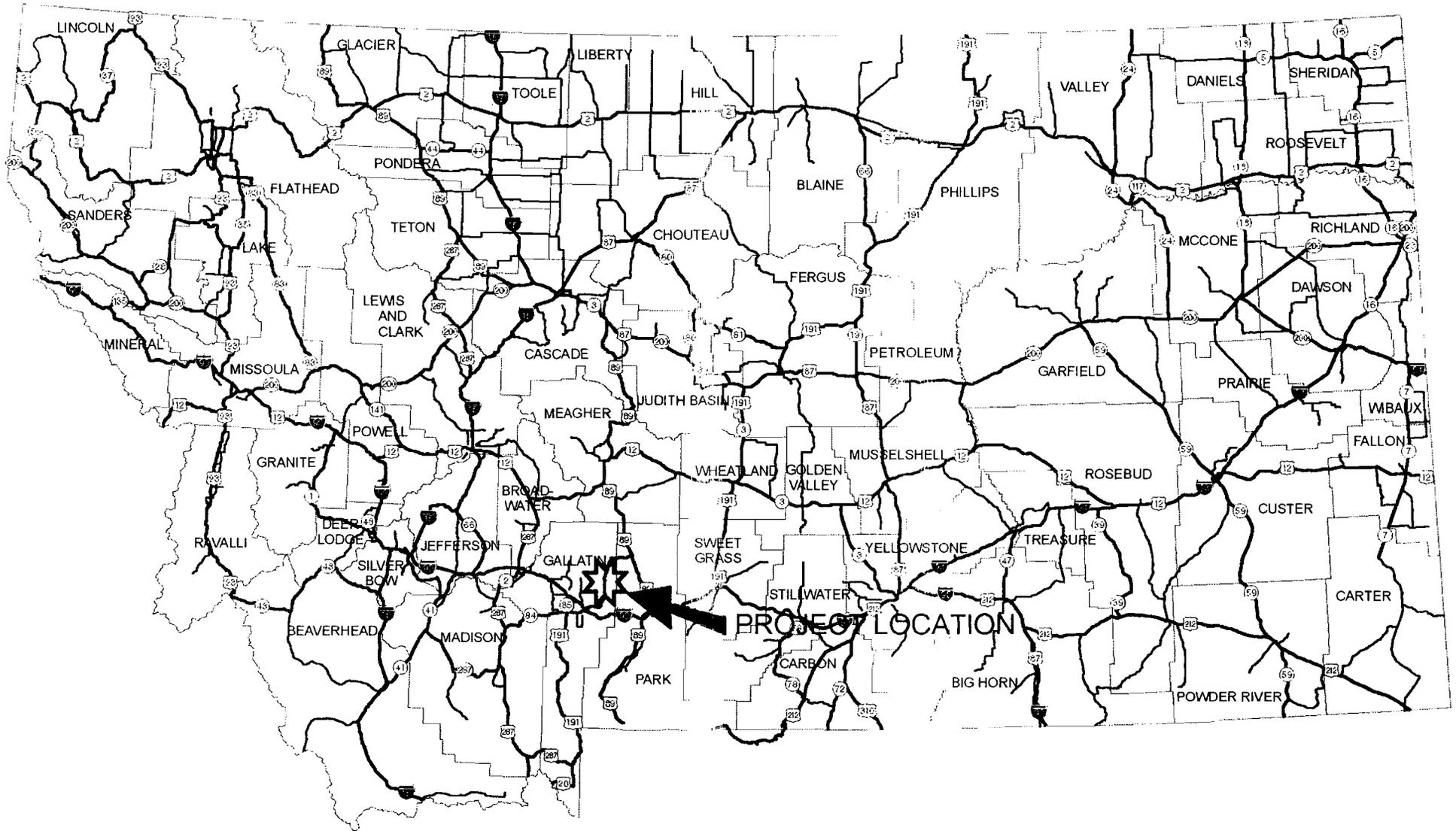
To: Bonnie Steg, Resources Section Supervisor
From: Paul Sturm, Great Falls District Biologist
Date: April 25, 2005
Subject: Control No. 5485
NH 24-3(28)68
Lincoln - East and West
Addendum - Biological Resources Report

Attached are special provisions that will be added to the Biological Resources Report and included in the Contract Bid Package for the above listed project. These specials are intended to reduce or eliminate any impacts to threatened and endangered species and to avoid impacts to streams, wetlands, and water quality. If you have any questions please call the Great Falls District Biologist at (406) 444-9438.

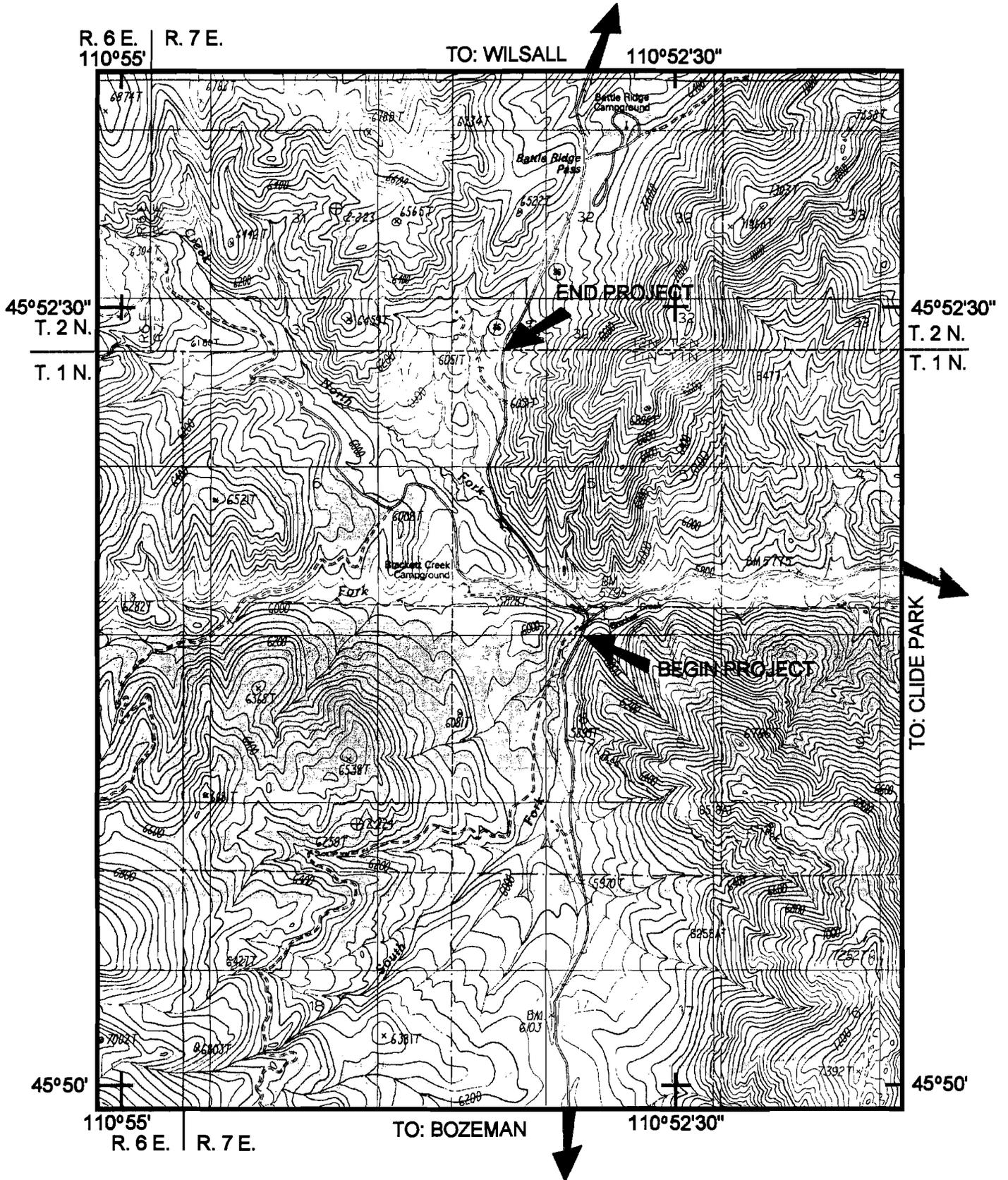
Cc: M. Johnson – Great Falls District
Paul Ferry – Highway Engineer
Tom Gocksch – Environmental Services

Paul Sturm – Envir. Services
File

STPHS 86-1(31)19
2002-GUARDRAIL-NE OF BOZEMAN
ROADWAY & ROADSIDE SAFETY IMPROVEMENTS
CONTROL NUMBER: 5377
STATE LOCATION MAP



STPHS 86-1(31)19
2002-GUARDRAIL-NE OF BOZEMAN
ROADWAY & ROADSIDE SAFETY IMPROVEMENTS
CONTROL NUMBER: 5377



Montana Department of Transportation
Helena, Montana 59620-1001

Memorandum



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

From: Damian Krings, P. E.
Road Design Engineer

Date: March 31, 2005

Subject: STPHS 86-1(29)19
2002 – Guardrail – NE Bozeman
Control No. 5377

We request that you approve the combined Preliminary Field Review and Scope of Work report for this project.

Approved signed by Lesly Tribelhorn 3-31-05 Date _____
Paul R. Ferry, P.E.
Highway Engineer

Combined Preliminary Field Review and Scope of Work Report

This report has been developed from information discussed at the Preliminary Field Review and from input received since that review. The field review was held March 24, 2004 with the following personnel in attendance:

Danielle Bolan, Traffic Engineer, Helena
Joe Olsen, Butte District Engineering Services Engineer, Butte
Lee Alt, Butte District Traffic Engineer, Butte
Maurice DeDycker, Maintenance Superintendent, Bozeman
Tom Hanek, Safety Management Section, Helena
Deb Wambach, Environmental Services, Helena
Stan Brelin, Traffic and Safety Bureau, Helena
Scott Keller, MSU Design Unit, Bozeman

Proposed Scope of Work

The proposed scope of work for this project is to install w-beam guardrail to reduce single vehicle rollover accidents. Minor grading using shoulder gravel will be required at the guardrail terminal sections.

Project Location and Limits

This project is located on State Primary Route P-86 and begins at approximately Reference Post 18.9 and extends to approximately Reference Post 20.0. This road is known locally as Bridger Canyon Road. The project is located in Gallatin County. The highway is functionally classified as a minor arterial.

Physical Characteristics

This section of road was built in 1945 and has no as-built plans. The gravel roadway was surfaced with cold millings in 1995. The existing top finished surface width is approximately 22 feet with 4:1 or steeper surfacing inslopes. This section of roadway passes through timbered mountainous terrain on a 4-6% upgrade (from South to North). The roadway fill slopes are steep with the majority of the fill slopes steeper than 3:1 slope. The ditches are shallow v-ditches with the majority of the backslopes steeper than 3:1, typical of mountainous terrain design used in early road construction.

Traffic Characteristics

2004 ADT	=	680
2024 ADT	=	1030
DHV	=	210
T	=	4.3 %
80 kN ESAL's	=	17 Daily
Growth Rate	=	2.1 % Annually

Accident Data

Between January 1, 1992 and December 31, 2001 there have been 8 accidents within the project limits. All 8 accidents are considered correctable accidents. Of these eight accidents there was one fatal accident with one fatality, three injury accidents with six injuries, and four property damage accidents.

All eight accidents involved vehicles leaving the roadway. Seven accidents were single vehicle accidents. Two of these accidents involved vehicles leaving the roadway and hitting trees. Three vehicles left the roadway and overturned, and two vehicles were able to remain upright after traveling down the embankment. The last accident involved two vehicles with one vehicle crossing the centerline during a snowstorm and impacting a second vehicle. The second vehicle left the roadway and stopped at the bottom of the embankment. Four of the accidents occurred when there was snow or ice on the roadway.

This project addresses off road accidents where overturning occurred and/or where fixed objects were struck. It is believed that providing guardrail on this narrow

segment of roadway will reduce the number of vehicles leaving the roadway and reduce the severity of the accidents.

The Safety Management Section calculated the benefit cost ratio for this project in 2002 at 2.82, based on a construction cost of \$130,665.

Major Design Features

Design Speed

This project is located in mountainous terrain. The posted speed limit is 70 miles per hour, but due to the narrow roadway, sharp horizontal curves, and steep grades, this speed is rarely achieved. According to MDT design standards, the design speed is 45 miles per hour.

Horizontal Alignment

The horizontal alignment will remain unchanged. It consists of numerous sharp horizontal curves with poor horizontal sight distance. No design analysis was performed on the existing horizontal curves as this section of roadway was not surveyed and has no as-built plans.

Vertical Alignment

The vertical alignment will remain unchanged and consists of long vertical curves with tangent grades with approximate gradients of 4-6%. No design analysis was performed on the existing vertical curves as this section of roadway was not surveyed and has no as-built plans.

Typical Section

The existing top finished surface width is approximately 22 feet with 4:1 or steeper surfacing inslopes. The face of the w-beam rail will be placed at the edge of the finished surface, 11 feet from centerline.

Surface Design

The roadway was surfaced with cold millings in 1995 and will remain unchanged. Shoulder gravel will be used to provide widening at the guardrail terminal sections with the shoulder gravel catching on the existing surfacing inslope.

Grading

The drainage will be slightly impacted in the ditches adjacent to the guardrail terminal sections and minor grading using motor patrol hours may be required to assure proper drainage. Disturbed soil areas will be seeded and fertilized and if appropriate erosion control best management practices will be used. This impact will be minimal and will be determined during construction.

Slope Design

Existing fill and cut slopes will not be altered. Minor guardrail widening (as shown in the attached detail) for about 60 feet will be required at all ten optional terminal sections.

Geotechnical Considerations

There are no Geotechnical considerations due to the limited scope of this project.

Hydraulics

There are minimal hydraulic considerations due to the limited scope of this project. The only impacts will be at the optional terminal sections and this impact is described in the Grading Section above.

Bridges

There are no bridges within the project limits.

Safety Enhancements

In April 2003 a new w-beam guardrail design was approved by the FHWA. This design consists of standard w-beam rail with 7 foot steel posts placed at 3 foot 1 ½ inch spacing with standard blockouts. Guardrail widening is only required for the 50 foot optional terminal sections. Unlike most conventional w-beam designs, this design does not require guardrail widening behind the line posts. (Please see the attached details for additional information.)

This design will be used on all five guardrail runs on this project. A special provision will be incorporated allowing only steel posts, as wood posts would create too much soil displacement during driving operations on the steep surfacing inslopes.

Guardrail will be installed from Reference Post (RP) 18.816 to RP 19.285 (2475 feet) on the left side of the roadway due to critical fill slopes. The next run of rail will start at RP 19.294, just ahead of the existing approach road, and run to RP 19.668 (1975 feet) on the left side of the roadway due to critical fill slopes. From RP 19.444 to RP 19.517 (387.5 feet) rail will be run on the right side of the roadway to protect the public from steep slopes and a culvert. From RP 19.706 to RP 19.940 (1237.5 feet) guardrail will be provided on the left side of the roadway to protect steep fill slopes. Finally, from RP 19.806 to RP 19.943 (725 feet) on the right side of the roadway guardrail will be placed to protect a steep fill slope. A total of 6,800 feet of w-beam guardrail (including optional terminal sections) will be placed.

Traffic

There will be no involvement from the Traffic and Safety Bureau as all of the existing delineation, signs, and pavement markings will be unaffected and used as is. New reflectors on the guardrail posts are included in the guardrail installation. (Please see the attached details.)

Design Exceptions

A design exception is being requested to place the face of the w-beam guardrail at the edge of the existing surfacing, 11 feet from the roadway centerline. Widening of the surfacing or subgrade is not an economically viable option in this mountainous terrain and is outside the scope of this safety project.

Right-of-Way

The majority of the work will be completed on the surfacing inslopes and all of the work will be completed within the existing right-of-way, so no new right-of-way will be required.

Utilities

Power and telephone lines parallel the roadway at various points along the project. No conflicting power and or buried telephone lines were identified.

Railroad

There is no railroad involvement.

Field Survey Requirements

The MSU Design Unit has completed the field survey. No additional survey or soils testing is anticipated.

Environmental Considerations

Environmental impacts will be minimal as the steel guardrail posts will be driven in the existing surfacing inslopes and the only areas to receive gravel widening will be the 50 foot optional terminal sections on each end of the guardrail runs.

An Individual Categorical Exclusion is anticipated for this project. Once this document is obtained, the Scope of Work Report can be forwarded to the Chief Engineer for approval. (NOTE: The Scope of Work approval cannot be considered final until this Individual Categorical Exclusion is approved.)

Traffic Control

Traffic will be maintained at all times during construction. The contractor will be able to place the guardrail and shoulder gravel by closing the adjacent traffic lane and using signing and flaggers on each end of the work zone. All signing and flagging operations will be in accordance with the Manual on Uniform Traffic Control Devices.

Public Involvement

The project will have Level A public involvement. Level A public involvement includes a news release explaining the project and includes a Departmental point of contact.

Cost Estimate

The current cost estimate for this project is \$246,000. Preliminary engineering and indirect costs associated with the project are not included. The cost breakdown is as follows:

New Guardrail and Associated Items	\$171,000
Mobilization	\$ 14,000
<hr/>	
<i>Subtotal</i>	<i>\$185,000</i>
<hr/>	
Traffic Control	\$ 15,000
+ 10% Contingencies	\$ 18,000
+ 15% Construction Engineering	\$ 28,000
<hr/>	
Total	\$246,000

Project Ready Date

Due to the limited scope of this project, a summer 2005 ready date could be met if no difficulties are encountered in the environmental review process. The current Red Book is showing an August 2005 letting date.