



Montana Department of Transportation

2701 Prospect Avenue  
PO Box 201001  
Helena MT 59620-1001

Jim Lynch, Director  
Brian Schweitzer, Governor

August 2, 2006

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LEGISLATIVE ENVIRONMENTAL  
POLICY OFFICE

MONTANA DIVISION

Janice W. Brown  
Division Administrator  
Federal Highway Administration  
585 Shepard Way  
Helena, MT 59601-9785

Subject: BH-IM 0002(721)  
D2 Scour Protection  
CN 5466000

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 the Preliminary Field Review Report, and location map (5/12/04) 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"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. This proposed project involves (an) unusual circumstance(s) as described under <u>23 CFR 771.117(b)</u> .	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. The context or degree of the Right-of-Way action would have (a) substantial social, economic, or environmental effect(s).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. There is a high rate of residential growth in this proposed project's area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. There is a high rate of commercial growth in this proposed project's area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Work would be on and/or within approximately 1.6 kilometers (1± mile) of an Indian Reservation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
5. There are parks, recreational, or other properties acquired/improved under <i>Section 6(f)</i> of the <i>1965 National Land &amp; Water Conservation Fund Act (16 USC 460L, et seq.)</i> on or adjacent to proposed the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of such <i>Section 6(f)</i> sites would be documented and compensated with the appropriate agencies. (e.g.: MDFWP, local entities, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 <i>Section 106</i> of the <i>National Historic Preservation Act (16 USC 470, et seq.)</i> by the State Historic Preservation Office (SHPO), which would be affected by this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. There are parks, recreation sites, school grounds, wildlife refuges, historic sites, historic bridges, or irrigation that might be considered under <i>Section 4(f)</i> of the <i>1966 US DEPARTMENT OF TRANSPORTATION Act (49 USC 303)</i> on or adjacent to the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. "Nationwide" Programmatic <i>Section 4(f)</i> Evaluation forms for these sites are attached.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. This proposed project requires a full (i.e.: DRAFT & FINAL) <i>Section 4(f)</i> Evaluation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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").	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. Conditions set forth in <i>Section 10</i> of the <i>Rivers and Harbors Act (33 USC 403)</i> and/or <i>Section 404</i> under <u>33 CFR Parts 320-330</u> of the <i>Clean Water Act (33 USC 1251-1376)</i> would be met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 US Army Corps of Engineers and other Resource Agencies (Federal, State and Tribal) as required for permitting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A 124SPA Stream Protection permit would be obtained from the MDFWP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. There is a delineated floodplain in the proposed project area under FEMA's Floodplain Management criteria.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The water surface at the 100-year flood limit elevation would exceed floodplain management criteria due to an encroachment by the proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Tribal Water Permit would be required.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Work would be required 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 as published by the US Department of Agriculture, or the US Department of the Interior.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

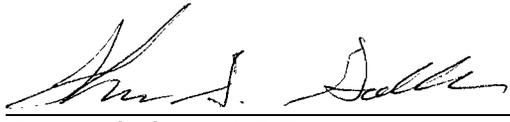
	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
The designated National Wild & Scenic River systems in Montana are:				
a. Middle Fork of the Flathead River (headwaters to South Fork confluence).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. North Fork of the Flathead River (Canadian Border to Middle Fork confluence).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In accordance with <i>Section 7 of the Wild and Scenic Rivers Act (16 USC 1271 – 1287)</i> , this work would be coordinated and documented with either the Flathead National Forest (Flathead River), or US Bureau of Land Management (Missouri River).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. This is a "Type I" action as defined under <u>23 CFR 772.5(h)</u> , which typically consists of highway construction on a new location or the physical alteration of an existing route which substantially changes its horizontal or vertical alignments or increases the number of through-traffic lanes.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. If yes, are there potential noise impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. A Noise Analysis would be completed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. There would be compliance with the provisions of both <u>23 CFR 772</u> for FHWA's Noise Impact analyses and MDT's Noise Policy.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. There would be substantial changes in access control involved with this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, would they result in extensive economic and/or social impacts on the affected locations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Adverse effects to through-traffic dependant businesses would be avoided or minimized.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Interference to local events( e.g.: festivals) would be minimized to all possible extent.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Substantial controversy associated with this pending action would be avoided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Hazardous wastes /substances, as defined by the US Environmental Protection Agency (EPA) and/or the Montana Department of Environmental Quality (MDEQ), and/or (a) listed "Superfund" (under <i>CERCLA</i> or <i>CECRA</i> ) site(s) are currently on and/or adjacent to this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

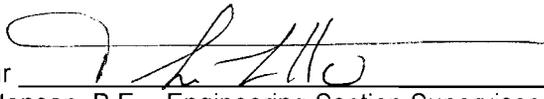
	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
All reasonable measures would be taken to avoid and/or minimize substantial impacts from same.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. The Montana Pollutant Discharge Elimination System's conditions ( <u>ARM 16.20.1314</u> ), including temporary erosion control features for construction would be met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Permanent desirable vegetation with an approved seeding mixture would be established on exposed areas.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Documentation of an "invasive species" review to comply with both EO #13112 and the <i>County Noxious Weed Control Act</i> (7-22-21, MCA), including directions as specified by the county(ies) wherein its intended work would be done.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. There are "Prime" or "Prime if Irrigated" Farmlands designated by the Natural Resources Conservation Service on or adjacent to the proposed project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the proposed work would affect Important Farmlands, then an AD-1006 Farmland Conversion Impact Rating form would be completed in accordance with the <i>Farmland Protection Policy Act</i> ( <b>7 USC 4201</b> , <i>et seq.</i> ).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
K. Features for the <i>Americans with Disabilities Act</i> (PL 101-336) compliance would be included.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
L. A written Public Involvement Plan, would be completed in accordance with MDT's Public Involvement Handbook.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. This proposed project complies with the <i>Clean Air Act's Section 176(c)</i> ( <b>42 USC 7521(a)</b> ), as amended) under the provisions of <u>40 CFR 81.327</u> as it's either in a Montana air quality:				
A. "Unclassifiable"/attainment area. This proposed project is <u>not</u> covered under the EPA's September 15, 1997 Final Rule on air quality conformity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Is this proposed project in a "Class I Air Shed" (Indian Reservations) under <u>40 CFR 52.1382(c)(3)</u> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Federally listed Threatened or Endangered (T/E) Species:				
A. There are recorded occurrences, and/or critical habitat in this proposed project's vicinity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Would this proposed project result in a "jeopardy" opinion (under <u>50 CFR 402</u> ) from the Fish & Wildlife Service on any Federally listed T/E Species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 (EO #12898). It also complies with the provisions of *Title VI* of the *Civil Rights Act* of 1964 (**42 USC 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.

 \_\_\_\_\_, Date: 8/2/06  
Thomas G. Gocksch P.E.  
Project Development Engineer  
MDT Environmental Services Bureau

Concur  \_\_\_\_\_, Date: 8/5/06  
Tom Hansen, P.E. - Engineering Section Supervisor  
Environmental Services Bureau

Concur  \_\_\_\_\_, Date: 8/16/06  
Federal Highway Administration

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Attachments

- cc: Jeffrey M. Ebert, P.E. - District Administrator-Butte
- Paul R. Ferry, P.E. - Highway Engineer
- Kent M. Barnes, P.E. - Bridge 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
- Jean A. Riley, P.E., Chief - Environmental Services Bureau
- Tom Gocksch P.E. - Environmental Services Bureau
- Deb Wambach - Environmental Services Bureau
- ✓Environmental Quality Council

Gallatin County Planning Dept.  
311 West Main, Room 208  
Bozeman, MT 59715

Madison County  
P.O. Box 278  
Virginia City, MT 59755

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Montana Department of Transportation  
Helena, Montana 59620-1001

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MDT  
MONTANA DIVISION

Memorandum

To: Kent M. Barnes, P.E.  
Bridge Engineer

Thru: Robert W. Modrow, P.E.  
Bridge Design Engineer

From: Bryan L. Miller, P.E.  
Bridge Area Engineer – Butte District

Date: May 12, 2004

Subject: BH-IM 0002(721)  
D2-Scour Protection  
Control No. 5466  
Work Type: 232 Minor Bridge Rehabilitation

We request that you approve the attached Preliminary Field Review Report.

Approved Kent Barnes 5/12/04  
Bridge Engineer Date

Delivered to Engineering Information Services Section                        
Date Initial

We are requesting comments from the individuals on the following distribution list. We will assume concurrence if no comments are received within two weeks from the approved date.

Distribution:

J. M. Ebert-Butte	J. A. Walther-Preconst	Jean Riley-Environmental
P. Ferry-Highway	Road Design	Mark Goodman-Hydraulics
Mark Wissinger-Const	Materials Bureau	S. Straehl-Planning
D. W. Jensen-Fiscal Pgm	John Horton-R/W	D. J. Blacker-Maint
B. F. Juvan-EISS	D. Williams-Traffic & Safety	P. A. Jomini-Safety
Bryce Larsen-Photo/Surv	R. Jackson-Geotech	Walt Scott-Utilities
M. J. Murphy-Bridge	Bridge File	Darrin Grenfill – FHWA

**Introduction**

An on site review was held on April 28, 2004. The following people were present.

Bryan Miller, MDT-Bridge	Joe Olsen, MDT-Butte District
Russell Brewer, MDT-Hydraulics	Deborah Wambach, MDT-Environmental
Rick Johnson, MDT-Construction	

Betty Sykes Mayor of Twin Bridges and Sam Novich Maintenance Supervisor for Twin Bridges met the review team at the Beaverhead River site.

## Preliminary Field Review Report

### Project Modification

Another scour mitigation site has been identified and added to the original programmed project. The site is located 3.2km west of Three Forks at structure P00013093+06931 that crosses the Jefferson River in Gallatin County.

### Proposed Scope of Work

The project was nominated for scour mitigation. The proposed scope of work is limited to scour mitigation around bridge abutments and piers. The bridges on S205 and P13 have non-standard rail with blunt ends that will not be addressed as part of this project.

### Project Location and Limits

The project is located in the Butte District in Gallatin and Madison County at 7 different sites. The construction limits will be limited along and within the channels for scour mitigation. Actual length and construction limits will be determined after survey.

Structure	Feature Crossed	Approximate Location	County	Legal Description
S00205013+00791	Baker Creek	3.2 km SE of Manhattan	Gallatin	T2N, R1E, Section 13
S00205014+05181	Gallatin River	6.4 km SE of Manhattan	Gallatin	T1N, R4E, Section 19
I00090292+04251	Gallatin River	6.4 km SE of Manhattan	Gallatin	T1N, R4E, Section 19
I00090292+04252	Gallatin River	6.4 km SE of Manhattan	Gallatin	T1N, R4E, Section 19
P00050032+07581	West Gallatin River	27.4 km SE of Big Sky	Gallatin	T9S, R4E, Section 12
P00049027+05411	Beaverhead River	Twin Bridges	Madison	T3S, R6W, Section 27
P00013093+06931	Jefferson River	3.2km West of Three Forks	Gallatin	T1N, R3E, Section 27

*Split out*

### Physical Characteristics

Structure	Year Built	DWG #	Rdwy. Width m	Abutment Foundation	Pier Foundation	Sufficiency Rating	Structure Status
S00205013+00791	1921	1219	8.5	Spread Footings	?	79.9	Not Deficient
S00205014+05181	1949	2572	8.5	Spread Footings	Spread Footings	88.8	Not Deficient
I00090292+04251	1965	6846	11.4	Spread Footings	Spread Footings	96.5	Not Deficient
I00090292+04252	1965	6845	11.4	Spread Footings	Spread Footings	96.5	Not Deficient
P00050032+07581	1959	11864	8.5	Spread Footings	Spread Footings	63.0	Not Deficient
P00049027+05411	1949	2750	8.5	Spread Footings	B2 is Spread/B3 is piles	52.1	Not Deficient
P00013093+06931	1949	2782	8.5	Timber Piles	Spread Footings	96.5	Not Deficient

### S205 RP 13.079 Baker Creek



## Preliminary Field Review Report

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The existing bridge is a two span bridge with cast in place concrete beams and concrete deck. The deck has a 150mm asphalt overlay. The bridge has a concrete rail that does not meet current standards and has blunt ends. Pier 2 consists of a pier wall that does not align with the current channel. The pier wall separates the channel. Span 2 has silted in forcing all the flow through span 1. Asbuilt plans show spread footings for the abutment and pier. Scour inspections have indicated the possibility of piles under the pier footing. A scour hole with a depth below the footing exists at the upstream end of Pier 2. Abutment 1 has a scour hole at the footing depth on the northwest corner. Scour mitigation includes stabilization of the footing at abutment 1 and pier 2.

### **S205 14.518 Gallatin River**

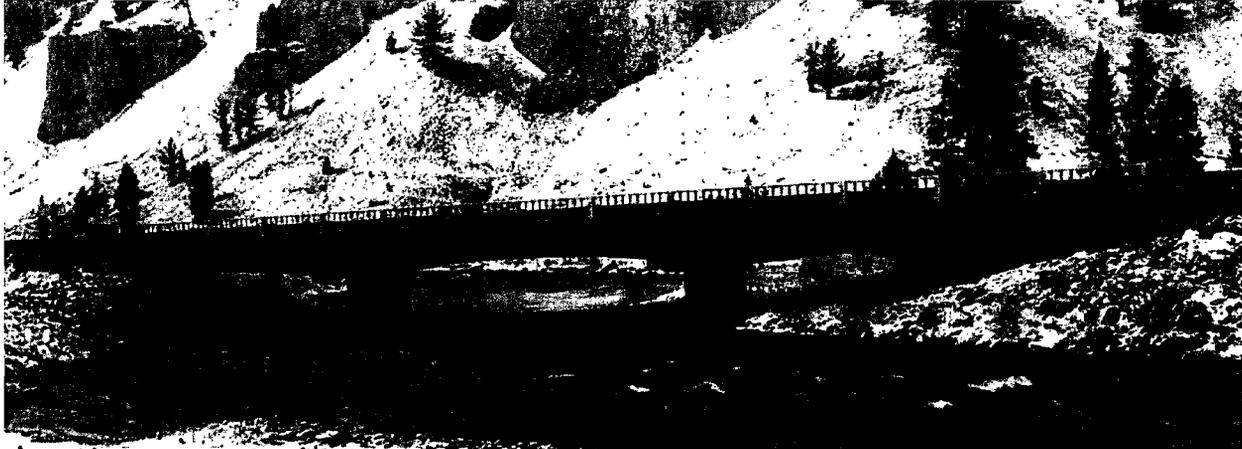
The existing bridge is a three span bridge with steel girders and concrete deck. The bridge has a concrete curb and rail that does not meet current standards and has blunt ends. The intermediate piers consist of pier walls with spread footings that do not align with the current channel. A scour hole exists around Pier 3. Scour mitigation includes stabilization of the footings at pier 2 and 3.

### **I90 292.425 Eastbound & Westbound**



The Structures are four span prestressed concrete bridges. The structures received a deck overlay, rail revision and seismic rehab in 1999. The intermediate piers consist of pier walls with spread footings. Scour mitigation includes stabilization of the footings at the intermediate piers.

**P50 32.758 West Gallatin River**



The Structure is three spans with cast in place concrete beams. The intermediate piers consist of pier walls with spread footings. Scour mitigation includes stabilization of the footings at the intermediate pier2.

**P49 27.541 Beaverhead River**



The existing bridge is a three span bridge with rolled steel girders. The intermediate piers consist of pier walls with spread footings. In 1998 project ER 0002(308) was completed adding riprap to pier 3. Scour mitigation includes stabilization of the footings at Pier 2.

**P13 93.693 Jefferson River**



The existing bridge is a three span bridge with riveted plate girders. The intermediate piers consist of pier walls with spread footings. Scour mitigation includes stabilization of the footings at Pier 3 and abutment 4.

**Traffic and Accident Data**

Traffic and accident data will not be requested for this project since the scope of work is limited to scour mitigation.

**Major Design Features**

- 1.) Functional Classification: Not applicable for scour mitigation.
- 2.) Design Speed: Not applicable for scour mitigation.
- 3.) Horizontal Alignment: Maintain existing alignment.
- 4.) Vertical Alignment: Maintain existing alignment.
- 5.) Bridge: Work is limited to scour mitigation at abutments and piers.
- 6.) Surfacing and Typical Section: Maintain the existing surfacing and typical section.
- 7.) Grading: Not applicable.
- 8.) Geotechnical Considerations: Geotechnical involvement is not anticipated.

9.) Hydraulics: Refer to the Location Hydraulic Summary Report

### **Design Exceptions**

The project intent is to address scour. Design exceptions are beyond the scope of this scour mitigation project.

### **Right-of-Way**

Right-of-Way acquisition may be required for work involving bank stabilization and channel shaping but not for pier protection work. Construction Permits may be required for access.

### **Utilities**

No utilities were observed. No utility involvement is anticipated.

### **Railroad**

A Railroad bridge exists between the I90 structures and the S205 structure across the Gallatin River. Railroad involvement is anticipated at this site.

### **Public Involvement**

An informational notice will be published.

### **Environmental Considerations**

All Structures: The conceptual design needs to be submitted to the resource agencies for review and comment. An on-site review, after conceptual plan submittal, will be coordinated with the resource agencies if needed. A CWA 404 permit and SPA 124 permit will be needed for each treatment. The Contractor awarded the project will also have to secure permits for methods, temporary structures and instream activities. Instream equipment traffic must be limited to the greatest extent practicable. Timing restrictions on instream activities may be required as a provision of the SPA 124 permit. A Categorical Exclusion will likely be prepared for this project.

Jefferson River: The old piers need to be removed from the river channel. Removal of the abutments should also be investigated. While riprap armoring may be required around the exposed footing, it is recommended that a "soft-armoring" approach be taken along the eroded bank upstream of the structure. Riprap should be minimized along the downstream side of the structure. No wetlands should be impacted at this site.

Baker Creek: Hard-armoring along the west bent and center pier is likely. The use of Reno mats or other gabion structures may be preferable to limit additional excavation of the channel. Equipment access is limited and some manual labor will likely be included. Minor channel manipulation may be required but a true channel change will not likely be permitted. A thick scrub-shrub wetland dominated by willow, dogwood, alder and sedge surrounds the structure. Some wetland impacts are anticipated but should be minimized to the greatest extent possible.

Gallatin River S-205: Cable-tied blocks and/or riprap is likely at the two instream piers. It is recommended that the abutments not be treated in association with this project, but it is understood that some minimal riprap placement without additional excavation may be placed along the east abutment. No wetlands should be impacted at this site. An unknown entity appears to be using this site as a dumping ground for ungulate carcasses. Maintenance should

be altered to this situation.

Gallatin River I-90 EB/WB: Cable-tied blocks or a mattress is likely at each of the three instream piers. This should only require minor excavation. No abutment treatments are anticipated at this site. No wetlands should be impacted at this site.

Gallatin River P-50: Large riprap is proposed to fill the hole at the instream pier two. A more sensitive alternative such as grout bags or mattresses should be investigated. No additional excavation is anticipated. No abutment work is proposed. No wetlands, but minimal riparian vegetation occurs along the shoreline. There may be equipment access issues at this location and some manual labor may be required. A water ouzel (American dipper) was nesting behind the bridge rail at the time of the field review. Active swallow nests were also observed on the structure. Disturbance of active nests is not permitted. Removal of inactive nests and installation of a nesting deterrent is permitted between the dates of August 15 and May 1.

Beaverhead River: Excavation around pier two and the placement of riprap is likely. The riprap needs to be placed below the natural channel elevation and covered with natural streambed material or allowed to fill in naturally. Treatment of the minor erosion along the parkway downstream of the structure is not recommended in association with this project. Negligible wetlands may be impacted at this site.

### **Traffic Control**

Traffic should not be disturbed by actual work. Traffic control may be needed to allow the contractor access to the right-of-way. All signing, flagging, etc. will be in accordance with MUTCD.

### **Survey**

Refer to Location Hydraulic Study Report for field survey requirements.

### **Salvage**

The Contractor will dispose of all removed material as part of this project according to all applicable rules and regulations.

### **Management**

The Bridge Bureau will manage the preconstruction phase of this project. A realistic ready date will be established once overrides are complete.

## Preliminary Field Review Report

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### Cost Estimate under BH Funds

Structure	Feature Crossed	Approximate Location	County	Scour Mitigation Est.
S00205013+00791	Baker Creek	3.2 km SE of Manhattan	Gallatin	\$47,600
S00205014+05181	Gallatin River	6.4 km SE of Manhattan	Gallatin	\$87,100
P00050032+07581	West Gallatin River	27.4 km SE of Big Sky	Gallatin	\$33,700
P00049027+05411	Beaverhead River	Twin Bridges	Madison	\$87,100
P00013093+06931	Jefferson River	3.2km West of Three Forks	Gallatin	\$150,000

Scour Mitigation	\$ 405,500
Traffic Control	\$ 60,000
Subtotal	<u>\$ 465,500</u>
Mobilization (12%)	\$ 55,900
Subtotal	<u>\$ 521,400</u>
15% Eng. And 10% Cont.	\$ 130,400
Subtotal	<u>\$ 651,800</u>
Inflation (3% per year x 3 years)	\$ 60,400
<b>Total BH Funds:</b>	<b>\$ 712,200</b>

### Cost Estimate under IM Funds

Structure	Feature Crossed	Approximate Location	County	Scour Mitigation Est.
I00090292+04251	Gallatin River	6.4 km SE of Manhattan	Gallatin	\$65,400
I00090292+04252	Gallatin River	6.4 km SE of Manhattan	Gallatin	\$65,400

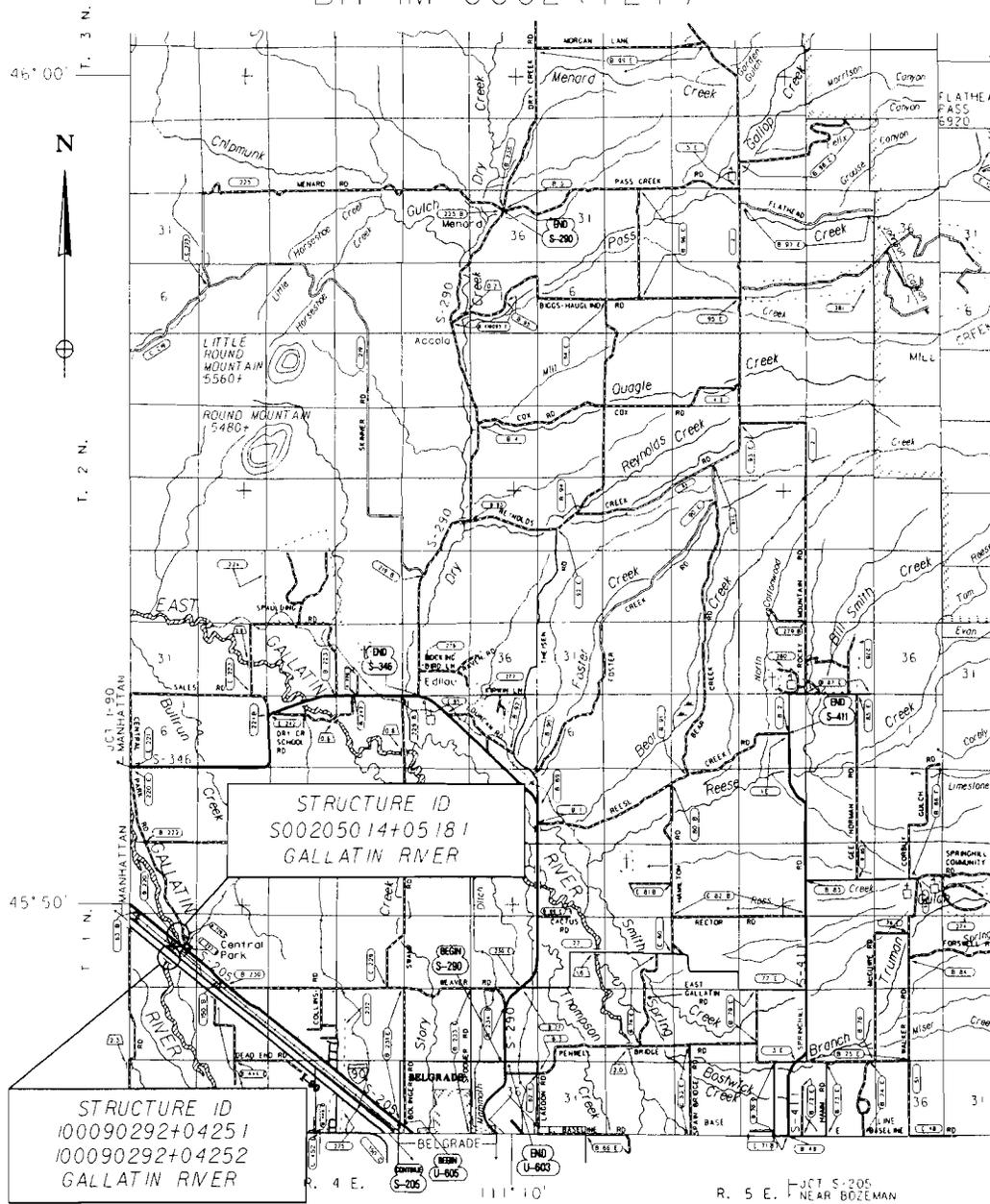
Scour Mitigation	\$ 130,800
Traffic Control	\$ 40,000
Subtotal	<u>\$ 170,800</u>
Mobilization (12%)	\$ 20,500
Subtotal	<u>\$ 191,300</u>
15% Eng. And 10% Cont.	\$ 47,800
Subtotal	<u>\$ 239,100</u>
Inflation (3% per year x 3 years)	\$ 22,200
<b>Total IM Funds:</b>	<b>\$ 261,300</b>

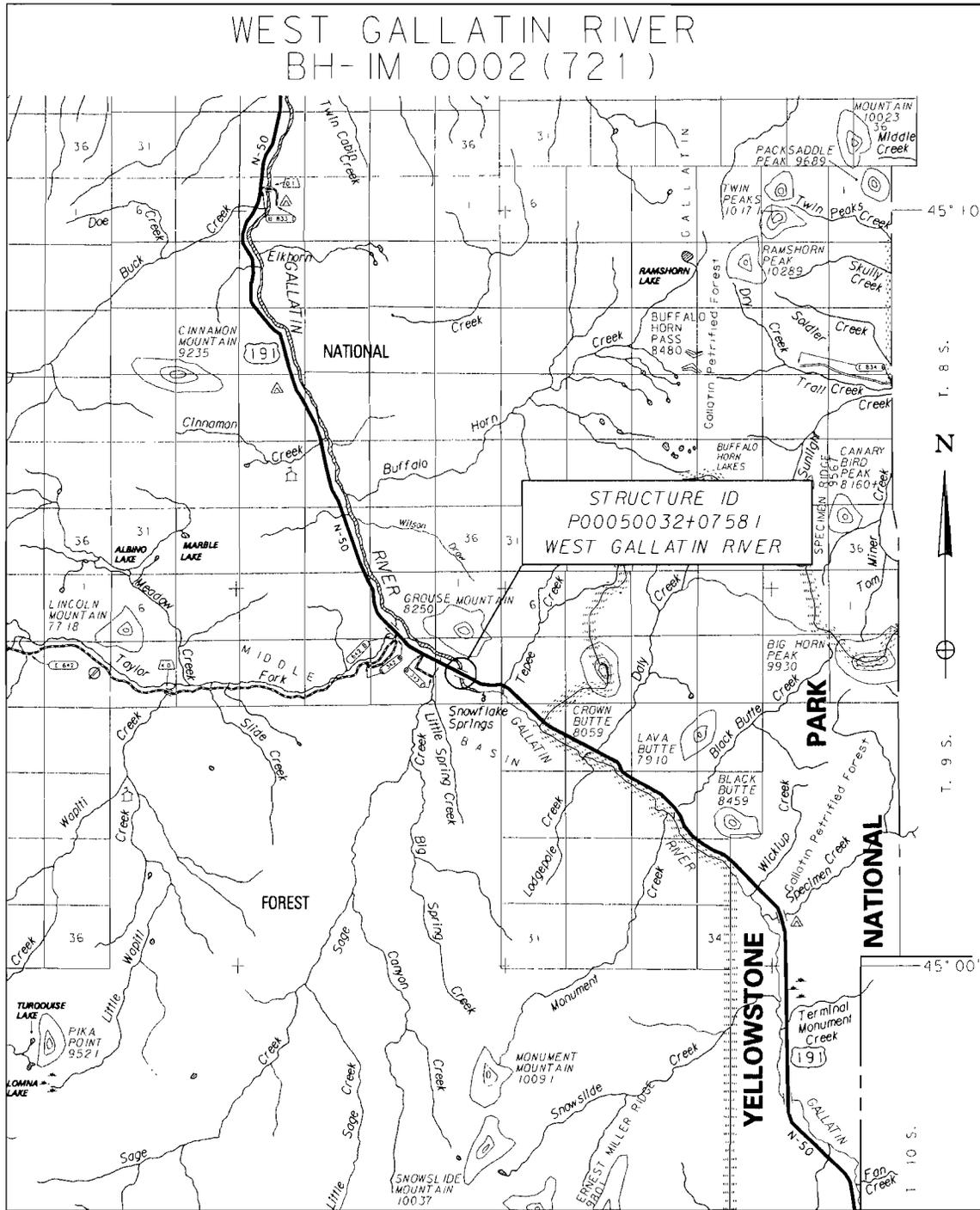
<b>Total Project Cost Estimate</b>	<b>\$ 973,500</b>
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# Preliminary Field Review Report

## GALLATIN RIVER BH-IM 0002 (721)





# BEAVERHEAD RIVER BH-IM 0002 (721)

