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

Timothy W. Reardon, Director
Brian Schweitzer, Governor

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ENVIRONMENTAL

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March 16, 2012

Kevin L. McLaury
Division Administrator
Federal Highway Administration
585 Shepard Way
Helena, MT 59601-9785

Attention: Jeff Patten

Subject: Categorical Exclusion
JCT S-437 - N & S
NH 8-4(49)96
Control Number: 5813000

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. A Copy of its Alignment and Grade Review Report (AGRR) dated July 21, 2011 is 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 shaded box will require additional documentation for a Categorical Exclusion request in accordance with 23 CFR 771.117(d).

	YES	NO	N/A	UNK
1. This proposed project would have (a) significant environmental impact(s) as-defined under 23 CFR 771.117(a).	☐	☒	☐	☐
2. This proposed project involves (an) unusual circumstance(s) as described under 23 CFR 771.117(b).	☐	☒	☐	☐
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.	☒	☐	☐	☐

	YES	NO	N/A	UNK
1. The context or degree of the Right-of-Way action would have (a) substantial social, economic, or environmental effect(s).	☐	☒	☐	☐
2. There is a high rate of residential growth in this proposed project's area.	☐	☒	☐	☐
3. There is a high rate of commercial growth in this proposed project's area.	☐	☒	☐	☐
4. Work would be on and/or within approximately 1.6 kilometers (1± mile) of an Indian Reservation.	☐	☒	☐	☐
5. There are parks, recreational, or other properties acquired/improved under *Section 6(f)* of the *1965 National Land & Water Conservation Fund Act* (16 USC 460L, *et seq.*) on or adjacent to proposed the project area.	☐	☒	☐	☐
The use of such *Section 6(f)* sites would be documented and compensated with the appropriate agencies. (*e.g.*: MDFWP, local entities, etc.).	☐	☐	☒	☐
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 USC 470, *et seq.*) by the State Historic Preservation Office (SHPO), which would be affected by this proposed project.	☐	☒	☐	☐
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 *US Department of Transportation Act* (49 USC 303) on or adjacent to the project area.	☐	☒	☐	☐
a. The proposed project would not impact the site(s), so a 4(f) evaluation is not necessary.	☐	☐	☒	☐
b. De minimis finding(s) is/are necessary for this project.	☐	☐	☒	☐
c. "Nationwide" Programmatic *Section 4(f)* Evaluation forms for these sites are attached.	☐	☐	☒	☐
d. This proposed project requires a full (*i.e.*: DRAFT & FINAL) *Section 4(f)* Evaluation.	☐	☐	☒	☐
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").	☐	☒	☐	☐

	YES	NO	N/A	UNK
1. Conditions set forth in *Section 10* of the *Rivers and Harbors Act* (33 USC 403) and/or *Section 404* under 33 CFR Parts 320-330 of the *Clean Water Act* (33 USC 1251-1376) would be met.	☐	☐	☒	☐
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	☐	☐	☒	☐
3. A 124SPA Stream Protection Authorization would be obtained from the MDFWP?	☐	☒	☐	☐
4. There is a delineated floodplain in the proposed project area under FEMA's Floodplain Management criteria.	☐	☒	☐	☐
The water surface at the 100-year flood limit elevation would exceed floodplain management criteria due to an encroachment by the proposed project.	☐	☐	☒	☐
5. Tribal Water Permit would be required.	☐	☒	☐	☐
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.	☐	☒	☐	☐
The designated National Wild & Scenic River systems in Montana are:				
a. Middle Fork of the Flathead River (headwaters to South Fork confluence).	☐	☐	☐	☐
b. North Fork of the Flathead River (Canadian Border to Middle Fork confluence).	☐	☐	☐	☐
c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir).	☐	☐	☐	☐
d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge).	☐	☐	☐	☐
In accordance with *Section 7* of the *Wild and Scenic Rivers Act* (16 USC 1271 – 1287), this work would be coordinated and documented with either the Flathead National Forest (Flathead River), or US Bureau of Land Management (Missouri River).	☐	☐	☒	☐

	YES	NO	N/A	UNK
C. This is a "Type I" action as defined under 23 CFR 772.5(h), 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.	☐	☒	☐	☐
1. If yes, are there potential noise impacts?	☐	☐	☒	☐
2. A Noise Analysis would be completed.	☐	☐	☒	☐
3. There would be compliance with the provisions of both 23 CFR 772 for FHWA's Noise Impact analyses and MDT's Noise Policy.	☐	☐	☒	☐
D. There would be substantial changes in access control involved with this proposed project.	☐	☒	☐	☐
If yes, would they result in extensive economic and/or social impacts on the affected locations?	☐	☐	☒	☐
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.	☒	☐	☐	☐
2. Adverse effects to through-traffic dependant businesses would be avoided or minimized.	☒	☐	☐	☐
3. Interference to local events(*e.g.*: festivals) would be minimized to all possible extent.	☒	☐	☐	☐
4. Substantial controversy associated with this pending action would be avoided.	☒	☐	☐	☐
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 *CERCLA* or *CECRA*) site(s) are currently on and/or adjacent to this proposed project.	☐	☒	☐	☐
All reasonable measures would be taken to avoid and/or minimize substantial impacts from same.	☐	☐	☒	☐
G. The Montana Pollutant Discharge Elimination System's conditions (ARM 16.20.1314), including temporary erosion control features for construction would be met.	☒	☐	☐	☐
H. Permanent desirable vegetation with an approved seeding mixture would be established on exposed areas.	☒	☐	☐	☐

	YES	NO	N/A	UNK
I. Documentation of an "invasive species" review to comply with both EO #13112 and the *County Noxious Weed Control Act* (7-22-21, MCA), including directions as specified by the county(ies) wherein its intended work would be done.	☒	☐	☐	☐
J. There are "Prime" or "Prime if Irrigated" Farmlands designated by the Natural Resources Conservation Service on or adjacent to the proposed project area.	☒	☐	☐	☐
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 USC 4201, *et seq.*).	☒	☐	☐	☐
K. Features for the *Americans with Disabilities Act* (PL 101-336) compliance would be included.	☐	☐	☒	☐
L. A written Public Involvement Plan, would be completed in accordance with MDT's Public Involvement Handbook.	☒	☐	☐	☐
4. This proposed project complies with the *Clean Air Act*'s *Section 176(c)* (42 USC 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.	☒	☐	☐	☐
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.).	☐	☐	☒	☐
C. Is this proposed project in a "Class I Air Shed" (Indian Reservations) under 40 CFR 52.1382(c)(3)?	☐	☒	☐	☐
5. Federally listed Threatened or Endangered (T/E) Species:				
A. There are recorded occurrences, and/or critical habitat in this proposed project's vicinity.	☒	☐	☐	☐
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?	☐	☒	☐	☐

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.

Barry Brosten, Date: 3/16/2012
Barry Brosten - Butte District Project Development Engineer
MDT Environmental Services Bureau

Concur Heidy Bruner, Date: 3/20/12
Heidy Bruner, P.E. - Engineering Section Supervisor
MDT Environmental Services Bureau

Concur Jeffrey A Paterson, Date: 3/26/12
Federal Highway Administration

MDT attempts to provide accommodation for any known disability that may interfere with a person participating in any service, program or activity of the Dept. Alternative accessible formats of this information will be provided upon request. For further information, call 406-444-7228 or TTY (800-335-7592), or call Montana Relay at 711.

Attachment: AGRR

Copy (w/o attach.):	Jeff Ebert	Butte District Administrator
	Paul Ferry	Highway Engineer
	Tom Martin	Chief, Environmental Services Bureau
	Robert Stapley	Right-of-Way Bureau Chief
	Suzy Price	Contract Plans Bureau Chief
	Nicole Pallister	Fiscal Programming Section
	Tom Erving	Fiscal Programming Section
	Barry Brosten	Environmental Services
	Environmental Services File	
	Montana Legislative Branch Environmental Quality Council (EQC)	

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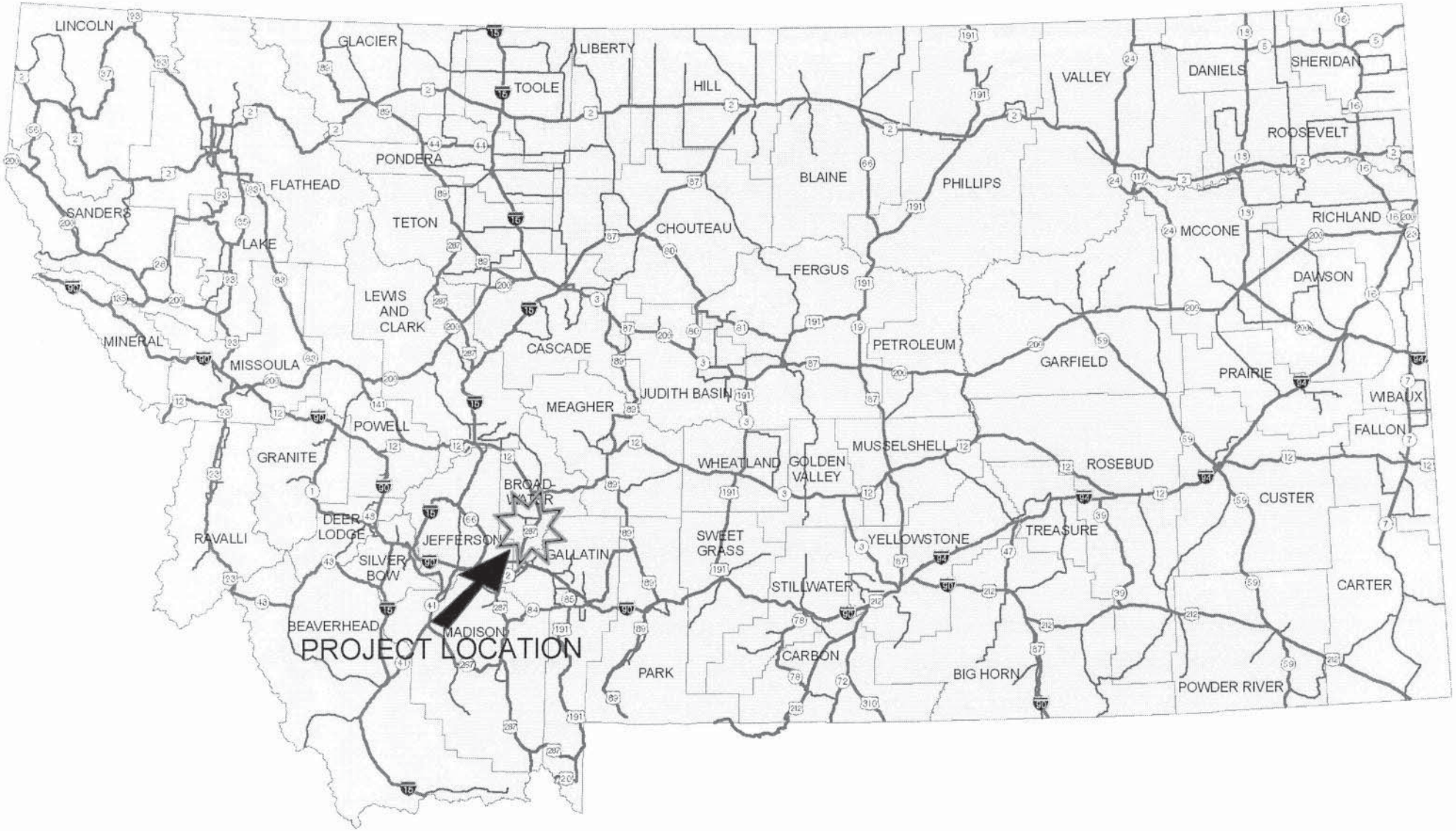
NH 8-4(50)96
JCT S-437 - N & S
MAJOR REHABILITATION-WITHOUT ADDED CAPACITY
CONTROL NUMBER: 5813
STATE LOCATION MAP



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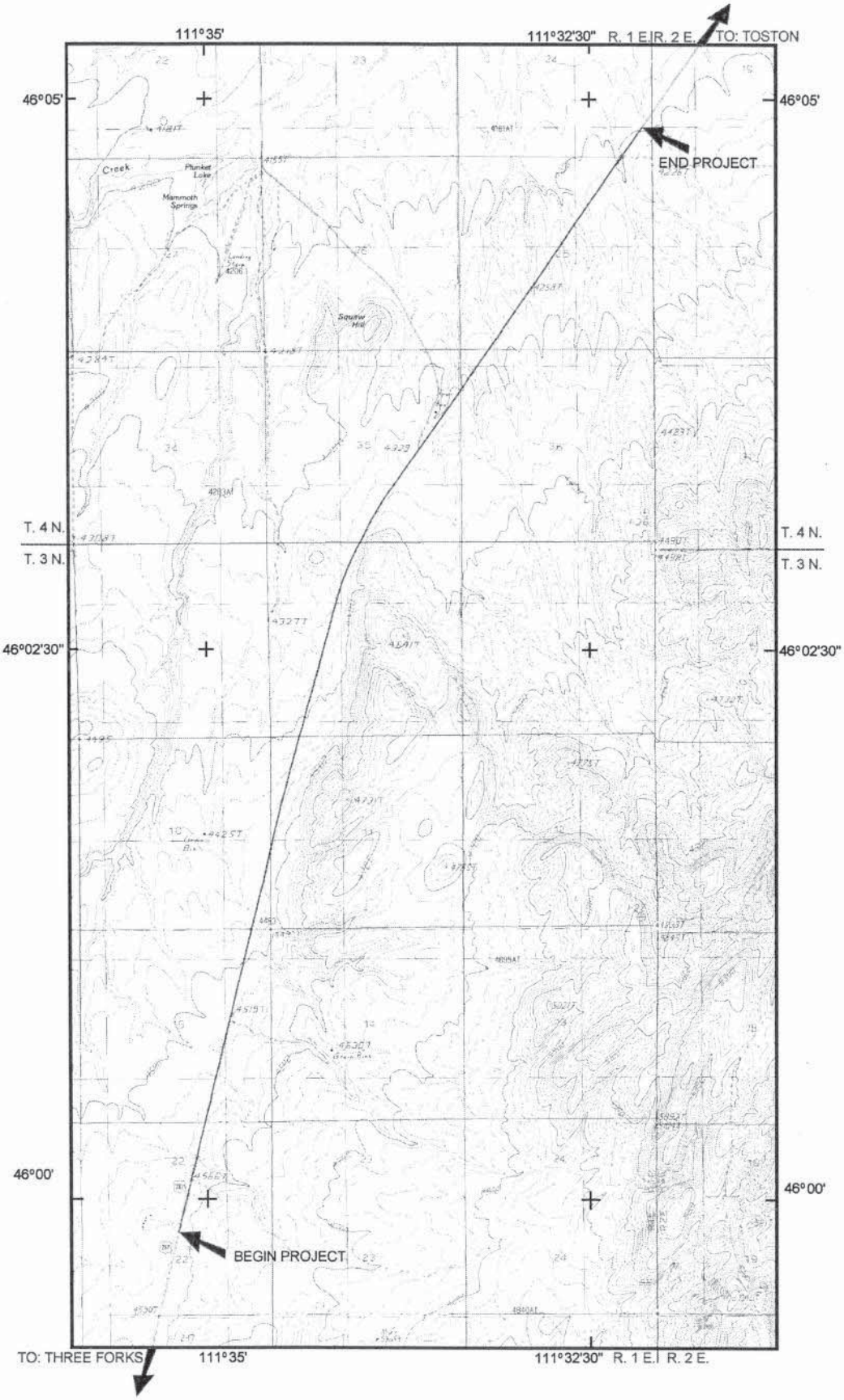

Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

Memorandum

To: Paul Ferry, P.E.
Highways Engineer

From: Joe Walsh
Acting District Engineering Services Engineer

Date: July 21, 2011

Subject: NH 8-4(49)96
Jct. S – 437 N & S
CN: 5813000
Work Type 151 - Reconstruction

Please Approve the Alignment and Grade Review for this project.

Approved Lesly Tribelhorn for Date **7/21/2011**
Paul Ferry, P.E.
Highways Engineer

We are requesting comments from the below distribution. If no comments are received within two weeks of the release date we will assume concurrence.

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

cc:
Dawn Stratton, Fiscal Programming Section
Joe Walsh, Project Design Manager, Butte District
Master file
Damian Krings, Road Design Engineer

e-copies:
Jim Walther, Engineering, Preconstruction Engineer
Lesly Tribelhorn, Highways Design Engineer
Mark Goodman, Hydraulics Engineer
Walt Ludlow, District Hydraulics Engineer
Bonnie Gundrum, Env. Resources Section Supervisor
Deb Wambach, District Biologist
Barry Brosten, District Project Development Engineer
Danielle Bolan, Traffic Engineer
Leroy Wosoba, District Traffic Project Engineer
Kraig McLeod, Safety Engineer
Bryan Miller Bridge Area Engineer, Butte District
Matt Strizich, Materials Engineer
Daniel Hill, Pavement Analysis Engineer
Patrick McCann , District Geotechnical Manager
Bryce Larsen, Supervisor, Photogrammetry & Survey
Marty Beatty, Engineering Information Services
Paul Grant, Public Involvement Officer
Jean Riley, Planner
Scott Bunton, Engineering Cost Analyst
Marisa Mailand, Road Log Manager
Jake Goettle, Construction Bureau – VA Engineer
Butte District Preconstruction
Dustin Rouse, Interim District Projects Engineer
Casey Ballard, Butte District Materials Lab
Kam Wrigg, Butte District Maintenance Chief
Steven Giard, R/W Utilities Section
David Hoerning, R/W Engineering Manager
Greg Pizzini, Acquisition Manager
Joe Zody, R/W Access Management Section Manager
Paul Johnson, Project Analysis Bureau
Sue Sillick, Research Section Supervisor
Duane Williams, Motor Carrier Services Division Administrator
Alice Flesch, ADA Coordinator
Mark Keeffe, Bicycle/Pedestrian Coordinator
Wayne Noem, Secondary Roads Engineer
Alyce Fisher, Fiscal Programming
Becky Duke, Traffic Data Collection Section Supervisor (WIM)
Dave Hand, Maintenance Division Operations Manager (RWIS)
Bill Rabey, Environmental

Introduction

A preliminary field review was held April 22, 2011 for this project. The following attended:

Jim Davies, P.E., Project Design Manager-Helena
Brett Williams, MDT - Butte Road Design
Kevin Mueller, MDT - Butte Road Design
Joe Walsh, MDT - Acting Butte District Engineering Services Supervisor
Ray Stocks, MDT – Bozeman Maintenance
Geno Liva, MDT – Butte Construction
Dustin Rouse, MDT – Acting Butte District Projects Engineer
Randy Perkins, MDT- Butte Road Design
Marc Wortring, MDT – Helena Hydraulics
Deb Wambach, MDT – Helena Environmental
Greg Zeihen, MDT – Helena Geotechnical

Scope of Work

The scope of work for this project involves reconstruction of the existing roadway to meet current standards for 70 MPH. This roadway is a section of National Highway Route 8/US 287. The project begins at RP 96.1± and terminates at RP 102.2±. Seal and cover, pavement markings, signing, and rumble strips will be installed on the new riding surface as part of this project. The District Road Design will be designing this project.

Project Location and Limits

- Location: Broadwater County, on National Highway Route 8/US 287, in the following townships, ranges and sections:
  T 4 N, R 1 E, sections 24, 25, 35, 36
  T 3 N, R 1 E, sections 2, 10, 11, 15, 22.
- Begin: RP 96.1±, as-built station 627+52.00, F 8-4(10)
- End: RP 102.2±, as-built station 381+54.00, F 8-4(11)
- Length: 6.1± miles

Note: As-built stationing increases from south to north, while mileposts increase from north to south.

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 (TMP) consisting mainly of a Traffic Control Plan (TCP). A limited Transportation Operations (TO) component and a limited Public Information (PI) component to address wide load detours will also be included in the plan package. These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

Physical Characteristics

National Highway Route 8/US 287, is a principal arterial in level to rolling terrain. The project location is within a rural area with agricultural land adjoining both sides. The existing two-lane roadway top width is 30.0 ft. This project will tie into the US 287 Passing Lanes (CN:B377 & CN:C377) project on the north and south limits of the project. Numerous approaches (mainly private and farm field) are present on the roadway. There are no bridges on the project.

Horizontal Alignment

There are two horizontal curves on the project. The two existing horizontal alignment radii will need to be adjusted to meet the 70 MPH design speed criteria. The new horizontal alignment will closely follow the existing alignment in the tangents and moderately flatten the existing curves. The Geometric unit will review the current intersection with S-437 to provide a perpendicular intersection to the mainline of the project. A left turn lane will also be added at this location.

Vertical Alignment

The maximum grade on the project is -3.00%. There are 30 vertical curves are within the project limits, 24 of which do not meet the "desirable" 70 MPH SSD design criteria, 14 do not meet "absolute" 70 MPH SSD design criteria. Many of these curves are back to back with no or little tangent grades between. Lengthening and flattening the tangent grades between PI's along with reducing the number of vertical curves will improve the SSD on the project.

At the Alignment & Grade meeting, a discussion about the volume of borrow in the plans concluded that the vertical alignment would need modification to reduce the amount of borrow on the project. Lowering the grade from Sta. 20+00 to Sta. 150+00 by one to two feet was recommended. Construction also recommended reducing the earthwork volumes in this area. This will include the modification of grades and slope. Shrink values from adjacent projects will be considered to provide a more accurate volume of borrow for this project. The approach grades and mainline construction limits at the daily use approaches on the project will be reviewed after the mainline earthwork is revised.

Surfacing and Typical Section

The existing 30 ft. roadway top width will be reconstructed to a 40 ft. minimum top width to conform to current NHS Primary Arterial design standards. This was reviewed by the roadway width committee. The proposed roadway width will allow for two – 12 ft. travel lanes and two – 8 ft. shoulders.

The preliminary surfacing section is:

0.40' Plant Mix Surfacing Grade S
1.15' Crushed Aggregate Course
1.55'

Design R-Value = 18

N-8 is a designated bike route on the MDT Bike Route map. The Traffic Safety Engineering Section recommends providing shoulders for bicyclists and add shoulder rumble strips per MDT policy. Rumble strips will be evaluated for use on this project per rumble strip policy revision of 6/14/2011.

Grading

The Geotechnical Section has contracted a private firm for this project and drilling is underway at the time of this report. The soil on the project will be tested for corrosive properties.

Hydraulics

Numerous drainage pipes of varying sizes and materials exist on the project, the largest being a 72" RCP. These pipes will all be replaced. The Hydraulics Section will provide

recommendations for the replacement of these pipes. No are existing reoccurring flood concerns were identified at the time of this report. Existing irrigation will be perpetuated.

Bridges
There are no bridges on this project.

Traffic
Signing, pavement markings and delineation will be upgraded on this project. Geometrics will provide a new intersection detail with Secondary 437 and at transitioning lane width taper locations. Rumble strips will be evaluated for use on this project per rumble strip policy revision of 6/14/2011.

Intelligent Transportation Systems (ITS) Features
No ITS solutions will be implemented on this project.

Miscellaneous
Two large log approach archways exist at approximately stations 25+00 and 69+00 on the easterly (left) side of the project. Construction limits will be reviewed and addressed accordingly to avoid these structures.
Careful attention will be paid to the catch point drainage of the fills on the easterly (left) side slopes to ensure positive roadside ditch drainage.

Design Exceptions
This project is a reconstruction project and will be designed to meet current MDT standards; therefore design exceptions are not anticipated at this time.

Right-of-Way
The Right of Way Bureau will provide right-of-way ownership along the project. New right-of-way acquisition will be needed to accommodate the wider surface, flatter slopes, safety ditches and utilities.

Easements and construction permits will also be required. New wildlife friendly fencing will be pursued according to the new fencing policy. The Right of Way Bureau will need to investigate any existing irrigation ditches to determine if they should be perpetuated or removed. This project is a limited access facility.

Utilities/Railroads
No railroad participation is required.

Several telephone and fiber optic lines will have to be relocated. There may be some overhead power that needs to be relocated.

Environmental Considerations
A programmatic categorical exclusion environmental document will be prepared for this project. 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. No water quality permits are anticipated at this time. It appeared during the field review that there are no wetlands located within the

project limits. Environmental Services staff will review the project site to identify any areas of concern.

Experimental Features

There are no experimental features anticipated on this project.

Traffic Control

The proposed alignment is shifted to the east from the existing alignment; however, in most places, the proposed project makes use of the existing roadway embankment to some degree. There are no practical detour routes in the area. As a result, stage construction is anticipated for this project.

Traffic flow will be maintained throughout the construction process. Speeds will be reduced to provide a safer work zone for workers and traffic.

Public Involvement

This will be modified Level C public involvement and may include the following:

- Letter of Intent and News Release – **Done April 2006**
- Personal contacts with adjacent landowners at the time of right of way entry and preliminary right of way report.
- Personal contacts with local officials, interest groups and other organizations.
- Public information meeting to present basic concepts/information and seek input.- **Done October 6, 2006**
- Personal contacts with adjacent landowners explaining final design.
- Construction notification and information during construction.

Cost Estimate

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	$5,414,396		
Traffic Control	$257,500		
Subtotal	$5,671,896		
Mobilization (10%)	$567,190		
Subtotal	$6,239,086		
Contingencies (10%)	$623,909		
Total CN	**$6,862,995**	**$901,707**	**$ 8,513,219**
CE (10%)	**$686,300**	**$90,170**	**$ 851,321**
TOTAL CN+CE	**$7,549,295**	**$ 991,877**	**$ 9,364,540**

The estimated cost $9,364,540 (CN+CE+INF+IDC) = $1,535,170 per mile

Note: Inflation is calculated in PPMS to the letting date. 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 calculated at 9.64% as of FY 2012.

The original PFR in 2006 designated this project as a pulverize, overlay and widen, reconstruction and the estimate was based on that scope of work. The entire project is now designated as a reconstruction project which is what this alignment and grade estimate is based.

This change in project designation contributes significantly to the difference in the 2006 PFR estimate and this Alignment and grade estimate.

Ready Date

The proposed ready date for the project is January 2013. The planned finish date is currently May 2013. The target letting date is shown in the TCP is beyond 2015. Functional managers are requested to review this report and adjust their remaining activities accordingly.