



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001

Jim Lynch, Director
Brian Schweitzer, Governor

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FHWA
MONTANA DIVISION

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

LEGISLATIVE ENVIRONMENTAL
POLICY OFFICE

MASTER FILE
COPY

Subject: Programmatic Categorical Exclusion (PCE) Concurrence Request
STPP 4-2(23) 54 STPHS 4-2(22) 55
Laurel Northeast 2002 Turn Lane – Laurel
Control Number 5186 Control Number 5304

Dear Janice W. Brown:

This submittal requests approval of the above-mentioned proposed projects as a Categorical Exclusion under the provisions of 23 CFR 771.117(d) and the Programmatic Agreement as signed by MDT and FHWA on April 12, 2001. This proposed action also qualifies as a Categorical Exclusion under ARM 18.2.261 (MCA 75-1-103 and MCA 75-1-201).

The following form provides documentation required to demonstrate that all of the conditions are satisfied to qualify for a Programmatic Categorical Exclusion. Copies of the Preliminary Field Report, Alignment and Grade Review Report, SHPO concurrence of no effect and Project Location Map are attached. In the following form, "N/A" indicates not applicable; "UNK" indicates unknown.

NOTE: A response in a large 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 23 CFR 771.117(a).	<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 23 CFR 771.117(b).	<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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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. A high rate of residential growth exists in the area of the proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A high rate of commercial growth exists in the area of the proposed project.	<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. Parks, recreational, or other properties acquired/improved under Section 6(f) of the 1965 National Land & Water Conservation Fund Act (16 USC 460L, <i>et seq.</i>) are 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 Section 6(f) sites would be documented and compensated with the appropriate agencies (MDFWP, local entities, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. 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, <i>et seq.</i>) by the State Historic Preservation Office (SHPO) would be affected by this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. 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) are on or adjacent to the project area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Nationwide Programmatic Section 4(f) Evaluation forms for those sites are attached.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. This proposed project requires a full Section 4(f) 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 water body (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 Section 10 of the Rivers and Harbors Act (33 USC 403) and/or Section 404 of the Clean Water Act (33 USC 1251-1376) codified at 33 CFR 320-330 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 (EO) #11990, and proposed mitigation would be coordinated with the Montana Inter-Agency Wetland Group.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A 124SPA Stream Protection permit would be obtained from the MFWP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. A delineated floodplain exists 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. A 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 that 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 and/or 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 checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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).				
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. There would be compliance with the provisions of both 23 CFR 772 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. Substantial changes in access control would be associated with the 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 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 CERCLA or CECRA) site(s) are currently on and/or adjacent to this proposed project.	<input checked="" type="checkbox"/>	<input 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 conditions (ARM 16.20.1314), 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 County Noxious Weed Control Act (7-22-21, MCA), including directions as specified by the county(ies) wherein its intended work would be done would be conducted.	<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. 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, <i>et seq.</i>).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. Features for the Americans with Disabilities Act (PL 101 336) compliance would be included.	<input checked="" 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 Clean Air Act's Section 176(c) (42 USC 7521(a), as amended) under the provisions of 40 CFR 81.327 as it is 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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 Air Quality Division, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Is this proposed project in a "Class I Air Shed" under 40 CFR 52.1382(c)(3)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Federally listed Threatened or Endangered (T/E) Species:				
A. Recorded occurrences, and/or critical habitat are in the vicinity of the proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Would this proposed project result in a "jeopardy" opinion (under 50 CFR 402) from the Fish and 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. No significant effects on access to adjacent property or to present traffic patterns would occur.

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). The project also complies with the provisions of Title VI of the Civil Rights Act of 1964 (42 USC 2000d) under FHWA regulations (23 CFR 200).

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



Heidi Bruner
MDT Environmental Services
Billings District Project Development Engineer

Date: March 29, 2006

Concur 

Thomas L. Hansen, PE
MDT Environmental Services
Engineering Section Supervisor

Date: 3/29/06

Concur 

Federal Highway Administration

Date: 4 APR 06

Attachments

cc: Suzy Althof MDT Contract Plans Section Supervisor
Kent Barnes, PE MDT Bridge Engineer
Bruce Barrett MDT Billings District Administrator
Paul Ferry, PE MDT Highway Engineer
John H. Horton MDT Right-of-Way Bureau Chief
Darryl L. James, AICP HKM Engineering Inc. (PO Box 1009/Helena MT 59624)
David W. Jensen MDT Fiscal Programming Section Supervisor
Tom Martin, PE MDT Consultant Design
Gabe Priebe, PE MDT Consultant Design
___ Jean Riley, PE MDT Environmental Services Bureau Chief
___ Tom Hansen, PE MDT Environmental Services Engineering Section Supervisor
FILE
Montana Legislative Branch Environmental Quality Council (EQC)

MDT attempts to provide accommodation for any known disability that may interfere with a person participating in any service, program or activity of the Department. Alternative accessible formats of this information will be provided upon request. For further information, call 406.444.7228 or TTY at 800.335.7592 or call Montana Relay at 711.

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Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

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Josef
MDT
2002 Turn Lanes
Laurel

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BY: SHPO

January 5, 2006

Stan Wilmoth, Ph.D.
State Historic Preservation Office
1410 8th Avenue
P O Box 201202
Helena, MT 59620-1202

Subject: STPS 4-2(22)55
2002 Turn Lanes - Laurel
Control No. 5304

CONCUR
MONTANA SHPO
DATE 1/20/06 SIGNED *[Signature]*

Dear Stan:

Enclosed is the Determination of Effect for the above project in Yellowstone County. We have determined that the proposed project would have **No Effect** to the National Register-eligible Laurel Leaf Camp Cottages (24YL1613), the Speare Motel (24YL1619), Northern Pacific Railway (24YL277), and the Nutting Canal Laterals (24YL163) for the reasons specified in the document. We request your concurrence.

If you have any questions, please contact me at 444-6258.

[Signature]
Jon Axline, Historian
Environmental Services

Enclosure

cc: Bruce Barrett, Billings District Administrator
Tom Martin, P.E., Consultant Design
Bonnie Steg, Resources Section

Alignment & Grade Narrative

STPHS 4-2(22)55
Laurel – 2002 Turn Lane
Control No. 5304

Prepared For:

Montana Department of Transportation
Helena, Montana 59620

Prepared By:

HKM Engineering Inc.
Billings, Montana 59101

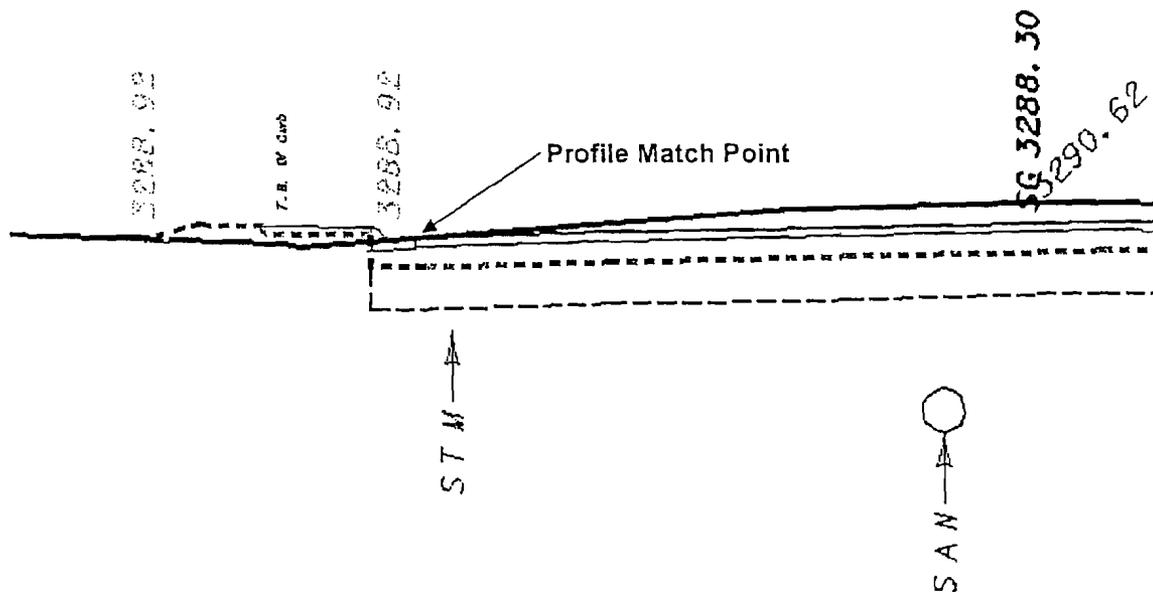
February 2006

Evaluation Guidelines

The purpose of this narrative is to provide the background for the additional submittal of the construction plans following the Alignment and Grade submittal held on January 24, 2006. At the Alignment and Grade Review meeting, it was determined that the design would be reworked to incorporate a narrower typical section (11 foot driving lanes and 12 foot two-way left-turn lane) and revised profile. The additional evaluation was precipitated by substantial impacts with the standard lane widths and storm drainage/ponding issues that were discussed at the Alignment and Grade review meeting.

Vertical Profile Evaluation

The revised profile was established by extracting the existing profile of the roadway along the lip of the new curb line and approximating a grade line to match the existing



roadway. The minimum grade of the revised profile is 0.12%.

Typical Section Widths

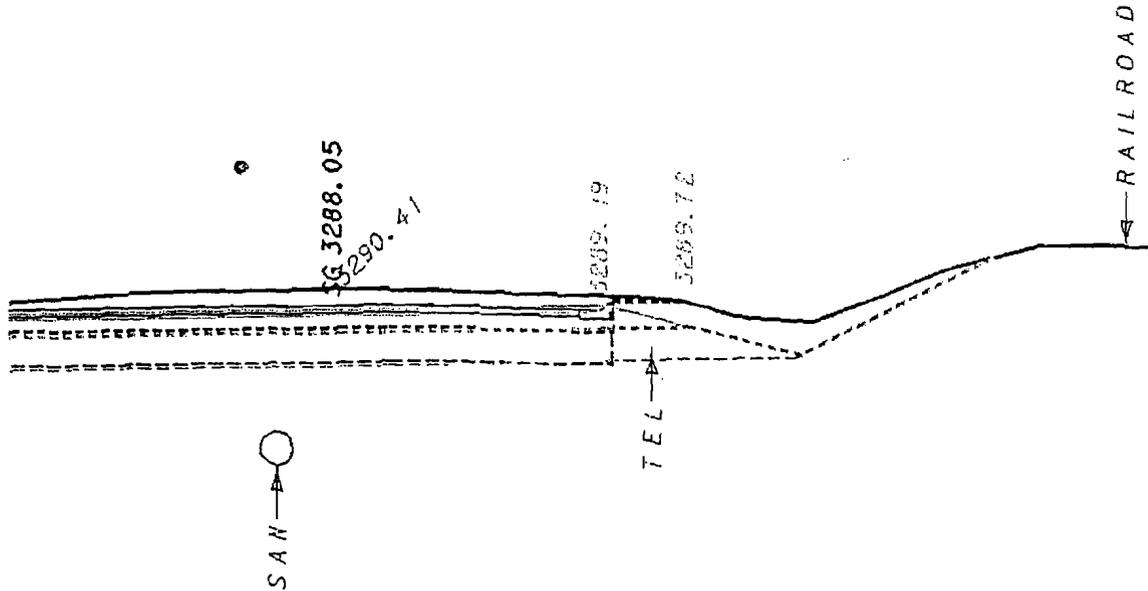
The typical section adjustments were determined by those in attendance at the Alignment and Grade review. The revised typical section consists of 11 foot travel lanes, a 12 foot two-way left-turn lane, and a 10 foot parking lane. The original typical consisted of 12 foot travel lanes, a 14 foot two-way left-turn lane, and a 12 foot parking lane, the overall reduction in width is 6 feet.

Since the Alignment and Grade Review meeting there have been additional discussions within the Department that the 11 foot travel lanes may not be acceptable with out substantial documentation supporting the reduced width.

Cross-slope

At the Alignment and Grade Review it was determined that we would evaluate superelevating the roadway at 2% (transverse cross-slope) with the highpoint at the right (railroad) side of the road to eliminate the use of curb and gutter. However, after

reviewing the cross sections it was determined that elimination of the curb and gutter was not possible as shown by the section below as the subgrade in many locations fell below the existing ditch grade.



The superelevated section is shown in orange, the traditional quarter-crown section is shown in blue.

Summary

The design changes avoid extending the City of Laurel storm drain beyond its current daylight location at Station 98+00. To maintain the current outfall ditch approximately 1250 feet of short retaining wall must be added from Station 98+00 to 115+00 (Yard Office Road) as shown in the plans and cross sections.

Montana Department of Transportation
Helena, MT 59620

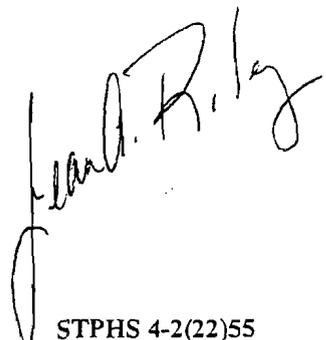
Memorandum

To: Tom Martin, P.E.
Consultant Design Engineer

From: Jean A. Riley, P.E.
Bureau Chief Environmental Services

Date: March 1, 2006

Subject: STPP 4-2(23)54
Laurel – NE
CN 5186



STPHS 4-2(22)55
2002 Turn Lane Laurel
CN 5304

The Alignment & Grade Review Report (AGR) dated February 14, 2006 for this proposed project has been reviewed. Environmental Services has the following comments concerning this Report.

COMMENTS

Seven wetlands have been delineated for this project (see table below for locations). These wetlands should be shown on the plans with a wetland ID "box" (see example) and a line pointing to the appropriate wetland.

Example:

Wetland: Name of Wetland (e.g. WL-2)
Station: (e.g. 170+20 LT)
Delineated Acres: 0.42 acres



- This project contains both jurisdictional and non-jurisdictional wetlands 1
Note somewhere in the box whether the wetland is a jurisdictional or non-jurisdictional
- Wetland Impacted Acres can be zero

Delineated wetlands in project area

Wetland	Approx. Station	Jurisdiction ¹	Total Acres	Impacted Acres ²
1	109+00 + LT	Non-jurisdictional	0.38	0.38
2	172+00 + LT	Jurisdictional	0.42	0.21
3	174+00 + LT	Non-jurisdictional	0.09	0.00
4	176+00 + LT	Non-jurisdictional	0.06	0.06
5	180+00 + LT	Jurisdictional	0.55	0.00
6	187+00 + LT	Jurisdictional	0.34	0.00
7	178+00 + RT	Non-jurisdictional	0.25	0.00

¹ final jurisdiction should be determined by the Army Corp of Engineers

² impacted areas are estimated to date, impacted areas are subject to change with alterations to project alignment.

Final impacts should be complete by Plan-In-Hand

Environmental Services recommends approval of the AGR Report for this project with comments annotated.

TLH:s:\Project\Billings\5186 5304ENAGR Comments

cc: Heidy Bruner – Billings District Environmental Area Engineer
Tim Conway, P.E. – Consultant Plans Engineer
Bill Semmens – Billings District Biologist
File



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

To: ~~Tom S. Martin, P.E. - Consultant Design Engineer~~

From: Karl M. Helvik, P.E. - Consultant Project Engineer *KMH*

Date: January 11, 2005

Subject: STPP 4-2(23)54
Laurel - Northeast
Control No. 5186
Work Type 160 - Minor Rehabilitation

STPHS 4-2(22)55
2002 Turn Lane - Laurel
Control No. 5304
Work Type 310 - Roadway & Roadside Safety Improvements

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

Approved  Date 1/13/05
 Tom S. Martin, P.E.
 Consultant Design Engineer

We are requesting comments from the following individuals, who have also received a copy of the Report. We will assume concurrence if no comments are received within ~~two~~ ^{THREE} weeks from the approved date.

TMS:kmh:5186PFR
 Attachment

Distribution (all with attachments):

- B.H. Barrett, Billings District Office
- J.A. Walther, Highways and Engineering Division
- P.R. Ferry, Highways Bureau
- Lesly Tribelhorn, Highways Bureau

Return to Bow When "Initial Column" Completed By 1-23-05

Comments?	Y	N	Initials/Date
Biological		X	P.S. 1/21/05
Cultural	X		KMH 1/18/05
Haz Mat		X	PR 1/21/04
Erosion Control		X	PR 2/2
Engineer		X	PR
Seeding		X	PR

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Tom S. Martin, P.E.

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January 11, 2005

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Steve Klotz, City of Laurel
Kevin McGovern, Yellowstone County, Billings
John Shoff, HKM Engineering, Inc., Billings

Cc:

D.W. Jensen, Fiscal Programming Section,
Consultant Design file, Consultant Design Bureau,

w/attached
w/original

Preliminary Field Review Report

Introduction

A preliminary field review and scoping meeting for the pavement preservation project "Laurel Northeast" STPP 4-2(23)54 CN 5186, and for the safety improvement project "2002 Turn Lane - Laurel" STPHS 4-2(22)55 CN 5304, was held on September 8, 2004 at the Laurel City Hall. The following personnel participated in this review:

Bruce Barrett	District Administrator	MDT, Billings
Karl Helvik	Consultant Project Engineer	MDT, Helena
Gary Neville	District Engineering Services Supervisor	MDT, Billings
Cora Helm	Hazardous Waste/Noise Specialist	MDT, Helena
Brent McCann	District Right-of-Way Supervisor	MDT, Billings
Stan Jonutis	District Traffic Engineer	MDT, Billings
Pierre Jomini	Safety Management Engineer	MDT, Helena
Roy Peterson	Assistant Traffic Safety	MDT, Helena
Larry McCann	City of Laurel	
Steve Klotz	City of Laurel	
John Shoff	HKM Engineering, Inc.	•Billings
Todd Cormier	HKM Engineering, Inc.	Billings
Dave Riegel	HKM Engineering, Inc.	Billings

It was decided prior to the preliminary field review (PFR) that both the PFR and the scoping meeting would be held concurrently. As such, this document will serve as both the PFR report and as the scoping meeting minutes, detailing the project as well as items discussed during the meeting.

Proposed Scope of Work

The proposed projects were originally nominated as two separate projects to improve portions of State Primary (P) Route 4 (a.k.a. US 212/US 310). The first project was nominated for a rehab/engineered overlay between RP 54.3 and RP 58.2. The second project was nominated to provide a two-way left turn (TWLT) lane between RP 55.3 to 57.0 for the purpose of improving safety. Since both projects have overlapping limits along P-4, the Montana Department of Transportation (MDT) opted to combine the projects into a single set of construction documents. HKM Engineering Inc. has been selected as the consultant to design both projects and to develop a bid-ready design package. MDT will administer and fund the project, as well as provide construction administration services.

The two projects are generally described as follows:

STPP 4-2(23)54 CN 5186 "Laurel Northeast" (RP 54.3 to 58.2) - This project was nominated as a Rehab/Engineered overlay project to include improvements to the pavement surface and to the roadway cross section, as well as improvements to drainage, curb/gutter, sidewalk, and curb ramps, as needed or as necessary. Part of the project scope is to correct a "hump" in the cross section of the roadway that puts the north sidewalk up to 3 feet below the centerline profile, which has resulted in poor drainage and driving conditions, especially during storm events or during the winter months. The project was nominated at the request of the City of Laurel.

STPHS 4-2(22)55 CN 5304 "2002 Turn Lane - Laurel" (RP 55.3 to 57.0) - This Safety project was nominated to reconstruct and widen the roadway from the intersection of Alder Avenue to the intersection Milwaukee Road from the current two lane section to a three lane section (with TWLTL) with improved shoulders. The purpose for the reconstruction is to address safety along this portion of the highway which currently exhibits a high number of rear-end and turning type accidents. No additional lanes are anticipated east of Milwaukee Road, although the intersection of Seitz-Ronan Road and P-4 will be reviewed for sight distance.

The Department expects both projects to be bid at the same time. Therefore, the projects will be tied together and combined into a single construction plan set and a single bid package. Construction quantity estimates will be kept separate for funding and administration.

Both projects will be designed in English units.

Project Location and Limits

This project is located in Yellowstone County on State Primary Route 4 (US 212/ old US 10). The project begins generally at the centerline of Interstate 90 at Exit 434 (RP 54.3) and proceeds north and northeast 3.9 miles to a point just west of the Interstate 90 Exit 437 Mossmain Interchange (RP 58.2). Except for the last 0.634 miles, the project is entirely within the urban boundary of the city of Laurel.

One major bridge structure is located within the project, located generally between Seitz-Ronan Road and Shannon Road (U-6903) at approximate RP 57.1. A railroad overpass bridge structure is located just south of the intersection of Main Street with 1st Avenue. This structure is owned and maintained by the railroad, and will not be impacted by this project.

Stationing and reference posts run in a northeasterly direction.

Physical Characteristics

Old US Highway 10 (State Primary 4) is state primary route that is maintained by the Department. The last major project along this route occurred in 1999 under project STPP 4-2(16)54 from RP 54.416 to RP 57.562. The road is located in both a commercialized urban

area as well as a rural agricultural environment. A portion of the road traverses Laurel's central business district (CBD). The majority of the roadway alignment parallels a Montana Rail Link railroad line and switching yard located generally between the CBD and Interstate 90 Exit 437. The overall terrain is level.

The existing paved surface within the project limits can be described as follows:

- *Segment 1* - A 3-lane section with a 15 foot TWLTL, 12-foot driving lanes, a 50-foot asphalt top, and curb and gutter on the west side of the roadway from the project beginning to West Railroad Street.
- *Segment 2* - A 2-lane section from West Railroad Street to Main Street under the MRL mainline.
- *Segment 3* - A 5-lane section with a 12-foot TWLTL, 12-foot driving lanes, and 10 foot parking lanes from 1st Avenue to Alder Avenue. The asphalt top is generally 80 feet wide. Concrete curb/gutter and sidewalk exist along the entire north side of the road, and a portion of the south side of the road.
- *Segment 4* - A 2-lane section with a 50-foot asphalt top, 12-foot driving lanes, and curb/gutter and sidewalk on the north side of the roadway. The north side also has 20 feet of asphalt from the edge (fog) line to the curb and gutter. This section of P-4 contains the "hump" as described within this report.
- *Segment 5* - A 2-lane section with a 32 foot asphalt top consisting of 12-foot driving lanes and 4-foot shoulders. This section begins at Locust Avenue and continues to the end of the project. Within this segment is a railroad overpass bridge structure (RP 57.1), located just west of the Mossmain interchange. The structure is approximately 269 feet long and 33.2 feet wide.

According to the 2003 Road Log for P-4, the surfacing along the project corridor consists of up to an 11.7 inch (300 mm) top course and between a 5 inch (125 mm) and a 10 inch (250 mm) base course. The roadway has had several overlays and reconstructions, with the last overlay occurring in 1999.

The most recently reported pavement conditions from the Department's Pavement Management System for this length of highway (from RP 54.31 to RP 58.2) are Ride 60.0, Rut 59.1, ACI 100, and MCI 100. The recommended treatment for this portion of roadway is "Major Rehabilitation".

The existing horizontal alignment has one large curve at the beginning of the project, one 90 degree turn at Main Street and 1st Avenue, and a series of reverse curves at the railroad overpass (RP 57.1). The existing vertical alignment is typically flat with minor vertical curves. A sag vertical curve with minimal sight distance occurs at a railroad underpass

located south of the intersection of Main Street with 1st Avenue.

Traffic Data

Traffic data for both projects are listed below by reference post.

STPP 4-2(23)54 Laurel Northeast CN 5186, RP 54.307 to 54.753

2002 AADT = 13,750
2003 AADT = 14,010 (present)
2007 AADT = 15,110 (letting date)
2027 AADT = 22,020 (design year)
DHV = 2,200
D = Not Available
T = 2.1%
ESAL¹ = 207 (daily)
Growth Rate = 1.9% (annual)

STPP 4-2(23)54 Laurel Northeast CN 5186, RP 54.754 to 58.198

2002 AADT = 6,200
2003 AADT = 6,350 (present)
2007 AADT = 6,980 (letting date)
2027 AADT = 11,220 (design year)
DHV = 1,120
D = Not Available
T = 3.6%
ESAL¹ = 166 (daily)
Growth Rate = 2.4% (annual)

¹ ESAL = Expected daily 18 kip (8165 kg) Equivalent Single Axle Load

Accident History

Accident data for the subject project was provided by the Department for a period between January 1, 2000 and December 31, 2002. Within this period, there were 80 recorded accidents within the project limits. MDT's Safety Management Section noted that of the 80 recorded accidents, 40 (50%) occurred as a result of a vehicle attempting to perform a turning movement from the mainline. Specific locations with a higher occurrence of accidents were noted between the intersections of Alder Avenue and Milwaukee Road with twenty-six recorded accidents (32.5%), and at the intersection of Main Street (P-4) with 1st Avenue with seventeen recorded accidents (21.3%).

Based on this data, the accident rate for this section is 3.09 accidents per million vehicle miles compared to the statewide average of 6.17 accidents per million vehicle miles for similar routes (State urban and primary). The severity index for this section is 2.38 compared to the statewide average of 1.75 for similar routes. The severity rate (the accident rate multiplied by the severity index) for this section is 7.35 compared to the statewide average of 10.80 for similar routes.

Recent safety projects along the route include a traffic signal at the intersection of P-4 and the westbound off-ramp of the Interstate 90 Exit 434 as a result of a 1997 accident cluster investigation, the 1997 installation of an overhead flasher/signs/pavement markings at the intersection of P-4 and Yard Office Road as a result of a 1993 accident cluster investigation, and the 2001 installation of chevrons at the approaches of the railroad overpass (RP 57.7) as a result of a 1997 accident cluster investigation.

The intent of this project is to target the apparent accident trend by widening the roadway to a three lane typical section with improved shoulders between Alder Avenue and Milwaukee Road. The installation of a third lane coupled with shoulder and profile improvements will provide a refuge area for vehicles making the left turn maneuver from the roadway. As a result, a reduction in number of accidents resulting from turning movements should be realized.

Major Design Features

Design Speed – The design speed for this project will be 35 mph within the city limits of Laurel and 60 mph along the remainder of the project corridor, based on the routes functional classification as a "major collector" and the generally level terrain. The posted speed limit for the project ranges from 60 mph (60 mph/55 mph for trucks) along the eastern portion of the route to 25 mph within the urbanized area of Laurel. A posted speed limit of 50 mph exists along the railroad overpass bridge structure on the eastern portion of the project to the project end at the Mossmain Interchange. An advisory speed of 40 mph is posted prior to the reverse curves of the railroad overpass for eastbound traffic.

Horizontal Alignment – The horizontal alignment is generally straight. Exceptions occur at a large radius curve ($R=1146.0$ ft; $5^{\circ} 00'$) located at the beginning of the project north of the intersection of P-4 with the westbound off-ramp of Exit 434, at the intersection of Main Street with 1st Avenue where P-4 turns roughly 90 degrees to the east, at a series of reverse curves ($R=639.3$ ft; $8^{\circ} 58'$) at Ohio Avenue, and at the railroad overpass structure where a series of reverse curves ($R=716.3$ ft; $8^{\circ} 00'$ and $R=881.5$ ft.; $6^{\circ} 30'$) and a bridge structure is used to cross the railroad alignment. Areas of significant horizontal curvature occur in the engineered overlay portion of the project and will not be altered as part of this project. No significant change is proposed to the existing horizontal alignment.

The City of Laurel has requested that the geometrics of the intersection of P-4 and

Main Street (located just north of the railroad underpass) be reviewed and improved, if possible. The City had negotiated an easement with the railroad for the use of some of the property in the SW quadrant of the intersection. Review of the intersection geometrics (EB to SB radius) will be included in the project.

Yard Office Road intersects with P-4 at an angle of 70°31'. This intersection is currently signalized with a flashing beacon. No additional improvements to this intersection are anticipated.

All available as-built drawings of the roadway will be provided by the Department, as available.

Vertical Alignment – The vertical alignment along the route is generally level, ranging from 0.07% to 2.87%. Exceptions occur at a sag vertical curve at the railroad underpass located between Main Street and West Railroad Street which uses a 7.00% grade to pass below the railroad, as well as at the P-4 railroad overpass (RP 57.1) which uses a +4.50% grade leading up to and a -4.50% grade heading away from the structure. Slight changes in the vertical alignment are anticipated in an effort to reduce the grade difference between the P-4 centerline and the curb/gutter/sidewalk along the north side of the roadway. Areas of significant grades occur in the engineered overlay portion of the project and will not be altered as part of this project. No significant changes are proposed to the vertical alignment of this project.

Typical Sections – The proposed typical sections for this project are as follows.

- Typical 1 - From the project beginning to West Railroad Street, from West Railroad Street to Main Street, and from Main Street to Adler Avenue, the typical section will not vary from existing. Improvements will be limited to discrete areas of curb/gutter, sidewalk, ADA ramps, and an engineered overlay.
- Typical 2 - From the intersection of P-4 with Alder Avenue to the intersection of P-4 with Milwaukee Road, the typical section will be widened to a 3 lane typical section including 2 driving lanes, widened shoulders, and a TWLTL. The section will improve the cross section slopes by reducing the "hump" currently located within the urbanized area of Laurel. (See *Design Exceptions / Deviations*)
- Typical 3 - From Milwaukee Road to the end of the project will be reconstructed to provide an improved shoulder width and an engineered overlay, with the exception of the railroad overpass, which will receive an asphalt overlay only up to the concrete deck section of the structure. The concrete deck section of the bridge structure will not be improved or modified.

- A transition will be required between the 5-lane section and 3-lane section at Alder Avenue and the 3-lane section and 2-lane section at Milwaukee Road.

Geotechnical Considerations– Available geotechnical information will be provided to the consultant by the Department. It was noted by the Billings District that the Department may have some limited geotechnical data available for the project area.

The City of Laurel noted that the groundwater at Milwaukee Road is as high as 2 feet below ground level. As such, groundwater monitoring wells may be necessary along the project due to expected high groundwater levels in the area and to monitor seasonal groundwater levels.

All additional and necessary Geotechnical evaluations will be performed by the Consultant.

Hydraulics– There are multiple drainage and irrigation crossings within the project limits. These crossings generally run through existing pipe and may require some extending.

It was noted by the City of Laurel that the existing storm drain line beginning near Locust Avenue and running east is a wood box structure. The storm drain line is undersized, backs up during large storm events, and is in need of replacement. The City of Laurel intends to perform a master plan of the area and to improve this line at some point in the future, and will provide the consultant with any current information regarding their status. It was noted by the City of Laurel that the storm drain line within Main Street/Old US Highway 10 discharges into an open drain that ultimately is discharged onto private land located east of Milwaukee Road. This open drain is used to collect storm water runoff from the area north of the roadway. No improvements to the existing storm drain system are anticipated for this project. The exact limits of this system will need to be determined.

It was suggested by the City of Laurel that inlets could be installed on the north side of the road and drained to the south side ditch, thus relieving the existing storm collection system along the north side.

Two drain pipes cross P-4 at Adler Avenue. One of the crossings is currently being improved by the City of Laurel. The other crossing is collapsing and is a maintenance issue. The Department noted that this pipe could be replaced ahead of this project by their own maintenance crews with either an arch pipe or two circular pipes. This issue will be discussed by the Department and the City of Laurel.

It was mentioned by the City of Laurel that the Nutting Ditch Board has recently been reconstituted, and that this board plans to reconstruct the Nutting Ditch from the

Yellowstone River through the project area. Once reconstructed, this ditch could provide for improved storm drain capacity north of the roadway. It was also noted that the other major ditch within the project area is the Italian Drain.

The City of Laurel is in the process of developing a storm drain special improvement district (SID) along 1st Avenue south of the railroad overpass. This SID is expected to install a storm drain line and improve drainage along the roadway (including curb/gutter and sidewalk). The Department noted that this work could be included within this project with funding paid for by the City of Laurel. The Department will require an agreement between the City of Laurel and the State if the SID is to be combined with this project.

The Department informed the group that the Environmental Protection Agency (EPA) now requires permits for all rock sump drains, and oil-water separators require maintenance agreements (if necessary or as installed).

The consultant will perform the hydraulic investigation and design activities for this project and submit the standard hydraulic reports to the Department.

Bridges – There is one major bridge within the project limits. This bridge will not need to be replaced or widened. A minor bridge, the railroad underpass, is owned by the railroad, and no impacts to the structure are anticipated.

Existing guardrail along the railroad overpass is considered to be in good shape. Although the height of the rail is not expected to be affected by the pavement overlay, the consultant will review any difference in height as a result of the pavement overlay.

Traffic – The intersection of Main Street and 1st Avenue will be reviewed for geometric design and possible minor improvement. Although the underpass structure located south of this intersection is owned by MRL, the City of Laurel had acquired an easement at the SW quadrant of the intersection making it possible to improve geometrics at this location. The Department noted that there are plans to improve the signalized intersection of Main Street and 1st Avenue, however, under this project, only minor improvements (striping, curb returns) would be considered at the intersection.

The intersection of West Railroad Street and 1st Avenue (P-4) will be reviewed for geometrics and traffic control. The City of Laurel noted complaints due to the current layout of the pavement markings and raised median island ("pork chop" island). It was noted by the Department that this intersection has had a number of accidents. Possible mitigations include removing the raised median island and replacing with a painted median island.

The City of Laurel also noted that the raised median located just north of the Interstate 90 Exit 434 westbound off-ramp has become a problem with vehicles traveling the wrong way down 1st Avenue to traverse the median. This median will be reviewed by the consultant for possible mitigations.

A flashing beacon installed at Yard Office Road as part of a previous safety project may not be necessary upon development of a 3-lane section, and may need to be removed with this project. Plans for this beacon, including the warrant study, will be provided to the consultant by the Department.

Posted speed limits within the project limits were set based on a recent speed study performed within the last two years, and will not be reviewed as part of this project.

The intersection of Seitz-Ronan Road and P-4 will be reviewed for sight-distance. Although there was some discussion of extending the 3-lane section to the Seitz-Ronan Road intersection, it was finally determined that the 3-lane section would terminate at Milwaukee Road as originally scoped. Improvements at this intersection could include weed/vegetation control and cutting back adjacent slopes.

The intersection of Shannon Road (U-6903) and P-4 beyond the railroad overpass will be reviewed by the consultant. The Department noted, however, that the traffic volumes and existing geometry of the intersection may preclude any improvements at this time.

No additional or special traffic studies are anticipated for this project.

Signing and striping will be updated on this project, as necessary.

Pedestrian/Bicycle/ADA - Curb/gutter, sidewalk, and sidewalk ramps will be replaced as needed or as necessary within the project limits.

Should the City of Laurel storm drain SID be implemented in conjunction with this project, curb/gutter and sidewalk will be installed along the west side of 1st Avenue south of the railroad underpass. If the SID does not run concurrent to the project, the installation of curb/gutter and sidewalk will be reviewed by the Department.

The City of Laurel asked if a pedestrian/bicycle path would be constructed adjacent to P-4 east of the Laurel CBD. The Department noted safety projects generally do not install amenities such as multi-use paths. However, shoulder widths can be constructed to accommodate bicycle traffic between Alder Avenue and the railroad overpass at RP 57.1. The consultant will consider this during design.

Design Exceptions / Deviations

The two projects are categorized as a Pavement Preservation Project (Engineered Overlay) and a Safety Project (TWLTL). Design Exceptions in the area of the engineered overlay and Design Deviations in the area of the safety project may need to be considered due to the built up / urbanized nature of the project location, the limited funding available for these projects, and the fact that the funding allocated for these projects is targeted to specific goals (pavement preservation, accident reduction). The combination of these conditions will likely limit the ability to bring all roadway elements up to standard.

The "hump" in the roadway cross section located along P-4 between Adler Avenue and Locust Avenue will be reduced and cross slopes improved within the limitations of the right-of-way constraints. Those participating in the scoping meeting indicated that any reduction in this hump is better than no reduction at all, regardless of slope.

An advisory speed limit posting of 40 mph exists along the reverse curves of the railroad overpass bridge structure located at approximate RP 57.1. A design exception for the 60 mph design speed may be necessary depending on the type and level of engineering overlay required at this location.

Right of Way

New right-of-way and or construction permits may be necessary due to the widening of the roadway.

It was noted by the Department that the roadway may currently exist in part or entirely within a railroad easement. The Department and the City of Laurel will provide all available information in this regard. All other ownership and right-of way issues will be researched by the consultant.

The consultant will perform all ownership reports, rights of entry, right-of-way design, and acquisition exhibits. The Department will perform all right-of-way acquisitions.

Utilities/Railroads

Utilities exist along the corridor. The consultant will perform a Phase I SUE survey only. A Phase II SUE will not be scoped unless it is concluded to be necessary through development of the project. Utility relocations are not anticipated.

Montana Rail Link has a major rail lines and switching facility located adjacent to the project. This project is not expected to impact the railroad or its operations.

Environmental Considerations

A standard Initial Site Assessment is anticipated for this project. The anticipated level of environmental consideration for these projects is "Categorical Exclusion".

No apparent historical sites were observed during the preliminary field review. Regardless, a cultural resource survey will be performed by the consultant. A noise analysis is also anticipated, depending on the final design.

There are historic sites ~~with~~ along the highway on Laurel - NE.

Although Yellowstone County has been designated by the EPA as nonattainment for NAAQS pollutants, no detailed air quality analysis is anticipated at this location. Nevertheless, an air quality statement will be developed for the project.

The consultant will perform all necessary environmental activities.

Traffic Control

Traffic will be maintained through the project construction with appropriate signing, flagging, etc., and in accordance with the Manual on Uniform Traffic Control Devices and the MDT Road Design Manual.

Survey

The consultant will perform all necessary survey activities. Both a conventional survey and an aerial survey will be reviewed for cost prior to determining the best course of action. The Department and the City of Laurel will provide any and all recent aerial photography of the project area, as available.

Public Involvement

A *Level B* public involvement plan will be developed for the project. This plan is expected to include the following items:

- A news release to the appropriate newspapers, radio stations and television stations explaining the project and including a department point of contact.
- An informational public meeting
- Personal contacts with local government officials and interest groups.
- Personal contacts with adjacent landowners explaining the final design.
- Construction notification and information during construction.

The plan will be reviewed and any necessary changes made during the project development. Public involvement will not begin until funding has been secured for the project.

Other Projects

Project STPHS 0002(217) - 2 Locations - District 5 - Electrical, Intersection of STP 4 & Yard Office Road to install an intersection beacon was completed in 1996. This project installed a flashing beacon at the intersection of US 212 (P4) and Yard Office Road.

Project NH-STPP 0002(709) D5 - Signal Upgrades was awarded in 2004, and is currently underway (as of this report). This project provided signal and intersection improvements (signing and pavement markings) to the intersection of Main Street with First Avenue.

No other recent projects have been identified by MDT within the project corridor.

Preliminary Cost Estimate

The cost for engineering and construction of this project is programmed for \$5,650,000. Initial estimates are that the proposed work can be accomplished within this funding constraint. The consultant will verify this budget and keep this cost in mind as the project develops.

The preliminary cost estimate is for the proposed work is:

Laurel Northeast STPP 4-2(23)54 CN 5186

PE	\$20,000
CE	\$160,000
CN	<u>\$1,600,000</u>
<i>Subtotal</i>	<i>\$1,780,000</i>

2002 Turn Lane -Laurel STPHS 4-2(22)55 CN 5304

PE	\$10,000
CE	\$480,000
CN	<u>\$3,380,000</u>
<i>Subtotal</i>	<i>\$3,870,000</i>

Total Project \$5,650,000

Ready Date

The current programmed ready date for these projects is January 1, 2008. It is anticipated that this ready date will be reviewed and revised once the project has been scheduled and project overrides established.

Miscellaneous Items

- The MRL underpass was recently improved under a separate project, and will not require improvement under this project.
- No improvements to the concrete section under the MRL underpass will be performed. Milling and the pavement overlay will cease at the concrete section, and pick up again after the concrete section.
- The City of Laurel asked if the Department could look into retiming the signalized intersection at 4th Street and 1st Avenue to coincide with shift changes at the Cenex Plant in an effort to improve vehicle platooning along 1st Avenue. The Department will have Steve Keller review the timing.
- It was suggested by the Department that the Alignment and Grade Review and the Scope of Work Report could be combined into a single submittal. This will be reviewed further by the Department.

Attachments: Map

Montana Department of Transportation
Helena, MT 59620

Memorandum

To: Tom Martin, P.E.
Consultant Design Engineer

From: Jean Riley, Bureau Chief
Environmental Services

Date: February 28, 2005

Subject: PFR COMMENTS



STPP 4-2(23054
Laurel – NE
CN 5186

STPHS 4-2(22)55
2002 Turn Lane - Laurel
CN 5304

The Preliminary Field Review Report dated January 11, 2005 for this proposed project has been reviewed. Environmental Services has the following comment concerning this Report.

- PP 11 - **Environmental Considerations**
 - Add the following to the end of the first paragraph – “There are historic sites along the highway on the Laurel – NE Project.”

Environmental Services recommends approval of the Preliminary Field Report with the above comment annotated.

TLH;s:\projects\Billings\5186ENPFR Comments & 5304EN PFR Comments.Doc

cc: file