MDT
Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001
Timothy W. Reardon, Director
Brian Schweitzer, Governor

January 5, 2012

Brian Hasselbach
Federal Highway Administration (FHWA)
585 Shepard Way
Helena MT 59602

Subject: Statewide Programmatic Categorical Exclusion for Pavement Preservation Project
Bell Crossing – N & S
STPS 269-1(36)12
Control Number: 7628000

Dear Brian Hasselbach:

The MDT Environmental Services Bureau has reviewed the Preliminary Field Review/Scope of Work Report (PFR/SOW) for the subject project. Based on the completed Environmental Checklist for Pavement Preservation Projects (Checklist), we conclude that the Statewide Programmatic Categorical Exclusion for these types of projects would cover this project. For your information, I have attached a copy of the PFR/SOW (including the location map) and the signed Environmental Checklist. Environmental-related Special Provisions will be included in the contract plans.

If you have questions or concerns, please contact Susan Kilcrease at 523.5842 or me at 444.7203. We will be pleased to assist you.

Sincerely,

Heidy Bruner, P.E.
Environmental Services Bureau Engineering Section Supervisor

Attachments: PFR/SOW Report, Environmental Checklist

Enclosure

e-copies w/checklist encl.:
Ed Toavs, Missoula District Administrator
Tom Martin, P.E., Environmental Service Bureau Chief
Heidy Bruner, P.E., ESB Engineering Section Supervisor
Paul Ferry, P.E., Highways Engineer
Kevin Christensen, P.E., Construction Engineer
Suzy Price, Contract Plans Bureau Chief
Dawn Stratton, Fiscal Programming
Alyce Fisher, Fiscal Programming
Susan Kilcrease, Missoula District Project Development Engineer
Ben Nunnallee, P.E., Project Design Manager
Montana Legislative Branch Environmental Quality Council
File

MASTER FILE COPY

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

Memorandum

To: Tom S. Martin, P.E, Chief, Environmental Services Bureau

From: for Paul R. Ferry, P.E., Highways Engineer

Date: December 19, 2011

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ENVIRONMENTAL

Subject: STPS 269-1(36)12
Bell Crossing – N & S
UPN 7628000
Work Type 183 – Resurfacing – Seal and Cover

Attached is the Preliminary Field Review/Scope of Work Report for the subject project. The project meets the criteria for the Statewide Programmatic Categorical Exclusion for pavement preservation projects and the environmental checklist is attached.

Please send the notification for the environmental documentation on this project to the FHWA. If you need additional information, contact Ben Nunnallee at 406-523-5846.

Environmental Services

Act	Info	Champ	Routing	Attach	Initial
			Date 1-3		
			Bureau Chief		
			Engineering Supervisor		
			Resources Supervisor		
			Hist./Archit. Supervisor		
			TCCP Supervisor		
/		/	Susan		
/			Pat		
/			JON		
/			Doug		
			Info		

Attachments (Environmental Checklist and PFR)

copies: Damian Krings, w/attach (checklist only)
Ben Nunnallee, Missoula District Project Design I
Highways File, w/attach (checklist only)

(FOR PROJECTS WITH NO RIGHT-OF-WAY INVOLVEMENT)

Applicant cannot be authorized to proceed with the proposed work until ALL of the conditions of the checklist have been satisfied.

ENVIRONMENTAL CHECKLIST FOR PAVEMENT PRESERVATION PROJECTS
(CRACK SEALING, SEAL & COVER, THIN OVERLAYS, MILL & FILL, PLANT MIX LEVELING, MILL OGFC, MICRO SURFACING, FOG SEAL)

Project Number: STPS 269-1(36)12 **Control No** 7628000 **Project** Name: Bell Crossing – N & S

Reference Post (Station): RP 12.2 (581+61.38) **To Reference Post (Station):** RP 17.2 (160+38.10)

Applicant's Name: Montana Department of Transportation **Address:** PO Box 201001; Helena, MT 59620-1001

Type of Proposed Pavement Preservation Activity: Microsurfacing

IMPACTS ON THE PHYSICAL ENVIRONMENT (TO BE COMPLETED BY APPLICANT)				
Impact Questions		[Y/N] There are Potential Impacts; or Item Requires Documentation, Evaluation, Mitigation Measures, and/or (a) Permit(s).		
		Yes	No	Comment (Use attachments if necessary)
1.	Does the proposed action require work in, across, and/or adjacent to a listed or proposed Wild or Scenic River? (See http://www.rivers.gov/wildriverslist.html)	☐	☒	
2a.	Are there any listed or candidate threatened or endangered species in the vicinity of the proposed activity?	☒	☐	☐ Bull Trout
2b.	Will the proposed action adversely affect listed or candidate threatened or endangered species, or adversely modify critical habitat?	☐	☒	☐ Unknown
3.	Will the proposed action have potential to affect water quality? If 'Yes', an environment-related permit or authorization may be required. If 'No', go to question 4.	☐	☒	
3a.	If the answer to question 3 is yes, is a Clean Water Act Section 402 permit (i.e., MPDES or NPDES permit)required? (Need for an MPDES or NPDES is generally triggered by a disturbance area equal to or greater than one acre.)	☐	☐	☒ N/A
3b.	Is the proposed project within an MS4 Permit Area? (See http://deq.mt.gov/wqinfo/MPDES/StormWater/ms4.mcpx). (Billings, Great Falls, and Missoula Urbanized areas, and Butte, Bozeman, and Helena)	☐	☒	
4.	Does the proposed project have impacts to wetlands , streams, or other water bodies? If 'No', go to question 5.	☐	☒	
4a.	If the answer to question 4 is 'Yes', is a Clean Water Act Section 404 permit authorization required?	☐	☐	☒ N/A
4b.	If the answer to question 3 or 4 is 'Yes', is a Stream Protection Act 124SPA consultation required?	☐	☐	☒ N/A
5.	Are solid wastes, hazardous materials or petroleum products likely to be encountered? (For example, project occurs in or adjacent to Superfund sites, known spill areas, underground storage tanks, or abandoned mines.) (See http://nris.mt.gov/deq/remsitequery/portal.aspx)	☐	☒	
6.	Is the proposed activity on and/or within approximately 1 mile of an Indian Reservation? If answer is 'No', go to question 7.	☐	☒	
6a.	Are any Tribal water permits required?	☐	☐	☒ N/A
7.	Is the proposed project in a "Class I Air Shed" or a nonattainment area? (See http://deq.mt.gov/AirQuality/Planning/AirNonattainment.mcpx) (Class I Air Sheds include the Northern Cheyenne, Flathead, and Fort Peck Reservations; Glacier and Yellowstone National Parks; Anaconda-Pintlar, Bob Marshall, Cabinet Mountains, Gates of the Mountains, Medicine Lake, Mission Mountain, Red Rock Lakes, Scapegoat, Selway-Bitterroot, and U.L Bend Wilderness Areas)	☐	☒	

Checklist prepared by:

Ben Nunnallee	Project Design Engineer	12/19/2011
Applicant	Title	Date

Approved by:

Environmental Services	Title	1/5/12 Date

ENVIRONMENTAL ENGINEER
SECTION SUPERVISOR

Environmental Services Bureau Form Revised: May 2011

Project Number: STPS 269-1(36)12Control No.: 7628000 Project Name:Bell Crossing – N & S

(When any of the above questions are checked "Yes")

The Applicant is **not** authorized to proceed with the proposed work until the checklist has been reviewed and approved, as necessary, and any requested conditions of approval have been incorporated.

A. Complete the checklist items 1 through 7, indicating "Yes" or "No" for each item. Include comments, explanations, information sources, and a description of the magnitude/importance of potential impacts in the right hand column. Attach additional and supporting information as needed. The checklist preparer, by signing, certifies the accuracy of the information provided.

B. When "Yes" is indicated on any item, the checklist preparer must explain why and provide the appropriate documentation, evaluation, permit, and/or mitigation measures required to satisfy environmental concerns for the project. Use attachments if necessary. **Any proposed mitigation measures will become a condition of approval.**

C. If the applicant checks "Yes" for any one item, the checklist and MDT's mitigation proposal, documentation, evaluation and/or permit shall be submitted to MDT Environmental Services Bureau. Electronic format is preferred. Contact Number 444-7228.

D. When the applicant checks a "Yes" item, MDT cannot be authorized to proceed with the proposed work until Environmental Services Bureau reviews the information and signs the checklist.

E. MDT will obtain all necessary permits or authorizations from other entities with jurisdiction prior to beginning the Pavement Preservation Activity.

F. The links above are provided as a starting point for potential sources of information for completing the checklist. The Applicant is encouraged to consult Environmental Services Bureau and/or other information sources.

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

MASTER FILE COPY

Memorandum

To: Paul Ferry, P.E.
Highways Engineer

From: Ben Nunnallee, P.E.
Missoula District Preconstruction Engineer (Acting)

Date: December 19, 2011

Subject: STPS 269-1(36)12
Bell Crossing – N&S
UPN 7628000
Work Type 183 – Resurfacing - Seal and Cover

Please approve the attached Preliminary Field Review Report/Scope of Work Report.

Approved _____ Date Dec. 19, 2011
For Paul Ferry, P.E.
Highways Engineer

The same report is also being distributed under a separate cover as a Scope of Work Report for comments and approval recommendations.

cc (w/attach.):
Damian Krings, Road Design Engineer

Introduction

An onsite field review was held on November 21, 2011. The following people attended:

Ben Nunnallee – Missoula District Projects Engineer
Sandy Dorsett – Missoula District Design Supervisor
Dan Hill – MDT Surfacing Design
Joe Leary – Missoula District Road Design

Proposed Scope of Work

The proposed project has been nominated to preserve the asphalt pavement and to extend the service life of the roadway. Microsurfacing is proposed for this project. Replacement of the signing and pavement markings will also be included.

Purpose and Need

The purpose of this project is to maintain the existing pavement to extend the service life of the existing asphalt surfacing. This section of highway is due for pavement resurfacing before the deterioration of the pavement begins to accelerate.

Project Location and Limits

This project is located in Ravalli County on S-269, beginning just north of Birch Creek Road. The project begins at Reference Post (RP) 12.2±, English Station 581+61.38, on As-Built plans FAS 4-C(1). The project extends northerly 5.0 miles to RP 17.2±, south of Higgins Lane, at English Station 160+38.10, on As-Built plans FAS 4-B(1). This segment of road is located in Township 8 N, Range 20 W (Sections 33, 28, 21, 22, 16, 15 and 10).

S-269 is on the Secondary Highway System and is functionally classified as a Major Collector (Rural). See the attached location map.

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 of a Traffic Control Plan (TCP). A limited Public Information (PI) component to address public notification will also be included. These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

Physical Characteristics

The existing terrain within the project limits is level, in a rural setting. Public, private, and farm field approaches are located throughout the project length.

The roadway from 12.2 (English Station 581+61.38) to RP 14.1 (English Station 683+18.70) was originally constructed in 1941 under project FAS 4-C(1). The roadway consisted of two 12' travel lanes and no shoulders.

The roadway from 14.1 (English Station 0+00.00) to RP 17.2 (English Station 160+38.10) was originally constructed in 1940 under project FAS 4-B(1). The roadway consisted of two 12' travel lanes and no shoulders.

The roadway surface has been improved over the years with the most recent activity occurring in 1995 where the roadway was overlayed and in 1996, the roadway from RP 12.2 (English As-Built Station 581+61.38) to RP 17.2 (English As-Built Station 160+38.10) was sealed and covered under project RTS 269-1(17)12.

There is one typical section along this section of highway. The two-lane highway consists of two 12' travel lanes and no shoulders.

The existing surfacing consists of: 3.3 in. Bituminous Plant Mix
7.5 in. Crushed Base Course

There are two wood/timber structures on this project:

Bridge Number	Feature Crossed	Reference Post	English As-Built Stationing	Width x Length
N/A	Creek	13.9	671+54.00 to 671+69.00	28' x 15'
S00269015+02001	Willoughby Creek	15.2	39+90.50 to 40+09.50	28.2' x 19.0'

There are ten horizontal curves on the project. All but one of the horizontal curves (PI Station 569+70.00) exceeds the minimum radius of 1,200' required for a 60 mph design speed. The superelevation information is not available on the existing as-builts, but there do not appear to be any adverse issues related to the existing superelevation.

There are nine vertical curves and 14 changes in grade on this project. All curves meet stopping sight distance standards for a 60 mph design speed. There are no areas on the project that exceed the maximum allowable grade. The maximum gradient on the project is 0.890%.

The Pavement Management System generated the following performance indices for the survey year 2010 and treatment recommendations for the years 2011 and 2013:

TREATMENT YEARS 2011 & 2013

BEG RP	END RP	RIDE	RUT	ACI	MCI	CONST. TREAT. REC.
12.212	19.353	70.3 (fair)	48.0 (fair)	93.8 (good)	93.0 (good)	Minor Rehab Rut ('11), Minor Rehab Rut ('13)

Traffic Data

2011 AADT = 5,860 (Present)
2012 AADT = 6,070 (Letting Year)
2032 AADT = 12,080 (Design Year)
DHV = 1,330
Com Trucks = 1.1%
Growth Rate = 3.5% (Annual)
ESAL's = 35

Crash Analysis

A crash history will not be requested for this microsurfacing project.

Major Design Features

This project will be developed in accordance with the latest Guidelines for Nomination and Development of Pavement Projects. The plans will be developed in English units.

a. **Design Speed.** The geometric design criteria for Rural Collector Roads (Secondary System) indicate that the design speed should be 60 mph based on the level terrain. The posted speed limit on the project is 65 mph. Design speed is not an applicable design criterion for preventative maintenance projects.

b. **Horizontal Alignment**. The existing horizontal alignment will not be changed with this microsurfacing preventative maintenance project.
c. **Vertical Alignment**. The existing vertical alignment will not be changed with this microsurfacing preventative maintenance project.
d. **Typical Sections and Surfacing**. The current typical section widths will remain unchanged. Before microsurfacing begins, there will be plant mix rut fill patching placed over the entire width of the roadway from Sta. 54+71.48 to Sta. 151+81.40 where the rutting is more pronounced than on the rest of the project. The patching will have an average depth of 0.15'. However, the placement of the patch will be at the discretion of the Construction Project Manager in order to fill the ruts in both lanes of traffic. Next, there will be two passes of microsurfacing placed on the project. The first, referred to as the scratch course, will fill the ruts over the entire project length. The second microsurfacing lift will be placed across the entire roadway. The application rate for each lift will be approximately 27.5 lbs/yd^2. The microsurfacing aggregate will have a "Type III" gradation with all aggregate passing the 3/8" sieve. The microsurfacing emulsion will be a CQS-1h polymer-modified asphalt emulsion.
e. **Geotechnical Considerations**. There are no geotechnical considerations for this resurfacing project. The existing roadside slopes will not be disturbed and there are no grading considerations.
f. **Hydraulics**. There are no hydraulics considerations for this microsurfacing preventative maintenance project.
g. **Bridges.** There are two bridges on this segment of S-269. The first bridge runs from Sta. 671+54.00 to Sta. 671+69.00, and the second bridge from Sta. 39+90.50 to Sta. 40+09.50. Plant mix exists across the spans of both bridges. The new microsurfacing will be placed across both bridges.
h. **Traffic.** The existing pavement marking layout will be used to re-stripe the roadway. A Traffic Engineering Consultant will provide the quantities, details, and specifications for interim paint and final epoxy. These items will be included in the road plans package. The Traffic Engineering Consultant will also provide the necessary plans, quantities, details, and specifications for upgrades to the signing and delineation.
i. **Pedestrian/Bicycle/ADA**. There are no dedicated pedestrian or bicycle facilities. Due to the nature of this preventative maintenance project, no new accommodations will be added.
j. **Miscellaneous Features**. There are no Miscellaneous Features associated with this project.
k. **Context Sensitive Design Issues**. There are no special context sensitive design issues identified for this microsurfacing preventative maintenance project.

Other Projects

There is another microsurfacing pavement preservation project adjacent to the north end of this project: **Stevensville – South, UPN 7656000,** from RP 17.2 to RP 20.2. We currently anticipate that we will tie these two projects together in order to reduce costs.

Location Hydraulics Study Report

A Location Hydraulics Study Report will not be needed for this project.

Design Exceptions

The design exception process does not apply to pavement preservation projects. However, as previously noted, one of the horizontal curves does not meet current design standards.

Right-of-Way
There will be no right-of-way involvement on this project.

Access Control
This section of highway is not an access control facility.

Utilities/Railroads
Utilities –There will be no utility involvement on this project.

Railroads – There are no railroads located within the project limits. There is a railroad to the east of the highway, but the closest it gets the roadway is about 300' at the southern end of the project.

Intelligent Transportation Systems (ITS) Features
Implementation of ITS solutions will not be included with this project.

Survey
Survey will not be required for this project.

Public Involvement
A Level A public involvement plan is appropriate for this project. A News Release explaining the project and including a department point of contact will be distributed to the local media.

Environmental Considerations
No significant environmental impacts or issues were identified. We reviewed the project and determined it meets the criteria for the Programmatic Agreement as a Categorical Exclusion under the provisions of 23 CFR 771.117(d) as signed by MDT on February 18, 2005 and concurred by FHWA on March 4, 2005. The Environmental Checklist for Pavement Preservation Projects has been submitted separately.

Energy Savings/Eco-Friendly Considerations
No energy savings/eco-friendly considerations are proposed for this microsurfacing preventative maintenance project.

Experimental Features
There are no experimental features identified for this microsurfacing preventative maintenance project.

Traffic Control
Traffic will be maintained through the construction of the project with appropriate signing, flagging, pilot cars, etc., in accordance with the Manual on Uniform Traffic Control Devices. The work zone will require single lane closures during construction operations. A minimum of one lane will remain open for traffic at all times during the construction of this project. Possible stipulations governing the time of year, the days of the week during which construction activities may take place, time of day, and maximum length of roadway that may be under construction at a time may be specified in the contract in order to minimize public impact.

A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP) is appropriate for this project. Due to the relatively simple nature of the work, the TCP will consist of only special provisions.

Project Management
The Missoula District Design Crew will be responsible for developing the plans. Ben Nunnallee will manage the design of this project. See contact information below:

Ben Nunnallee, P.E.
Montana Department of Transportation
2100 West Broadway, PO Box 7039
Missoula, MT 59807-7039
(406) 523-5846
e-mail: bnunnallee@mt.gov

This project is not under full FHWA oversight.

Preliminary Cost Estimate
The nomination cost estimate (without IDC) that was originally programmed for this project was $660,000 (CN = $600,000 and CE = $60,000). The total nomination cost estimate including IDC was $793,670.

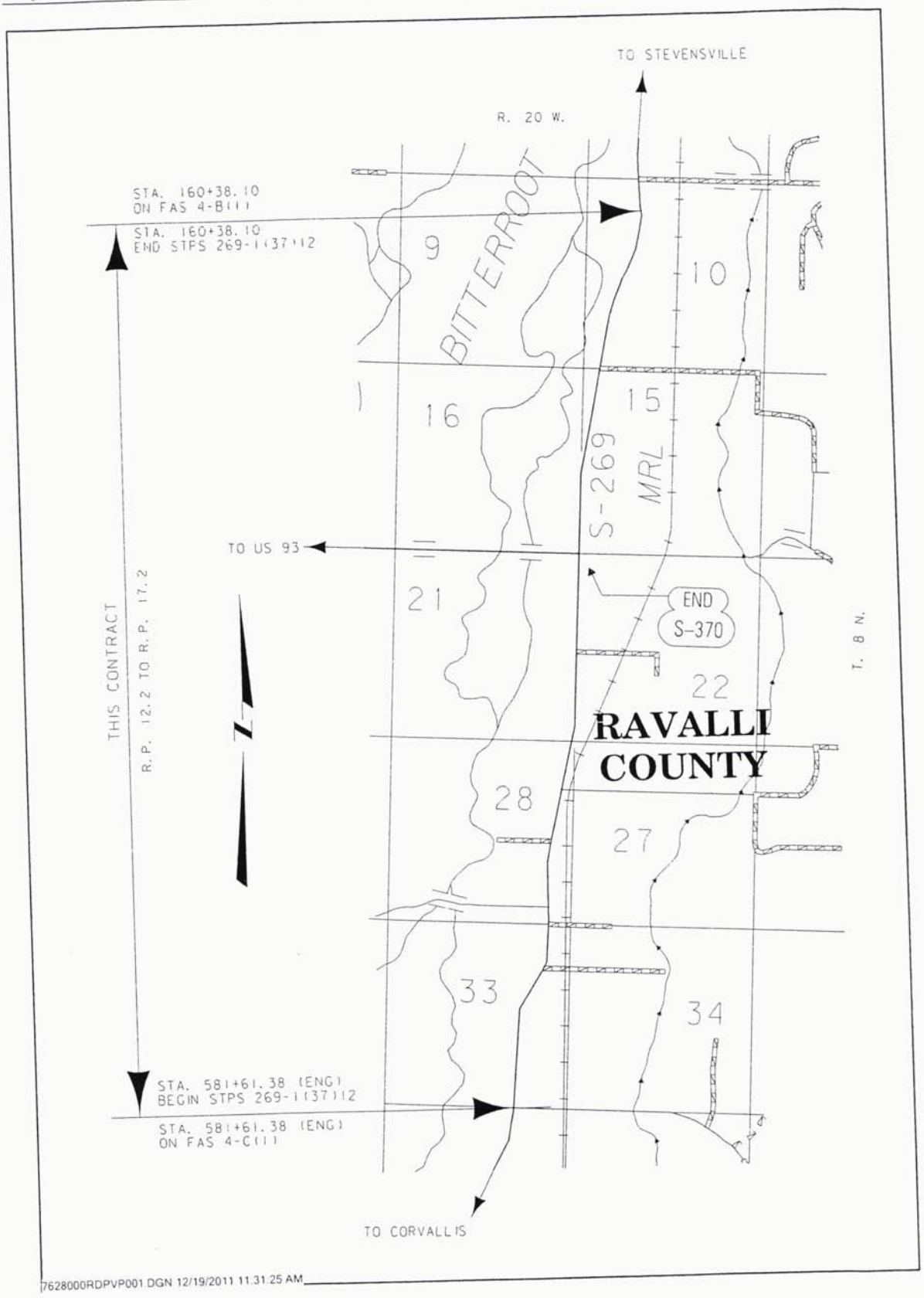
Current Cost Estimate:

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	$566,000		
Traffic Control	$29,000		
Subtotal	**$595,000**		
Mobilization (10%)	$60,000		
Subtotal	**$655,000**		
Contingencies (8%)	$52,000		
Total CN	**$707,000**	**$13,528**	**$789,986**
CE (10%)	**$71,000**	**$1,358**	**$79,333**
TOTAL CN+CE	**$778,000**	**$14,886**	**$869,319**

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.

Ready Date
This project has a Ready Date of May 24, 2012. The Letting Date is currently scheduled for August 23, 2012. The project is currently on schedule in OPX2. We will try to expedite the design of this project so that it can be Let earlier and constructed in the 2012 construction season.

Site Map
The project site map follows.


TO STEVENSVILLE
R. 20 W.
STA. 160+38.10
ON FAS 4-B(1)
STA. 160+38.10
END STPS 269-1(37)12
BITTERROOT
9
10
16
15
S-269
MRL
TO US 93
21
END
S-370
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RAVALLI
COUNTY
28
27
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T. 8 N.
THIS CONTRACT
R.P. 12.2 TO R.P. 17.2
STA. 581+61.38 (ENG)
BEGIN STPS 269-1(37)12
STA. 581+61.38 (ENG)
ON FAS 4-C(1)
TO CORVALLIS
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