



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Michael T. Tooley, Director
Steve Bullock, Governor

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December 6, 2013

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ENVIRONMENTAL

Kevin L. McLaury
Division Administrator
Federal Highway Administration
585 Shepard Way, Suite 2
Helena, MT 59601-9785

Attention: Jeff Patten

Subject: Categorical Exclusion
SPRINGDALE - WEST
IM 90-7(108)341
Control Number: 8100000

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 Preliminary Field Review Report (PFRR) dated November 8, 2013 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).

Table with 4 columns: YES, NO, N/A, UNK. Rows include project impact questions and construction permit requirements.

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
1. The context or degree of the Right-of-Way action would have (a) substantial social, economic, or environmental effect(s).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. There is a high rate of residential growth in this proposed project's area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. There is a high rate of commercial growth in this proposed project's area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Work would be on and/or within approximately 1.6 kilometers (1± mile) of an Indian Reservation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. There are parks, recreational, or other properties acquired/improved under <i>Section 6(f)</i> of the <i>1965 National Land &amp; Water Conservation Fund Act</i> (16 USC 460L, <i>et seq.</i> ) on or adjacent to proposed the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of such <i>Section 6(f)</i> sites would be documented and compensated with the appropriate agencies. ( <i>e.g.</i> : MDFWP, local entities, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Are there any sites either on, or eligible for the National Register of Historic Places with concurrence in determination of eligibility or effect under <i>Section 106</i> of the <i>National Historic Preservation Act</i> (16 USC 470, <i>et seq.</i> ) by the State Historic Preservation Office (SHPO), which would be affected by this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. There are parks, recreation sites, school grounds, wildlife refuges, historic sites, historic bridges, or irrigation that might be considered under <i>Section 4(f)</i> of the <i>1966 US DEPARTMENT OF TRANSPORTATION Act</i> (49 USC 303) on or adjacent to the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. The proposed project would not impact the site(s), so a 4(f) evaluation is not necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. De minimis finding(s) is/are necessary for this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. "Nationwide" Programmatic <i>Section 4(f)</i> Evaluation forms for these sites are attached.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. This proposed project requires a full ( <i>i.e.</i> : DRAFT & FINAL) <i>Section 4(f)</i> Evaluation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. The activity would involve work in a streambed, wetland, and/or other waterbody(ies) considered as "waters of the United States" or similar ( <i>e.g.</i> : "state waters").	<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>
1. Conditions set forth in <i>Section 10</i> of the <i>Rivers and Harbors Act</i> (33 USC 403) and/or <i>Section 404</i> under <u>33 CFR Parts 320-330</u> of the <i>Clean Water Act</i> (33 USC 1251-1376) would be met.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Impacts in wetlands, including but not limited to those referenced under Executive Order (E.O.) #11990, and their proposed mitigation would be coordinated with the US Army Corps of Engineers and other Resource Agencies (Federal, State and Tribal) as required for permitting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. A 124SPA Stream Protection Authorization would be obtained from the MDFWP?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. There is a delineated floodplain in the proposed project area under FEMA's Floodplain Management criteria.	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Tribal Water Permit would be required.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Work would be required in, across, and/or adjacent to a river which is a component of, or proposed for inclusion in Montana's Wild and/or Scenic Rivers system as published by the US Department of Agriculture, or the US Department of the Interior.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The designated National Wild & Scenic River systems in Montana are:				
a. Middle Fork of the Flathead River (headwaters to South Fork confluence).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. North Fork of the Flathead River (Canadian Border to Middle Fork confluence).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In accordance with <i>Section 7</i> of the <i>Wild and Scenic Rivers Act</i> (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"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
C. This is a "Type I" action as defined under <u>23 CFR 772.5(h)</u> , which typically consists of highway construction on a new location or the physical alteration of an existing route which substantially changes its horizontal or vertical alignments or increases the number of through-traffic lanes.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. If yes, are there potential noise impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. A Noise Analysis would be completed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. There would be compliance with the provisions of both <u>23 CFR 772</u> for FHWA's Noise Impact analyses and MDT's Noise Policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. There would be substantial changes in access control involved with this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, would they result in extensive economic and/or social impacts on the affected locations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. The use of a temporary road, detour, or ramp closure having the following conditions when the action(s) associated with such facilities:				
1. Provisions would be made for access by local traffic, and be posted for same.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Adverse effects to through-traffic dependant businesses would be avoided or minimized.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Interference to local events (e.g.: festivals) would be minimized to all possible extent.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Substantial controversy associated with this pending action would be avoided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Hazardous wastes /substances, as defined by the US Environmental Protection Agency (EPA) and/or the Montana Department of Environmental Quality (MDEQ), and/or (a) listed "Superfund" (under <i>CERCLA</i> or <i>CECRA</i> ) site(s) are currently on and/or adjacent to this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All reasonable measures would be taken to avoid and/or minimize substantial impacts from same.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G. The Montana Pollutant Discharge Elimination System's conditions ( <u>ARM 16.20.1314</u> ), including temporary erosion control features for construction would be met.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H. Permanent desirable vegetation with an approved seeding mixture would be established on exposed areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
I. Documentation of an "invasive species" review to comply with both EO #13112 and the <i>County Noxious Weed Control Act</i> (7-22-21, MCA), including directions as specified by the county(ies) wherein its intended work would be done.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
J. There are "Prime" or "Prime if Irrigated" Farmlands designated by the Natural Resources Conservation Service on or adjacent to the proposed project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the proposed work would affect Important Farmlands, then an AD-1006 Farmland Conversion Impact Rating form would be completed in accordance with the <i>Farmland Protection Policy Act</i> (7 USC 4201, <i>et seq.</i> ).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
K. Features for the <i>Americans with Disabilities Act</i> (PL 101-336) compliance would be included.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
L. A written Public Involvement Plan, would be completed in accordance with MDT's Public Involvement Handbook.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. This proposed project complies with the <i>Clean Air Act's Section 176(c)</i> (42 USC 7521(a), as amended) under the provisions of <u>40 CFR 81.327</u> as it's either in a Montana air quality:				
A. "Unclassifiable"/attainment area. This proposed project is <u>not</u> covered under the EPA's September 15, 1997 Final Rule on air quality conformity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
and/or				
B. "Nonattainment" area. However, this type of proposed project is either exempted from the conformity determination requirements (under EPA's September 15, 1997 Final Rule), or a conformity determination would be documented in coordination with the responsible agencies: (Metropolitan Planning Organizations, MDEQ's Air Quality Division, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Is this proposed project in a "Class I Air Shed" (Indian Reservations) under <u>40 CFR 52.1382(c)(3)</u> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Federally listed Threatened or Endangered (T/E) Species:				
A. There are recorded occurrences, and/or critical habitat in this proposed project's vicinity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Would this proposed project result in a "jeopardy" opinion (under <u>50 CFR 402</u> ) from the Fish & Wildlife Service on any Federally listed T/E Species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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

Barry Brosten, Date: 12/6/13  
Barry Brosten - Butte District Project Development Engineer  
MDT Environmental Services Bureau

Concur Heidy Bruner, Date: 12/6/13  
Heidy Bruner, P.E. - Engineering Section Supervisor  
MDT Environmental Services Bureau

Concur Jeffrey Glatton, Date: 12/11/13  
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: PFRR

Copy (w/o attach.):

Jeff Ebert	Butte District Administrator
Paul Ferry	Highway Engineer
Kent Barnes	Bridge Engineer
Tom Martin	Chief, Environmental Services Bureau
Robert Stapley	Right-of-Way Bureau Chief
Suzy Price	Contract Plans Bureau Chief
Lisa Hurley	Fiscal Programming Section Supervisor
Tom Erving	Fiscal Programming Section
Ryan Dahlke	Consultant Design Engineer
Barry Brosten	Environmental Services
Environmental Services File	
Montana Legislative Branch Environmental Quality Council (EQC)	



**Memorandum**

To: Distribution

From: Paul Ferry, P.E. **PF**  
 Highways Engineer

Date: November 8, 2013

Subject: **IM 90-7(108)341**  
**Springdale - West**  
**UPN 8100000**  
**Work Type – 180 – Resurfacing – Asphalt Thin Lift**

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on **11/8/2013**. We request that those on the distribution review this report and submit your concurrence within two weeks of the approval date.

Your comments and recommendations are also requested if you do not concur or concur subject to certain conditions. When all personnel on the distribution list have concurred, and the environmental documentation is approved, we will submit this report to the Preconstruction Engineer for approval.

I recommend approval:

Approved \_\_\_\_\_ Date \_\_\_\_\_

**Distribution:**

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

**cc:**

- |  |   |
|--|---|
| Jim Davies, Project Design Manager, Butte District Master file | Dawn Stratton, Fiscal Programming Section |
|  | Damian Krings, Road Design Engineer       |

**e-copies:**

- |  |   |
|--|---|
| Jim Walther, Engineering, Preconstruction Engineer   | Jake Goettle, Construction Bureau – VA Engineer               |
| Lesly Tribelhorn, Highways Design Engineer           | Dustin Rouse, District Preconstruction                        |
| Mark Goodman, Hydraulics Engineer                    | Joe Walsh, District Projects Engineer                         |
| Walt Ludlow, District Hydraulics Engineer            | Mike Walsh, District Materials Lab                            |
| Bill Semmens, Env. Resources Section Supervisor      | Kyle DeMars, District Maintenance Chief                       |
| Deb Wambach, District Biologist                      | Therese Iwaniak, District Right of Way Supervisor             |
| Barry Brosten, District Project Development Engineer | Phillip Inman, Utilities Engineering Manager                  |
| Danielle Bolan, Traffic Operations Engineer          | David Hoerning, R/W Engineering Manager                       |
| Ivan Ulberg, Traffic Design Engineer                 | Greg Pizzini, Acquisition Manager                             |
| LeRoy Wosoba, District Traffic Project Engineer      | Joe Zody, R/W Access Management Section Manager               |
| Kraig McLeod, Safety Engineer                        | Matt Strizich, Materials Engineer                             |
| Nathan Haddick, Bridge Area Engineer, Butte District | Daniel Hill, Pavement Analysis Engineer                       |
| Michael Grover, Engineering Cost Analyst             | Pat McCann, District Geotechnical Manager                     |
| Marty Beatty, Engineering Information Services       | Bryce Larsen, Supervisor, Photogrammetry & Survey             |
| Paul Grant, Public Involvement Officer               | Paul Johnson, Project Analysis Bureau                         |
| Sue Sillick, Research Section Supervisor             | Jean Riley, Planner   |
| Alyce Fisher, Fiscal Programming Section             | Duane Williams, Motor Carrier Services Division Administrator |
| Suzy Price, Contract Plans                           |   |



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

**Memorandum**

To: Paul Ferry, P.E.  
Highways Engineer

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

Date: November 8, 2013

Subject: **IM 90-7(108)341**  
**Springdale - West**  
**UPN 8100000**  
**Work Type – 180 – Resurfacing – Asphalt Thin Lift**

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

Approved Paul Ferry Date 11/8/2013  
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  
Master file

## Preliminary Field Review/Scope of Work Report

IM 90-7(108)341 Springdale - West  
Project Manager: Jim Davies

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### Introduction

A preliminary field review for this project was held on August 19, 2013 with the following personnel in attendance:

Jim Davies – MDT – Road Design  
Mark French – MDT – Road Design  
Steve McEvoy – MDT – Pavement Analysis  
Dustin Rouse – MDT – Engineering Services Supervisor  
Bill Fogarty – MDT – Construction Engineer  
Joe Walsh – MDT – District Projects Engineer  
Kevin Mueller – MDT – Butte Design  
Deb Wambach – MDT – Environmental  
Pat McCann – MDT – Geotechnical  
Larry Chapel – MDT – Bozeman Maintenance  
Joshua Dold – MDT – Road Design

### Proposed Scope of Work

The proposed project has been nominated to provide mill/fill, seal and cover and digouts will occur on the project. The Helena Road Design Section will design this project. **This project will be developed in English units.**

### Purpose and Need

The purpose of this project is to prolong the existing pavement life and to provide additional skid resistance.

### Project Location and Limits

The project is located in Park County on I-90 (U.S. 191) between Livingston and Springdale, (RP 341.0 to RP 354.0). The project begins 0.5 miles east of Mission Interchange Junction P-59 and ends at the Park County/Sweet Grass County line. The project starts 8 miles east of Livingston, and ends by the Springdale Interchange. The length of the project is 13.0 miles. The functional classification is Interstate. The project as-builts are as follows:

- I-90-7(49)341                      year 1987
- I-117(10)                              year 1960

Reference posts run from west to east on this interstate route, which corresponds with the stationing on the project. A map is attached at the end of this report.

### 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 interchange ramp closures and 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

The physical characteristics for this four-lane (2-E.B. & 2-W.B. lanes) Interstate facility are described below:

1. Surfacing information is provided below:

## Preliminary Field Review/Scope of Work Report

IM 90-7(108)341 Springdale - West  
 Project Manager: Jim Davies

<u>From</u>	<u>To</u>	<u>PMS Top Thickness (in)</u>	<u>Bottom Thickness (in)</u>	<u>Top Width (ft)</u>	<u>Number of Lanes</u>
RP 341.0	RP 343.9	7.8	15.0	37	4
RP 343.9	RP 346.0	7.8	18.0	37	4
RP 346.0	RP 349.7	7.8	15.0	37	4
RP 349.7	RP 350.2	7.8	15.0	36	4
RP 350.2	RP 351.9	8.4	12.0	36	4
RP 351.9	RP 353.2	8.4	12.0	37	4
RP 353.2	RP 353.5	8.4	12.0	36	4
RP 353.5	RP 354.0	7.2	18.6	37	4

2. Existing Roadside Geometrics: The horizontal and vertical alignments will be perpetuated for this project. The general terrain is level in a rural area.

3. PvMS Index Numbers for 2013 & Recommended Treatment for 2015:

<u>Eastbound</u>	<u>Ride</u>	<u>Rut</u>	<u>ACI</u>	<u>MCI</u>	<u>Construction</u>	<u>Maintenance</u>
RP 341.0 to RP 349.2	80.9	65.3	97.3	96.4	C AC Crack Seal & Cover	M AC Crack Seal & Cover
RP 349.2 to RP 354.0	83.6	65.2	95.1	97.9	C AC Crack Seal & Cover	M AC Crack Seal & Cover
<u>Westbound</u>	<u>Ride</u>	<u>Rut</u>	<u>ACI</u>	<u>MCI</u>	<u>Construction</u>	<u>Maintenance</u>
RP 341.0 to RP 354.0	82.1	69.9	96.3	98.2	C AC Crack Seal & Cover	M AC Crack Seal & Cover

4. Route I-90 (U.S. 191) was reconstructed in 1960 and 1987 and was improved (over-layed) in 2004.

The following bridges are within the project limits:

	<u>Bridge ID</u>	<u>Location</u>	<u>Feature Crossed</u>	<u>Const Year</u>	<u>Sufficiency Rating</u>
@	I00090343+02021	16 KM E LIVINGSTON	MISSION CREEK	1987	97.6
#	I00090343+02022	16 KM E LIVINGSTON	MISSION CREEK	1959	85.0
*	I00090343+02024	16 KM E LIVINGSTON	MISSION CREEK – INT RAMP	1987	94.0
*	I00090343+02791	16 KM E LIVINGSTON	INT MISSION CREEK	1987	97.0
*	I00090343+02792	16 KM E LIVINGSTON	INT MISSION CREEK	1987	92.0
*	I00090345+00101	12 KM E LIVINGSTON	STOCKPASS	1987	80.0
*	I00090345+07861	14 KM W SPRINGDALE	SEP COUNTY ROAD	1987	90.2
*	I00090345+07862	14 KM W SPRINGDALE	SEP COUNTY ROAD	1987	90.2
*	I00090346+05302	15 KM E LIVINGSTON	STOCKPASS	1987	80.0
*	I00090347+09901	10 KM W SPRINGDALE	JR GRADE SEP	1960	82.5
*	I00090349+01322	8 KM W SPRINGDALE	PETERSON CREEK	2012	74.0
*	I00090349+01321	8 KM W SPRINGDALE	PETERSON CREEK	1987	96.6
*	I00090349+08501	7 KM W SPRINGDALE	STOCKPASS	1987	80.0
*	I00090350+04551	6 KM W SPRINGDALE	INT SPRINGDALE WEST	1987	97.0
*	I00090350+04552	6 KM W SPRINGDALE	INT SPRINGDALE WEST	1987	97.0
*	I00090352+07051	3 KM SPRINGDALE	INT FARM (CULVERT)	1960	78.5

\* No structure or guardrail work will be performed to the bridges in place.

## Preliminary Field Review/Scope of Work Report

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Project Manager: Jim Davies

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# Guardrail will be upgraded on this structure with this project. The guardrail end treatments on the westbound lanes, left and right side will need to be upgraded. The new guardrail end treatments on the east end of the bridge will tie into the bridge concrete barrier rail at the westbound Mission Creek Interchange (RP 343.27).

@ Concrete barrier bridge rail on the eastbound bridge, left side has been damaged and will be upgraded with this project.

The Bridge Bureau will identify any additional bridge work to be included in the Scope of Work Report.

### Traffic Data

The 2013 traffic data is as follows:

2013 AADT =	9,860	Present
2015 AADT =	10,180	Letting Year
2035 AADT =	13,980	Design Year
DHV =	1610	
T =	20.0%	
EAL =	1155	
AGR =	1.6%	

### Crash Analysis

#### ENGINEERING STUDY EVALUATION

DATE: August 15, 2013

DESCRIPTION: SPRINGDALE - WEST

ROUTE & RP: I-90 RP 341.1 – 354.0

DATA TIME FRAME: 01-01-2010 TO 12-31-2012

STATEWIDE AVERAGE FOR INTERSTATE HIGHWAY (08-12)      STUDY AREA (03-12)

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ALL VEHICLES CRASH RATE:	0.90 <sup>1)</sup>	0.75 <sup>1)</sup>
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ALL VEHICLES SEVERITY INDEX:	1.83 <sup>2)</sup>	1.40 <sup>2)</sup>
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ALL VEHICLES SEVERITY RATE:	1.65 <sup>3)</sup>	1.05 <sup>3)</sup>
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TOTAL RECORDED CRASHES (January 2010-December 2012):	91
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TOTAL TRUCK CRASHES:	13
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<sup>1)</sup> Crash rates are defined as the number of crashes per million vehicle miles.

## Preliminary Field Review/Scope of Work Report

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Project Manager: Jim Davies

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<sup>2)</sup> Severity index is defined as the ratio of the sum of fatal and incapacitating injury crashes times 8 plus the number of other injury crashes times 3 plus the number of property damage crashes to the total number of crashes.

<sup>3)</sup> Severity rate is defined as the crash rate multiplied by the severity index.

### I. VARIATIONS FROM AVERAGE OCCURRENCE:

- 85.71% of crashes resulted in property damage only vs. a statewide average of 75.10% for interstate highways.
- 40.66% of crashes occurred during daylight hours vs. a statewide average of 53.88% for interstate highways.
- 56.04% of crashes occurred during dark (not lighted) hours vs. a statewide average of 37.77% for interstate highways.

### II. CRASH CLUSTERS OR SAFETY PROJECTS:

- In 2011 a crash cluster was identified from RP 350.8 to 351.0 caused by rocks falling onto the roadway. An office review determined that the problem would be addressed by project UPN 5029.
- In 2010 a crash cluster was identified from RP 353.534 to RP 354.049 based on severity index. No addressable trend was found.

### III. REMARKS & RECOMMENDATIONS:

The main crash trend identified is single vehicle run off the roadway (SVROR) crashes. There were 52 SVROR crashes, 19 of which resulted in a rollover. Twenty of the SVROR crashes resulted in a collision with the guardrail. Three of the SVROR crashes were caused by cross winds. Thirty-seven of the SVROR crashes occurred on snow, slush or icy road conditions.

There were also 27 collisions involving a wild animal, 12 of which occurred between RP 347.0 and 349.0.

### Major Design Features

- Design Speed.**  
The design speed is 70 mph, and the posted speed is 75 mph.
- Horizontal Alignment.**  
The horizontal alignment will be perpetuated with this project.
- Vertical Alignment.**  
The vertical alignment will be perpetuated with this project.
- Typical Sections and Surfacing.**  
The proposed typical section is as follows:

Eastbound and Westbound Lanes

- 0.20' mill/fill full width from reference post 341.0 to 354.0.
- Seal and cover (chip seal type II) full width from reference post 341.0 to 354.0.
- At Mission Creek Interchange, Exit 343:
  - Seal and cover (chip seal type II) full width on the ramps.
  - Crack seal full width on the ramps.

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- Seal and cover (chip seal type II) up to the cattle guard on Mission Creek Road.
- At Springdale West Interchange, Exit 350:
  - Seal and cover (chip seal type II) full width on the ramps.
  - Seal and cover (chip seal type II) full width on the cross-road under the bridge from cattle guard to cattle guard.
- At Farm Access Interchange, Exit 352:
  - 0.15' mill/fill full width on the ramps.
  - 0.15' mill/fill full width on the cross-road up to both ends of the stockpass.
  - 0.15' mill/fill full width on private approach to right-of-way.
  - Seal and cover (chip seal type II) full width on the ramps, full width on the cross-road up to both ends of the stockpass and full width on private approach to right-of-way.

The district materials lab will collect cores of the existing surfacing at bridge ends, on bridge decks with plant mix overlays and alternate lanes every ½ mile to help further refine the surfacing section. Cores have been requested for this project. Once completed, the core analysis may conclude different proposed surfacing options.

Full soil surveys have been requested at all the possible digout locations on this project. See geotechnical considerations for digout locations.

The existing surfacing top width is 37 feet from reference post 341.1 to 349.7, from 351.9 to 353.2 and from 353.5 to 354.0. There are two – 12 foot driving lanes, one – 9 foot outside shoulder and one – 4 foot inside shoulder. The existing surfacing top width is 36 feet from reference post 349.7 to 351.9 and from 353.2 to 353.5. There are two – 12 foot driving lanes, one – 8 foot outside shoulder and one – 4 foot inside shoulder. There are no proposed changes to the typical sections as this is a pavement preservation project.

### e. **Geotechnical Considerations.**

Digouts may occur at the following locations pending soil survey analyses:

- Mission Creek Bridge (RP 343.20) westbound lane – west end of bridge. Approximate length = 100 feet.
- Eastbound roadway (RP 349.3) driving lane only. Approximate length = 300 feet.
- Intch. Springdale West (RP 350.4) Eastbound and Westbound driving lanes only – east end of interchange. Approximate length = 100 feet Eastbound and Westbound.
- Eastbound roadway (RP 353.7) full width of roadway. Approximate length = 600 feet.

### f. **Hydraulics.**

No Hydraulic considerations are anticipated on this project.

### g. **Bridges.**

The bridge rail, bridge approach sections and optional terminal sections are constructed to standards so the rail will not be replaced, excluding Mission Creek Bridge and Mission Creek Interchange eastbound and westbound. Concrete barrier bridge rail is damaged on

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the inside shoulder of the Eastbound Mission Creek Bridge (RP 343.20) and will be replaced with this project. The guardrail end treatments on the westbound lanes, left and right side will need to be upgraded. The new guardrail end treatments on the east end of the bridge will tie into the bridge concrete barrier rail at the westbound Mission Creek Interchange (RP 343.27). Road Design will be using 11" x 17" plan sheets on this project. The Bridge Bureau will identify any additional bridge work to be included in the Scope of Work Report.

**h. Traffic.**

Pavement markings will be upgraded with this project. Road Design will be using 11" x 17" plan sheets on this project.

**i. Pedestrian/Bicycle/ADA.**

Interstate 90 is a controlled access facility therefore no pedestrian or bicycle facilities accommodations will be made.

**j. Miscellaneous Features.**

All millings generated by the project will be disposed of in accordance with the MDT millings disposal policy. The millings generated on the project will be disposed of on Brackett Creek Road.

1-loop concrete barrier rail will be upgraded to 3-loop with this project. 3-loop to 2-loop transitions will be installed to tie into the 2-loop concrete barrier rail that exists on the project.

Rumble strips are currently in place on the Interstate, (Eastbound and Westbound) and will be replaced with this project. The outside shoulder has intermittent rumble strips and the inside shoulder has continuous rumble strips.

All cattle guards within the project limits will be removed and replaced with this project as per maintenance recommendation. There are a total of 9 cattle guards located in the project limits. The cattle guards will be paid for with this project. Once removed, the existing cattle guards will become the property of the contractor.

Embankment protector and bituminous curbing exists at the southwest corner of the eastbound Mission Creek Bridge (RP 343.20). There is 20 feet of bituminous curbing in place that will be replaced with 20 feet of concrete curb, tying into the existing embankment protector.

Embankment protector and bituminous curbing exists at the southwest corner of the eastbound Mission Creek Interchange (RP 343.27). There is 26 feet of bituminous curbing in place that will be replaced with 26 feet of concrete curb, tying into the existing embankment protector. Erosion is occurring at the corner of the bridge end, and will be fixed with the new curbing.

**k. Context Sensitive Design Issues.**

The intent of this project is to increase the service life of the pavement and do minor repairs and upgrades as needed to reduce maintenance costs and improve safety. The majority of the work will occur on the paved roadway surface. Therefore, no significant changes will occur to the context of the area the roadway passes through once

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construction is completed.

### **Other Projects**

No other projects are planned in the vicinity of this project.

### **Location Hydraulics Study Report**

There will be no LHSR for this project as it is a mill/fill project.

### **Design Exceptions**

No design exceptions are anticipated.

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

No additional right-of-way will be required for this project.

### **Access Control**

No changes to access control with this project.

### **Utilities/Railroads**

There will be no utility involvement on this project.

The railroad runs approximately parallel to Interstate 90 and never crosses the Interstate within the project limits. There will be no railroad involvement on this project.

A utility pickup survey has been requested on this project.

### **Maintenance Items**

All cattle guards within the project limits will be removed and replaced with this project as per maintenance recommendation. There are a total of 9 cattle guards located in the project limits. The cattle guards will be paid for with this project. Once removed, the existing cattle guards will become the property of the contractor.

### **Intelligent Transportation Systems (ITS) Features**

There will be no ITS solutions to be considered as part of the design process.

### **Survey**

Survey will measure and record existing guardrail heights on this project. If the existing guardrail is less than 27-3/4" to the top back of rail it will need to be removed and reset to the proper height. In addition, for runs of guardrail with non-standard optional terminal sections, a utility pickup survey will be required in these locations. The existing 1-loop concrete barrier rail will be surveyed to determine stations, locations and lengths. Existing embankment protectors and bituminous curbing will be surveyed with this project. Survey has been requested with this project.

### **Public Involvement**

The level of public involvement will be level A, which includes the following:

#### **Level A**

1. News release explaining the project and including a department point of contact.

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### **Environmental Considerations**

At this time the project meets the criteria for a statewide programmatic categorical exclusion under the pavement preservation agreement with FHWA. We are submitting a pavement preservation checklist for this project. There is a possibility digouts may be required on this project. If the Scope of Work changes based on the results of the requested soils analyses to require crossovers to be installed with grading operations, then the type of categorical exclusion will be updated accordingly.

The Protection of Aquatic Resources supplemental specification applies to this project, specifically to the Yellowstone River, Mission Creek, Locke Creek, Work Creek, Greeley Creek, and several intermittent drainages crossing the highway within the project limits. Yellowstone Cutthroat Trout occur in the streams mentioned above. No impacts to the creeks are anticipated. No materials of any kind are allowed to enter the waterways. As proposed, no CWA 404 permits or SPA 124 notifications are anticipated for this project.

Migratory birds, specifically swallows, nest on the structures occurring within the project limits. Bridge rail work, and any other work affecting the structures must be performed in compliance with the Migratory Bird Treaty Act. Three bald eagle nests occur within 1.0-mile of the Interstate within the project limits. Two of these nests occur within 0.20-mile of the Interstate. Some work activities may be subject to timing restrictions associated with the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act.

### **Energy Savings/Eco-Friendly Considerations**

At this time, no savings or considerations have been identified.

### **Experimental Features**

At this time, no experimental features have been identified.

### **Traffic Control**

A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP), a limited Transportation Operations (TO) component and a limited Public Information (PI) component is appropriate for this project. Traffic will be maintained throughout construction through the use of part width construction and lane closures. No detours are currently anticipated, however crossovers may be required to facilitate potential digout operations. In the event crossovers will be needed, traffic control will include installation of temporary guardrail to facilitate two-way traffic. The additional traffic control costs associated with any potential crossovers will be identified in the Scope of Work Approval. The Transportation Operations (TO) plan will make use of lane closure devices and signs based on the *Manual of Uniform Traffic Control Devices* (MUTCD).

### **Project Management**

Helena Road Design will be the lead on this project and the project design manager will be Jim Davies. This project is not under full FHWA oversight.

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### Preliminary Cost Estimate

The below cost estimate does not include digouts, nor any of the work associated with digouts which include: temporary guardrail, installation of crossovers and traffic control. Pending requested soils analyses, the cost estimate will be updated accordingly in the Scope of Work Approval.

<b>PFR Estimate</b>	<b>Estimated Cost</b>	<b>Inflation (INF) (from PPMS)</b>	<b>TOTAL Costs w/INF + IDC (from PPMS)</b>
Road Work	4,252,339.00		
Traffic Control	255,140.34		
<b>Subtotal</b>	<b>4,507,479.34</b>		
Mobilization (10%)	450,747.93		
<b>Subtotal</b>	<b>4,958,227.27</b>		
Contingencies (10%)	495,822.73		
<b>Total CN</b>	<b><u>5,454,050.00</u></b>	<b>\$ 145,520</b>	<b>\$ 6,110,250</b>
<b>CE (10%)</b>	<b><u>545,405.00</u></b>	<b>\$ 14,552</b>	<b>\$ 611,025</b>
<b>TOTAL CN + CE</b>	<b><u>5,999,455.00</u></b>	<b>\$ 160,072</b>	<b>\$ 6,721,275</b>

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 9.12% for FY 2014.

### Ready Date

The current Ready Date in OPX2 is shown as July 1, 2014.

### Letting Date:

The Letting Date is September 11, 2014.

### Site Map

The project site map is attached.

