

Environmental Assessment and Section 4(f) Evaluations

Redstone – East and West

Daniels and Sheridan Counties, Montana STPP 22-1(5)15, Control Number 2024

October 2, 2006





Environmental Assessment and Section 4(f) Evaluations

for

Redstone – East and West STPP 22-1(5)15 Control Number 2024

Daniels and Sheridan Counties

This document was prepared in conformance with Montana Environmental Policy Act (MEPA) requirements and contains the information required for an Environmental Assessment under the provisions of ARM 18.2.239. It was also prepared in conformance with National Environmental Policy Act (NEPA) requirements for an Environmental Assessment under 23 CFR 771.119. Submitted Pursuant to 42 USC 4332(2)c, 49 USC 303, and Sections 2-2-104, 75-1-201 MCA.

by the

U.S. Department of Transportation Federal Highway Administration

and the

Montana Department of Transportation

Submitted by:

Montana Department of Transportation

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Reviewed and Approved for Distribution by:

Federal Highway Administration, Montana Division Office

• Date: _____

Cooperating agencies on this project include:

United States Department of the Interior, Fish and Wildlife Service United States Army Corps of Engineers Montana Department of Environmental Quality

Project Abstract and Location:

The project is located on Montana Highway 5, beginning at approximately Route Post (RP) 14.8, approximately 11.8 km (7.3 miles) west of the town of Redstone, extending 24.8 km (15.4 miles) easterly to approximately RP 30.2. The purpose of the project is to reconstruct the roadway to provide a highway that facilitates safe, comfortable and efficient movement of traffic and improves regional mobility.

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This document is also available on the following website: http://www.mdt.mt.gov/pubinvolve/eis_ea.shtml

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METRIC CONVERSION

This document, where appropriate, will reflect both metric and English units side by side to assist the reader. The metric unit is shown first followed by the English unit in parentheses. For example: 13.7 kilometers (8.5 miles). The following is a brief summary of the conversion factors and units used in this document:

Metric Units	English Units	Conversion Factor
		(Metric to English)
meter (m)	foot (ft)	3.2808
kilometer (km)	mile (mi)	0.6214
hectare (ha)	acre (ac)	2.471

ABBREVIATIONS AND ACRONYMS

ac	±	approximately
AFS	ac	acre(s)
ADT Average Daily Traffic amsl above mean sea level BA Biological Assessment BBS BBS Breeding Bird Survey BLM Bureau of Land Management BMPs Best Management Practices BRR Biological Resources Report BOR Bureau of Reclamation CFR Code of Federal Regulations cm Code of Federal Regulations cm Code of Federal Regulations cm Corps of Engineers CWA Corps of Engineers CWA Clean Water Act dB Ac-weighted decibels DEQ Department of Environmental Quality DOT Departments of Transportation DWCR Departments of Transportation DWCR Department of Environmental Quality FEMA Federal Emergency Management Agency FHWA Federal Highway Administration FPPA Federal Highway Administration FPPA Federal Highway Administration SPPA Federal Highway Administration SPPA Highway So IAWG Montana Interagency Wetlands Group IDS INVER DES COUNTING SUBAL Averighted decibes INVER SACT SCOUNTING SUBAL AVERTICAL SUBAL SUBA	AFS	American Fisheries Society
amsl	ADT	Average Daily Traffic
BA	amsl	above mean sea level
BBS Breeding Bird Survey BLM Bureau of Land Management BMPs Best Management Practices BRR Biological Resources Report BOR Bureau of Reclamation CFR Code of Federal Regulations cm centimeter(s) COE Corps of Engineers CWA Clean Water Act dBA A-weighted decibels DEQ Department of Environmental Quality POT Department of Transportation DWCR Daily Weed Control Report EO Executive Order ESA Endangered Species Act FEMA Federal Emergency Management Agency FIWA Federal Highway Administration FPPA Farmland Protection Policy Act ft for (feet) GPS Global Positioning System ha hectare(s) Hay Highway(s) IAWG Montana Interagency Wetlands Group IDS Invaders Database System in Montana Interagency Wetlands Group IDS Invaders Database System in	BA	Biological Assessment
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EO	DWCR	
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LWCF Land and Water Conservation Funds	Leq	
	LWCF	Land and Water Conservation Funds



m	meter(s)
mi	mile(s)
MBD	Montana Bird Distribution
MBDC	Montana Bird Distribution Committee
MBEWG	Montana Bald Eagle Working Group
MBTA	Migratory Bird Treaty Act
MCA	Montana Code Annotated
MDT	Montana Department of Transportation
MDEQ	Montana Department of Environmental Quality
MEPA	Montana Environmental Policy Act
MFISH	Montana Fisheries Information System
MFWP	Montana Fish, Wildlife and Parks
MNHP	Montana Natural Heritage Program
MP	milepost
MPDES	Montana Pollution Discharge Elimination System
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHS	National Highway System
NPGC	Nebraska Game and Parks Commission
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRIS	Natural Resources Information System
NWI	National Wetlands Inventory
NWR	National Wildlife Refuge
RP	reference post
SCS	Soil Conservation Service
SPA	Montana Stream Protection Act
SSD	stopping sight distance
SSURGO	Soil Survey Geographic Database
SWPPP	Stormwater Pollution Prevention Plan
USCOE	
USFWS	
USFS	
USGS	U.S. Geological Survey
UST	Underground Storage Tank



1.1 PROJECT AREA DESCRIPTION

The proposed action is to reconstruct Montana Highway 5, from approximately 11.8 km (7.3 miles) west of Redstone at approximately Route Post (RP) 14.8 and extends approximately 24.8 km (15.4 miles) easterly to approximately RP 30.2, passing through the town of Redstone. The Daniels/Sheridan County line is located at RP 17.9. This segment of roadway is designated as a minor arterial. It connects population and commerce centers in northeast Montana and provides access to the National Highway System (NHS). It also serves as a farm-to-market roadway. This project in addition to the recently constructed Flaxville-East & West and Plentywood-West projects would result in safety and design improvements to the Montana 5 corridor.

The existing 2-lane facility was constructed under 3 separate contracts in 1936 and 1937. The western 9.5 km (5.9 mi) received a road mix overlay in 1961. The westernmost 5.0 km (3.1 mi) was constructed to a 7.3 m (24.0 ft) finished top width. The middle 18.3 km (11.37 mi) was constructed to a 7.6 m (24.9 ft) finished top width, and the easternmost 1.4 km (0.87 mi) was constructed to a 7.3 m (24.0 ft) finished top width. The existing cut and fill slopes within the corridor are steep and do not meet criteria for this roadway type. The 9 timber bridges (ranging from 7.01 m (23.0 ft) to 7.80 m (25.59 ft) wide) vary from 1 to 5 spans. One of these bridges is a stockpass; the others span perennial, intermittent, or ephemeral waterways.

Project area topography consists of level to rolling terrain that is used primarily for irrigated farming, dry land farming and grazing. Figures 1 and 2 show the project location and limits.

1.2 PROJECT CORRIDOR LOCATION

The project corridor is located in northeastern Montana in Daniels and Sheridan Counties, within the following legal descriptions:

Township	Range	Section
35N	50E	12
35N	51E	1-5, 7, 8
35N	52E	4-6, 9-14
35N	53E	8, 9, 16-18
36N	52E	31, 32

The beginning point of the proposed project ties to the end of the recently constructed Flaxville – East & West project. The endpoint of the proposed project ties to the Plentywood – West project. The Redstone – East & West project would complete the reconstruction of Highway 5 from west of Flaxville to Plentywood.

1.3 PROJECT NAMING

The proposed action is designated as shown below.

Redstone – East and West Project Number STPP 22-1(5)15 Control Number 2024

For purposes of this Environmental Assessment (EA) the proposed project will be referred to as the Redstone – East and West project. However, it should be noted that the proposed project was split in



January 2006 for funding purposes. The two projects will be developed under one Preliminary Engineering program, but they are likely to be let as separate construction contracts. The split would be at RP 24.0., which is east of the Redstone Creek Bridge. The scope of work for both projects would remain the same (reconstruction without added capacity). The proposed revised nomenclature and approximate RPs are shown below.

 Redstone E & W
 Jct S-374-West

 STPP 22-1(11)15
 STPP 22-2(20) 24

 Control Number 2024000
 Control Number 2024001

 RP 14.8 to RP 24.0
 RP 24.0 to RP 30.2

1.4 PURPOSE OF THE PROPOSED ACTION

The purpose of the proposed action is to reconstruct the existing, deteriorating roadway that is well beyond its design life and address substandard roadway and structural conditions and potential safety issues in order to provide a highway that facilitates safe, comfortable and efficient movement of traffic and improves regional mobility. One of the objectives of the project would be to produce a road that, to the greatest extent practicable, meets Montana Department of Transportation (MDT) design standards.

The Route Segment Plan was developed to build a consistent roadway width throughout a defined corridor. Widths were selected based on traffic volumes, anticipated growth, and recognition of limited funding. The Plan serves as a guide for future roadway improvement projects based on current and projected travel demand. It provides the basis for prioritizing projects and planning future investments to maintain the overall integrity of the state highway system.

Montana Highway 5 is a designated minor arterial. The Route Segment Plan for this type of roadway identifies a typical roadway width of 8.4 m (28 ft). The MDT standard requires a minimum of two 3.6 m (12 ft) travel lanes and two 0.6 m (2.0 ft) shoulders. Additional resurfacing over the years has reduced the top width of the existing roadway to an average of 6.7 m (22 ft), with shoulders of 0.1 m (0.33 ft) to 0.3 m (0.98 ft). (Resurfacing narrows the roadway because the overlay cannot be vertical at the edge of the existing pavement, so it is tapered to the edge of the pavement, and therefore the driveable surface decreases). Structural crossings, such as bridges and culverts, would require replacement to accommodate the wider roadway width.

In addition, the current roadway does not meet MDT standards for superelevation, transition spirals, vertical alignment, and road grades for this type of roadway, and for the proposed 100 km/h (60 mph) design speed. (Superelevation is the incline on a curve that keeps a vehicle centered on the roadway, and reduces stress on the tires). Transition spirals serve as the path to introduce the superelevation. The superelevations on the existing roadway have diminished through use and settlement over time, and none of the curves include transition spirals. The vertical alignment does not provide the minimum stopping sight distance (SSD) for the 100 km/h (60 mph) design speed. Grades exceed 4 percent at 6 locations with the maximum grade of 6 percent occurring at 5 locations on the project.

Due to the substantial gap between the existing conditions and current standards, a rehabilitation of the existing facility would not be a feasible alternative. Reconstruction of the highway is needed to meet MDT's current standards.

Highway operations and safety can be enhanced by providing an upgraded facility that, to the greatest extent practicable, meets current MDT design standards. Upgrades would include straightening of horizontal curves and flattening of vertical curves, providing wider shoulders and bridges, maintaining clear zones where possible that would eliminate the need for guardrails, and improving the roadway surface to better accommodate traffic volumes and loads. Those types of improvements are proposed to provide a modern highway section compatible with the surrounding built and natural environments. The



project as proposed would also provide a more consistent roadway facility by connecting with recently improved portions of Highway 5 to the east and west, creating improved mobility throughout the region.

1.5 NEED FOR THE PROPOSED ACTION

This section identifies concerns that exist with the current transportation facility or that will exist if proposed improvements are not implemented. The needs for this project can be summarized as

- Deteriorating Roadway,
- Roadway Geometric Deficiencies,
- Structural Deficiencies, and
- Safety Concerns.

The existing roadway was constructed in 1936 and 1937 and is currently well beyond its design life. The roadway surface and sub-grade are deteriorated to the point where they cannot be rehabilitated and must be reconstructed.

In the last 70 years the knowledge of road design and road safety has greatly improved. As a result, this 70-year old road has design features that are now perceived as potential safety concerns and are thus considered roadway and structural deficiencies. Accident data indicates that 28 accidents were reported in the project corridor from July 1988 through June 1998. Those accidents included 1 fatality and 2 incapacitating injuries. In 71.4 percent of reported crashes, the vehicle left the roadway, compared to a statewide rural primary average of 50.2 percent. Proposed design features, including increased roadway width, new pavement markings, flatter side slopes and extended sight distance are expected to reduce the frequency and severity of accidents along this stretch of roadway.

The deficient design features and associated potential safety concerns are summarized below.

Travel Lane and Shoulder Widths: Narrow roadways and shoulders pose safety concerns for several reasons. When a driver passes an object on the road or along the roadside, there is a certain minimum distance at which the driver feels comfortable passing; any closer feels too close because it requires too much accuracy to avoid a collision. That distance that the driver shys away from potential obstacles is the "shy distance." The concept of shy distance may cause a driver to veer to the left into the on-coming traffic lane if a pedestrian is walking along a narrow roadway with narrow or non-existent shoulders. The concept or shy distance may also cause a driver to veer to the right into the shoulder or off the roadway when a wide tractor trailer is approaching them in the on-coming traffic lane. Narrow travel lanes and shoulders allow the driver less space to accommodate this shy distance or other obstacles that may present themselves.

Existing travel lane and shoulder widths are too narrow to be consistent with current design standards. The existing roadway width varies between 7.3 m and 7.6 m (24 ft and 25 ft); however additional resurfacing has reduced the roadway within the project area to an average of 6.7 m (22 ft). The Route Segment Plan for this type of roadway identifies a typical roadway width of 8.4 m (28 ft), making the existing roadway 1.7 m (5.6 ft) too narrow.

Steep Slopes: A side slope is the area that extends from the outside edge of the roadway or shoulder to the bottom of the ditch. If that slope is too steep, a driver may not be able to retain or regain control of his or her vehicle if he or she goes off of the roadway. Existing cut and fill slopes do not meet current criteria for major collectors. Standard fill slopes range from 6:1 to 2:1, depending on fill height (the greater the fill height, the steeper the slope). Standard cut or back slopes range from 5:1 to 1.5:1, also depending on fill height. The slope standard reflects the safest possible slope at an affordable cost. Consideration is also given to terrain, appearance and constructability. Most of the existing fill slopes in the project



corridor are 3:1 or steeper. Most of the existing cut slopes are 2:1 or steeper. Those slopes do not meet slope standards.

Vertical Alignment: Vertical alignment is basically the grade of the roadway, or how much the roadway rises (or falls) over a given distance. If the road ascends or descends too steeply, sight distance is minimized. Sight distance is the length of roadway ahead that is visible to the driver. Stopping sight distance is the sight distance that is sufficiently long to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path. The existing vertical alignment does not provide the minimum desirable stopping sight distance at 21 crest (hill) and 18 sag (dip) vertical curves. As a result, as a driver travels over those crests (hills) or sags (dips) at the design speed, by the time that driver is able to see a potential obstacle in the roadway, he or she would not have adequate time to stop his/her vehicle to avoid that obstacle.

Diminished Superelevation: Superelevation is the amount the roadway surface elevation raises as you move from the inside to the outside edge of a horizontal curve. Superelevation is provided to help counterbalance the outward pull of a vehicle traversing a curve. Along with friction, superelevation plays a key role in keeping a vehicle from going off the road. As stated above, the superelevation of this section of roadway has diminished over time. As a result, vehicles are more likely to leave the roadway on curves.

Structural Deficiencies: The sufficiency rating for a bridge structure is based on its structural adequacy and safety, necessity for public use, serviceability, and functional obsolescence. The ratings are developed by the Federal Highway Administration (FHWA) and are one of the parameters used in allocating federal funding for the Highway Bridge Replacement and Rehabilitation Program. The ratings provide a basis for establishing eligibility and priority for replacing or rehabilitating bridges. In general, the lower the rating (on a scale from 0 to 100), the higher the priority. Under the Highway Bridge Replacement and Rehabilitation Program, a sufficiency rating below 50 qualifies a structure for replacement funding and a sufficiency rating of 50 to 80 generally qualifies a structure for rehabilitation and some fit the criteria that would generally lead to rehabilitation. However, the approximately 70-year old timber bridges would be difficult to rehabilitate and would then remain narrower than the rest of the roadway and could pose a safety hazard. As a result, the bridges on the proposed project would be replaced. Data for bridge structures within the project corridor are summarized in Table 1.

Feature Crossed Structure Type		Location	Year	Width	Sufficiency
		(RP)	Built		Rating
Gaines Creek	1 span, timber	15.3	1935	7.38 m (24.2 ft)	35.5
North Fork Eagle Creek	4 span, timber	20.5	1936	7.04 m (23.1 ft)	51.9
Eagle Creek	5 span, timber	21.6	1936	7.01 m (23.0 ft)	57.5
Redstone Creek	4 span, timber	23.9	1936	7.01 m (23.0 ft)	57.1
Big Muddy Creek	5 span, timber	25.5	1936	7.01 m (23.0 ft)	47.5
Unnamed drainage	2 span, timber	26.3	1936	7.04 m (23.1 ft)	63.1
Stockpass	1 span, timber	27.8	1936	7.04 m (23.1 ft)	67.5
Archer Coulee	1 span, timber	28.8	1936	7.80 m (25.6 ft)	45.5
Unnamed drainage	1 span, timber	30.1	1936	7.04 m (23.1 ft)	60.4

Table 1. Su uctul al Inventor y Assessmen	Table 1	. Structural	Inventory	Assessment
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Figure 1





Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)

Redstone – East and West Environmental Assessment Project Area Map Figure 2

2.1 DEVELOPMENT OF ALTERNATIVES AND EVALUATION PROCESS

Two alignments, known as the Lower/Existing Alignment and Upper Bench Alignment, were developed and evaluated based on information received from the public. As shown in the Figure 3, the Lower/Existing Alignment generally follows the existing roadway. Alternatives evaluation included consideration and comparison of the social and environmental impacts of both alignments.

Analysis of the alternatives revealed that the Upper Bench Alignment would result in additional impacts to farmland practices, water body modifications, floodplains, threatened and endangered species, cultural resources, and visual resources. In addition, the Upper Bench alignment would result in a bypass of the Town of Redstone, compromising local business and requiring the relocation of businesses and/or residences. As a result, the Upper Bench Alignment was eliminated from further study. Both the Preferred Alternative and the eliminated Upper Bench Alignment are discussed in more detail in the sections below.

2.2 NO-BUILD ALTERNATIVE

The No-Build Alternative is a non-construction alternative that would maintain the existing conditions along the entire length of the project corridor. The No-Build Alternative would include routine maintenance projects on Highway 5. The following summarizes how the No-Build Alternative would or would not address the purpose and need for the proposed action:

- Safety Concerns Existing poor vertical alignments, diminished superelevations, and steep grades would remain, contributing to safety concerns in the corridor.
- Structural Deficiencies Existing bridges would remain, leaving 3 bridges with poor sufficiency ratings.
- Roadway Deficiencies Roadway widths, cut and fill slopes, superelevations, and horizontal and vertical alignment would continue to be insufficient compared to MDT design criteria.

The objective of upgrading Highway 5 to provide a minor arterial that meets current MDT design standards to the greatest extent practicable would not be met under the No-Build Alternative. Consequently, the No-Build Alternative does not meet the purpose and need of the proposed project. This alternative can be used as the baseline against which potential impacts from build alternative(s) can be compared.

2.3 PREFERRED ALTERNATIVE

The Preferred Alternative would include full reconstruction of the roadway, including roadway widening and resurfacing, major grading, installation of new drainage structures including bridges, and changes to the horizontal and vertical alignment. The roadway would initially be reconstructed to an approximately 9.2 m (30 ft) finished top width. The Preferred Alternative generally follows the existing alignment, but departs from the centerline in some places to better align approaches; lengthen curves; reduce skew angle on structures; and minimize impacts to cultural resources, protected species, utilities, Redstone Cemetery, railroad right-of-way, drainage meanders, and wetlands. Where necessary, alignment shifts are expected to range from approximately 10 m (33 feet) to 72 m (236 feet). Abandoned portions of the existing roadway would be removed according to MDT Standard Specification for obliteration of roadway, which requires grading, contouring and seeding of abandoned roadways to blend with the new roadway and existing terrain.

In general, the typical sections for the Preferred Alternative would consist of one approximately 3.6 m (12 ft) travel lane and one approximately 1 m (3.0 ft) shoulder in each direction (see Figure 4). The



approximately 9.2 m (30 ft) final top width would provide an additional 0.8 m (2.6 ft) to accommodate one overlay project within the 20-year design life of the project. That additional width would ensure that the minimum standard of 8.4 m top width can be maintained over time.

The 9 existing timber bridges in the corridor would be removed as part of the Preferred Alternative. Final design may require some modification, but at this point, replacement bridges are planned to be constructed at Eagle Creek, Redstone Creek, and Big Muddy Creek and culverts are planned to be installed at the other crossings.

The proposed Preferred Alternative would meet the purpose and need of the proposed project. Potential impacts of the Preferred Alternative are summarized in Table 2.

2.4 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

As discussed in Section 2.1, the Upper/Bench Alignment was eliminated from further consideration based evaluation of impacts and concerns about bypassing the Town of Redstone. This alternative included reconstruction of existing alignment between RP 14.8 and RP 21.7, similar to the Lower/Existing Alignment. However, the alignment would shift north of the town of Redstone between RP 21.7 to 26.0, crossing Big Muddy Creek northeast of town. This new alignment would be located on a bench as much as 2 km (1.2 mi) north of the existing roadway. From RP 26.0 to 29.5, the new alignment would remain from 60 m (197 ft) to 300 m (984 ft) north of the existing roadway.

Compared to the Preferred Alternative, the Upper/Bench alignment was found to have greater impacts in several categories. Specific public concerns regarding this alignment included:

- Segmentation of cattle feeding pastures and other farm/ranch land
- Loss of Conservation Reserve Program (CRP) land
- Impact to State of Montana land
- Safety/maintenance concerns due to more snow on the bench in winter
- Compromised approach and access for trucks



Table 2. Potential Impacts of Preferred Alternative

Impact Area	No-Build	Preferred Alternative
	Alternative	
Travel / Access	No impact.	No adverse impact.
Ped/Bike Facilities	No impact.	No adverse impact.
Parks and Recreation / LWCF Section	No impact.	No impact.
6(f) Sites		
Environmental Justice	No impact.	No disproportionate adverse impacts.
Land Use / Right-of-Way / Easements	No impact.	-No substantial impact on the location, distribution, density, or growth rate of the population.
		-Approximately 77 hectares (191 acres) of right-of-way acquisition.
		-Some land converted from agricultural to transportation use.
		-No relocation of residences or businesses.
Farmlands	No impact.	One parcel of statewide important farmland affected
Irrigation	No impact.	No impact.
Local / Regional Economics	No impact.	No direct long-term adverse or beneficial impacts on local or regional economics.
Floodplains	No impact.	No adverse impact.
Seeding / Erosion	No impact.	Temporary soil surface disturbances could create potential for erosion and invasion of undesirable weed
		species.
Water Quality	No impact.	Removal and replacement of bridges and culverts and the associated in-stream work could result in
		temporary increased erosion potential, sediment, and turbidity.
Wetlands	No impact.	Approximately 2.8 hectares (approximately 6.8 acres) of impact.
T&E Species	No impact.	No impact.
Water Bodies, Wildlife Resources, and	No impact.	-Area is already disturbed, so displacement of individuals or populations, direct mortality, or additional
Habitat		habitat fragmentation would be minor.
Cultural / Archeological / Historic /	No impact.	-In terms of 4(f) applicability, 9 timber bridges, 2 irrigation ditches, and 2 road grades fall under existing
Section 4(f) Resources		Programmatic Agreements.
		-No impacts to other 4(f) sites.
		-No impacts to cultural resources.
Noise	No impact.	No impact.
Visual Resources	No impact.	Potential impacts associated with alignment modifications and removal of vegetation.
Air Quality	No impact.	No impact.
Hazardous Materials	No impact.	No impact.
Construction Impacts	No impact.	-Temporary traffic disruptions and detours.
		-Access to businesses and residences would be maintained during construction.
		-Existing highway would remain in use for continued access during construction.
		-Temporary noise and dust impacts.
		-Impacts to overhead transmission lines and utility poles, as well as underground telephone lines.
		-Potential for surface water runoff and erosion of bare soils.





Redstone – East and West Environmental Assessment Project Alternatives Figure 3



→ 1.0 m (3 ft) SHOULDER

EARTH FILL SECTION

6:1 VARIABLE



Redstone – East and West Environmental Assessment Typical Section Figure 4 This section contains information on potential social, economic and environmental resource impacts of the Preferred Alternative. Individual resource areas are discussed in detail in Section 3.1 through 3.5. Indirect/Secondary Impacts and Cumulative Impacts are discussed in Sections 3.6 and 3.7, respectively. This information was developed in a cooperative effort between federal agencies, MDT and other state agencies, county officials, and members of the general public.

3.1 SOCIAL IMPACTS

This section includes impacts on the traveling public and/or other users of the existing and proposed transportation facility. It also describes potential relocations or displacements of minority or low-income populations, and/or impacts to community cohesion. Characteristics of the existing population are presented below to provide a context in which to evaluate social impacts.

Demographics

Table 3 summarizes demographic information in the project area, including population, median age, median household income, and average household size.

	1990 Pop.	2000 Pop.	% Change	Median Age	Median HH Income ¹	Avg HH Size
Town of Redstone (zipcode 59257)	N/A	81	N/A	45.8	\$46,250	2.13
Daniels County	2266	2017	-11.0%	45.1	\$27,306	2.29
Sheridan County	4723	4105	-13.3%	47.0	\$29,518	2.22
State of Montana	799,065	902,195	12.9%	37.5	\$33,024	2.45

Table 3. Demographic Information

Source: U.S. Census Bureau, 1990 and 2000

¹1999 data. HH = Household.

The project area population has declined overall since 1990, and according to population projections by the Montana Department of Commerce Census and Economic Information Center, that trend is expected to continue through the year 2020. Sheridan County is projected to decrease in population by 9.6 percent (395 people) and Daniels County is projected to decrease by 8.3 percent (167 people) by the year 2020.

Residents in the project area tend to be higher in age and lower in median household income and average household size compared to the state. This is largely due to the rural nature and relatively low population of the area. The exception is the immediate Redstone area, which has a higher median household income.

3.1.1 Travel/Access

Overall, the Preferred Alternative would be an improvement to the public road and bridge system in this area of Daniels and Sheridan Counties. Horizontal and vertical alignment improvements, along with of wider shoulders, would make travel on the roadway safer, as sight distances would be increased and turnoff areas would be available. In addition, inclined approaches and curves along the existing right-of-way would be flattened and brought to current MDT standards, also increasing safety and convenience to motorists.

Impacts

Provision of a reconstructed and improved roadway would result in positive impacts of improved access for area residents, businesses, travelers and truckers. The improved roadway would more consistently match with roadway segments to the east and west, and would provide a safer and more user-friendly roadway for drivers.



No access points are proposed for elimination under the Preferred Alternative. However, some individual access points to fields or private residences may be modified slightly as a result of the Preferred Alternative. For example, a private drive may be lengthened slightly to connect with the realignment of the road. Access changes are not anticipated to adversely impact existing or future businesses. There are also 2 chain-up turn-outs included in the Preferred Alternative. These would be located at approximately RP 14.88 to RP 14.99 and RP 21.08 to RP 21.13.

Under the No-Build Alternative, the existing roadway would remain and would not be widened or made to comply with current MDT standards. No turn-outs would be included. Drivers would not have the benefit of a safer and more convenient roadway under the No-Build Alternative.

Mitigation

Consultation with affected property owners would occur prior to completion of final design to minimize adverse impacts. No other mitigation is required.

3.1.2 Pedestrians and Bicyclists

Pedestrian/bicycle traffic in vicinity of the Preferred Alternative is limited and very minor. The nearest source of such traffic is Flaxville, and to a lesser degree, Redstone. Currently, the comparatively narrow road width, limited sight distance, and narrow shoulders restrict pedestrian/bicycle use on the existing roadway. Some use of this type occurs from nearby local residences and sporadic seasonal visitors; however, this is sparse and intermittent.

Impacts

The Preferred Alternative does not designate sidewalks or paths for pedestrian/bicycle use. However, the proposed wider shoulders (1 m [3.0 ft]) would better accommodate pedestrians and bicyclists. The wider shoulders would also improve visibility for all users of the roadway, including pedestrians and bicyclists. Therefore, pedestrian and bicycle safety is expected to improve under the Preferred Alternative.

Under the No-Build Alternative, the current narrow roadway width and narrow shoulders would continue to be limiting for pedestrian and bicycle users.

Mitigation

No mitigation is required.

3.1.3 Parks and Recreation/NL&WCF – Section 6(f) Lands

No National Land & Water Conservation Fund (NL&WCF) Act/Section 6(f) (16 U.S.C. 460) properties have been identified within vicinity of the Preferred Alternative. No acquisition of NL&WCF/Section 6(f) properties are expected occur, as no impacts are anticipated by the Preferred Alternative (see letter from Montana Fish, Wildlife & Parks in Appendix B). No mitigation is required.

3.1.4 Environmental Justice (EO 12898)

Title VI of the U.S. Civil Rights Act of 1964 (USC 2000(d), as amended), FHWA regulations at 23 CFR 200, and Executive Order (EO) 12898 require that no minority, or, by extension, low-income person shall be disproportionately impacted by any project receiving federal funds. For transportation projects, this means that no particular minority or low-income person may be disproportionately isolated, displaced, or otherwise subjected to adverse effects. Table 4 lists the minority and low-income populations of the project area, in comparison with the state of Montana.



	Town of	Daniels	Sheridan	State of
	Redstone	County	County	Montana
Total Population	81	2,017	4,105	902,195
White	96.3%	96.0%	97.0%	90.6%
African American	0	0	0.1%	0.3%
American Indian/Alaska Native	3.7 %	1.3%	1.2%	6.2%
Asian	0	0.2%	0.3%	0.5%
Native Hawaiian/Pacific Islander	0	0.1%	0	0.1%
Hispanic/Latino	0	1.6%	1.1%	2.0%
Some Other Race	0	0.6%	0.2%	0.6%
2 or More Races	0	1.7%	1.2%	1.7%
Total Minority	3.7%	4.0%	3.0%	9.4%
Persons Below Poverty Level ¹	8.6%	16.9%	14.7%	14.6%

Table 4. Minority and Low-Income Populations

Source: U.S. Census Bureau, 2000

¹1999 data

The ethnic makeup of the project area is primarily white, which is consistent with the state as a whole, although the project area does have a lower total minority population than the state. The highest percentage of minorities within the project area and the state are American Indians. Persons below poverty level are higher in Daniels and Sheridan Counties than for the state. This is most likely due to the rural nature of the project area.

Impacts

The Preferred Alternative would not cause any residential or business displacements, and is not expected to have substantial impact on the location, distribution, density or growth rate of the project area population. The project site is in a rural area and the Preferred Alternative would not cause division of any communities or neighborhoods. Therefore, the Preferred Alternative would not disproportionately adversely impact any minority or low-income groups.

Under the No-Build Alternative, the existing roadway would remain. This alternative would not adversely impact any minority or low-income groups.

Both the No-Build Alternative and the Preferred Alternative are in accordance with EO 12898, and would not create disproportionately high and/or adverse impacts on the health or environment of minority or low-income populations. These alternatives also comply with the provisions of Title VI of the Civil Rights Act of 1964 (U.S.C. 2000(d), as amended) under FHWA regulations (23 CFR 200).

Mitigation

No mitigation is required.

3.2 ECONOMIC IMPACTS

This section identifies changes in land use (including farmlands), and potential impacts on local/regional economies that could occur under the Preferred Alternative.

3.2.1 Land Use/Right-of-Way/Easements

The Redstone East-West corridor is located in northeastern Montana. Flaxville and Redstone are the nearest population centers.



Land use in the project corridor is a combination of agricultural and rural residential uses. The area west of Redstone is more rolling, while the area east of Redstone is nearly level, following Big Muddy Creek.

Impacts

As previously noted, the populations of Redstone, Daniels County, and Sheridan County have declined since the 1990 census, and are projected to continue to decline through the year 2020. Neither the No-Build nor Preferred Alternatives would have a substantial impact on the location, distribution, density, or growth rate of the area population. The total of new/additional right-of-way that is expected to be required to implement the Preferred Alternative is approximately 77 ha (191 ac). No relocations of residences or businesses would be required. With potential right-of-way acquisitions, some land would be converted from agricultural to transportation use.

No right-of-way acquisition or acquisition of residences or businesses would be required under the No-Build Alternative.

Mitigation

Right-of-way needs have been and will be minimized as much as practicable. Any right-of-way acquisitions necessary for roadway construction will be governed by state and federal laws and regulations designed to protect both the landowners and taxpaying public. Affected landowners are entitled to receive fair market value for any land or buildings acquired and any damages as defined by law to remaining land due to the effects of roadway construction. Right-of-way acquisition and obtaining of easements would be conducted in accordance with applicable laws including Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC 4601, et. seq.), (49 CFR 24), and 23 USC 317 for appropriation of public lands.

3.2.2 Farmlands

The majority of land adjacent to Montana Highway 5 is used for agricultural purposes. The 1981 *Farmland Protection Policy Act* (FPPA) requires that the effects of proposed highway projects be examined before any farmland is acquired. The FPPA uses the Farmland Conversion Impact Rating form (#AD-1006) to assess farmland impacts. This form was used to identify the potential farmland impacts that would be associated with the Preferred Alternative. The right-of-way area was inventoried using the Natural Resource Conservation Service (NRCS) Soil Survey Geographic (SSURGO) database for Sheridan and Daniels Counties.

Impacts

The FPPA definition of farmlands includes all areas in non-urban use. This does not mean that these lands are currently in crop production, since the definition also includes forested, idle, pasture, open and recreational lands, as well as unpaved roads, rural residences and farm buildings. Of particular importance in evaluating project impacts is prime farmland. Prime farmland is land that has the best combination of physical and chemical characteristics for producing agricultural crops with minimum inputs of fuel, fertilizer, pesticides, labor and without intolerable soil erosion.

Daniels County NRCS has indicated there is no prime farmland in the Daniels County portion of the Preferred Alternative. Sheridan County NRCS has indicated there would be direct and indirect impacts to one farmland area of Statewide Importance located west of Redstone in Sheridan County, totaling approximately 7 acres. Direct and indirect impacts to farmland of Statewide Importance in Sheridan County have been documented on Form CPA-1006, which is included in Appendix B. Potential farmland impacts associated with the Preferred Alternative scored 121 points, which is less than the 160-point NRCS threshold for further action.



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Under the No-Build Alternative, the existing roadway would remain. There would be no impacts to prime farmland or farmland of Statewide Importance.

Mitigation

No mitigation is required.

3.2.3 Irrigation

Impacts

According to the NRCS, there are no active irrigation systems within the project area of the Preferred Alternative. No impacts to irrigation systems are anticipated. MDT would coordinate with ditch owners during construction. There are no long-term impacts on irrigation activities expected as a result of the Preferred Alternative.

Under the No-Build Alternative, the existing roadway would remain, and no irrigation systems would be impacted.

Mitigation

No mitigation is required.

3.2.4 Local/Regional Economics

Impacts

The Preferred Alternative is not anticipated to have any direct long-term adverse or beneficial effects on the local or regional economies. The improvements would not substantially increase roadway capacity because it would remain a 2-lane facility. In addition, by keeping the roadway open during construction, and phasing construction along the corridor, only minor disruptions to business, residential and tourist traffic are anticipated. Likewise, impacts on the local and regional economies from the No-Build Alternative would be negligible.

Likewise, the No-Build Alternative would not have any direct long-term adverse or beneficial effects on the local or regional economies.

Mitigation

No mitigation is required.

3.3 ENVIRONMENTAL IMPACTS

3.3.1 Floodplains (EO 11988)

In accordance with EO 11988 (Floodplain Management), FHWA requires the evaluation of the Preferred Alternative to determine if any of its alternatives encroach on the "base" floodplain (23CFR 650, Subpart A). The "base" floodplain is defined as the area covered by water from a 100-year flood. The 100-year floodplain designates the area inundated during a flood that has a 1 percent chance of occurring in any given year. Floodplains are mapped by the Federal Emergency Management Agency (FEMA). Governance over delineated floodplains is delegated to state and local levels of government.

No FEMA floodplain mapping has been undertaken for Sheridan or Daniels Counties. Often the cost of mapping an area far outweighs any potential flood damage, due to the rural nature of an area and/or the



limited number of structures that could possibly be affected. MDT has also not done any flood mapping in this area.

Impacts

For a majority of the drainages in the project area, the level of service has been improved over the existing condition. For others, upstream flood stages may increase slightly as a result of the Preferred Alternative. However, no adverse impacts are anticipated as a result of the upstream increases. No structures would be affected, and there would be no additional risks to the drainage crossings. As there are no floodplains delineated in Sheridan or Daniels Counties, local regulatory measures do not apply. Proposed modification and creation of drainages in the project area have been designed to minimize adverse impacts.

Under the No-Build Alternative, the existing roadway and drainages would remain. No alterations to drainages would be undertaken.

Mitigation

No mitigation is required.

3.3.2 Seeding/Erosion

Of the 27 plants designated as noxious weeds in Montana, 8 species; whitetop (*Cardaria draba*), spotted knapweed (*Centaurea maculosa*), Russian knapweed (*Centraurea repens*), Canada thistle (*Cirsium arvense*), field bindweed (*Convolvulus arvensis*), leafy spurge (*Euphorbia esula*), Dalmation toadflax (*Linaria dalmatica*), and common tansy (*Tanacetum vulgare*), all Category I noxious weeds, have been identified in Daniels and Sheridan Counties (Invaders Database System (IDS) 2005). The Montana Department of Agriculture defines Category 1 noxious weeds as weeds that are currently established and generally widespread in many counties of the state. Four of the 8 noxious weed species known to occur in these counties were identified as occurring along the project corridor including: Canada thistle, field bindweed, leafy spurge, and spotted knapweed. An additional species, Russian knapweed, was identified as potentially occurring in the project vicinity.

Impacts

Construction of the Preferred Alternative would cause temporary soil surface disturbances and create the potential for erosion of disturbed areas and the invasion of undesirable weed species.

Under the No-Build Alternative, the existing roadway would remain and no ground-disturbing construction would take place. Therefore, the No-Build Alternative would not cause any erosion or seeding impacts.

Mitigation

To reduce the spread and establishment of noxious weeds and to re-establish permanent vegetation, disturbed areas within MDT right-of-way or easements will be seeded with desirable plant species as soon as practicable, as recommended and determined feasible by the MDT Botanist. Revegetation will be conducted according to applicable laws.



3.3.3 Water Quality

Big Muddy Creek is located within the Lower Missouri watershed, and is identified on the 2004 303(d) list as an impaired water body from Canada to the northern boundary of the Fort Peck Reservation. Probable causes of impairments are metals, nutrients, organic enrichment/low dissolved oxygen, riparian degradation, and other habitat alterations. Probable sources include agriculture, crop-related sources, and grazing related sources. Redstone Creek, Gaines Creek, Eagle Creek, and North Fork Eagle Creek are not identified in the 2004 303(d) list (MDEQ Website 2005).

Impacts

Under the Preferred Alternative, removal and placement of bridges and culverts and the associated instream work could result in temporary increased erosion potential, sediment, and turbidity. Increased sediments can reduce pool depth, alter substrate composition, reduce interstitial space, and cause channels to braid. Elevated turbidity can decrease the ability of aquatic species to locate food, decrease the risk of predation of fish species by birds and mammals, and can cause physiological problems.

Under the No-Build Alternative, the existing roadway would remain and no water bodies would be disturbed by construction.

Mitigation

The Preferred Alternative may impact water quality through storm water runoff and erosion. Potential water quality impacts will be avoided and/or minimized through adherence to MDT's Standard Specifications related to water pollution control and stream preservation; adherence to applicable permits, and adherence to *MDT's Erosion and Sediment Control Best Management Practices Manuals*. Mitigation of these impacts may be achieved through engineering controls, such as grading, revegetation, design of culverts and ditches, and the use of Best Management Practices (BMPs). Construction will require a Montana Pollution Discharge Elimination System (MPDES) Stormwater Pollution Prevention Plan (SWPPP) and monitoring oversight to ensure that impacts to water quality due to construction are minimal.

3.3.4 Wetlands (EO 11990)

Wetlands are regulated by Section 404 of the Clean Water Act (CWA), EO 11990 ("Protection of Wetlands"), and EO 11998 ("Floodplain Management"). Under the COE and EPA regulations (33 CFR 328.3 and 40 CFR 230.3), the term "wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

The wetlands delineated in the project corridor were assessed for 12 wetland functions and value variables and assigned 1 of 4 MDT Category Ratings:

- **Category I** Exceptionally high quality;
- **Category II** More common than Category I, providing good quality habitat for sensitive plants or animals, function at very high levels for fish/wildlife habitat or are unique in a given region;
- **Category III** More common, generally less diverse, and often smaller and more isolated than Category I and II wetlands;
- **Category IV** Generally small, isolated and lack vegetative diversity.

A total of 57 wetlands were identified within 152 m (500 ft) of the existing highway centerline of the Preferred Alternative. The delineated area for those wetlands totaled $29.1 \pm ha$ (71.9 ac).



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Impacts

Approximately $2.8\pm$ ha (6.9 ac) of wetlands would be impacted by the preferred alternative. Wetland impacts may change slightly as the design process continues. See Table 5 for a breakdown of wetland impacts by wetland category.

Wetland Category Rating	Approximate Delineated Wetland Area by Wetland Category	Approximate Impacted Wetland Area by Wetland Category ¹
Category II	11.7± ha (28.8 ac)	1.4± ha (3.5 ac)
Category III	16.7± ha (41.3 ac)	1.3± ha (3.1 ac)
Category IV	0.7± ha (1.7 ac)	0.1± ha (0.3 ac)
Total	29.1± ha (71.9 ac)	2.8± ha (6.9 ac)

 Table 5. Preferred Alternative Wetland Impacts by Functional Category

¹Approximate wetland impacts shown above are from the BRR dated July 2003. Wetland impacts included in the October 2002 newsletter (Appendix D) were less because final details of the proposed alignment were not fully determined at that time.

No wetland impacts would take place under the No-Build Alternative, as the existing roadway would remain and no construction would take place.

Wetland Avoidance and Minimization

Compliance with CWA Section 404 and EO 11990 requires consideration of practicable design measures for the avoidance and minimization of wetland impacts. The compensatory mitigation of wetland impacts in the form of restoration, creation, and enhancement is always the last option after all practicable avoidance and minimization measures have been investigated and determined not practicable. The proposed avoidance and minimization measures for this Preferred Alternative have been developed in accordance with the *Interagency Operating Procedure for the Conservation of Wetland Resources Associated with Transportation Construction Projects in the State of Montana* (IAWG 1996).

Avoidance of all identified wetland areas in the project corridor was deemed not practicable based on several factors, including the need to design the proposed project to current state and federal guidelines. Opportunities to avoid and minimize impacts in the proposed project corridor were investigated in detail during the preliminary road design analysis for the proposed project, and will be ongoing throughout the project development.

Mitigation

Where impacts to wetlands are unavoidable, the following mitigation measures will be implemented to ensure protection of wetlands: adherence to MDT Standard Specifications for Road and Bridge Construction; use of BMPs, implementation of a SWPPP; and adherence to conditions of CWA Section 404 and MPDES permits.

A CWA 404 Permit is expected to be required for this project. That permit will likely require mitigation for impacted jurisdictional wetlands. Wetland mitigation opportunities along the project corridor are being investigated. In the event that no suitable on-site wetland mitigation opportunities are identified within the project corridor, wetland impacts will be mitigated at an approved off-site mitigation reserve.

3.3.5 Threatened/Endangered (T/E) Species

In accordance with *Section 7* of the *Endangered Species Act* (16 U.S.C. 1531-1543), this project was evaluated to determine the potential effects on plant and animal species listed by the United States Fish and Wildlife Service (USFWS) as threatened, endangered, proposed, or candidate.



Based on informal consultation with the USFWS on October 4, 2001, the 5 species that were identified as having a possible presence in the project corridor and that warranted evaluations are listed as follows: ald Eagle (Threatened), Whooping Crane (Endangered), Piping Plover (Threatened; Designated Critical Habitat), Mountain Plover (Proposed Threatened), and Black-tailed Prairie Dog (Candidate).

Based on a confirmed record of occurrence for Canada Lynx in Daniels County, this threatened species was also addressed in a Biological Assessment (BA) for the project. Since October 4, 2001, the Mountain Plover and Black-tailed Prairie Dog are no longer considered proposed threatened and candidate species by the USFWS. Based on a review of the USFWS Montana Ecological Services website for T&E species by county the Bald Eagle, Whooping Crane and Piping Plover are the 3 T&E species that are currently suspected or known to occur in Daniels and Roosevelt Counties.

Impacts

Table 6 presents the determination of effect for each federally listed T&E species identified by the USFWS as suspected or documented as occurring in the project corridor (see Appendix B). Also, the Canada Lynx is listed in this table. As shown in Table 6, based on the lack of suitable habitat and documented occurrences of the above-listed species in the project corridor, no effect on these species is anticipated as a result of the Preferred Alternative.

Common/ Scientific Name	Status	Known Distribution in Project Corridor	Determination of Effect
Bald Eagle Haliaeetus leucocephalus	Threatened	No known nesting in project corridor or immediate vicinity. Spring and fall migrants and wintering eagles known to occur in the project corridor and immediate vicinity.	No Effect
Whooping Crane Grus americana	Endangered	Not known to occur in the project corridor or immediate vicinity. The nearest recorded sighting of a Whooping Crane occurred in Dagmar, Montana, approx. 19.0 km (30.0 mi) southeast of the project corridor.	No Effect
Piping Plover Charadrius melodus	Threatened, Designated Critical Habitat	Not known to occur along the project corridor or immediate vicinity. The nearest recorded sightings of the species is associated with the prairie potholes in the eastern half of Sheridan County, about 14.0 km (22.0 mi) east of the eastern terminus of the project. No critical habitat units in or near the project corridor.	No Effect
Canada lynx Lynx canadensis	Threatened	Not documented within the project corridor or immediate vicinity. An irruptive occurrence documented for Daniels County.	No Effect

Table 6. Preferred Alternative T&E Species Summary and Determination of Effect

Source: USFWS 2001, 2005; URS 2003

Under the No-Build Alternative, the existing roadway would remain. There would be no adverse effects to rare, threatened or endangered species.

Mitigation

No mitigation measures are required. However, although the Preferred Alternative is not anticipated to affect Bald Eagles, migrating and transient Bald Eagles may use suitable habitat in the vicinity of the project corridor. For the benefit of these large raptors, power lines within MDT right-of-way that are relocated as a result of this project would be raptor-proofed in accordance with MDT policy.



3.3.6 Water Bodies, Wildlife Resources, and Habitat

The Biological Resources Report (BRR) prepared for this project provides a detailed account of the biological resources, including species of concern, suspected or documented as occurring in the project corridor. That BRR is on file at MDT. The information presented below is a summary of potentially present biological resources, potential impacts, and potential conservation/mitigation measures.

Waterbodies and Fisheries: There are a total of 9 bridge structures on the existing alignment; 6 at named drainages (including Gaines Creek, North Fork Eagle Creek, Eagle Creek, Redstone Creek, Big Muddy Creek, and Archer Coulee), 2 at unnamed drainages, and 1 used for a stock pass. At this time, bridge structures are planned for replacement at Eagle Creek, Redstone Creek, and Big Muddy Creek, while the other timber structures are proposed to be replaced with pipes. In-stream work may be required to remove existing timber piers.

The Natural Resources Information System (NRIS) database Montana Fisheries Information System (MFISH) revealed 18 fish species that inhabit various sections of Big Muddy Creek throughout portions of its length, including black bullhead, blue sucker, brook stickleback, burbot, channel catfish, common carp, fathead minnow, goldeye, lake chub, longnose dace, northern pike, northern redbelly dace, river carpsucker, sauger, shorthead redhorse, walleye, white sucker, and yellow perch. These species are generally found in the lower reaches of Big Muddy Creek, with common carp, lake chub, longnose dace, northern pike, northern redbelly dace, white sucker, and yellow perch potentially occurring within the middle reach of the river, up to 19.0 km (12.0 river miles) from the headwaters of Big Muddy Creek. Two of the fish species identified as occurring in Big Muddy Creek, the sauger and blue sucker, are species of concern (MNHP). No fisheries surveys have been conducted on Eagle Creek, North Fork Eagle Creek, or Redstone Creek, so no fisheries information was available. According to MFWP, most of the creeks are intermittent in nature and, therefore, do not have the flow needed to sustain fish populations.

Wildlife Resources: A literature review revealed that the northern leopard frog, Great Plains toad, plains spadefoot, western hog-nosed snake, and smooth greensnake are species of concern that may inhabit the local vicinity. Northern leopard frog, boreal chorus frog, painted turtle, and gopher snake were observed in the project corridor during the 2001 and 2002 field surveys. The Great Plains toad plains spadefoot, and smooth greensnake are known to occur at Medicine Lake National Wildlife Refuge, but are not known to occur in the project vicinity.

Bird species records for the area note a multitude of species as breeding in or transient to the area. Fiftyfour (54) bird species were observed during the field surveys of the project corridor. Cliff Swallow, Barn Swallow, and Rock Dove nests were evident under 6 bridges in the project corridor. Nesting is anticipated at the other 3 timber structures in the corridor, but was not confirmed due to the area under the bridges being inundated or otherwise inaccessible. During the June 2002 field survey, an occupied Golden Eagle nest with 1 nestling was noted on a south-facing cliff approximately 242 m (793 ft) north of the existing highway at North Fork Eagle Creek. A Swainson's Hawk nest exists approximately 137 m (450 ft) from the existing centerline. Sprague's Pipit and Baird's Sparrow have been recorded in the project corridor, but neither species was observed during the 2001 or 2002 field survey. Bobolink and Brewer's Sparrow were recorded in the project corridor during the June 2002 field survey. The Mountain Plover has not been recorded near the project corridor and was not observed during the field surveys of the project corridor. The nearest habitat for the Mountain Plover is approximately 65.0 km (40.0 mi) west of the western terminus of the project.

A literature review revealed 23 mammal species known to and 24 additional species suspected to occur in Sheridan or Daniels Counties. Mammal species likely to occur in the project corridor include a variety of species associated with mixed-grass prairie habitats and riparian floodplain habitats. Mammal species observed during field surveys of the project corridor include: white-tailed deer, mule deer, beaver,



raccoon, muskrat, thirteen-lined ground squirrel, Richardson's ground squirrel, coyote, and badger. There is one confirmed record for Canada lynx in Daniels County. In addition, the arctic shrew, a state species of concern, has been documented in Sheridan County. There are no known occurrences of the arctic shrew or black-tailed prairie dogs.

Habitat: Riparian and wetland corridors associated with Eagle Creek, North Fork Eagle Creek, Gaines Creek, Redstone Creek, Big Muddy Creek and several small tributaries are crossed by the highway. Big Muddy Creek flows parallel to the highway generally from Redstone to the eastern terminus of the project. These drainages provide water, cover, and forage for a large diversity of wildlife species from migrating and nesting songbirds to amphibians, reptiles, small mammals, and large ungulates. These corridors also serve as daily and seasonal migration corridors for animals traversing the landscape.

Woody draws, deciduous forest habitat covered by trees and shrubs created by cumulative overland flow, exist on the western portion of the project. They provide cover and are resting and foraging sites for many bird, mammal, and reptile species.

Most of the land surrounding the project corridor not used for crop production is used for rangeland purposes. Since cattle are drawn to areas that provide water and shade, many of the riparian and wetland areas along the project corridor receive substantial use by cattle. High cattle use for prolonged periods of time often results in reduced water quality, reduction in native vegetation, substantial soil surface disturbance, and an overall decline in habitat quality for wildlife. Many areas of high cattle use were evident along the project corridor.

The 9 timber bridges in the project corridor provide potential crossing areas for wildlife as well as roosting and nesting habitat for bird species. Cliff Swallow, Barn Swallow, and Rock Pigeon nests, as well as tracks of deer, raccoon, coyote, and shorebird species were noted under many of the bridges.

Twelve plant species of concern are known to occur in Sheridan County, but are not known to occur within the immediate project corridor or vicinity.

Impacts

Under the No-Build Alternative, the existing roadway would remain and no waterbody, wildlife resources or habitat would be impacted.

Under the Preferred Alternative, removal and replacement of bridges and culverts and associated instream work could result in temporary increased erosion potential, sediment, and turbidity, which could temporarily impact aquatic species habitat. Wetlands would be impacted, but due to mitigation there would be no net loss of jurisdictional wetland area.

Mitigation of wetland habitat used by northern leopard frog is being developed to compensate for loss of habitat from the Preferred Alternative. Based in the extent of floodplain habitat associated with Big Muddy Creek in the project area and immediate vicinity, the Preferred Alternative is not likely to adversely affect the western hog-nosed snake or its habitats.

In general, under the Preferred Alternative, displacement of individuals or populations, direct mortality, or additional habitat fragmentation would be minor since the project area is already a disturbed area. Small animals with limited mobility and those with dens or nests in the project area would be most likely to be impacted. Mid-sized (i.e., fox, coyote, raccoon) to large mammals (i.e. antelope, deer, elk) would be temporarily displaced from habitats in the vicinity of the project but mortality of these species is not anticipated as a direct result of construction activities. The proposed alignment is not expected to result in appreciable increases in displacement of individuals or populations, direct mortality, or additional habitat fragmentation affecting animal populations.



Based upon the available habitat in the project corridor and the immediate vicinity, the Preferred Alternative is not likely to adversely affect habitat or populations of Sprague's Pipit, Baird's Sparrow, Bobolink, Brewer's Sparrow, or Mountain Plover.

The Preferred Alternative would result in shifting the roadway alignment closer to the Golden Eagle nest by approximately 25 m (83 ft) horizontally and 12.7 m (41.6 ft) vertically. The proposed alignment would result in the centerline being approximately 216 m (709 ft) from the Golden Eagle nest. The shifts in the existing roadway alignment are necessary to avoid geotechnical issues and power lines in this area. A ranch access road currently exists within 61 m (200 ft) of and directly below the Golden Eagle nest. This ranch access road would not be altered by the construction of the Preferred Alternative.

The Preferred Alternative would result in shifting the roadway alignment closer to the Swainson's Hawk nest site by approximately 31 m (101 ft) horizontally. The proposed alignment would result in the centerline being approximately 106 m (348 ft) from the Swainson's Hawk nest. The shift in the existing alignment is necessary to avoid encroaching on the railroad right-of-way.

Construction associated with the removal of the 9 timber structures could directly impact nesting Cliff and Barn Swallows and would result in the taking of individuals if conducted during the nesting season (see Table 7). In addition to a loss of nesting habitat for the above-mentioned swallow species, replacement of 6 timber structures with culverts would result in the loss of under-the-highway wildlife passages for a variety of species, especially mammals, including deer, raccoon, and coyote under the Preferred Alternative. Wildlife use of existing bridges is summarized in Table 7.

Structures	Wildlife Use
Gaines Creek (RP	Small mammal sign/tracks observed (likely voles or mice). Bridge height restricts
15.3)	large mammal use. Barn Swallow nests present.
North Fork Eagle	Small to large mammal and bird sign/tracks observed (dog, coyote, raccoon, deer,
Creek (RP 20.5)	and shorebird tracks). Rock Pigeon nests present.
Eagle Creek (RP	Small to large mammal and bird sign/tracks observed (deer, raccoon, beaver, and
21.6)	Ring-necked Pheasant tracks). Cliff Swallow and Rock Pigeon nests present.
Redstone Creek (RP	Small to large mammal sign/tracks observed (coyote, raccoon, and deer tracks).
23.9)	Barn Swallow, Cliff Swallow and Rock Pigeon nests present.
Big Muddy Creek	Small mammal sign/tracks observed (likely voles or mice). Beaver sign observed
(RP 25.5)	both upstream and downstream of bridge. No dryland passage under bridge for
	large mammals. Painted turtles and northern leopard frogs observed under bridge.
	Barn Swallow, Cliff Swallow and Rock Pigeon nests present.
Unnamed Drainage	Small mammal sign/tracks observed (likely voles or mice). Bridge height restricts
(RP 26.3)	large mammal use. Barn Swallow and Rock Pigeon nests present.
Stockpass (RP 27.8)	Area under bridge inundated or otherwise inaccessible during field surveys.
Unnamed Drainage	Area under bridge inundated or otherwise inaccessible during field surveys.
(RP 28.8)	
Unnamed Drainage	Area under bridge inundated or otherwise inaccessible during field surveys.
(RP 30.1)	

 Table 7. Wildlife Use of Existing Drainage Structures

The total estimated acreage of ground disturbance associated with the proposed alignment is approximately 104 hectare (257 acres). The majority of the new alignment would not result in new disturbance to the landscape, as this alternative generally follows the existing alignment. No impact is expected to any of the 12 plant species of concern that are known to occur in Sheridan and Daniels Counties.



Mitigation

The following mitigation measures would be used to minimize adverse impacts to waterbodies, wildlife resources, and habitat.

- Adherence to applicable conditions including CWA 404 Permit, SPA124 Notification, and MPDES Permit.
- Development of a SWPPP and adherence to BMPs.
- As necessary, approved and/or required by the USWFS, MDT would use distractive measures on the underside of the bridges in the spring prior to construction. In accordance with the provisions of the Migratory Bird Treaty Act (MBTA) to prevent the direct (kill or capture), or incidental take (unknowingly or accidentally killing or harming individuals while doing some other activity) of migratory bird species, a temporal restriction on bridge removal activities during the nesting season would be implemented to protect migratory birds.
- As necessary, temporal and spatial restrictions would be placed on construction activities to protect Golden Eagles and Swainson's Hawks during the nesting season.
- Where determined practicable in final design, culverts will be sized large enough to be used as wildlife crossings.

3.3.7 Cultural/Archaeological/Historic/Section 4(f) Resources

In addition to review under NEPA, consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800. Requirements include identification of significant historic properties that may be affected by the Preferred Alternative. Historic properties are defined as archaeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP) (36 CFR 60.4). Additionally, Section 4(f) of the 1966 Department of Transportation Act, which is codified at 49 USC 303 and FHWA regulations at 23 CFR 771.135, prohibit FHWA from approving the use of land from a significant historical site unless a determination is made that there is no feasible and prudent alternative to the use of land from the property and the action includes all possible planning to minimize harm to the property.

Historical Research Associates, Inc. (HRA) completed a cultural resources inventory of the project corridor in September 2002. The results of this study indicated 31 cultural resource properties within the project corridor, 12 of which had been previously recorded. The 19 new cultural resource properties included 4 historic agricultural complexes, 2 historic road grades, 2 historic irrigation ditches (which are no longer in use), 4 timber bridges, the archaeological remains of the Archer town site, a historic commercial complex, a historic cemetery, a historic railroad, a historic trash scatter, a prehistoric lithic scatter, and a prehistoric stone circle site. The 12 previously recorded properties included 5 timber bridges, 6 stone circle sites, and a historic service station.

Impacts

Of the 31 properties identified under the Preferred Alternative, the 9 timber bridges, 2 irrigation ditches and 2 road grades fell under existing MDT Programmatic Agreements and did not require evaluation of NRHP eligibility. Those Programmatic Agreements satisfy 4(f) evaluation criteria and are included in Appendix C. Nine of the remaining 20 properties were determined eligible for the NRHP, or required further testing to determine eligibility. The roadway design was refined to avoid 7 of those properties. Two properties, Site 24SH122 and Site 24DN86, both stone circle campsites, required further evaluation to determine potential impacts. Table 8 summarizes each of these properties.



Further investigation was required to determine NRHP eligibility and the effects of the Preferred Alternative on these properties. HRA conducted additional studies on these properties as documented in *Addendum: Cultural Resources Inventory of State Route 5: Redstone East & West, Sheridan and Daniels Counties, Montana,* January 2004. As a result of this study, Site 24SH122 was recommended ineligible for the NRHP. Site 24DN86 is a much larger site, and NRHP eligibility remains unresolved. However, the study recommended and the SHPO concurred that there would be no effect to this site as a result of the Preferred Alternative (see documentation in Appendix C). Only a portion of the larger site is located within the proposed project corridor.

Under the No-Build Alternative, the existing roadway would remain and no construction would take place, therefore no historic or archaeological properties would be affected.

Mitigation

It has been determined that the Preferred Alternative would not affect cultural/archaeological/historic resources; therefore, no mitigation is required.

Site	Description	NRHP Eligibility	Determination of Effect
Number	_		
24SH122	Stone circle campsite	Recommended	No effect
		Ineligible	
24SH412	Stone circle campsite	Undetermined	No effect; avoided by refined
			roadway design
24SH418	Burlington Northern branch	Recommended	No effect; avoided by refined
	line	eligible	roadway design
24SH758	Westland Oil Company	Recommended	No effect; avoided by refined
	Service Station	eligible	roadway design
24DN057/	Stone circle campsite	Recommended	No effect; avoided by refined
24SH633		eligible	roadway design
24DN085	Stone circle campsite	Undetermined	No effect; avoided by refined
			roadway design
24DN086	Stone circle campsite	Undetermined	No effect (SHPO concurrence)
24DN087	Stone circle campsite	Undetermined	No effect; avoided by refined
			roadway design
24DN088	Stone circle campsite	Undetermined	No effect; avoided by refined
			roadway design

 Table 8. Cultural/Archaeological/Historic Impacts for the Preferred Alternative

Source: Historical Resource Associates, Inc. 2002, 2004

3.3.8 Noise

According to the Federal Aid Policy Guide, "Procedures for Abatement of Highway Traffic Noise and Construction Noise" (23 CFR 772), the project is classified as a Type I project; noted as a "proposed Federal or Federal-aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes."

Impacts

The noise sensitive receptors along the study corridor fall under Category B, which includes residences, parks, recreation areas, medical facilities, churches, outdoor areas that have regular human use and where



a lowered noise level would benefit the public. These criteria do not apply to the entire tracts surrounding an activity, but only to those portions on which activity normally occurs, for example, an outdoor patio or stationary recreational equipment.

Noise levels are quantified using units of decibels (dB). Noise levels can also be expressed as A-weighted decibels (dBA). Humans typically have reduced hearing sensitivity at low frequencies compared with their response at high frequencies, and the A-weighting of noise levels closely correlates to the frequency response of normal human hearing.

For environmental noise studies, ambient noise levels and noise impact criteria are typically based on Aweighted equivalent noise levels, Leq, during a certain time period. Leq(h) are A-weighted equivalent noise levels over a one hour period. The equivalent noise level is defined as the steady state noise level that has the same acoustical energy as the actual, time-varying noise signal during the same time period.

Federal guidelines (23 CFR 772) outline the procedures to determine if traffic noise impacts will occur for a project and when traffic noise abatement measures will be considered. FHWA and MDT identify traffic noise impacts according to Noise Abatement Criteria (NAC) for various land uses and zoning. Table 9 summarizes the NAC used in the consideration of traffic noise impacts.

Federal guidelines (23 CFR 772) and MDT's traffic noise policy state that traffic noise impacts occur when the predicted Leq(h) noise level at a receptor location in a projects' Design Year approaches or exceeds the NAC values listed in Table 9, or when the predicted traffic noise levels in the Design Year substantially exceed the existing ambient noise levels at a receptor. MDT defines "approach" as 1 dBA, and "substantially exceed" as 13 dBA. For residential properties, the NAC is 67 dBA, and therefore noise impacts would occur at 66 dBA or at levels in the Design Year that are 13dBA greater than the existing noise levels. When traffic noise impacts are identified at a receptor location, MDT requires that reasonable and feasible noise abatement measures be considered to reduce the traffic noise levels at the receptor.

Activity	Leq(h)	Description of Activity Category
Category		
А	57 dBA	Land on which serenity and quiet are of extraordinary significance and serve an important
	(exterior)	public need and where the preservation of those qualities are essential if the area is to
		continue to serve its intended purpose.
В	67 dBA	Residences, motels, schools, churches, libraries, picnic areas, recreation areas,
	(exterior)	playgrounds, active sports areas, parks, and hospitals.
С	72 dBA	Developed lands, properties, or activities not included in Categories A or B above.
	(exterior)	
D	dBA	Undeveloped lands.
	(exterior)	
Е	52 dBA	Residences, motels, public meeting rooms, schools, churches, libraries, hospitals, and
	(interior)	auditoriums.

 Table 9. Noise Abatement Criteria (NAC)
 Image: Comparison of the second sec

A preliminary noise analysis based on existing and predicted traffic data for the proposed alternative alignment was conducted. Based on the fact that, variations in topography have little effect on noise levels at different receivers, a flat land surface was assumed.

The transportation noise model look-up tables were used to conduct this preliminary analysis to determine if more detailed study would be required with the Federal Highway Administration-approved TNM 1.1 software. Table 10 lists the noise levels which can be expected using the existing and design year traffic volumes and an average speed of 65 mph for autos, heavy trucks and medium trucks.



Table 10. Noise Levels

	Noise Level (dBA) 75 ft from centerline	Noise Level (dBA) 150 ft from centerline
Present Year (2003) $ADT = 420$	59 dBA	54 dBA
Design Year (2028) ADT = 540	60 dBA	55 dBA

Based on the results of the preliminary noise analysis, noise levels are below the Federal and Montana NAC of 67 and 66 dBA, respectively, for residential areas. Noise levels in the design year of 2028 will only increase 1 dBA over existing levels for homes between 75 and 150 feet of centerline. No long-term negative noise impacts are anticipated. No further noise analysis is required for the proposed alignment.

Under the No-Build Alternative, the existing roadway would remain. Noise impact may increase over the years as traffic volumes increase.

Mitigation

No long-term negative impacts to noise are anticipated, therefore, no mitigation is required.

3.3.9 Visual

Visual resources refer to the landscape character (what is seen), visual sensitivity (human preferences and values regarding what is seen), scenic integrity (degree of intactness and wholeness in landscape character), and landscape visibility (relative distance of seen areas) of a geographically defined viewshed.

The general character of the project area is agricultural and rural residential. The terrain is flat to gently rolling.

Impacts

Because the Preferred Alternative largely follows the existing alignment, visual impacts would be minor. However, some potential visual impacts from the Preferred Alternative would be associated with loss of vegetation and new alignment segments.

Vegetation within the construction limits, or "clear zone", of the Preferred Alternative would be removed/cut back. (The "clear zone" is the area where objects may be struck by vehicles leaving roadways, or pose obstructions to drivers' views.) Potential visual impacts would vary based on the distance from the existing alignment and the type of vegetation to be impacted/removed.

Visual changes could be the direct result of changes in the roadway profile, construction of bridge structures, removal of existing trees, widening of shoulders for the existing alignment and flattening of side slopes. Specific visual impacts would be associated with areas of the Preferred Alternative that move away from the centerline of the existing alignment.

Under the No-Build Alternative, the existing roadway would remain and no new construction would take place. The existing terrain would remain, and no additional visual impacts would be incurred.

Mitigation

To mitigate for potential visual impacts of the Preferred Alternative the following techniques would be used, if practicable: creating natural-looking rock cuts with non-linear edges that resemble adjacent existing bluffs and outcroppings, clearing of brush and trees in a manner that would create a non-linear woodline edge, and revegetating and planting where feasible with desirable plant species as directed by the MDT Botanist.



3.3.10 Air Quality

Impacts

The Preferred Alternative is located in an unclassified/attainable area of Montana for air quality under 40 CFR 81.327, as amended. As such, this proposed project is not covered under the EPA Final Rule of September 15, 1997, on Air Quality Conformity. Therefore, the project alternatives comply with Section 176(c) of the Clean Air Act (42 U.S.C. 7521(a), as amended). No long-term impacts to are quality are anticipated with the Preferred Alternative.

Under the No-Build Alternative, the existing roadway would remain, and no air quality impacts are anticipated.

Mitigation

No mitigation is required.

3.3.11 Hazardous Materials

An initial site assessment was completed for the project corridor in January 2000. This assessment, which included a review of the DEQ leaking UST list, identified no active tanks or reported leaking USTs within the project corridor. No Superfund sites or petroleum release sites under either the Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA; 42 U.S.C. 9601, *et seq.*) and Montana's Comprehensive Environmental Cleanup and Responsibility Act (CECRA; 75-10-701 M.C.A., et seq.) exist along the proposed project corridor.

Impacts

There would be no hazardous material impacts under the No-Build Alternative. No impacts are expected with the Preferred Alternative.

Mitigation

No mitigation is required. However, if hazardous materials are encountered, MDT Standard Specifications require any hazardous materials discovered, generated, or used during implementation of the Preferred Alternative to be handled and disposed in accordance with applicable local, State, and Federal regulations.

3.4 CONSTRUCTION IMPACTS

Impacts

Construction activities for the Preferred Alternative would cause temporary inconveniences to the traveling public and recreationist. Overhead transmission lines and utility poles, as well as underground telephone lines, would be affected by project construction. At this time, it is not anticipated that other utilities would be impacted by the Preferred Alternative. Construction activity impacts could occasionally result in increased travel times; detours; temporary closures; increased potential for erosion, sedimentation and weed infestation in disturbed areas; temporary habitat and noise and dust due to the use of heavy machinery. Disturbed areas created during construction could create land and water erosion potential that could impact water quality and/or create temporary habitat and vegetation loss. Additional short-term construction impacts could include temporary displacement of wildlife, migratory birds, and aquatic species from human-related disturbance. However, because of the different phases of construction, no single location would experience a long-term period of disruption. Wildlife and migratory bird populations found in the project area are likely accustomed to periodic human disturbances due to the presence of the existing roadway.



These disruptions would occur intermittently throughout the construction period, which is anticipated to be approximately 1 to 2 years.

Under the No-Build Alternative, the existing roadway would remain and no construction would take place. No utilities would require relocation under the No-Build Alternative.

Mitigation

Potential construction-related impacts of the Preferred Alternative would be avoided and minimized where possible through various measures. Access to businesses and residences would be maintained during construction through a traffic control plan. As practicable, the existing highway would remain in use for continued access during the construction process. At this time, it is anticipated that existing bridges will be used while new structures are being constructed. Advance warning and detour signing would be in accordance with the Manual on Uniform Traffic Control Devices, thereby minimizing construction impacts.

MDT Standard Specifications require that contractors comply with applicable state and federal air quality rules, which may require use of dust suppression and emission control measures to minimize short-term impacts related to construction dust.

MDT Standards Specifications require that contractors comply with applicable laws and regulations to minimize construction noise pollution.

Efforts will be made to avoid and/or minimize utility impacts. Where utility conflicts cannot be avoided, the utility will be relocated. MDT Standard Specifications require coordination with utility owners to minimize interruption to utility service.

An erosion control and sediment plan will be prepared and maintained in compliance with CWA Section 402 / MPDES regulations.

The contractor will be expected to adhere to MDT BMPs for erosion and sediment control.

Contractors will be expected to comply with applicable permits and notifications including a CWA Section 404 Permit and SPA 124 Notification.

To reduce the spread and establishment of noxious weeds and re-establish permanent vegetation, disturbed areas within MDT ROW or easements will be seeded with desirable plant species, as recommended by the MDT Botanist. Revegetation will be conducted in accordance with MDT Standard Specifications.

3.5 IMPACTS/MITIGATION SUMMARY

The following table summarizes the impacts and mitigation measures for each resource area discussed previously in Section 3.0.



Table 11. Summary Table: Preferred Alternative Impacts and Mitigation

Resource	Impacts	Mitigation
Travel/Access	-No adverse impact.	-Consultation with affected property owners would occur prior to
	-Improved access and a safety.	completion of final design to minimize adverse impacts.
	-No access points eliminated; some shortened or lengthened.	
	-Implementation of 2 chain-up turn-outs.	
Pedestrians and Bicyclists	-No adverse impact.	-No mitigation required.
	-Increased visibility of pedestrians and bicyclists.	
Park and Recreation/	-No impact.	-No mitigation required.
LWCF Section 6(f) Sites		
Environmental Justice	-No disproportionate adverse impact.	-No mitigation required.
Land Use / Right-of-Way /	-No substantial impact on the location, distribution, density, or growth rate	-Right-of-way needs have been and will be minimized as much as
Easements	of the area population	practicable.
	-Approximately 77 ha (191 acres) of right-of-way acquisition.	-Right-of-way acquisition would be conducted in accordance with
	-Some land converted from agricultural to transportation use.	applicable laws including Uniform Relocation Assistance and Real
	-No relocation of residences or businesses required	Property Acquisition Policies Act of 1970, as amended.
Farmlands	-One parcel (approximately 7 acres) of statewide important farmland	-No mitigation required.
	impacted, Farmland Conversion Impact Rating indicates that the proposed	
	impact does not require action.	
Irrigation	-No impact.	-No mitigation required.
Local / Regional Economics	-No direct long-term adverse or beneficial effects on the local or regional	-No mitigation required.
	economies.	
Floodplains	- Proposed modification and creation of drainages in the project area have	-No mitigation required
	been designed to minimize adverse impacts.	
Seeding / Erosion	-Temporary soil surface disturbances may create potential for erosion and	-Disturbed areas within MDT right-of-way or easements will seeded
	the invasion of undesirable weed species	with desirable plant species, as recommended by the MDT Botanist.
		-MDT will comply with measures in the Daniels and Sheridan County
		Weed Management Plans
Water Quality	-Removal and placement of bridges and culverts and the associated in-	-Adherence to MDT Standard Specifications related to water pollution
	stream work could result in temporary increased erosion potential,	control and stream preservation.
	sediment, and turbidity	-Adherence to applicable permits and notifications.
		-Adherence to MDT BMPs.
Wetlands	Approximately 2.8 hectares (6.8 acres) of wetland impact.	-Adherence to MDT Standard Specifications related to water pollution
		control and stream preservation.
		-Adherence to applicable permits, including mitigation.
		-Adherence to MDT BMPs.
I &E Species	-no effect.	-No mugation required. However, for the benefit of large raptors,
		power lines within MDT right-of-way that are relocated as a result of
XX/- 4 D 1' XX/'1 11' 6	Demonstrand and contract of building and subjects and as the literation	a line project would be raptor-proofed in accordance with MDT policy.
water Bodies, Wildlife	-kemoval and replacement of bridges and culverts and associated in-	-Adherence to applicable permit conditions including CWA 404,
kesources, and Habitat	stream work could result in temporary increased erosion potential,	SPA124, and MPDES. Adherence to CWA 404 permit will likely
	sediment, and turbidity.	require mitigation of impacts to wetlands.


SECTIONTHREE

Impacts and Mitigation

Resource	Impacts	Mitigation
	-Wetlands impacts could equate to habitat impact for certain species	-Development of a SWPPP and adherence to BMPs.
	including the northern leopard frog.	-As necessary, approved and/or required by the USWFS, MDT would
	-Since the area is previously disturbed, displacement of individuals or	use distractive measures on the underside of the bridges in the Spring
	populations, direct mortality, or additional habitat fragmentation would be	prior to construction. As necessary, temporal restriction on bridge
	minor.	removal activities to protect migratory birds.
	-Alignment shifted approximately 25 m (82 ft) closer to a Golden Eagle	-As necessary, temporal and spatial restrictions would be placed on
	nest.	construction activities to protect Golden Eagles and Swainson's Hawks
	-Alignment shifted approximately 31 m (101 ft) closer to the Swainson's	during the nesting season.
	Hawk nest (species of special concern).	-Where determined practicable in final design, culverts will be sized
	-Construction associated with the removal of the 9 timber bridges could	large enough to be used as wildlife crossings.
	directly impacts nesting swallows.	
	-Bridges replaced with culverts could result in loss of under-the-highway	
	wildlife passages for a variety of species.	
Cultural / Archeological /	-In terms of 4(f) applicability, 9 timber bridges, 2 irrigation ditches and 2	No mitigation required.
Historic / Section 4(f)	road grades fall under existing MDT Programmatic Agreements	
Resources	-No effect on other resources	
Noise	No impact	No mitigation required.
Visual	- Potential impacts associated with alignment modifications and removal	-Where feasible, natural-looking rock cuts with non-linear edges would
	of vegetation	be implemented to resemble adjacent bluffs and outcrops
		-where feasible, brush and trees would be cleared in a non-linear
		manner.
		- where reasible, harve plant species will be reintroduced, revegetation will occur in ways that do not result in a linear adapt
Ain Quality	No impact	No mitigation required
Hazardous Materials	-No impact	-No mitigation required
Construction Impacts	-Temporary traffic disruptions and detours	-Contractors will be required to develop a traffic control plan and
Construction impacts	$-\Delta$ ccess to businesses and residences would be maintained during	follow the Manual on Uniform Traffic Control Devices
	construction	- MDT Standard Specifications require that contractors comply with
	-Existing highway would remain in use for continued access during	applicable laws and regulations to prevent and minimize noise and air
	construction.	pollution.
	-Temporary noise and dust impacts.	-Where utility conflicts cannot be avoided, the utility would be
	-Impacts to overhead transmission lines and utility poles, as well as	relocated. MDT Standard Specifications require coordination with
	underground telephone lines.	utility owners to minimize interruption to utility service.
	-Potential for surface water runoff and erosion of bare soils.	-An erosion control and sediment plan will be prepared and maintained
		in compliance with CWA Section 402 / MPDES regulations.
		-The contractor will be expected to adhere to MDT BMPs for erosion
		and sediment control.
		-Contractors will be expected to comply with applicable permits and
		notifications including a CWA Section 404 and SPA 124.
		-Disturbed areas within MDT ROW or easements will be seeded with
		desirable plant species, as recommended by the MDT Botanist and in
		accordance with MDT Standard Specifications.



3.6 INDIRECT/SECONDARY IMPACTS

Indirect (secondary) effects are those caused by the proposed highway reconstruction project but that occur at a different time and/or place. Transportation improvements often have the potential to induce growth and change patterns of land use, population density or growth rates, social and economic conditions, accessibility, traffic volumes, and noise levels. Such induced changes may in turn affect air and water quality and other natural systems.

The indirect effects of the Redstone – East & West project are anticipated to be minor and in some cases, beneficial. This conclusion was made because the primary purpose of the proposed project is to make design changes to an existing roadway to increase its safety. The resulting facility would make travel on Highway 5 safer, more efficient, and more convenient for area residents and other highway users.

Other minor indirect impacts that could occur as a result of this project include:

- Increase in amount of impervious surface area in the highway corridor due to widening of the roadway. As a result, groundwater infiltration along the roadway would be reduced and a larger volume of lower concentration runoff from the highway would transport roadway pollutants to area drainages.
- Minor loss in property tax revenue to Sheridan and Daniels Counties due to right-of-way acquisition for the expanded highway.
- Upgrades to utilities or minor enhancements to services in the project corridor due to utility relocations (specifically overhead transmission lines and utility poles, and underground telephone).

The preferred alternative is not anticipated to induce growth or cause land use changes. The area is mostly rural, with agriculture as a primary economic force. The Preferred Alternative also reflects an alignment that follows much of the existing roadway alignment, therefore reconstructing the roadway would not substantially alter the character of the project area. The Preferred Alternative does not make any lands in the project area accessible for the first time for development, nor does it prohibit current access to any lands.

3.7 CUMULATIVE IMPACTS

Cumulative impacts are those effects on the environment that result from the incremental effect of the action when added to past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

Past, present and reasonable foreseeable public and private future actions were determined based on conversations with local city officials and MDT staff. These actions include two highway projects:

- Plentywood West
- Flaxville East and West

Both of these projects have already been constructed, and are described below. No present or reasonably foreseeable future projects were identified.

Flaxville – East and West

This project is located on Montana Highway 5 in Daniels County. It begins approximately 6.2 km (3.85 mi) west of Flaxville and extends 11.6 km (7.21 mi) easterly to RP 14.8, which is the western terminus of



the proposed Redstone project. The Flaxville project was completed in 2004 and consisted of the complete reconstruction of the roadway to a 8.4 m (27.56 ft) finished top width. The project also involved modifications to the horizontal and vertical alignments, as well as the replacement of all drainage structures.

Plentywood – West

This project is located on Montana Highway 5 in Sheridan County. It begins at the intersection of Highway 5 and Secondary 374, and will extend approximately 17.2 km (10.7 m) easterly to the western city limits of Plentywood. This project lies immediately east of the proposed Redstone project. The Plentywood project was completed in 2002 and consisted of the complete reconstruction of the roadway, including modifications to the horizontal and vertical alignments, as well as the replacement of 3 timber bridges.

Based on the analysis contained in the main body of this EA, the Redstone project is not anticipated to contribute to any cumulative impacts in the following categories:

- Parks and Recreation
- Environmental Justice
- Land Use/Right-of-Way/Easements
- Farmlands
- Local/Regional Economics
- Floodplains
- Seeding/Erosion
- Threatened and Endangered Species

- Cultural/Archaeological/Historic Resources
- Noise
- Visual
- Air Quality
- Hazardous Material

Cumulatively, the Redstone project with the Flaxville and Plentywood projects would contribute to the cumulative impacts of the area (both positively and negatively) in a number of categories, which are documented in Table 12.

Impact Category	Cumulative Impact of Redstone Project
Travel/Access	Improved roadway conditions along the full Highway 5 corridor from
	Flaxville to Plentywood
Pedestrians/Bicyclists	Improved shoulders and safety conditions along the full Highway 5 corridor
	from Flaxville to Plentywood
Wetlands	Cumulative impacts have occurred and are occurring in Daniels and
	Sheridan Counties due to land conversion. However, the Redstone project is
	not anticipated to contribute substantially to the cumulative loss of wetlands
	in Daniels or Sheridan Counties, due to MDT's and FHWA's commitment
	to avoidance, minimization, and compensatory wetland mitigation.
Water Bodies,	The removal of bridges on all 3 projects does impact wildlife (primarily
Wildlife Resources,	bird) habitat. However, the Redstone project is not anticipated to contribute
and Habitat	substantially to the cumulative loss of species to the area, due to permit
	requirements of the USFWS.
Land Use/Right-of-	The project could draw additional traffic to the area when combined with
Way/Easements	the Plentywood West and Flaxville East and West projects. However, even
	when considered with the other projects, substantial cumulative impacts
	relating to induced growth and development are not anticipated.

Table 12. Cumulative Impacts: Positive/Negative Effects of the Redstone Project



Based on the ongoing, planned and proposed projects by MDT, the Preferred Alternative would not cause significant indirect or cumulative impacts to environmental resources in the project area.

As future projects are developed and implemented, MDT and other state and federal agencies will continue to coordinate future projects with the public and appropriate reviewing agencies. Project will be subject to full environmental review and mitigation measures will be identified for any adverse effects.

3.8 PERMITS REQUIRED

Prior to construction, MDT and the construction contractor will be responsible for obtaining necessary permits. The Preferred Alternative would be in compliance with both the water quality provisions of 75-3-318 MCA for Section 318 authorizations, and stream protection under Sections 87-5-501 through 509 MCA, inclusive. A 124 SPA Stream Protection Notification would be required from the MFWP. An on-site review of the project area with representatives from MDT and MFWP would be scheduled if necessary. Comments, suggestions, and/or conditions resulting from review of existing data and/or on-site inspections would be documented, included in the proposed project files, and taken into account in the final design specifications.

The Preferred Alternative would likely also require additional permits or authorizations under the Clean Water Act (33 U.S.C. 1251-1376, as amended), including the following:

- Section 402/MPDES authorization from the DEQ;
- Section 404 permit from the U.S. Army Corps of Engineers and determination whether this project qualifies for a nationwide permit under the provisions of 33 CFR 330



4.1 PUBLIC AGENCIES

The following agencies were contacted during the preparation of this EA.

Agencies with Jurisdiction and/or Permitting Authority

Department of the Interior – Bureau of Land Management (BLM) Department of the Interior – U.S. Fish & Wildlife Service (USFWS) Montana Department of Environmental Quality (DEQ) Montana Fish, Wildlife & Parks (MFWP) U.S. Army Corps of Engineers (COE) U.S. Environmental Protection Agency (EPA) Daniels County Sheridan County

Other Agencies, Groups, or Persons Contacted

Sheridan County Planning Director Montana Department of Natural Resources& Conservation (DNRC) Montana Natural Heritage Program (MNHP) State Historic Preservation Office (SHPO) U.S. Department of Agriculture – Natural Resources Conservation Service (NRCS)

4.2 PUBLIC INVOLVEMENT

Public Meetings

To date, 3 public meetings have been held on the Redstone project. These meetings occurred in October 1999, July 2001, and October 2002. Both verbal and written comments were solicited from meeting attendees. In addition, comment sheets were available for people to mail in comments later. Appendix D includes available meeting minutes and notices.

October 1999 Public Meeting

A public meeting was held in Redstone on October 13, 1999. The purpose of this meeting was to introduce the project to the public, and to solicit public concern or comment to aid in the development of project alternatives. A brief prepared presentation was given, followed by a question/comment period. Following this meeting, MDT determined that an EA should be prepared for the project.

July 2001 Scoping Meeting

This public meeting was held in Redstone on July 11, 2001. This acted as the first official activity of the environmental process. Approximately 40 people attended. The purpose of this meeting was to provide a general outline of the schedule and intent of the study, and also to solicit public comment on potential alternatives and areas of concern.

October 2002 Public Meeting

A subsequent scoping-type meeting was held in Redstone on October 22, 2002. The purpose of this meeting was to discuss the Upper/Bench Alignment and Lower/Existing Alignment alternatives, and solicit comments from the public.



Press Releases and Mailings

Prior to each of these meetings, a press release was issued to a local newspaper, informing the public of the meeting time, date, and location. In addition, flyers were sent out to approximately 110 property owners, past meeting attendees, federal and state agencies, and local policymakers.

Instead of a flyer, a newsletter was sent out prior to the October 22, 2002 meeting. The newsletter included an update on project progress, preliminary environmental findings, contact information, and announcement of the upcoming meeting.

Future Public Involvement Events

At this time, MDT has not scheduled additional public meetings. The public does have the opportunity to request a public hearing during the public comment period associated with release of this EA. If a public hearing is requested, MDT will conduct a public hearing.



Appendix A List of Preparers The following parties are responsible for the preparation and content of this document:

Thomas L. Hansen, P.E., Engineering Supervisor Environmental Services Montana Department of Transportation P.O. Box 201001 Helena, MT 59620-1001

Heidy Bruner, Project Development Engineer Environmental Services Montana Department of Transportation P.O. Box 201001 Helena, MT 59620-1001

Gene R. Kaufman, P.E., Operations Engineer Montana Division Office Federal Highway Administration 2880 Skyway Drive Helena, MT 59602

URS Corporation Kirk Eakin, Senior Biologist Shaun O'Connor, Senior Designer Jessica Overmohle, AICP, Planner Darryl L. James, AICP, (Former URS Employee) Planner 7 West 6th Avenue, Suite 3B PO Box 220 Helena, MT 59601 Appendix B Natural Resources Correspondence



1420 East Sixth Avenue P O Box 200701 Helena, Montana 59620-0701 Phone: (406)444-3939 FAX: (406)444-3023 January 7, 2002

Darryl L. James, Project Manager URS/BRW, Inc. P O Box 220 Helena, Montana 59601

Dear Mr. James:

In response to your request, Montana Fish, Wildlife & Parks does not own any property in the vicinity of proposed highway project STPP 22-1(5)14, Redstone East & West. Furthermore, we could find no record of local improvement projects that would qualify for Section 6(f) treatment.

I will forward your letter to the FWP Regional Office in Glasgow for further comments on inter-agency coordination. If you need more information, please let me know.

Sincerely,

Debby Dils⁽⁾ Land Section Supervisor

Cc: Walt Timmerman Region 6



United States Department of the Interior

FISH AND WILDLIFE SERVICE

MONTANA FIELD OFFICE 100 N. PARK, SUITE 320 HELENA, MONTANA 59601 PHONE (406) 449-5225, FAX (406) 449-5339

M.44 MDT (I)

November 30, 2001

Darryl L. James URS/BRW, Inc. PO Box 220 Helena, Montana 59624-0220

Dear Mr. James:

F ...

This responds to your letter dated October 1, regarding a proposal by the Montana Department of Transportation (Department) to reconstruct portions of Montana Highway 5 in Daniels and Sheridan counties, Montana (Redstone - East & West project; STPP 22-1(5)14; Control No. 2024). Your letter requested that the US Fish and Wildlife Service (Service) be a Cooperating Agency with regards to this project and also requested a list of threatened and/or endangered (T/E) species in the vicinity of this proposed project. The Service received your letter on October 17.

The Service agrees to be a Cooperating Agency for this project. As such, the Service will review and respond to documents required for compliance with the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

In accordance with section 7(c) of the Act, the Service has determined that the following threatened, endangered, proposed, and candidate species may be present in the project corridor:

Listed Species	Expected Occurrence
 whooping crane (Grus americana); endangered	wetlands during spring/fall
	migrations
bald eagle (Haliaeetus leucocephalus); threatened	spring or fall migrant
piping plover (Charadrius melodus); threatened	alkali beaches in NE Montana

* Areas around alkali lakes in Sheridan County, Montana have been proposed as Critical Habitat for piping plovers.

Proposed Species

none

Candidate Species

black-tailed prairie dog (Cynomys ludovicianus)

possible occurrence in shortgrass prairie

Section 7(c) of the Act requires that Federal agencies proposing major construction activities complete a biological assessment to determine the effects of the proposed actions on listed and proposed species and use the biological assessment to determine whether formal consultation is required. A major construction activity is defined as "a construction project (or other undertaking having similar physical impacts) which is a major Federal action significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act (NEPA)" (50 CFR Part 402). If a biological assessment is not required (i.e. all other actions), the Federal agency is still required to review their proposed activities to determine whether listed species may be affected. If such a determination is made, formal consultation with the Service is required.

For those actions wherein a biological assessment is required, the assessment should be completed within 180 days of initiation. This time frame can be extended by mutual agreement between the Federal agency or its designated non-Federal representative and the Service. If an assessment is not initiated within 90 days, this list of threatened and endangered species should be verified with the Service prior to initiation of the assessment. The biological assessment may be undertaken as part of the Federal agency's compliance of section 102 of NEPA and incorporated into the NEPA documents. We recommend that biological assessments include the following:

1. A description of the project.

2. A description of the specific area that may be affected by the action.

3. The current status, habitat use, and behavior of T/E species in the project area.

4. Discussion of the methods used to determine the information in Item 3.

5. An analysis of the affects of the action on listed species and proposed species and their habitats, including an analysis of any cumulative effects.

- 6. Coordination/mitigation measures that will reduce/eliminate adverse impacts to T/E species.
- 7. The expected status of T/E species in the future (short and long term) during and after project completion.
- 8. A determination of "is likely to adversely affect" or "is not likely to adversely affect" for listed species.
- 9. A determination of "is likely to jeopardize" or "is not likely to jeopardize" for proposed species.

10. Citation of literature and personal contacts used in developing the assessment.

If it is determined that a proposed program or project "is likely to adversely affect" any listed species, formal consultation should be initiated with this office. If it is concluded that the project "is not likely to adversely affect" listed species, the Service should be asked to review the assessment and concur with the determination of no adverse effect.

Pursuant to section 7(a) (4) of the Act, if it is determined that any proposed species may be jeopardized, the Federal agency should initiate a conference with the Service to discuss conservation measures for those species. For more information regarding species of concern occurring in the project areas, including proposed and candidate species, please contact the Montana Natural Heritage Program, 1515 East 6th Ave., Helena, 59601, (406) 444-3009.

A Federal agency may designate a non-Federal representative to conduct informal consultation or prepare biological assessments. However, the ultimate responsibility for Section 7 compliance remains with the Federal agency and written notice should be provided to the Service upon such a designation. We recommend that Federal agencies provide their non-Federal representatives with proper guidance and oversight during preparation of biological assessments and evaluation of potential impacts to listed species.

Section 7(d) of the Act requires that the Federal agency and permit/applicant shall not make any irreversible or irretrievable commitment of resources which would preclude the formulation of reasonable and prudent alternatives until consultation on listed species is completed.

Power lines in the vicinity, if not properly constructed, could pose electrocution hazards for bald eagles. To conserve eagles and other large raptors protected by Federal law, we urge that any power lines that need to be modified or reconstructed as a result of these projects be raptor-proofed following the criteria and techniques outlined in the publication, "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996." A copy may be obtained from: Jim Fitzpatrick, Treasurer, Carpenter Nature Center, 12805 St. Croix Trail South, Hastings, MN 55033. The use of such techniques would likely be most beneficial adjacent to expected raptor foraging areas (i.e. stream crossings or wetlands that support populations of waterfowl).

Your letter does not mention whether wetlands might be impacted by the proposed highway and bridge reconstruction project. If so, Corps of Engineers (Corps) Section 404 permits may eventually be required. In that event, depending on permit type and other factors, the Service may be required to review permit applications and will recommend any protection or mitigation measures to the Corps as may appear reasonable and prudent based on the information available at that time.

Information included with your letter indicates that nine treated-timber bridges will be replaced along the proposed project corridor, and that with the exception of Eagle, Redstone, and Big Muddy creeks, these structures will likely be replaced with culverts. To facilitate fish, bedload, and wildlife passage through these structures and along these drainage corridors, the Service urges the Department to consider replacing these structures with new bridges as opposed to culverts, especially those structures that cross perennial streams.

The Service recommends that the Department strongly consider clear-spanning these streams, if possible, to avoid placement of structures in the stream channel. Bridge abutments and piers, and their attendant riprap, that are located in the stream channel or encroach upon it can constrict flows, increase erosion and affect bedload movement both up and down stream of the structure, resulting in significant effects to the physical, chemical and biological dynamics of the stream and its associated aquatic resources. If instream structures are proposed, the Service recommends that the direct, indirect and cumulative impacts of those structures be analyzed, along with future activities related to scour protection and bank stabilization that are often required to maintain such structures. The Service encourages the implementation of measures designed to offset these impacts, such as the construction of additional bridge length as a means of ameliorating long-term stream corridor impacts.

Your staff observed cliff swallow (*Hirundo pyrrhonota*) nests under some of the bridges proposed for replacement as part of this proposed project. To comply with the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 *et seq.*) (MBTA) and avoid the taking of cliff swallows that may be nesting under these bridges, the Service recommends that removal of the existing bridges where such nests are present be conducted outside cliff swallow nesting season if at all possible. Cliff swallows in Montana generally nest between mid-May and the end of August. In addition, if trees suitable for nesting by other migratory bird species are proposed to be eliminated during construction activities, the Service recommends that they be removed outside the nesting season if possible, thus reducing impacts to migratory birds which will assist in compliance with the MBTA.

Your letter also requested information regarding any Service lands that may be affected pursuant to Section 4(f) of the 1966 Department of Transportation Act (49 U.S.C. 303). The Service manages lands within the Northeastern Montana Wetland Management District which may occur near the proposed project corridor. The map included with your letter was not specific enough to determine proposed highway alignments relative to Service lands. Therefore, we recommend contacting the Refuge Manager of the Medicine Lake National Wildlife Refuge Complex at (406)789-2305, who administers the Wetland Management District lands, to determine if any of the proposed alignments for this project may affect Refuge lands.

The Service acknowledges the Department's efforts to minimize impacts to fish and wildlife resources that may result from the construction, use, and maintenance of Montana's transportation systems. If you have questions regarding this letter, please contact Mr. Scott–Jackson, of my staff, at (406)449-5225, ext. 201.

R. Mark Wilson **Field Supervisor**

Copy to: Ted Gutzke, Medicine Lake NWR, 223 N. Shore Rd., Medicine Lake, MT 59247-9600



November 29, 2001

Helena Regulatory Office 301 South Park Avenue, Drawer 10014 Helena, Montana 59626-0014 Phone (406) 441-1375 Fax (406) 441-1380

Subject: Corps File Number 2001-90-723 Redstone – East and West STPP 22-1(5)14, MDT Control Number 2024

Darryl L. James – Project Manager URS BRW, Inc. 7 West 6th Avenue, Suite 3N PO Box 220 Helena, Montana 59624-0220

Dear Mr. James:

Reference is made to your request on behalf of the Montana Department of Transportation (MDT) for the US Army Corps of Engineers to be a Cooperating Agency on the proposed Redstone- East and West highway reconstruction project. The project is located in Daniels and Sheridan Counties east of Flaxville on Montana Highway 5.

Under the authority of Section 404 of the Clean Water Act, Department of the Army permits are required for the discharge of fill material below the ordinary high water mark of our nation's rivers, streams, lakes or in wetlands.

Based on the information provided, we have agreed to be a Cooperating Agency on this project. Please direct all future information and inquiries to Todd Tillinger of this office at (406) 441-1375, and reference Corps File Number 2001-90-723.

Sincerely, Jemle

Allan Steinle Montana Program Manager

Cc:	Scott Jackson – US Fish and Wildlife Service, Helena
	Joel M. Marshik, MDT Environmental Services – Helena
	Sam Naseem, MDT Consultant Design – Helena
	Dwight Olsen, CENWO-ED-HC – Omaha



Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.state.mt.us

October 25, 2001

Mr. Darryl L. James Project Manager URS/BRW, Inc. P.O. Box 220 Helena, MT 59624-0220

RE: STPP 22-1(5)14 Redstone – East & West Control No. 2024

Dear Mr. James:

You have requested that the Department of Environmental Quality (DEQ) become a cooperating agency on the referenced project in accordance with the U.S. Department of Transportation Federal Highway Administration's regulations.

Pursuant to the rules implementing the Montana Environmental Policy Act, DEQ must agree to cooperate if DEQ has any jurisdiction associated with the proposed project (ARM 17.4.627(2)). DEQ's permitting responsibilities involve air and water quality. Therefore, to comply with its own rules, DEQ agrees to become a cooperating agency.

If you have any questions, please contact Greg Hallsten at (406) 444-3276.

Sincerely,

Vensebaug R Jan P. Sensibaugh

Jan P. Sensibaug Director

c: Greg Hallsten, Permitting and Compliance Division

U.S. DEPARTMENT OF AGRICULTURE Natural Resources Conservation Service NRCS-CPA-106 (Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Fee	deral Agency)		3. Date	of Land	Evaluation I	Request	12/7/05	4. Sheet 1	of
1. Name of Project Redstone - East & West		5. Feder Fed	5. Federal Agency Involved Federal Highway Administration						
2. Type of Project Highway			6. Coun	ty and S	State Sher	ridan C	ounty, M	lontana	
PART II (To be completed by Nf	RCS)		1. Date I 12/7	Request	Received by	NRCS	2. Perso	n Completing Forr ica Friedrich	n
3. Does the corridor contain prime, un (If no, the FPPA does not apply - D	ique statewide or local i o not complete addition	important farmland al parts of this form	n).	YES 🔽	NO 🗌		4. Acres 7000	Irrigated Average 1672	e Farm Size
5. Major Crop(s) Hay/Pasture		6. Farmable Lar Acres: 62	nd in Gover 0,160	nment J	urisdiction %	57	7. Amoun Acres	t of Farmland As I : 186,874	Defined in FPPA % 7
8. Name Of Land Evaluation System I LESA Productivity Index	Used	9. Name of Loca None	al Site Asse	ssment	System		10. Date	Land Evaluation R 12/13/	eturned by NRCS
PART III (To be completed by Fe	ederal Agency)			Co	Alternativ	ve Corr Corr	idor For S ridor B	egment Corridor C	Corridor D
A Total Acres To Be Converted Dir	ectly			5	15.744)				
B. Total Acres To Be Converted Ind	lirectly. Or To Receive	Services		2	(1.76)				1
C Total Acres In Corridor	incomy, or to receive	00111003		7	(7) 063			0	0
PART IV (To be completed by N	NRCS) Land Evaluat	tion Information	,	200	(1.050				
A Total Assos Drime And Unious D				0					
A. Iotal Acres Prime And Unique F	armland			U	(0)	10000			
B. Total Acres Statewide And Loca	I Important Farmland			1	(7.050)				
C. Percentage Of Farmland In Cou	Inty Or Local Govt. Un	It to Be Converte	ed Note Malves	0.4	170				
D. Percentage Of Farmland In Govt.	. Jurisdiction with Sam	le Or Higher Relat	ive value	30	70	States and			
value of Farmland to Be Serviced	S) Land Evaluation Inf or Converted (Scale	ormation Criterion of 0 - 100 Points)	n Kelative)	8	L. Star				
PART VI (To be completed by Fed	deral Agency) Corrid	or	Maximum						
Assessment Criteria (These criter	ria are explained in 7	CFR 658.5(c))	Points						
1. Area in Nonurban Use			15	15					
2. Perimeter in Nonurban Use			10	10					
3. Percent Of Corridor Being Fa	armed		20	0					
4. Protection Provided By State	And Local Governmer	nt	20	0					
5. Size of Present Farm Unit Co	ompared To Average		10	10					
6. Creation Of Nonfarmable Far	mland		25	0					
Availablility Of Farm Support	Services		5	5					
8. On-Farm Investments			20	0					
Effects Of Conversion On Fa	rm Support Services		25	0					
10. Compatibility With Existing A	gricultural Use		10	0					
TOTAL CORRIDOR ASSESSM	IENT POINTS		160	40		0		0	0
PART VII (To be completed by Fe	ederal Agency)								
Relative Value Of Farmland (From	m Part V)		100	81					
Total Corridor Assessment (From assessment)	Part VI above or a loc	al site	160	40		0		0	0
TOTAL POINTS (Total of abov	re 2 lines)		260	12	1	0		0	0
1. Corridor Selected: Corridor A	2. Total Acres of Far Converted by Pro	mlands to be	3. Date Of S	Selectio	n:	4. Was	A Local Sit	te Assessment Us	ed?
	7.058		12/12/	05			YES	NO 💋	

5. Reason For Selection:

Corridor A was the only corridor evaluated.

Signature of Person Completing this Part:		DATE
LIT V. Talka	- (185 (monthe))	12/12/05
- nux ni cierus	110 000-100 100	
NOTE: Complete a form for each segment with	more than one Alternate Corridor	

Appendix C

Cultural Resources Documentation and 4(f) Evaluations

2701 Prospect Avenue PO Box 201001 Helena MT 59620-1001 David A. Galt, Director Judy Martz, Governor

October 8, 2002

Patrick Rennie Department of Natural Resources and Conservation Trust Lands Division 1625 11th Avenue P.O. Box 201601 Helena, MT 59620

Subject: REDSTONE EAST & WEST STPP 22-1(5) 14 CONTROL NUMBER 2024

Dear Patrick,

Enclosed for your review and comment is the cultural resources inventory report for the above Montana Department of Transportation (MDT) project. The inventory was conducted by HRA of Missoula.

There are DNRC administered tracts in Sections 2, and 8, Township 35 North, Range 51 East, and Section 11, Township 35 North, Range 52 East. You will note that HRA recorded a lithic scatter, **24SH411**, in Section 2 (T. 35 N., R. 51 E.). According to HRA the site consists of six quartzite cores and four quartzite flakes. They have recommended the site as not significant.

I will wait for your reply before consulting with Montana SHPO.

If you have questions about this matter please contact me at 406-444-0455 or <u>splatt@state.mt.us</u>.

Steve Platt, Archaeologist Environmental Services

Cc: Gordon Stockstad, Chief, Resources Bureau file

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7.	$DEPA(IMENT OF NATURAL RECURCES) \qquad \forall \lambda$
	AND CONSERVATION
	MASTER FILE
	DIVISION OF TRUST LAND MANAGEMENT
Ļ	1625 ELEVENTH AVENUE
	DIRECTOR'S OFFICE (INCIDENCE)
	PO BOX 201601
	OCT 1 0 2002
	UCtober 9, 2002
	EM ATKORMEN LUI
	Montana State Historic Preservation Office
	Attn: Dr. Mark Baumler
	Helena, MT 59620-1202
	RE: Cultural Resources Inventory of State Route 5: Redstone East and West, Sheridan
	2024. Report prepared by Historical Passarah A
	Montana Department of Transportation (Helena, MT), Report dated 9-2002
	Dear Mark
	Enclosed for your review and files please find a copy of the above referenced report. That
	of expected disturbance of a number of a number of expected disturbance of a number of expected disturbance of a number of a n
	Counties.
	The DNRC agrees with the consultant's recommendations and is seeking concurrence of the SHPO that no Heritage Present in the bill
	with the proposed undertaking.
	the above referenced report one and if you have any questions or concerns regarding
	Sincerely,
	Vatuik
	Patrick J. Rennie
	DNRC Archaeologist

encl.

cc. Steve Platt, MDOT

20021015 2 Alter NOV 0 8 2002 NOV 0 8 2002 Montana Department of Transportation David A. Galt, Director 2701 Prospect Avenue Judy Martz, Governor PO Box 201001 Helena MT 59620-1001 MOT Redstone E a W MASTER FILE COPY State Historic Preservation Office Montana Historical Society CONCUR 1410 East 8th Avenue MONTANA SHPO P.O. Box 201202 DATEL NOV OZ SIGNED Helena, MT 59620 Subject: **REDSTONE EAST & WEST** STPP 22-1(5) 14 BY **CONTROL NUMBER 2024** Dear Mark,

Enclosed for your review and comment is the cultural resources inventory report for the above Montana Department of Transportation (MDT) project. The report was prepared by Historical Research Associates of Missoula. The site forms are enclosed separately from the report.

There are several parcels of land along the project corridor which are administered by the Montana Department of Natural Resources and Conservation. Patrick Rennie's response to the report is enclosed.

Nine timber bridges are located along the route (24SH105, 24SH106, 24SH107, 24SH108, 24SH199, 24SH422, 24SH424, 24SH426 and 24DN011). They fall under MDT's PMOA on Historic Roads and Bridges. Edgar Richardson of the Daniels County Museum was contacted and asked about the bridges' local significance. His response was that the bridges were not locally significant. Two abandoned county road segments, 24SH413 and 24DN012/24SH410, also fall under the PMOA and need not be evaluated.

Two irrigation ditches fall under the existing PMOA on Historic Irrigation Ditches. They are **24SH417** and **24SH421**.

There are a number of stone circle sites along the project corridor as well. Six stone circle sites have yet to be evaluated with subsurface test units. They are 24SH122, 24SH412, 24DN085, 24DN086, 24DN087, and 24DN088. Next spring MDT will move

Baumler 10/11/02 Page 2

to test those sites which appear to be unavoidable given the most likely alignment for the new road.

A seventh stone circle site, 24DN057/24SH633 is considered eligible under Criterion D, while 24SH411, a small lithic scatter is considered not eligible.

Historic properties considered not eligible are, 24SH414, 24SH416, 24SH419, 24SH420, 24SH423, 24SH425, and 24DN013.

Historic properties which *are* considered eligible are, **24SH418**, **24SH758**, and the Knight Agricultural Complex, **24SH415**. HRA recommended that **24SH415** not be considered eligible but we disagree with that assessment of the property and feel that it ought to be determined significant under Criteria A and C.

If you have questions about this matter please contact me at 406-444-0455 or <u>splatt@state.mt.us</u>.

Steve Platt, Archaeologist Environmental Services

Cc: Gordon Stockstad, Resources Patrick Rennie, DNRC Lands Carl Four Star, Ft. Peck Tribes Curley Youpee, Ft. Peck Tribes file



Montana Department of Transportation

January 22, 2004

Carl Four Star Fort Peck Tribes P.O. Box 1027 Poplar, MT 59255 2701 Prospect Avenue PO Box 201001 Helena MT 59620-1001 David A. Galt, Director Judy Martz, Governor



Subject:

Redstone East & West STPP 22-1(5) 14 Control Number 2024

Dear Carl,

Enclosed is a cultural resource report that addresses the above federally funded Montana Department of Transportation (MDT) project. This report describes archaeological testing at two stone circle sites in northeast Montana.

About this time last year I took HRA's original Redstone report up to MDT's Glendive Road Design Section and designer Rich Palmer and I compared the site locations in the report to the anticipated new highway alignment. Rich was able to come up with a design that avoided all but two tipi rings in a corridor that was full of these features. This report describes archaeological testing at both tipi rings that will be impacted by the Redstone East & West project.

As one might expect we didn't come up with much at either ring site. Site 24SH122 consists of a single ring. After excavating fully half of this tipi ring we came up with six pieces of fired rock and a single chalcedony flake. I believe that enough work has been done at 24SH122 to establish that it is not eligible for the National Register of Historic Places for its information potential.

Site 24DN86 contains sixteen stone circles, only one of which (Feature 1) will be impacted by the Redstone Project. At this site we chose to put a single $1m \times 1m$ unit within the tipi ring, but placed three other $1m \times 1m$ units in the "space" between Feature 1 and the other rings at the site. At 24DN86 we found no artifacts whatsoever in the test excavations.

If you have questions about this matter please contact me at 406-444-0455 or <u>splatt@state.mt.us</u>.

Steve Platt, Archaeologist Environmental Services

Cc:

Bonnie Steg, Supervisor, Resources & Permitting Stan Wilmoth, SHPO 2701 Prospect Avenue PO Box 201001 Helena MT 59620-1001 David A. Galt, Director Judy Martz, Governor

January 22, 2004



Stan Wilmoth State Historic Preservation Office 1410 East 8th Avenue P.O. Box 201202 Helena, MT 59620

Subject:

Redstone East & West STPP 22-1(5) 14 Control Number 2024

Dear Stan,

Enclosed is a cultural resource report that addresses the above federally funded Montana Department of Transportation (MDT) project. This report describes archaeological testing at two stone circle sites in northeast Montana.

About this time last year I took HRA's original Redstone report up to MDT's Glendive Road Design Section and designer Rich Palmer and I compared the site locations in the report to the anticipated new highway alignment. Rich was able to come up with a design that avoided all but two stone circles in a corridor that was full of these features. This report describes testing both stone circles that will be impacted by the Redstone East & West project.

As one might expect we didn't come up with much at either stone circle site. Site **24SH122** consists of a single ring. I happen to like single ring sites as I feel they have a pretty good chance of being single event campsites. At this site HRA excavated fully one half of the stone circle feature. They were able to recover six pieces of fired rock and a single chalcedony secondary reduction flake. Five of the fired rock fragments appear to represent water fracture while the last piece appears to be heat spalled. I believe that enough work has been done at 24SH122 to establish that it is not eligible for the National Register of Historic Places under Criterion D.

Site 24DN86 contains sixteen stone circles, only one of which (Feature 1) will be impacted by the Redstone Project. At this site we chose to put only a single $1m \times 1m$ unit within the feature, but placed three other $1m \times 1m$ units in the "space" between

Wilmoth 1/22/04 Page 2

Feature 1 and the other stone circles. Not unexpectedly no cultural artifacts were recovered from any of the units.

I feel that it would be irresponsible to argue that the entirety of 24DN86 is not significant based on the work done in the area of potential effect. The site actually has several promising attributes, among them: 1) rings of different sizes, 2) the rings are clustered into four distinct groups which could represent either distinct family-related groups or different occupations, and 3) the rings are associated with a surface scatter of chipped stone debris and tools. However, at this time I believe we can say that Feature 1 and the portion of 24DN86 within the area of potential effect do not contribute to the (still hypothetical!) significance of this site.

Regarding potential Criterion A (traditional Native American) values at both sites, Carl Four Star provided general information about past use of the project area by the Assiniboine but expressed no particular interest or concern about either stone circle site. A copy of this report will be sent to both Carl Four Star and Curley Youpee at the Fort Peck Indian Reservation.

The Redstone East & West project will have no effect on significant cultural resources.

If you have questions about this matter please contact me at 406-444-0455 or <u>splatt@state.mt.us</u>.

Steve Platt, Archaeologist Environmental Services

Cc:

Bonnie Steg, Supervisor, Resources & Permitting Tom Atkins, P.E., Glendive Area Engineer



Montana Historical Society

225 North Roberts * P.O. Box 201201 * Helena, MT 59620-1201 * (406) 444-2694 * FAX (406) 444-2696 * www.montanahist<u>oricalsociety.org</u> *

Friday, February 06, 2004

REC	Eľ	VE	D
FEB	9	2004	



Steve Platt MDT

ENVIRONMENTAL

RE: Redstone E&W, STPP 22-1(5) 14, Control 2024

Steve:

Given the amount of work at 24SH0122 and the feature at 24DN0086 I think we could argue that were they to contribute important information to understanding significant past events, that contribution has been preserved. I feel uncomfortable about making a No Properties Affected finding when a feature in an Unresolved site will be impacted, and Mark clearly felt it was not a straight call. However, as I said due to the work and information collected during the testing we **concur** with your finding of No Effect.

StanWilmoth, Ph.D. State Archaeologist/Deputy, SHPO

MDT 2004 Redstone E&W

Montana Division – Federal Highway Administration

Nationwide Section 4(f) Evaluation for Historic Bridges

Project Name: Project Number: Control Number:	Redstone - East and West STPP 22-1(5)14 2024		
Date:	April 5, 2006		
Location:	Name	Site #	County
	Gaines Bridge	24DN011	Daniels
	bridge over stockpass	24SH105	Sheridan
	bridge over Big Muddy Creek	24SH106	Sheridan
	bridge over Redstone Creek	24SH107	Sheridan
	bridge over Eagle Creek	24SH108	Sheridan
	bridge over N. Fork Eagle Creek	24SH109	Sheridan
	bridge over tributary to Big Muddy Cr.	24SH422	Sheridan
	Archer Coulee Bridge	24SH424	Sheridan
	bridge over tributary to Big Muddy Cr.	24SH426	Sheridan

The proposed project requires use of a historic bridge structure that is on, or eligible for listing on the National Register of Historic Places. A description and location map/"Translite" of the proposed bridge replacement project is attached. Additional information is provided for any response(s) in a large box. Consult the Nationwide Section 4(f) Evaluation criteria.

1.	Is the bridge a National Historic Landmark?	YES	NO ⊠
2.	Have agreements been reached through the procedures pursuant to Section 106 of the <i>National Historic Preservation Act</i> with the following:		
	State Historic Preservation Office (SHPO)?	\boxtimes	
	Advisory Council On Historic Preservation (ACHP)?	\boxtimes	
3.	Any other agencies with jurisdiction at this location?		
	a. If "YES" will additional approval(s) for this Section 4(f) application be required?		\boxtimes
	b. List of agencies with jurisdiction at this location:		
	US Army Corps of Engineers (CWA Section 404 Permit)		
	USDA – Forest Service		\boxtimes
	USDA – Natural Resources Conservation Service (FPPA)		\boxtimes
	FEMA Regulatory Floodway (Permit)		\boxtimes
	MDFWP – Parks Division (Fishing Access Site)		\boxtimes
	MDFWP – Wildlife Division (Wetlands)	\square	\boxtimes
	MSFWP – Fisheries Division (MSPA 124 Permit)	\square	
	MDSL – (Navigable Rivers Under State Law)		\boxtimes
	MDEQ – Water Quality Bureau		\boxtimes
	MDEQ – Other:		\boxtimes
	MDNRC (Irrigation systems) Other:		\boxtimes
		_	

ALTERNATIVES & FINDINGS

Each of the following alternatives for this proposed project have been evaluated to avoid the use of the historic bridge:

1. "Do Nothing."

- 2. Rehabilitate the existing bridge without affecting the historic integrity of the structure in accordance with the provisions of Section 106 in the NHPA.
- 3. Construct the proposed bridge at a location where the existing historic structure's integrity will not be affected as determined by the provisions of the NHPA.

The above alternatives have been applied in accordance with this Programmatic Section 4(f) Evaluation and are supported by each of the following findings.

			YES	NO
1.	The trans	"Do Nothing" alternative has been evaluated and has been found to ignore the basic sportation need at this location.		
	This	alternative is neither feasible nor prudent for the following reasons:		
	а.	Maintenance: This alternative does not correct the structurally deficient condition and/or poor geometrics (clearances, approaches, visibility restrictions) found at the existing bridge. Any of those factors can lead to a sudden catastrophic collapse and/or a potential injury including loss of life. Normal maintenance will not change this situation.		
	b.	Safety: This alternative does not correct the situation that causes the existing bridge to be considered deficient. Because of the deficiency, the existing bridge presents serious and unacceptable safety hazards to the traveling public and/or places intolerable restrictions (gross vehicle weight, height, and/or width) on transport.		
	A co	py of the MDT Bridge Bureau Inspection Report is attached.		
2.	The	rehabilitation alternative has been evaluated with one or more of the following findings:		
	a.	The structural deficiency of the existing bridge is such that it cannot be rehabilitated to meet minimum acceptable load and traffic requirements without adversely affecting the historic integrity of the structure.	\boxtimes	
	b.	The geometrics (height, width) of the existing bridge cannot be changed without adversely affecting the historic integrity of the structure.	\boxtimes	
	C.	This alternative does not correct the serious restrictions on visibility (approach geometrics, structural requirements), which also contributes to an unsafe condition at this location.	\boxtimes	
	ls th prec	is rehabilitation alternative therefore considered to be feasible and/or prudent based on the eding evaluations?		
3.	The effe	relocation alternative (i.e., the new bridge is relocated to a site that presents no adverse of upon the existing structure) has been considered under the following findings:		
	a.	Terrain and/or local geology: The present structure is located at the only feasible and/or prudent site for a bridge on the existing route. Relocating to a new site (either up-, or downstream of the preferred location) will result in extraordinary bridge/approach engineering and associated construction costs.		
		The preferred site is the only prudent location due to the terrain and/or geologic conditions in the general vicinity.		\boxtimes
		Any other location would cause extraordinary disruption to existing traffic patterns.		\boxtimes
	b.	Significant social, economic and/or environmental impacts: Locating the proposed bridge in other than the preferred site would result in significant social/economic impacts such as the displacement of families, businesses, or severing of prime/unique farmlands.		\boxtimes

		YES	NO
	Significant environmental impacts such as the extraordinary involvement in wetlands, regulated floodplains, or habitat of threatened/endangered species are likely to occur in any location outside the preferred site.		\boxtimes
C.	Engineering and economics: Where difficulty/ies associated with a new location are less extreme than those listed above, the site may still not be feasible and prudent where costs and/or engineering difficulties reach extraordinary magnitudes. Does the alternate location result in significantly increased engineering or construction costs (i.e., a longer span, longer approaches, etc.)?		
d.	Preservation of existing historic bridge may not be possible due to:		
	the existing structure has deteriorated beyond all reasonable possibility of rehabilitation for a transportation or alternative use;	\boxtimes	
	no responsible party can be located to maintain and preserve the historic structure.	\boxtimes	
	Therefore, in accordance with the previously listed findings, it is neither feasible nor prudent to locate the proposed bridge at a site other than the preferred alternate as described.	\boxtimes	

MEASURES TO MINIMIZE HARM

This Nationwide Programmatic Section 4(f) Statement applies only when the following measures to minimize harm have been assured. (A check in a larger box might void the Programmatic application. If so, a full Section 4(f) Evaluation will be required.)

1.	Is the bridge being rehabilitated under this proposed project?	YES	NO
	If "YES", is the historic integrity of the structure being preserved to the greatest extent possible; consistent with unavoidable transportation needs, safety, and load requirements?		
	If "NO", refer to item 2 below to determine Programmatic applicability.		
2.	The bridge is being replaced or rehabilitated to the point where historic integrity is affected. Are adequate records being made of the existing structure under Historic American Engineering Record standards, or other suitable means developed through consultation with SHPO and the ACHP?		
3.	If the bridge is being replaced, is the existing structure being made available for alternative use with a responsible party to maintain and preserve same?		
4.	If the bridge is being adversely affected, has agreement been reached through the Section 106 process of the <i>National Historic Preservation Act</i> on these measures to minimize harm (which will be incorporated into the proposed project) with the following:		
	ACHR (Date: 10/22/2001)		
		\bowtie	
	FHWA (Date: 10/2/2001)	\boxtimes	
	The Programmatic Memorandum of Agreement signed/approved by those agencies is attached.		

COORDINATION

Additional coordination with the following agencies has taken place regarding this proposed project (other than those listed previously):

Daniels County (prior to 10/11/2002) Adjacent property owners (prior to 9/2002) Copies of letters from those agencies regarding this proposed project are attached. This proposed project is also documented as an Environmental Assessment under the requirements of the *National Environmental Policy Act* (42 USC 4321, et seq.).

SUMMARY & APPROVAL

The proposed action meets all criteria regarding the required alternatives, findings, and measures to minimize harm that will be incorporated into this proposed project. This proposed project therefore complies with the July 5, 1983, Programmatic Section 4(f) Evaluation by the US Department of Transportation Federal Highway Administration. This document is submitted pursuant to 49 USC 303 and in accordance with the provisions of 16 USC 470f.

Jean a.	Rila	Date:	OCT 0 3 2006	
Thomas L. Har Engineering Se Environmental	sen, P.E ction Supervisor Services Bureau	97994079323395		
Approved:	Federal Highway Administra	tion	OCT 0 3 2006	_

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 (800.335.7592) or call Montana Relay at 711.

Attachments

CC:	Ray Mengel	MDT Glendive District Administrator
	Kent Barnes, P.E.	MDT Bridge Engineer
	Paul Ferry, P.E.	MDT Highway Engineer
	John H. Horton	MDT Right-of-Way Bureau Chief
	David W. Jensen	MDT Fiscal Programming Section Supervisor
	Tom Hansen, P.E.	MDT Environmental Services Bureau Engineering Section Supervisor
	File	MDT Environmental Services
	URS Corporation	

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Montana Division – Federal Highway Administration

Nationwide Section 4(f) Evaluation for Minor Impacts on Historic Sites

Excluding Historic Bridge Replacements

Project Name: Project Number: Control Number:	Redstone - East and West STPP 22-1(5)14 2024	Redstone - East and West STPP 22-1(5)14 2024					
Date:	April 5, 2006						
Location:	Name Historic Irrigation Ditch Historic Irrigation Ditch	Site # 24SH417 24SH421	County Sheridan Sheridan				
NOTE:	Additional information is pr Consult the Nationwide Se	rovided for any	response(s) in a laro ation criteria.	ge box.			

APPLICABILITY

- 1. Is the 4(f) site adjacent to the existing highway?
- 2. Does the proposed project require the removal or alteration of historic structures and/or objects?
- 3. Does the proposed project disturb or remove archaeological resources, which are important to preserve in-place rather than to recover?
- 4. Is the impact on the 4(f) site considered minor (i.e., no effect or no adverse effect)?
- 5. Has the State Historic Preservation Office (SHPO) agreed in writing with the assessment of impacts and the proposed mitigation?
- 6. Is the proposed action under an Environmental Impact Statement (EIS)?
- 7. Is the proposed project on a new location?
- 8. The Scope-of-Work for the proposed project is one of the following:
 - a. Improved traffic operation;
 - b. Safety improvements;
 - c. 3R;
 - d. Bridge replacement on essentially the same alignment; or
 - e. Addition of lanes.

ALTERNATIVES CONSIDERED

- 1. The "do-nothing" alternative has been evaluated, and is not considered to be feasible and prudent.
- 2. An alternative has been evaluated on the existing alignment, which improves the highway without any 4(f) impacts, and is also not considered to be feasible and prudent.
- 3. An alternative on a new location avoiding the 4(f) site has been evaluated, and is not considered to be feasible and prudent.

Descriptions of alternatives in 2 and 3 (above) are attached.

YES NO □

YES	NO
\bowtie	
\boxtimes	
\square	
\square	

Programmatic Section 4(f) Redstone – E April 5, 2006 STPF Page 2 of 3			dstone – East & West STPP 22-1(5)14 CN 2024		
MIN	IMI	ZATIO	ON OF HARM	YES	NO
1.	Th	e prop	osed project includes all possible planning to minimize harm.	\boxtimes	
2.	Me	easure	s to minimize harm include the following: (see attached information)		
со	OR		ION	YES	NO
1.	The	e prop	osed project has been coordinated with the following:		
	a.	SHP	O (date: 10/11/02 and 2/6/04)	\boxtimes	
	b.	Advis	sory Council on Historic Preservation (ACHP) (date: 10/11/02 and 2/6	/04)	
	c.	Prop	erty Owner (date: Various)	\boxtimes	
	d.	Loca	I/State/Federal Agencies	\boxtimes	
		List:	U.S. Department of the Interior, Fish and Wildlife Service (date: 11/3 U.S. Army Corps of Engineers (date: 11/29/01) U.S. Department of Ag – Natural Resource Cons. Service (date: 12/4 MT Department of Environmental Quality (date: 10/25/01) MT Department of Natural Resources and Conservation (date: 10/9/ County Commissioners (date: 10/22/02)	30/01) 6/05) '02)	
2.	On reg Lis	e of th jarding t:	e preceding had the following comment(s) g this proposed project, and/or the mitigation.		\boxtimes

SUMMARY

All required alternatives have been evaluated and the proposed project meets all the criteria included in the Nationwide Programmatic Section 4(f) evaluation approved on December 23, 1986. This Programmatic Evaluation includes all possible planning to minimize harm, which will be incorporated in this proposed project.

APPROVAL

This document is submitted pursuant to 49 USC 303 and in accordance with 16 USC 470f.

Signed:	n a. Riley	Date:	OCT 03 2	2006	
- /7	Thomas L. Hansen, P.E.				
6	Engineering Section Supervisor				
Jo	Environmental Services Bureau				
5				OCT 0 3 2006	
Approved:	Sent Karn	<u>Mon</u> Da	ate:		_
	Federal Highway Administration	1			
					C

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	John H. Horton	MDT Right-of-Way Bureau Chief
	David W. Jensen	MDT Fiscal Programming Section Supervisor
	Tom Hansen, P.E.	MDT Environmental Services Bureau Engineering Section Supervisor
	FILE	MDT Environmental Services
	URS Corporation	
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Montana Division - Federal Highway Administration

Nationwide Section 4(f) Evaluation for Minor Impacts on Historic Sites

Excluding Historic Bridge Replacements

Project Name: Project Number: Control Number:	Redstone - East and West STPP 22-1(5)14 2024		
Date:	April 5, 2006		
Location:	Name Abandoned County Road Segment Abandoned Road Grade	Site # 24DN012/24SH410 24SH413	County Sheridan Sheridan
NOTE:	Additional information is provided for Consult the Nationwide Section 4(f)	⁻ any response(s) in a Evaluation criteria.	large box.

APPLICABILITY

- 1. Is the 4(f) site adjacent to the existing highway?
- 2. Does the proposed project require the removal or alteration of historic structures and/or objects?
- 3. Does the proposed project disturb or remove archaeological resources, which are important to preserve in-place rather than to recover?
- 4. Is the impact on the 4(f) site considered minor (i.e., no effect or no adverse effect)?
- 5. Has the State Historic Preservation Office (SHPO) agreed in writing with the assessment of impacts and the proposed mitigation?
- 6. Is the proposed action under an Environmental Impact Statement (EIS)?
- 7. Is the proposed project on a new location?
- 8. The Scope-of-Work for the proposed project is one of the following:
 - a. Improved traffic operation;
 - b. Safety improvements;
 - c. 3R;
 - d. Bridge replacement on essentially the same alignment; or
 - e. Addition of lanes.

ALTERNATIVES CONSIDERED

- 1. The "do-nothing" alternative has been evaluated, and is not considered to be feasible and prudent.
- 2. An alternative has been evaluated on the existing alignment, which improves the highway without any 4(f) impacts, and is also not considered to be feasible and prudent.
- 3. An alternative on a new location avoiding the 4(f) site has been evaluated, and is not considered to be feasible and prudent.

Descriptions of alternatives in 2 and 3 (above) are attached.

YES NO □

YES	NO
\bowtie	
\boxtimes	
\square	
\boxtimes	

Redstone – East & West STPP 22-1(5)14 CN 2024

MI	MIN	ZATIC	ON OF HARM	YES	NO
1.	Th	e prop	osed project includes all possible planning to minimize harm.	\boxtimes	
2.	Me	easure	s to minimize harm include the following: (see attached information)		
co	OR	DINAT	TION	YES	NO
1.	Th	e prop	osed project has been coordinated with the following:		
	a.	SHP	O (date: 10/11/02 and 2/6/04)	\boxtimes	
	b.	Advis	sory Council on Historic Preservation (ACHP) (date: 10/11/02 and 2/6/04)	\boxtimes	
	C.	Prop	erty Owner (date: Various)	\boxtimes	
	d.	Loca	I/State/Federal Agencies	\boxtimes	\square
		List:	 U.S. Department of the Interior, Fish and Wildlife Service (date: 11/30/01) U.S. Army Corps of Engineers (date: 11/29/01) U.S. Department of Ag – Natural Resource Cons. Service (date: 12/6/05) MT Department of Environmental Quality (date: 10/25/01) MT Department of Natural Resources and Conservation (date: 10/9/02) County Commissioners (date: 10/22/02) 		
2.	On reg Lis	e of th jarding t:	e preceding had the following comment(s) g this proposed project, and/or the mitigation.		\boxtimes

SUMMARY

All required alternatives have been evaluated and the proposed project meets all the criteria included in the Nationwide Programmatic Section 4(f) evaluation approved on December 23, 1986. This Programmatic Evaluation includes all possible planning to minimize harm, which will be incorporated in this proposed project.

APPROVAL

This document is submitted pursuant to 49 USC 303 and in accordance with 16 USC 470f.

Signed:	a.R.lg	Date: _	OCT	03	2006
Jo-	Engineering Section Supervisor Environmental Services Bureau				
Approved:	Federal Highway Administration	m	Date:		OCT 0 3 2006

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 (800.335.7592) or call Montana Relay at 711.

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	FILE	MDT Environmental Services
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Appendix D Public Involvement Materials

MINUTES FROM PUBLIC MEETING Redstone East & West 10/13/99 *Redstone*, Montana

PUBLIC PRESENTATION

Dave Dreher: Good evening folks, I'm Dave Dreher with Public Involvement for the Department of Transportation out of Helena. We have several folks with us tonight from Helena and the District Office. Hopefully we can answer your questions and visit with you and get a little information regarding this project. We are here tonight to talk about the Redstone East and West project. If you didn't get signed in please do so before you leave — I use that list to send out information to people who were interested enough to be here and keep them updated as things change or as we get additional information. As you can see this project is now a possibility of ... (inaudible). The format of this evening's meeting will be a general presentation from our Engineer, Paul Ferry out of Helena. He will explain some of the things we are thinking about and looking at. Then we will open it up to your coments, questions, concerns and/or issues. We are here to collect information. There is absolutely nothing laid out in concrete. We are here with ideas and to get back ideas. With that said I will turn it over to Paul.

Paul Ferry: We are here tonight looking for input. We have some folks up here that can help. This project is about 15-1/2 miles. It starts just east of the railroad crossing about four miles from Flaxville and goes 6-1/2 miles — just before the corrall (inaudible). The intent of this project is to reconstruct the roadway and is part of the overall corridor that we are doing. We have just started the project between Scoby and Plentywood. The first project goes from Plentywood to this part right here (referring to graphic). Our intent is to let the contract next Spring and construction will start around next Summer. That is a little over a ten-mile project. Then the Flaxville East and West project goes from about three miles west of Flaxville to this point right here (referring to graphic). That project and will all work together for an overall corridor improvement. Our intent is to let the contract sometime in 2003. These dates are all tentative based on availability of funding. ... (inaudible)... You never know about these transportation bills.

So I will go throught the project's engineering features. "Reconstruct" means we build a new road grade, a new surfacing. In this case we are proposing a fairly dramatic change in alignment.

This is a typical section of the roadway — our intent is to build a 28 foot paved top. It is about for to six feet wider than what you have now which is anywhere from 22-24 feet wide. So you would have two or three extra feet on each side. In addition, we will have 6:1 inslopes — that is one foot of drive to six feet of length. The surface could be anywhere from eight to twelve feet. A 6:1 slope — you can pull off on a 6:1 slope and even change a tire on it if you have to. So there will be a lot more width out there for people on the road.

We also have, under the new design criteria, quite a few more cuts and fills than there are now. Right now if you go off the road it is a pretty steep embankment and you're in trouble. With the new cuts and fills, in most cases if you go off the road there will be plenty of room to recover. You can get back on the road and drive up out of the hole. As I said that with this process there will be a 28' to 30' paved top.

Horizontal alignment — we are proposing some dramatic changes. I'll go through the project from start to finish. (Showing graphic) On these display boards you can see (inaudible) ... rock ... then we come to here and it matches from the depth down there at Redstone. The first mile of the project would be right on top of the existing roadway — we would be widening both sides. Then when you come along the curve — we would like to offset it anywhere from 40 to 60 feet because we have the room to do that and it is safer for motorists driving through construction to separate the heavy equipment from drivers. It is also better for contractors who can work unencumbered and build the road faster and usually a little cheaper.

.... (inauible) ... take away grain structures plus the bridges. You are going off that line to replace the bridge and it will go deeper — we will leave the old one in place until the new one is in place and functioning. That is anywhere from \$25,000 to \$60,000 per detour. So from this first curve which is just a little bit before mile post 16, we would like to be off that 40 to 60 feet and we would continue that all the way down to a milepost 19 and the big curve. The bottom line is to make it a little smoother for a better transition. But past milepost 19 we would like to cut across this (showing graphic) and make a straight shot all the way to Redstone. Once you get to Redstone it gets a little tricky, but we would like to go north of town. ... (inaudible). We would try and avoid that as much as we could.

... (inaudile)... Across Big Muddy Creek, it is not going to vary 300 feet either way, so we would like to cross somewhere from here to the Condor Bridge (showing graphic). It might be upstream or it might be downstream, but somewhere around there.

If you look at this bench — we would stay on this bench which starts at mile post 26. There are a number of reasons for that. It is for separation and safety reasons at least with a smaller outfit. The existing road is pretty well unrestricted right now. We have railroad on one side and on the north side we have a cemetary that is pretty tight to the road. We also have Big Muddy Creek which comes up along the road at three different points (showing graphic). In all these cases there are environmental considerations. They want us to minimize impacts or avoid impacts if possible, but minimize when we can't. So we would like to get away from Big Muddy Creek if we could. Also we would eventually eliminate the crossing at Redstone Creek.

County Road — One problem with this section is that the county road comes in here (showing graphic). We would like to leave this road in place and maybe have it taken over by the county. If not, it might become a frontage road that the highway department would continue to maintain. So there are some choices there.

-2

I don't know if they are going to let us disturb mile post 26. (inaudible) ... follow that big power line all the way down past the old electric depot and come back on the line past that little bridge right before the Once again, we will be receiving comments on how people feel about this, what kind of impact it will have on them.

Bridges — This job also involves the replacement of the Big Muddy Creek Bridge, the bridge over ... (inaudible) ... and depending on where the line goes, possibly replacing the bridge over Redstone Creek.

Right-of-way — This job will involve some significant right-of-way impacts. But we would go around and get some land (inaudible) ... but there will be right-of-way impacts no matter where we build the road. This line doesn't have more or less, it will just affect different land owners.

Design Speed — Other than that, with the new alignment depending on where it is, we would like to make sure we provide an alignment for a 60 mph design speed which means that if you are driving 60 mph you can see obstacles that might be in the road and have time to react and stop. Also at night in the dips, it would be flat enought so that your headlights wouldn't be cut off.

Other than that we will be going through development and surveying very soon on whatever line we pick with your help. That concludes my presentation and I would like to hear comments from people and questions also.

COMMENTS/QUESTIONS

- Question: I was wondering if you are taking this into condsideration in the winter time, between Redstone and Plentywood, the existing road is just about always open. But when you get up on the Westy Bench or the Foxhole Bench, it snows in a lot. Are you going to have trouble up there on the Bench when it snows in? More than you have in the valley?
- Answer:(Paul Ferry) You're right. But when we build roads now we try ... (inaudible) ...instead of having them drift in, we ... (inaudible) ... so they don't drift in near asbad or as often. So you ... (inaudible) ... No, we haven't considered that yet, butthat is a good point.
- Question: I know I've been snowed in on the Interstate too but the road from Redstone to Plentywood is just about always open in the wintertime because it's in the valley — about 95% of the road is in the valley.

Answer: (Dave Dreher) Good point, thank you.

	Question	What are they going to do where the reilroad energy the high-	
	Question.	what are they going to do where the railroad crosses the highway?	
	Answer:	(Fred Ferry) The crossing is going to be in the same place, but we're looking at two different things. One is the Flaxville job — we are going to cut down the hill so that the visibility is open or possibly install a signal.	
	Question:	That is a dangerous place.	
	Answer:	(Fred Ferry) We think a signal might actually be better because we aren't clearing up visibility if someone is driving across (inaudible). We will improve that but we are pursuing putting in a signal too so there would be some warning.	
	Question:	Buy the time you get there they will probably have that railroad pulled out.	
	Answer:	Well, you can't count on that, but it would make our job easier.	
	Question:	What are you going to do about those bumps that always come in the wintertime just this side of Flaxville?	
-	Answer:	(Paul Ferry) We're taking soil samples to see what is causing them. The new road will be off a little bit from those and will be elevated about six feet or more depending on where you're at. Our geotechnical people are going to go through and will propose a different kind of base on that. We hope that will take care of it but it is mighty hard to say.	
	Question:	(Dave Dreher) With this other alignment, are any of these property owners here?	
	Answer:	Yes (inaudible). Dave asked that they show them on the map where there property was located.	
	Question:	There are some really rough hills with one alignment (inaudible)	
	Answer:	(Paul Ferry) Rough hills and (inaudible) there is no doubt about that.	
	Question:	estion: (Dave Dreher) There is no option to go on the same road there.	
	Answer:	(Fred Ferry) From a driver culpability standpoint, it is easier for us to make it a little safer but there are factors with the snow — we are just going to see what people have to say. This alignment or fairly close to it, it is definitely off.	
	Answer:	(Dave Dreher) That is why we are here to talk about issues and to answer your questions.	
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Question: What percent of the old highway is on cultivated land vs. native prairie? Has there been archeological studies done?

- Answer: (Fred Ferry)No. This is very preliminary. No studies have been done yet to evaluate the impact to cultivated land.
- Question: Anywhere in there almost from where you start, if you dig a post hole, you get running water. I've got a spring out there that has been flowing for a long time. Right now, it looks like the road is probably going to go right over the top of that. The water table is two feet. In one pasture there are pools that are still pooling water now. There is water everywhere.

Answer: (Fred Ferry)This is the kind of information we are looking for.

Answer: We could easily build that like we did _____ north where we took the topsoil off and hit the water table right away. We bridged it all the way across and it worked really slick.

Question: What would happen with my corralls? You are going to go right beside them. What is your standard practice?

Answer: (Dave Dreher) Typically we would address all those issues during right-of-way negotiations and if it has a significant impact or any impact to your corralls, they would negotiate the impacts at that time. What we've done in the past is to reimburse the landowners for the replacement cost or we would come in and replace them ourselves under private contract. Those things are pretty wide open.

Question: They could be moved north by where that fountain is located.

Answer: Then we would compensate you for that. Or we will replace them as part of the job.

Answer:One of the hardest realities is that anytime you build a highway, it has impacts.This is going to have a lot of impacts to some folks. In one case it might be a field,in your case it is corralls. We certainly want to make that as painless for you aspossible. We want to build a nice safe road, but we certainly want to addressimpacts to any of the landowners and make it a good experience for everybody.

Answer:

(Dave Dreher) For those of you who don't know him, this is Bill McChesney — he is the District Administrator for this area.

Question:	How are you going to jump off the old arterial to the new highway — about ten miles this side of Plentywood?	
Answer:	On the Plentywood job, we are going to do whatever we need to do to make make sure people still have access. I'm not exactly sure because I don't have it with me. I don't know if I can answer that right now. Do you want to know where it is going to approach the highway?	
Question:	Yes — the old arterial that goes by the school out to the west. They probably are going to turn in on my land at a 90 degree angle?	
Answer:	Is that (inaudible)? We are going to come in at 90 degrees because the way it comes in now people can't see very well. It is a safety hazard. The (inaudible) is going to be different there too.	
Question:	Can't they leave it the way it is and just make the road wider there?	
Answer:	We are looking at it from a safety standpoint. We prefer to have people come in at a 90degree angle and stop because they can see both ways a lot better.	
Question:	Well, there weren't many accidents on that curve there. Once they get that hill torn down, they can see better. That sharp curve down by the school — in the winter time it fills up with snow real bad and they will have a hard time getting up there with those big trucks.	
Answer:	I don't think we can give you an answer until we gather information on those trucks. I would be happy to send you what we've got.	
Answer:	(Paul Ferry)Imporant too is that we are going to build that (inaudible) build a landing on 75 land creek lots, so once you get up there you can sit and you won't have to jump start from a steep position. Also, the appraoch itself will hopefully be a little less steep than it is now.	
Answer:	(Dave Dreher) We can make sure we've got that information and we can get you	
	some better answers when we've got stuff in front of us.	
Question:	Yes, I think that could stay the way it is once that hill is taken down and you widen the road — and make a little wider approach.	
Answer:	Would it help to send you what we've got? (Could not hear answer)	

Question:	Down by the mail box it is a little west of the Navajo sign, there was a figure put in along the south ditch towards Flaxville. I watched them do it and it is really a big fill in there and a lot of dirt scraped around there. They put this real big culvert in but now the grass has grown up — there is no sign and I know that is a big deep hole. If someone in the winter time tried to drive on that ditch for an emergency — there is no marker there at all. Can you put one in?	
Answer:	Where is it at?	
Question:	It is right in front of the bridge there. When they put it in they dug a deep hole but it is still a deep hole (inaudible)	
Question:	You said you were going to slope the road 6:1. are the approaches going to be sloped too?	
Answer:	Yes, it is only 6:1 for a very short distance.	
Question:	Is the bridge going to be a same width?	
Answer:	(Paul Ferry)Actually the bridge will be at least 28 foot and maybe 32 foot. We are checking it out. They are more expensive to light.	
Question:	When will construction start?	
Answer:	(Paul Ferry) Right now we figure to let the contract in 2003, so construction would start in 2005 maybe. We contract for working days, but we don't give them a specific date they have to start the job, so we can't gurantee that.	
Question;	(Paul Ferry) Sir, you are a landowner who will be impacted by this job, where is your property located?	
Answer:	Right in the middle of (showing graphic) right on the reservoir. Right straight along where the county line comes in there. It is going to affect us greatly. What	
	you are doing looks positive. The road bed right out of Redstone is very bad —	
	you go up on the hills you're going to have troule going on up there. I'm going to be stuck with two highways. It is bad enough to have one, but then I'll have two. To me it looks like you could stay on the same road bed. There is plenty of room there to expand. There is a bid wide ditch all along there.	
Question:	What right-of-way has the railroad acquired?	

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Redstone East & West

Answer:	(Paul Ferry)They have the right-of-way now. They don't give it up whether they need it or not.	
Question:	The railroad runs along the highway — there is a quite a bit of space there, how much is the railroads and how much is yours?	
Answer:	It will be 50 to 100 feet.	
Question:	n: (Dave Dreher) Isn't their current standard 120 feet now?	
Answer:	It is 125 feet now. 125 feet is what they want.	
Answer:	(Paul Ferry)I'm not sure how much they have along there. It varies in places.	
Question:	The railroad goes straight by Havre and Havre goes by the river and the road is pretty close to the railroad there.	
Answer	In some cases that is true — there are several up near Dawson etc., but if we need more right-of-way we aren't going to get it on the side of the railroad. They won't let us get any closer.	
Question:	What is the biggest problem? The biggest problem is by the cemetary.	
Answer:	r: That is one of the biggest problems by the cemetary. Where the creek comes down, it comes in close to the road right there. It depends on how high the road is — cut or fill, natural gravity. If we come up on the bench as they pointed out, down at the bottom we have to fill we would like to have eight feet on each side of the road (Inaudible)	
Question:	ion: Will the road eliminate a lot of the curves? There are a lot of dangerous curves on that road.	
Answer:	We will eliminate the ones that are shown on this board. On the Plentywood job,	
	on which proposed alignment we choose. The intent is to try and eliminate some of these curves.	
Question:	Well, don't you think that should be your prime consideration?	
Answer:	It is, but there are some other factors to consider. We can't eliminate some curves. To build a super safe road would be cost prohibitive and the impacts to land owners would be too great.	
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Question:	Besides this one, how many other proposals do you have?	
Answer:	This is our first one. We are going to build it very close to this alignment.	
Question:	What did you say about the curve out of Redstone towards Scobey? Did you mention that curve?	
Answer:	We come through and will be on one side of town. We would also be going up on this bench too (showing graphic). If we don't go up on the bench, we will have to do something out there.	
Question: That big dip there — is that the hill towards Redstone?		
Answer:	(Fred Ferry)Yes, it is. (Refering to graphic) is this the steep area coming down into town and big draws through here? (Yes).	
Question:	Will you go up in those hills there? Is that going to be another deep fill there?	
Answer:	(Fred Ferry)Yes, it would be very deep in a couple of spots.	
Comment:	Typically, what we have done in the past on those deep fill sections, if we can't get better than a 2:1 or 3:1 side slope, we will guard rail those sections. So you will see a lot more guardrail than you have seen in the past. From that standpoint it will be a much safer road.	
Question: How will you complete the cable and the posts?		
Answer:	We will do what is called a "Wyoming box" which is a 4" square tube on regular guardrail posts. We found it to be very crash worthy. It eliminates the problems we have with drifting and it is certainly a much better rail than a cable rail. I've worked maintenance for many years and cable rail is a pain.	
Comment:	(Dave Dreher) One thing I would like to mention is that when we are done here	
20	with the group, we will stick around and visit with you one-on-one for as long as	
Question:	I was just wondering why you start with Plentywood or towards Plentywood instead of Flaxville? People have ruined their oil pans on their car, etc. on this road. This road is really bad. You see a "rough break" sign and you slow way down only to find there is nothing to it, but another time it will break your car apart. You just don't know. That road has really done damage to a lot of cars for a long time.	

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Answer:	You are right. That one spot is very bad. We hope we can fix that.	
Question:	Do you have a map of the proposed changes? Are they going to change it from Flaxville to Scobey?	
Answer:	(Dave Dreher) We didn't bring any of that with us.	
Comment:	(Fred Ferry)That project will start just about 3-1/2 miles west of Scobey. From that point into Scobey, we don't change the route.	
Question:	Between Scobey and Flaxville is there going to be a change?	
Answer:	(Fred Ferry) Just for 2-1/2 to 3-1/2 miles of that road. The Flaxville East and West project starts at milepost 7-1/2 which is $3-1/2$ miles west of Flaxville. From there on to Scobey we're not doing any project in the near future.	
Question:	Are you changing the existing highway at all?	
Answer:	(Fred Ferry) We will make it wider and there will be some very minor changes in the alignment. It will pretty much stay the same. It will offset a little bit from 40 to 60 feet mostly on the north. But when you come down to the waterfall, we will be right back on the line. As you come into Flaxville we are putting in a left-turn lane, so we will tip the roadway to the south a little bit right through there. So when you turn you won't be encroaching on the gas station.	
Question	Do you think the cuts you make will be grassed after you are done so there isn't all this mess.	
Answer:	(Fred Ferry)Yes. We top soil and seed.	
Question:	They didn't do that when they put that little weather station thing out there. They said they were suppose to do that before, but what you are waiting for? If you are done with it, it needs to be seeded.	
Answer:	(Fred Ferry)We do that on every project and some grass takes better than others.	
Question:	What about the construction by, those gravel trucks break windows and we get chips and cracks in them. If it is going to be from year-to-year, you know that is bad.	
Answer:	Unfortunately it seems that with every project we have we run into problems with chipped windshields. I think this area has been excessive Our construction people	
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have been in contact with the contractor. We've told them to start cleaning their sideboards, to slow down, and to haul legal loads. We do have the option of making them tarpe and we told them two or three weeks ago that if we get one more report, they would have to start tarping their loads. To the best of my knowledge we haven't had too many problems over the last three weeks.

Comment: I guess they are still hauling gravel. I know most of the damage is done... in fact my state car was up here four weeks ago and in between the gravel pile and Plentywood, I got one rock chip and it goose egg'd my windshield pretty good. That upset me. I'm sure it upsets you folks too. We have gotten an inordinate number of claims. It just depends on the contractor. Some contractors are more conscientious than others. We try and address those claims as they come in. It is inevitable on a project like this that you are going to get some broken windshields. I don't care how safe you try to be. But when we start getting the number of claims that we're getting up here, it is a problem. I hope that answers your question. We are as concerned about it as you are.

Comment: All the claims aren't in yet.

Answer: (Dave Dreher) If this alingment is used up here (referring to graphic), you are not going to have a whole lot of problems.

Comment: (Paul Ferry)It is the conflict between construction equipment and traffic. That is strictly a... (inaudible).....

Question: I think that we need this road real bad and we are going to have to give a little.

Answer: (Paul Ferry)You are going to have impacts no matter where we go. The land owners adjacent to the road are the ones who are definitely going to be bearing the brunt of it.

Question: How much of the old highway are you going to leave? All the way through, or just parts of it?

Answer: (Paul Ferry)Actually, this will provide access for the county road that we bring back into Redstone. We will probably bring it up into here somewhere (referring to graphic).

Answer: We have discussed a lot of options. Of course one option would be to obliterate the entire roadway and bring this county road up to here (referring to graphic) but that entails building a bridge across Big Muddy. That bridge is very very expensive. So that is probably the least preferable option. Another option, should

we decide to do it and everybody was agreeable to it, is this alignment (referring to graphic). Another option would be to obliterate the old road from here (referring to graphic) all the way back. In fact, that would be the preferred route. Another option would be to obliterate the road from here into Redstone (referring to graphic) and bring the road up to here and use this access. I think it is a private access now — we would upgrade that and bring it into here (referring to grapic).

So you can see there are two or three options. Of course, they all hinge on whether or not everybody is agreeable to this alignment. We certainly, and I can't emphasize this enough, don't ever want to give you the impression that we are coming in here and cramming this down your throat. We looked at this route just because of its constructability, it minimizes the environmental impacts that we have with the Big Muddy, and the railroad has about 100 foot of right-of-way which leaves us with absolutely nothing on the railroad side, we've got cultivation plans, we've got utilitities. Quite honestly, it is going to be tough for us to put a roadway down through here (referring to graphic). We can do it but it is going to have sigificant environmental impacts, then there's the cemetary and those kinds of things. I don't know if there are any other options that are reasonable. If you guys can think of something we would certainly entertain it. Did that answer your question as to obliterating that roadway?

Comment: (Dave Dreher) There is nothing in stone. There are a lot of ideas out there and a lot of possibilities.

Comment: We can obliterate the whole thing, or just this portion, we can get into Redstone to access the highway and obliterate that and just leave this portion (referring to graphic) and access the highway from here. Again the least preferred option on our part would be to obliterate everything on each side. We certainly don't want to have to build a new bridge. Bridges are very expensive to build.

Question: I think you could come along side the cemetary.

Answer:Under any conditions we probably want to at least leave this portion in place
(referring to graphic). I talked with Doug
maintenance for that and the county is concerned about that because, quite
honestly, they are not very well equipped to maintain paved surfaces. I certainly
don't blame the commissioners for being concerned about that. One option would
be to(inaudible) ... right into the gravel pit. Another option is for the state to
maintain it, but of course our maintanance folks aren't really thrilled about that
idea. But those are issues that can be easily resolved. I think the big issue here is
the proposed alignment. Again, our aim is to build a good safe road that is going

to last for a lot of years and serve you and your children. Then everybody can walk away from it feeling somewhat happy with what is going on here.

- Question: Who will maintain the road from the dirt road to where it meets the highway, the State or the County?
- Answer: We have to negotiate with the county. The State would prefer for the county to maintain it, but the county would prefer for the State to maintain it. Somewhere in the middle is the answer.

Question: Well, don't forget that it is all new land in here too.

Answer: Either way we go we will have to sacrifice something. There will be increased costs but actually by avoiding this alignment, we are going to save a significant amount of money in traffic control. You can not believe how costly traffic control is. That is why we prefer the offset road in there because it totally gets the construction area away from where you drive and it minimizes our traffic control costs and it certainly increases the safety of the project. Traffic control is a major cost on a construction project.

Question: Has there been a cost analysis along that alignent?

Answer:

No. We are still ... (inaudible) ... until we have an alignment that we can actually live with — I can't tell you what the cost would be, I wish I knew. I can give you a real rough idea — for state maintenance to do a chip seal project costs approximately \$6,000 per mile. That includes labor, equipment, materials and traffic control. To have a contractor do it with us providing the traffic control costs about \$10,000 per mile. You see about a \$4,000 increase for the traffic control there. If the contractor does the whole project, including traffic control, it costs about \$18,000 per mile. So the difference between state maintenance providing everything and a contractor providing everying is a difference of \$12,000 per mile. If you put that into a \$15 to \$20 million dollar project, you can see the traffic control is a significant cost. I wish I could give you a percentage of what traffic control is but I'll bet traffic control runs anywhere from 10%-25% of the total cost of the project if there is a significant amount of traffic control.

Comment: Mostly it runs about 12% depending on a variety of things. A project like this would easily run \$200,000 in traffic control and that is money you don't get back. It is of no use to you.

Comment: What you pay in additional costs for right-of-way usually doesn't offset the traffic control costs.

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Coment:	ent: (Dave Dreher) Just to see what the general feeling is out there — those that would prefer to stay on the road as it exists right now please raise your hands —		
Comment:	I think we should let people voice their opinion on which alignment they prefer by raising their hand.		
Comment:	ent: (Dave Dreher) Usually, and correct me if I'm wrong but from my experience, those are done in urban projects where you've got		
	done in a short period of time. You could probably add another 25%-35% to the estimated cost of the project. We've done it, but it costs.		
Answer:	When we have projects that absolutely needed to get built in a short time frame, we pay incentives. But I can assure you that if you significantly restrict the amount of time the contractor has to build it, the costs of the project esclates. You are going to pay a lot of more money for that guy to get in there and get it		
Answer:	(Paul Ferry)There is an alotment of contract time. That is part of the contract. It is not calendar days but working days. They have a number of days assigned to that project and if they don't complete it in that many working days, they are penalized.		
Question:	: And time is not a factor at all in the bids?		
Answer:	ver: We don't have a lot of control over which contractor gets the job. We are mandated to go with competitive bidding — the low bid.		
	what kind of equipment they have and what shape it's in. It also depends on how efficiently they can do it. Once again, if we can separate the alignment the contractor can work more effectively and go faster.		
Answer:	wer: (Paul Ferry) It can be reduced substantially. The faster we can build, the less traffic control there is. That is true. Once again, it depends on the contractor		
Question:	If you could build it faster wouldn't your traffic costs be about half?		
Answer:	(Paul Ferry)Just a guess on a job of this kind, it might run up to (inaudible) per mile. We are talking in the neighborhood of (inaudible)		
Question:	Do you have an estimate of what the whole project would cost?		
Comment:	(Dave Dreher) Keep in mind that all these numbers you are hearing are from the hip. There is nothing that says they wouldn't be significantly different for this project specifically. So don't come back and say "you told us at that very first meeting this was going to cost x amount" because we're just winging it here folks.		

Those that would prefer to see it changed let's see your hands — Ok, a lot of people were not raising their hands. Are there any other questions?

Question: When you say the railroad very seldom gives up any property, where do you go?

Answer: They just don't.

Question: How about a property owner, if he refuses?

Answer: If we are going to build a road and need right-of-way but the property owner refuses to sell, we would eventually end up going to court and we would have to prove necessity — that we actually really needed this. If the court says there is a need, we would end up getting that property but the cost would be a different battle. If the court ruled that we didn't need it, we would have to find a different alignment.

Question: My understanding is that you can't condemn the railroad.

Answer: Well, you can, but you just never win. I don't know the legality, but it is much more difficult to acquire railroad property through condemnation than it is private property because of the protection the railroad has had over the last 100 years.

Answer: (Paul Ferry) But for the personal landowner, we just can't say that we are putting the road here and he has nothing to say about it. We would have to have very good justification for that.

Comment: Quite frankly, condemnation is something we would prefer to avoid. Nobody comes out a winner in that deal.

Question: Did they ever figure out how short that is going to be between the Cemetary and my land?

Answer: (Paul Ferry) We can go out and measure it for you. It is pretty narrow.

Question: I'll put Ray on the spot — is that road buildable? Give me an honest answer.

Answer: It is not impossible to build it pretty close to this alignment. It is going to cost more because you have to move utilities, raise the grade because it sits down so low it won't support the easement rights. It costs a lot more money to build it. It is not out of the realm of possibility, it is just more expensive.

Question: How many miles is the new road going to be?

Answer:	(inaudible) It is kind of a catch twenty two because if we come in with a lot of information, people think we have already made our decision and we really don't want to hear what they have to say. But we are pretty early in this project and we don't have all that information.
Comment:	(Dave Dreher) We figured if we came in with very little information and we didn't get stoned, at least we could get more information to you. And you haven't beat us up too bad.
Question:	If you get all new right-of-way, it is just more land that you're not going to be able to use any more?
Answer:	That is true.
Question:	We are going to run out of land pretty soon — not in our time, but some time.

CLOSING

Dave Dreher: Well I think we can bring this portion to a close. As I said, we will be more than happy to visit with you one-on-one or in small groups to get more of your questions answered. We do want your comments. We will stay here as long as necessary so please feel free to talk with us about issues like surface water or other things that might have an impact on this project.

Thank you very much for coming and participating. It is helpful when we get folks to come in and talk with us. Just a reminder, if you didn't get signed in, please do so. Thank you for coming.

Hear.

The Montana Department of Transportation (MDT) began preparations for a highway improvement project along Highway 5 in the Redstone area in 1992. A public meeting was held on October 13, 1999 and MDT received some valuable feedback from area residents.

MDT has determined the need to conduct an Environmental Assessment (EA) to identify the social, economic, and environmental impacts associated with potential improvements in this highway corridor.

As the first official activity as part of the environmental study, MDT and BRW (the project consultant) will host a project scoping meeting at the Redstone Community Hall. MDT will provide a brief introduction to the project and a general outline of the intent and schedule for the study, but the purpose of the meeting is to hear from you. This meeting is intended to provide an opportunity for the public and all interested agencies to help identify any problem areas or individual concerns relevant to the proposed project, and to suggest opportunities for improvement.

Following this meeting, MDT will begin to develop alternatives that provide the necessary safety and operational improvements and that can be can be confidently designed and constructed within the natural constraints of the corridor.

Be Heard.

Your input will be welcomed throughout this process, and if you have any immediate questions or concerns, please feel free to call anyone on the project team listed below.

Bill McChesney MDT – Glendive District Administrator P.O. Box 460 Miles City, MT 59301-0460 (406) 233-3600

Darryl L. James BRW, Inc. – Project Manager P.O. Box 220 Helena, MT 59624-0220

(406) 457-2902 ext. 7

Ray Mengel MDT – District Engineering Supervisor P.O. Box 890 Glendive, MT 59330-0890 (406) 377-5296

> Wednesday, July 11, 7 to 9 pm Redstone Community Hall Redstone, MT

Redstone - East & West



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MDT has retained BRW, Inc. to conduct this EA. As the first official activity as part of the environmental study, MDT and BRW will host a project scoping meeting on July 11, 2001 at the Redstone Community Hall. MDT will provide a brief introduction to the project and a general outline of the intent and schedule for the study, but the purpose of the meeting is to hear from you. This meeting is intended to provide an opportunity for the public and all interested agencies to help identify any problem areas or individual concerns relevant to the proposed project, and to suggest opportunities for improvement.

Following this meeting, MDT will begin to develop alternatives that provide the necessary safety and operational improvements and that can be can be confidently designed and constructed within the natural constraints of the corridor.

Your input will be welcomed throughout this process, and if you have any immediate questions or concerns, please feel free to call anyone on the project team listed below.

Project Team:

URS BRW, Inc. Montana Dept. of Transport Bill McChesney Darryl L. James MDT – Glendive District Administrator BRW, Inc. - Project Manager P.O. Box 460 P.O. Box 220 Miles City, MT 59301-0460 Helena, MT 59624-0220 (406) 233-3600 (406) 457-2902 ext. 7 Ray Mengel MDT – District Engineering Supervisor P.O. Box 890 Glendive, MT 59330-0890 (406) 377-5296

Project: STPP 22-1(5)15 Redstone – East & West Control No. 2024

Date: September 10, 2001

Alignment Considerations

The following is a summary of the public meeting held in Redstone on July 11, 2001. All distances in the following summary are approximate.

RP 14.8 (BOP) to 18.8

There was no opposition to the proposed alignment.

RP 18.8 to 21.9

We originally recommended that the new alignment remain on a tangent through this segment of the project. The new alignment would be offset from the PTW by as much as 225 m left.

A landowner recommended that we add a horizontal curve to the right beginning at about 18.8. The new alignment would shift to the right of the PTW and remain on the right to about 19.7 where it would transition back to the left. The landowner indicated that he would prefer not to have his field located on the north side of the roadway from 19.2 to 19.7 split by the new alignment.

This alignment would have two more horizontal curves than the originally proposed alignment. However, it would require substantially less grading, since it would not have to cross the large drainage on the north.

RP 21.9

The horizontal curve at 21.9 is still one of the major design problem areas. If we remain close to the PTW from 21.9 to 25.9 we can flatten the curve by shifting the crossing of Eagle Creek 40 m to 70 m to the north. The curve would begin 100 m to 200 m east of the existing PC but would have to end in approximately the same place. This alignment would also minimize impacts to the hill with the "R".

We still have not determined an acceptable alignment through Redstone if we utilize a new alignment north of Redstone from 21.9 to 26.0.

RP 21.9 to 26.0

The alternate alignments on this segment of the project still generate the most opposition.

<u>Alternate 1</u>. The proposed alignment which is located north of the town of Redstone and will be located on a bench as much as 2 km north of the PTW was opposed by the majority of people who attended the meeting. Their concerns are impacts to cultivated land, access and potential snow drifting.

The impacts to cultivated land will be somewhat greater, because of the greater fluctuation in vertical alignment and because the construction on Alternate 2 will be located on the PTW. The residents also noted that the PTW does not have any snow drifting on this portion of the roadway.

To maintain access, the existing roadway from 22.1 to 25.4 would have to be maintained by the county. The existing bridge over Big Muddy creek at 25.5 would be eliminated. The bridge at Redstone Creek would have to be maintained by the county. Access to the highway for people located south of the Big Muddy Creek could present problems if Sheridan County will not assume responsibility for the existing highway. If this roadway is not maintained, we would have to provide an additional crossing of Big Muddy Creek and a rather lengthy approach. We would also have to obtain new access across private property.

<u>Alternate 2</u>. The new roadway will closely follow the PTW alignment south of Redstone to the horizontal curve at RP 26.0.

Although the PTW is located in the floodplain of Big Muddy Creek from RP 23.0 to 26.2, we should be able to minimize impacts by closely matching the existing horizontal and vertical alignment.

The cemetery located left of the PTW at RP 23.0 restricts the width that is available for the construction of the new roadway. However, the residents indicated that they would be willing to give 5 feet of cemetery R/W for the new road.

RP 26.0 to 28.5

The landowner at 27.9 indicated they would prefer that the new alignment be located north of their house. They would like the new roadway to be about as far away from their house as the existing roadway currently is. There was no opposition to the new roadway being located north of the PTW.

RP 28.5 to 30.2 (EOP)

The landowners would prefer that we stay relatively close to the PTW on this segment of the roadway. They are concerned about loss of land and impacts to their wells and springs. They also noted that the area north of the PTW is extremely boggy which could present constructability problems.

It should be noted that there is speculation that the railroad may close in the near future. The closure and removal of the railroad line would change the alignment proposal considerably from 21.9 to 28.0.

RICH



Montana Department of Transportation

PO Box 201001 Holona, MT 59620 1001 Judy Martz, Governor

September 19, 2002

For further information, contact: Bill McChesney, (406) 233-3600 or Ray Mengel, (406) 377-5296 Jim Davies, (406) 444-6230 John Robinson, (406) 444-9415

FOR IMMEDIATE RELEASE

Public Meeting Scheduled for Highway 5 Improvements near Redstone

The Montana Department of Transportation is planning to hold a public meeting to discuss reconstruction of a section of Highway 5 near Redstone, Montana, in Sheridan County.

The meeting will be at 7pm, Tuesday, October 22, 2002, at the Redstone Community Hall in Redstone.

Public meetings were previously held in October, 1999 and another one in July 2001, and MDT received valuable input from area residents. MDT has determined the need to conduct an Environmental assessment (EA) to identify the social, economic, and environmental impacts associated with potential improvements in this highway corridor. MDT and BRW (the project consultant) will host this project scoping meeting.

MDT will provide a brief introduction to the project, and the intent and schedule for the environmental study, but the purpose of the meeting is to hear from the public. The meeting is intended to provide an opportunity for the public and all interested agencies to help identify any problem areas or individual concerns relevant to the proposed project, and to suggest opportunities for improvement.

Following this meeting, MDT will begin developing plans for the final alignment chosen as a result of the comments received from the public meeting.

For more information or to comment on this proposal please contact Bill McChesney, District Administrator, 503 N River Ave, PO Box 890, Glendive, MT 59330-0890, phone (406) 233-3600 or (888) 689-5296. To arrange special accommodations for persons with disabilities call MDT at (406) 377-5296. For TTY call (406) 444-7696 or (800) 335-7592.

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Redstone-East & West

STPP 22-1(5)14

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Control Number 2024

News

Public Meeting Public Meeting Hear.

The Montana Department of Transportation (MDT) invites you to a public meeting to discuss reconstruction of a section of Highway 5 near Redstone, Montana, in Sheridan County.

Public meetings were previously held in October, 1999 and July 2001, and MDT received valuable input from area residents. MDT has determined the need to conduct an Environmental assessment (EA) to identify the social, economic, and environmental impacts associated with potential improvements in this highway corridor. MDT and BRW (the project consultant) will host this project scoping meeting.

MDT will provide a brief introduction to the project, and the intent and schedule for the environmental study, but the purpose of the meeting is to hear from the public. The meeting is intended to provide an opportunity for the public and all interested agencies to help identify any problem areas or individual concerns relevant to the proposed project, and to suggest opportunities for improvement.

Following this meeting, MDT will begin developing plans for the final alignment chosen as a result of the comments received from the public meeting.

Be Heard.

Your comments and concerns are a very important part of the process. We invite you to attend to voice suggestions and present pertinent information about the project. To arrange special accommodations for disabilities call MDT at (406) 377-5296. For TTY call (406) 444-7696 or (800) 335-7592.

7pm, Tuesday, October 22, 2002, Redstone Community Hall Redstone, Montana

Redstone - East & West

Montana Department of Transportation

Project Newsletter – October 2002

Highway 5 environmental study continues to make progress.

The Montana Department of Transportation (MDT) began preparations for a highway improvement project along Highway 5 in the Redstone area in 1992. Public meetings were held in October 1999 and July 2001 to gather information from the public to aid MDT in the development of design alternatives for this corridor.

Since those meetings, MDT and it's consultant have been analyzing the potential impacts from the various alternatives developed to date. A summary of those impacts is presented in this newsletter for your review. A more comprehensive presentation of this information will be provided at a Public Information Meeting to be held in Redstone on October 22, 2002 (see outside of this newsletter for time and location).

Following this meeting, MDT will refine the alternatives to provide the necessary safety and operational improvements that can be confidently designed and constructed within the natural constraints of the corridor.

Your input will be welcomed throughout this process, and if you have any immediate questions or concerns, please feel free to call anyone on the project team listed on the outside of this newsletter.

Study Process

The National Environmental Policy Act (NEPA) Process has several distinct phases that are illustrated as mileposts in the graphic at right. There are two key aspects to this study: a proactive public participation program to ensure that we understand your concerns, and a rigorous exploration of alternatives to ensure that we are being responsive to the needs of the area residents and users of the area's transportation facilities. We completed the Scoping Process last summer and initiated the Development of Alternatives based on your input. We have spent the better part of the last year analyzing and refining those alternatives, and have been compiling the Environmental Assessment (EA) for submittal to the Federal Highway Administration (FHWA) for their approval.



We are currently drafting the EA and anticipate a public review period later in the fall. A public hearing will be held by early winter, and a decision by FHWA should be reached before the end of the year. The EA process will result in either a Finding of No Significant Impact (FoNSI), in which case the project will proceed to right-of-way acquisition and construction; or FHWA will require further investigation through an Environmental Impact Statement (EIS) to better understand the reasonable alternatives available to avoid and minimize impacts.

Public Information Meeting – Tuesday, October 22, 2002 7:00 p.m. to 9:00 p.m.

Analysis of Alternatives

The analysis of alternatives has two main perspectives: engineering considerations such as safety and operations, and impact to the surrounding environment.

MDT roadway engineers developed a range of alternatives to provide the necessary improvements in the horizontal and vertical curves along Hwy 5 in this corridor. All of the alternatives presented are feasible from an engineering perspective, and will be further evaluated based on the amount of earthwork required, right-of-way impacts, estimated cost, environmental impacts, and input from the public.

The environmental analysis of these alternatives is intended to assess impacts to both the built and natural environments. The EA breaks these issues out into "social, economic, and environmental" impacts. We are presenting our preliminary findings in this newsletter, and anticipate having more refined data by the October meeting.

Environmental Assessment

The EA will be circulated for your review this fall, and will be available for your review at a convenient location in your area. This document will describe the following in detail: the purpose and need for the project; the alternatives that have been developed, eliminated, and forwarded for detailed analysis; and the impacts to the built and natural environments.

Once the document has been made available, we will notify you of a Public Hearing date. You will be invited to comment on the study in general and the material presented in the document specifically. As always, your input is critical to the identification of roadway improvements that will satisfy the needs of the local residents and roadway users, and minimize impacts to the surrounding environment, and ultimately to the successful completion of this process.

Preliminary Impacts Identified to Date

While MDT has been adjusting the preliminary design(s), there are currently two major alternatives: one that would reconstruct the highway generally along the existing alignment, and one that would relocate the alignment on top of the bench north of the current highway.

MDT and its consultant are currently calculating impacts to sensitive resource areas within the project study area. The findings presented here are preliminary, and will be modified as these two alternatives are further refined.

Some notable differences in the impacts from the alternatives include:

- Approximately 280 acres of new disturbance from the bench alignment.
- Potential severance of wetlands, as well as farming and cattle operations, from their water source due to the location of the bench alignment.
- Nearly twice as many utility poles would require relocation if the highway were reconstructed generally along the existing alignment compared to the bench alignment.
- One additional bridge structure would be required along the existing alignment compared to the bench alignment.

Your Input is Critical to the Process

Please leave your comments with a member of the project team at the public meeting.



Preliminary Findings of Environmental Analysis

Resource Area:	Lower/Existing Alignment	Upper/Bench Alignment
Land Use	Current land uses would be unaffected by reconstruction of the existing alignment.	Current land uses would be unaffected by construction of a new alignment.
Farmlands	Some farmlands would be impacted by new right-of-way.	Farmlands along the bench would be impacted by the new roadway. Some operations would be affected due to required changes in access and irrigation and cattle watering practices.
Social Conditions	No changes in existing social conditions along the corridor or in Redstone.	Commercial and/or residential relocations required in Redstone. Essentially a by-pass of town.
Economic Conditions	No substantive change.	Bypass of Redstone may affect local businesses.
Pedestrian and Bicycle Facilities Air Quality Noise	Any bike/ped concerns can be addressed with either alignment. No air quality issues. No noise issues.	Any bike/ped concerns can be addressed with either alignment. No air quality issues. No noise issues.
Water Quality Wetlands	No substantial water quality issues. Approximately 4.6 ac of total impact, approximately 1.8 ac of which is high quality.	No substantial water quality issues. Approximately 6.4 ac of total impact, approximately 2.5 of which is high quality.
Water Body Modifications	No channel modifications required.	Channel modification required at Big Muddy Creek and North Fork Eagle Creek.
Floodplains	Minor encroachment along existing highway alignment.	Substantial new encroachment east of Redstone in a locally identified floodprone area.
Wildlife/ Threatened & Endangered Species	Potential timing restrictions to minimize impacts to nesting Golden Eagle and Swainson's Hawk.	"Take Permit" potentially required from USFWS for impacts to nesting Golden Eagle.
Cultural Resources	Potential archeological resource impacts on the western end of project.	Potential impacts to archeological resources on western end of project and historic/cultural resources along the bench outside Redstone.
Hazardous Waste Visual Resources	No hazardous waste issues. Substantial fill west of Redstone, but along existing alignment.	No hazardous waste issues. Substantial fill west of Redstone, and in drainages on the bench east of Redstone with new alignment.
Railroad and Utility Involvement	No railroad conflicts. Utility relocation required.	No railroad conflicts. Utility relocation required.



Public Information Meeting:

Tuesday October 22, 2002 **Redstone Community Hall** 7:00 pm to 9:00 pm

For more information, please contact:

Bill McChesney District Administrator Montana Department of Transportation P.O. Box 460 Miles City, Montana 59301-0460 (406) 232-1093 (406) 232-4273 (FAX) (800) 335-7592 (TDD/TYY for the hearing & speech impaired)

Darryl L. James Project Consultant URS/BRW Inc. P.O. Box 220 Helena, Montana 59624-0220 (406) 457-2902 (ext 7) (406) 457-2906 (FAX) darryl_james@urscorp.com (e-mail)



Montana Dept. of Transportation

c/o Darryl L. James URS/BRW Inc. P.O. Box 220 Helena, Montana 59624-0220

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Important Meeting Information Enclosed !

MINUTES FROM PUBLIC MEETING REDSTONE EAST & WEST 10/22/2002

Redstone Community Hall Redstone, Montana CN #2024

Opening

Darryl James: Good evening folks. My name is Darryl James and I'm a consultant with the Department of Transportation. We are leading MDT through the environmental review process and the project development process. We try to objectively analyze each of the alignment alternatives, take into consideration your input, look at all the natural resource constraints, other physical constraints within the corridor, and identify a preferred alternative that we will identify in the Environmental Assessment that Federal Highways will approve or say we need to work on more and then it becomes a live project.

Bill McChesney is your District Administrator for the Glendive District; Ray Mengel is the Engineering Services Supervisor for the Glendive District. Both of them are representatives for this area for the Department of Transportation. There are a myriad of other MDT folks here tonight that will help answer questions as they come up.

We were on the verge of drafting this Environmental Assessment. That is the document that will outline all social, economic, and environmental impacts, as well as construction costs for the project corridor. We started to make some tweaks in the alignment since we were out last time. I know it seems like a long time since we've been out here. We've been making progress on the design for this corridor and we think we've made some refinements that make a lot of sense, that minimize some impacts, that take into consideration some of the comments that we heard the last time we were out here, and we hope that we've addressed those as much as possible to get us to this point. But in order to progress to the next stage and really hone in on a preferred alternative, we need to get the final feedback from you and have you let us know whether we've addressed your concerns, and then answer any questions that you might have to help us identify that preferred alternative.

We sent out a newsletter a couple of weeks ago. Did everybody receive this? Anybody not get a newsletter in the mail? In this newsletter we gave a brief summary of the different social, economic, and environmental impacts within the corridor. Something you will see on the aerial photo and a good starting point for understanding some of the physical constraints in the corridor, are some of the wetland areas. One of the most intensive complexes in the whole area is towards the eastern part of the corridor and that is something we will talk about as we move through this. There are pretty high quality wetlands in there. Most of the rest of them are avoidable or they are right next to the roadway and we will just have minor impacts. What I'd like to do is just step through the entire corridor from the west end and head east. As you've got questions, raise your hand or holler at me. We are recording the meeting tonight so please state your name and where you are from, that would be helpful just so we know where the comments are coming from.

Presentation: Start of project:

From the western end we would basically be on or just off the existing alignment virtually up to the big swamp area; the big dip in the hill above Redstone. In that area we would try to offset the alignment and fill that whole area in and take care of the slump. We've had some Geotech people take a look at that and they feel like that slope is stable enough to use it in the fill area of the side slopes of the new alignment but it would be offset from that area.

From that point, we've got two general alignment alternatives (referring to graphic). One would go north of the existing alignment and I believe our fill area required through this area may be less than the other one. So your construction through here may not be substantially different. It is just a matter of some of the other constraints in the corridor. The orange line we had shown before but it was a little further north (referring to graphic). We've moved that further south for a couple of reasons: one was landowner concerns, and two we've also got a Golden Eagle nest up in the bluffs up here. U.S. Fish and Wildlife won't allow us to build a road within a certain distance of the nest without issuing either a take permit, which is a lengthy process that nobody wants to get into and it is meant for the benefit of the species so you really don't want to do it. Any construction in this area is going to require a timing restriction – there are certain times when the eagle is either fledging or nesting or laying eggs when we can't be in there with the heavy equipment. So whatever happens in here will require a timing restriction.

This yellow alignment (referring to graphic) was basically developed to try and increase the distance from the eagle nest but also this orange alignment when we moved it south to get away from this nest, gets into a channel relocation here on the north fork of Eagle Creek. We don't want to get into lengthy channel relocations either. Again you get into the permitting process and things get more costly and more time consuming, so this yellow alignment was identified to try and get out of those. We do have some wetlands impacts but they are not very high quality wetlands and those are overcome-able. I'd like some kind of input on this general area (referring to graphic) if anybody has any concerns or questions about what we are looking at here.

Questions/Comments:

- Q: (Landowner from Redstone) I guess being a landowner I'd prefer the yellow line. I guess I realize you can eliminate a couple of curves with the northern line there and it would be a little straighter but I don't see how the construction could actually be less. You said the fill areas would be less? Is that what you said?
- A: (Darryl James) The fill areas would be less.
- Q: (Landowner from Redstone) You are cutting through an extra landmass there. It seems to me an extra valley instead of the south side where you'd be coming ... (inaudible). I would definitely prefer the southern alignment just from the fact of the way I move my cows and things like that. And the farmland disturbance would be much less there.
- A: (Darryl James) Ok. Anybody else have any questions or comments on this area of the corridor?

Presentation: North Bench Alignment

As we head into Redstone we've got two distinctly different alignment alternatives. The alignment that we showed last July has been refined a little bit but it basically still goes north of Redstone and rides up on the bench until you get back down near the big ox bow in Big Muddy. The majority of the reason for this alignment alternative was the constraints within this portion of the corridor. The railroad is immediately adjacent to the existing alignment. You've got bends in the Big Muddy that get very close to the existing alignment and you've got the cemetery. That provides a very, very narrow corridor for us to reconstruct the highway in that area. So MDT developed this bench alignment to try and get out of there and make construction easier, but we've heard at a couple of the previous meetings that, "we don't understand why you should be up there and why are you up on the bench, and certainly you can put it in here." We've looked at it, it is constructable but it is not an easy engineering task to get it to fit in here. It can be done but from an engineering perspective, it is probably easier to be up here on the bench. But I'd like to hear your comments and concerns on these two alignment alternatives.

Comments/Concerns

- Q: (Kent Nathe) I usually drive that road to Plentywood everyday in the wintertime. One reason that road is always open is because it is down in the valley. I don't know how many times I've driven that road and I've heard that the Wesley Road is closed off, and it is all because they are on the bench. I do not understand why we would want to put it up on the bench when we have so much winter out here? Instead of the Wesley Bench and the Foxlie Bench, we will have created a Redstone Bench. So I don't understand why we would want to do that? I was driving there one time when those other roads were closed, and I always drive in a car and I've never been stopped. I drove up on the bench north of Redstone and you could hardly see. So there was a big difference between winter driving and I think it is a lot safer down at the bottom.
- Q: (Jerry Phelps) How would that affect my property on the Valley Road? It would go right behind my house to the corner of my acreage. Second, I have a business on the highway where it is right now and I have a lot of people stopping in there daily and if you move the road over to the north it is going to affect that business. I know it will drop the value of my property probably in half.
- A: (Darryl James) Something that I noted in this newsletter from the last meeting, not to knock Redstone or anything, but I heard talk of, "gosh, if you do this you are bypassing the town and you'll put that final nail in the coffin." As you look at it, the only commercial business in the area does face the existing alignment, so you are looking at a major change in character for the town. Am I understating it? Is that the general consensus for what this project entails?
- Q: (Orville Nash) That buries Redstone. We have a large building right next to the highway and there is one business in there now and after the first of the year there will another one added. I think it is very important to the town if we could keep the road there. In fact I'm happy with the location of the old road except we could use an improvement on the big hill up west. Like Kent said, that road there is the last one to be closed in northeastern Montana. I would think if they would go up there where they talk about

going north across those hills that they would have a lot of cutting and fills over all those coulees.

A: (Darryl James) There is substantial amount of earthwork required to form the bench alignment.

Another concern that I heard at the last meeting was the amount of flooding in the general area north of Redstone. Somebody promised me they were going to get me a photograph of that area and I never saw anything, so if anybody has old photographs I'd like to see those. You do have a substantial floodplain encroachment with this alignment as well, and in an area that is really flood prone. Is that really accurate? I'm seeing a lot of heads nodding. So that is something to consider in this design. Again those are probably overcome-able but it is something to consider in the design and the cost.

- Q: (Jerry Phelps) I have those photos of the corridor and I'll get them to you.
- A: (Darryl James) Thanks Jerry. Anything else in the Redstone area?
- Q: (Quentin Bergh) I surround Redstone on two sides and I would much prefer the southern route because I've already lost a lot of good farmland to the railroad and the highway, and if you go with the north route, there's another 20 acres or more taken out plus the hazards of the cattle. They do get out occasionally. I would also agree with the availability of the all weather route in the wintertime through the south very much so.
- A: (Darryl James) Ok, good. Are any of the county commissioners here tonight? One of the concerns with doing a new alignment like this is obviously what happens to the old alignment and we need to talk a little bit about whether the county will adopt that, take that in its maintenance program, or whether MDT has to maintain two parallel routes. These are things we need to consider as we develop these alternatives, so I'd like to hear something from the county's perspective on what happens with orphaned segments through this corridor.
- Q: (Gerald Core) County Commissioner. I guess the only concern I would have is like your Berg Road, if you go with the new alignment up on the bench, these people in order to gain access to the new highway are going to have to go clear back into Redstone and then go back through the corridor to Plentywood.
- A: (Darryl James) You've got about four miles of out-of-direction travel.
- Q: (Gerald Core) I don't know but my sentiments are, and I can't speak for Bob or Bill, but I don't think we need any more road to maintain.
- Q: (Bob Mickeland) County Commissioner. We would be very reluctant to take on any more road. We are having a tough enough time taking care of what we have now.
- Q: (Linda Meyers) I live right here in Redstone. I've thought about having this nice highway. We could make it wider if you went up on the bench, but they just finished that part to Plentywood and I was so disappointed because here you have this wide road and I was thinking that now we will get a road wide enough so that when you meet those big

trucks or equipment then you could get over on the shoulder of the road and have no problem passing, like on the way to Scobey. But they didn't do that to this road. A couple of years ago these combiners were coming from Canada and they had these huge combines on their trucks. They were ahead of me and it was fine on that new highway toward Medicine Lake but once we got off that then the truck with the combine had to get over but I still couldn't pass and he threw rocks at me the whole time. He was being really nice to get over but he was throwing these rocks because there was no shoulder. So I guess even if there is room, they don't put the shoulder on so it wouldn't make any difference that way.

- Q: (Darryl James) What is our proposed pave top, Jim?
- A: (Jim Davies) 38.4 meters, which is a 28-foot top with two-foot shoulders.
- A: (Darryl James) So it is going to be a continuation of Plentywood West.
- Q: (Linda Meyers) It is going to be just like that one? Ok. Now they have such big machines and all that and all these big hay bales, you can't really safely stay in your lane you need to get off. When you get off and there is nothing nice and flat and smooth, it kinds of pulls you too and it is kind of a risk.
- A: (Darryl James) One of the features of this project would be to provide flatter side slopes than what are out there today. So if you've got a large piece of equipment out there you could feasibly use some of that side slope to get out of the way.
- Q: (Linda Meyers) But have you noticed though that there is a still is a little lip; it kind of catches you off the edge of the pavement.
- A: (Darryl James) Are there other issues in this part of the corridor?
- Q: (Donna Phelps) I'm just wondering if there isn't a possibility that the railroad will be abandoned by the time you are building the road?
- A: (Darryl James) I spoke with somebody from BN probably about six months ago and this line is on their list for potential abandonment but even if they were to start that process today, it is a two to three year process. So it wouldn't be resolved before the highway design was done. Even then it would not happen that quickly. It is on their list but there is a whole lot of branch lines in Montana that are on the list too, and they say they are not able to give any indication as to when this comes up.
- Q: (Donna Phelps) Are we still into 2005 before the money is available?
- A: (Darryl James) More than likely. Bill, do you want to address that at all the availability of funding and potential construction dates?
- A: (Bill McChesney) I'm going into Helena next week to do this year's iteration of what is called our "red book", which essentially fits projects to funding over the next five years. All indications are that we are going to have a little less funding. So I don't see the

Redstone project up any quicker than where it is right now – probably around 2006 or 2007 to have the funding available to build it.

- Q: (Donna Phelps) The Redstone "yellow" is kind of sore spot. I used to have to drive it twice a day because my daughter went to school in Flaxville. It is just so dangerous. We are used to it but there are a lot of people who aren't used to it. The speed limit is 70 mph during the day and 65 mph at night. When you hit that and don't know what you are in for because of the dips. Most other places on the road have a little dip but I close my eyes almost thinking a little dip, but it is pretty dangerous. I've talked to people that said, "I hit that thing and I didn't know how I was going to turn out." So I'm wondering what we are going to do in the meantime? Now I know that you got rid of the rough grade and that's fine and you put up some bigger arrows to go around the hill, but there should be a 55 mph speed limit or something there with all the traffic going by and all the hay trucks and all that.
- A: (Darryl James) Part of the intent of some of these longer corridor studies is to identify a future alignment so that if you've got a bridge that is ready to fall into Big Muddy and you build a new one that ten years from now you are not building a new alignment that is 200 feet from it. So one of the interests right now is to find out where this alignment will be through there so we don't sink a whole lot of money into an area and then move that whole alignment later. Ray, what is the potential for a short-term improvement in that area with that slump?
- A: (Ray Mengel) Well, maintenance has gone in there and the fill just keeps going down, and down, and down. I guess we could take a look at it and see if we could fill something in for over the winter months but I think you are going to face the problem that you will just lose it. The bottom just isn't very stable in there.
- Q: (Donna Phelps) Oh no. But I'm thinking about in the meantime even right away there should be like a 55 mph speed limit or something to show that there is a dip there but to also show you need to slow down because there is a little leaning and upheaval and things like that.
- A: (Ray Mengel) I'll take a look at the signing configuration and we will do something there to improve it. We might not be able to post a regulated speed limit a black on white because sometimes we have to go through a process and have it approved by the Highway Commission but we could certainly right away or tomorrow put up the black on yellow suggested speed plates and maybe some more advance warning signs. We will address it. We will take care of it.
- Q: (Darryl James) Are there any other issues, concerns, constraints that we need to be aware of along the existing alignment or on the bench alignment? General preference in this area? It sounds like people are saying that if you can stay in the bottom then do that, is that right? How about a show of hands? Ok.

Again we will look at engineering feasibility and cost on this. That will all be presented in the environmental assessment.

- Q: (Jerry Phelps) I was just going to mention that there is a petition that 70 people have signed that want it on the old road. I have that in the file.
- Q: (Unidentified) There is a consensus of opinion that it doesn't matter what the public wants or the landowners wants, the state is going to do it their way.
- A: (Darryl James) I think Bill and Ray will both tell you that is not true. That is why we are here tonight. That is part of this process. There are other factors to consider but your input is as important in this process as anything that we do from an environmental perspective. Again part of the National Environmental Policy Act process is to consider all the social, economic, and environmental impacts. Your input is as important as some of the impacts I'm going to talk about with wetlands and wildlife, those are weighed against the cost of the project and the social and economic impacts to a town like Redstone. If you folks feel like this is a bypass that would kill the town, we have to consider that. And that is certainly what I'm hearing.
- Q: (Bill McChesney) You know your perception is correct because that is the way business was done eight or nine or ten years ago. But things have changed dramatically as a result of the passage of the National Environmental Protection Act. That was passed by Congress to mandate that in order to use federal funds, Department's of Transportation and public agencies using those funds have to greatly increase the amount of public input and listen to the public. And not just stand here and listen, but take that input and apply it to whatever we do with federal funds. If we came here as the Department of Transportation and said, "thanks for all your time, we've fulfilled our obligation to listen to you, but we are going to do what we want to do" then the chances are very good that the Federal Highway Administration is going to say, "that's great you can build that road, but you aren't going to do it with our money - you are going to do it with state funds." So we would actually risk federal participation. Our whole program is built around federal participation because they give 87% to every project, so we couldn't afford to build it with state dollars. I think that you certainly are the recipients of that new process. That process has been in effect now for about ten or fifteen years. So what you say does matter. I can assure you that we are not going to say, "thanks guys, but we are building it on the north alignment." In fact basically the reason we are here tonight is to make a determination and up to this point, based on what I've heard, we are going to pretty much rule out that north alignment at least up to this point up here (referring to graphic), and then we will talk about the rest of it as we go along. So I hope I can dispel that perception. That was the way business was done fifteen years ago, you know it and I know it, but it is not the way business is done anymore. What you say does matter.
- Q: (Unidentified) I was going ... feedback ... (inaudible).
- A: (Bill McChesney) That's right and that helped tremendously. The designer is looking at the roadway project... we had a pretty major constraint here not just with the cemetery but also with this astral here in Big Muddy. It looks like with raising the profile of the road through there and possibly a retaining wall, that it can be safe through here. Again, the rationale for moving up here was because of these constraints it looks like we can engineer a roadway through this corridor. It was just, at this point, a cost comparison.

- Q: (Donna Phelps) I was just wondering out by Blackhill where those bumps are if the stakes are telling the story of where that highway is going to go, it is going to go south of where it is now? Kind of right in the slew, right after the curve and before Flaxville, those bumps that we have there? Oh, that is not in this project? Sorry about that.
- A: (Darryl James) That is not in this project. Yes we are going south.

Presentation: Next Segment

Since we are talking about Swampy, I'll move into this next portion of the corridor. At the last meeting we had an alignment that swung in a little bit closer than what we've got shown here on the orange alignment. But we were getting awful close to the hard place here (referring to graphic) and I think we were going right through the middle of this wetland complex. We tried to shift that out a little bit and get further away from this ranch and out of those wetlands. Also in response to some concerns we heard at the last public meeting, we wanted to see if we could get in a little quicker, avoid this ranch, and tie back into the existing alignment to try and miss those wetlands. We met with some of the local landowners and I think we've got a fair understanding of some of their concerns here and we may need to look at an additional alternative in this area.

Questions/Comments

- Q: (Arvel Eggen) As we spoke earlier this afternoon, why can't we go south of where the road is right now the existing road, and come through there? That house down there is so close to the highway now and they don't want the new road any closer? But if you go south you would eliminate that.
- A: (Darryl James) As I understand it, with either one of these alignments we are able to move it further away from the house but the concern is the availability of water, not just with this bisecting the property but the need to extend the county road up to the alignment that separates some of your pasture from available water. So that is a concern we have to look at and find out if there is any feasible way to ...
- Q: (Arvel Eggen) If you kept it to the south, we would still have the water where we want it and it would be off the old highway but we would eliminate them too.
- A: (Darryl James) I'm going to ask Rich Palmer, the roadway designer on this project, to take a look at this curve (referring to graphic) and see what kind of a radius is in here, if it is a substandard curve; and what kind of corrections can be made in here. There is a fair distance between the railroad so that curve could be softened in here and we need to take a look at that. Again that is why we are here talking to you guys. If we've totally missed the boat on something and we need to look at something new, then that is what we need to do. So we will take a look at this and see if there is a way to stay on this existing alignment and just stay south.
- Q: (Gary Nelson) I would like to see the southern alignment. It kind of cuts right through a lot of fields there with the southern alignment and it wouldn't change anything for me but it is good for harvesting.

- Q: (Nathan _____) I would like to see it on the old road or south of the wetland. I'm going to end up with a bunch of useless land because it will be nothing but a big bog between the new road and the railroad tracks.
- A: (Darryl James) This whole area from here east (referring graphic) is fairly wet and boggy.
- Q: (Unidentified) You mean where they hold it between the railroad track and the road meeting the water? Because the land is so poor the water doesn't seep down forever and ever. That is the way it is by our place between the railroad and the highway, it just stays there. It just can't seep down; it has to evaporate so it is really rotten soil.
- A: (Darryl James) The Bergs were telling me on the way over that this area has historically flooded and held water pretty regularly.
- Q: (Unidentified) The Soil Scientist told me there was a lot of wash from the shale in ancient times that doesn't let water through.
- A: (Darryl James) You're not that old, you can't tell that.
- Q: (Unidentified) Well, I've seen a lot of water around these parts.
- A: (Darryl James) Is there any other input in this area? Is there anything we've missed in here? Any reason that we shouldn't ...
- Q: (Unidentified) When they put lines up, did they ever think of going to the south?
- A: (Darryl James) Rich, do you know what the rationale was to lead the alignment to this area? Was there a constraint that I'm not seeing? Do you know any history in this area that would have precluded an alignment correction along the existing?
- A: (Rich Palmer) The reason it was moved north was to come off that first curve from the Outlook Turnoff and then stay south of the whole line. That way we wouldn't have to have the public going through construction while we were building the new road. That was the main thing.
- Q: (Unidentified) Well, we can't have it any worse than we did for three summers for three years.
- A: (Darryl James) We'll also make sure that we look at an offset alignment through here so that construction can be done under traffic to address the concerns with detours, construction staging, and traffic control. Again, the railroad is far enough away that we may be able to get through there. We'll need to take a look at some geotechnical and the wetlands on the south side here.
- Q: (Unidentified) Well there's another thing they seem to be very concerned about, but incidentally this old oiled cow trail has been here since 1935 of 1936. I think it has outlasted some of the newer roads they've put in places.
- Q: (Unidentified) But that doesn't mean we want to keep it.
Presentation: Next Segment

Darryl James: Ok, just to the east is where we will tie back into the existing alignment and into the Plentywood West Project. That takes us through the entire corridor. Are there any other question, issues, concerns that you want to know about or that I didn't know about?

Questions/Comments

- Q: (Mike N.) I think I've mentioned to you that a lot of machinery that moves east and west through Redstone has to do with that hill and I think I talked to you that it wasn't a long enough grade to warrant a passing lane?
- A: (Darryl James) Rich, the hill heading west out of Redstone is there a need for any climbing lanes in there?
- A: (Rich Palmer) It doesn't warrant a climbing lane.
- Q: (???) Is there any opportunity for a level ditch or a flat plane there? I have to move a tractor up and down that highway quite a few times in the summer along with a combine, and it is just dangerous. So I was wondering if there is a opportunity to make it a little wider so I can fit that through there and it has less of a bank up there?
- A: (Rich Palmer) We can make it wider but it will just cost more money.
- Q: (Mike May) If you were to deviate from the existing highway, is there any way to strip that highway bed and leave it in place so that I could use it in my pasture?
- A: (Rich _____) If we stay to the north, yes we could do that.
- Q: (Mike May) That is only on the northern alignment? The southern alignment won't be far enough off the roadway to leave it?
- A: (Rich Palmer) No, it is not far enough off.
- Q: (Mike May) I guess that answers it.
- Q: (Darryl James) Are there other issues, concerns, or questions. You guys haven't been very talkative tonight.
- Q: (Unidentified) That hill is a dangerous hill, it should warrant some special consideration. Even the semi's take a hell of a run at it and they are down low, so it isn't just a little hill, it is a big hill.
- Q: (Unidentified) It is amazing to me that after we moved by the highway from out off the farm, any time day or night there is traffic going on there big trucks, cranes with huge wheels, and big hay trucks. Like I say, you can get up and look out anytime of the day or night and there is traffic on there. Big trucks are a lot of it.

- Q: (Unidentified) There seems to be a lot of concern about cost of the road and I can understand that and there needs to be but it looks to me like they wasted that much money on bridges that they wouldn't need. I called in about that little bridge on the south end of White Tail – \$820,000 for seventy-six foot bridge. The county puts in bridges across this Muddy Creek for \$80,000 to \$100,000, although I realize that wouldn't be sufficient but you could double that to \$200,000 and you would have a lot of bridge. Maybe they could hire the county to build their bridges for them.
- A: (Darryl James) I'm going to take that as a comment noted.

I should point out thought that one difference in these two alignments is that the lower alignment through this area would require one extra bridge as opposed to the upper alignment.

- Q: (Unidentified) You say a bridge or a big culvert?
- A: (Darryl James) A bridge.
- Q: (Unidentified) Then if you move to the upper alignment, what is going to happen to the springs up there?
- Q: (Darryl James) If anybody is aware of any springs along either one of these alignment, please come up afterwards and point those out because I do want to know that. Those are things we are going to try and avoid. So it is very important.

Jerry, do we have a breakdown on the number of bridges versus culverts? How many existing bridges will be culverts as we know at this level of design?

- A: (Jerry Gutowsky) Our preliminary analysis indicated we would probably have a bridge over Big Muddy and a bridge over Redstone and a bridge over Eagle Creek at a minimum. Now I think with the north alignment we wouldn't have to cross Redstone so we wouldn't have a bridge with that alignment. Probably in all likelihood the rest of them would probably (inaudible)
- Q: (Unidentified) How do you decide if we need a bridge or culvert?
- A: (Jerry Gutowsky) We do an analysis of what we think the flood magnitudes would be at each of the crossings, then we calculate how big a pipe or a bridge we would need to carry that type of flood. If it is a small enough flood event we can carry it with a pipe, if it too big for a pipe then we have to go with a bridge.
- Q: (Ray Mengel) This project is currently about 15 miles long and one of the advantages of being up here is reduced construction costs because contractors can work without having traffic going through the construction and they really like that. So the unit bid prices is a lot lower because of that. Down here you are going to have a lot more traffic control. Also we can't get into the railroad right-of-way so this alignment cannot be down the center of the roadway and is going to have to be shifted to the north, which means we've got to move the MDU transmission line at \$3,500 per pole. So you've got about a half a

million dollars into moving a power line because we cannot get into the railroad right-ofway.

So once we get all these numbers, and again we are talking about money so we might as well throw it out here right now. There is only so many dollars available for each project, and because it appears that the public would rather have the alignment down close to the existing roadway, it is going to cost a great deal more money to do that. If we get to a point where we don't have enough money to do the full fifteen miles, which part would you rather have as a priority? Would you rather go east of Redstone or West of Redstone first? I think we are going to get to that point very quickly because once we start design, we are all of a sudden going to be able to start calculating numbers pretty quick. I called MDU a few weeks ago and they want \$3,500 per pole to move that transmission line.

- Q: (Unidentified) You know this last week there was somebody working on the telephone poles and they came into our yard and told us they were going to work and they dug around and put some retardant stuff on down below. They told me that they are supposed to replace the poles every ten years, but they are going around and digging down and putting some stuff on to help make it last longer. Would that have any bearing on their price? Sure, they are going to say that.
- Q: (Ray Mengel) If they know we are coming with a project, they will not replace those poles. It has happened many times. Like I say, I think we have reached a point where we need to ... again it is fifteen miles long. Right now we think we have enough money that if we were to build the offset alignment based on not having traffic going through construction and moving all these power lines which preference do you have?
- A: (Unidentified) It kinds of sounds like blackmail?
- Q: (Ray Mengel) No it is not blackmail because at some point you are going to get to that situation.
- Q: (Unidentified) How much money is it going to cost total?
- A: (Ray Mengel) Right now it is about \$13 million for the full fifteen miles.
- Q: (Unidentified) But if you build the other one on the existing road, and now you say this one is going to cost so much more. Now you are saying that we will cut it in half if we do it your way. That is blackmail to me.
- A: (Ray Mengel) I'm sorry that it came across that way. That was not my intent. I can honestly tell you that was not the intent.
- Q: (Unidentified) Isn't a fifteen-mile project an awful long project under any situation?
- A: (Bill McChesney) We've been building fifteen-mile project recently. That is pretty much the norm any more.

- Q: (Ardell Hart) I think right now looking from the danger, the most dangerous thing we have on this road is the Redstone Hill. So if push comes to shove, I would say fix the Redstone hill first.
- Q: (Jerry Phelps) If you go on the north alignment, there would be poles moved also wouldn't there?
- A: (Ray Mengel) We would try and stay south of the poles, Jerry. So we wouldn't be moving any poles there.
- Q (Jerry Phelps) Ok, so going back to keeping the traffic off, at our last meeting we talked about rerouting the traffic through Redstone and coming out of the Outlet turnoff.
- A: (Ray Mengel) Come out here and tie back in (referring to graphic).
- Q: (Jerry Phelps) At that time we talked about I believe the County Commissioners maintaining it ... you know the road construction company would just maintain the road instead of the county. They could use it for a detour?
- A: (Darryl James) You and I talked about that briefly and it is something that we need to look into a little deeper. We will address that.
- Q: (Jerry Phelps) That is a short distance but it would keep the traffic off.
- A: (Ray Mengel) That is certainly something we are receptive to and visiting with the county about and see what they would like for maintenance because that is kind of open ended. That is a possibility.
- Q: (Jerry Phelps) I think you are overlooking safety. You know that north route, with the increased winter hazards, would be a lot more unsafe than the bottom road. That is worth a lot of money right there.
- Q: (Unidentified) Or just snow removal off the top compared to the bottom.
- A: (Darryl James) Sure, winter maintenance cost.
- Q: (Unidentified) I don't exactly see how MDU can name their price per pole. It is not like landowners can just name their price break. There is no such thing as getting a private contractor to move those poles or relocate the lines or anything like that? There is no other alternative but to pay them \$3,500 per pole?
- A: (Ray Mengel) They own them. They own the land. They have a statutory right to be there.
- Q: (Jerry Phelps) I don't understand.
- A: (Ray Mengel) We have to participate in the cost of relocation.

- Q: (Tom Keith) I'm a landowner. Those poles in that ditch by our place, there is a real wide ditch there anyway, and your pavement is only 28 feet ... (inaudible) ...
- A: (Bill McChesney) I think the point that Ray was trying to make is that at this point in time our estimates are quite honestly very preliminary but it appears as though the north alignment would be much less costly to construct than the south alignment. Personally I don't think the Department of Transportation really cares where we put it, we are going to put it where you guys want it. But you need to understand, and it is not blackmail it is just a fact, you guys need to be very clear that if it costs a lot more to build on the south and that is where we build it, there may be ... because we only have so much money. It is kind of like a checkbook, you have so much in the checkbook and I want a Cadillac but I can only afford a ...
- Q: (Tom Keith) But you are saying that the south alignment will be another fifteen years, is that what you're saying?
- A: (Bill McChesney) No I would doubt that. I think we would have to split the project and move other projects that have been programmed after Redstone out and I would guess that maybe two or three years afterwards we would build the next portion of the project. I would never tell you that it would be out thirteen years. That would not be right thing to do. That would be blackmail. It just wouldn't be right. But you do need to understand in making this decision, that is a possibility because of the increased construction costs down on that bottom route and it is going to be more costly because of constraints that Mr. James alluded to.
- A: (Ray Mengel) I can honestly tell you that I did not throw it out there nor did it even enter my head to try and blackmail you. I can honestly tell you that and I apologize if that is how it came across. I just didn't want to come back a year from now or six months from now and tell you that we can only do half the project. I wanted you to know that this evening. I didn't want to come back later on and drop that bombshell on you at a later date.
- Q: (Unidentified) I can tell you that I followed ... (inaudible) ... like I say I know where it is but I know that they moved them before ... (inaudible) ...
- A: (Bill McChesney) That's further out to the east here on this one? Ok.
- Q: (Unidentified) I was wondering after watching the construction to Plentywood, what is cheaper – to get someone to come in and get it done and move out or have it continue on? Just like everything else, every year the prices get higher and higher. It took so long there and I cannot even believe that it would have been even close to the same price they started out with. I wonder what's cheaper, to get in there and spend a little more and get out or to let it go and go and just do a little bit and quit, like no overtime or no weekends? I'm just wondering.
- A: (Bill McChesney) Actually we have no control over the contractor's work hours. They bid the project for a certain dollar amount. They have so many working days to get the project accomplished and how they do it is none of our business.

- Q: (Unidentified) But then if it is over, then what?
- A: (Bill McChesney) They have to justify the overage.
- Q: (Unidentified) But if it is over, it is still ...
- A: (Bill McChesney) Well, they may get paid or they may not. If the overruns are justified then they will get paid. In any of these kinds of projects you are always going to run into things you didn't plan on that cost extra money to address. The Plentywood project, quite frankly, was the project from hell and I hope I never have to deal with another one of those again. Everything that could go wrong went wrong. Right from the beginning we discovered that our Geotechnical Unit probably didn't do as good of preliminary soil surveys as they should of, and just west of Plentywood we ran into spring saturated land that we hadn't planned on and it cost a lot of money to address. After all that was taken care of, which delayed the project for a year, then the contractor put all the dirt in the wetlands which he wasn't supposed to do. Then we got the Corp of Engineers, the Environmental Protection Agency, and the Montana Department of Environmental Quality after us threatening huge fines. So we went in and took all the dirt back out to try and address their concerns. Then to top it all off the traffic route gravel spec that we had allowed was two inches ... well, you know what we had and you guys drove on cobblestones for two years. All I can do is assure you that will never happen again. So because of that project we've gone back and changed the specifications of our traffic gravel to a much smaller size. I know that doesn't make you feel any better. If we never get another project like that again, it would make me happy. Please don't predicate your opinion on construction on that project because typically they are not like that. Usually we are in and out within a year. We have tremendous projects going, miles and miles and miles of huge projects going on in the southeast corner of the state. Those guys get in there and have it paved within one year. I haven't seen a project in my 31 years with the department that ever went like Plentywood.
- A: (Unidentified) If we could put that dirt right back in, we would do it. That was nice.
- Q: (Unidentified) Well, I drove on a project over by Minot all summer and it was worse than this project, so we can't complain
- A: (Bill McChesney) We will try and avoid that kind of thing ever happening again.
- Q: (Unidentified) If it came down to a cost overrun in keeping a south alignment, I would prefer building half at one time and half at another time. I would say for safety sake do the west half first. But either way for safety sake also keeping the south alignment for driving back and forth in the wintertime, I prefer to take a little longer and do it right.
- A: (Bill McChesney) Ok, general consensus on splitting the project if that is necessary for cost standpoint.
- Q: (Ray Mengel) And we won't do that if there is any way feasibly possible.
- A: (Unidentified) I just have a question I understand it correctly that each section of your map up there does not necessarily follow the orange line all the way through?

- Q: (Darryl James) Exactly. We could do this portion of the orange alignment and stay on the existing or go to the yellow we can mix and match pieces.
- Q: (Jerry Phelps) There is another alternative even though there may be some problems with it, but the length of time it is going to take for you to get started on this project, the railroad may be gone and maybe you can get the old railroad bed. That's a pretty even grade.
- A: (Darryl James) One thing we are going to do very quickly is try to make contact with the railroad and see what their plans are. If nothing else see if we can get additional easement onto their property. I think everybody knows that eventually that line is going to be abandoned but that is a rather lengthy process. Even if they decided to abandon it tomorrow, it would take three to four years to get that done. It has to go through the FTC and I don't know how it is handled. Because it is a low use line or a no use line and is basically a storage shed for BNSF, we may be able to persuade them to give us additional easement, which will not alleviate some of the difficulties we have but it will certainly lessen the difficulties and hopefully decrease the cost of construction.
- Q: (Unidentified) Good luck talking to the railroad.
- A: (Bill McChesney) Yes, we know, we deal with them all the time. If you get the right guy on the right day, they are actually pretty decent.
- Q: (Unidentified) Probably ten foot of right-of-way off the railroad would make a lot of difference.
- A: (Bill McChesney) Yes, it would if we could get in there but we're not counting on it. Based on past experience we haven't had a lot of luck, but considering the circumstances here we may.
- Q: (Micky McLaughlin) I have one question about the cost if we go the north route you said the project was \$13 million. How much more would the south alignment cost before you have to split it into two projects?
- A: (Bill McChesney) The south alignment would require an additional bridge, which is \$300,000 to \$400,000; we've got to move that power line, which is another half a million; and all the traffic control, which is going to be another \$300,000 to \$400,000.
- Q: (Mickey McLaughlin) But can you give us an idea of what it will be the north route is \$13 million.
- A: (Bill McChesney) \$4 to \$5 million additional. Actually the money would be there to do the whole project but that would mean I have to go back to a hall just like this in another part of my district and tell those people I'm going to move their project out two or three years because the money we needed for that project is going to go to the Redstone project.
- Q: (Unidentified) Yes, we've heard that one before.

- A: (Bill McChesney) You know when we get to that point that is a decision I'm going to have to make. I would hate to see this project split and we certainly want to see it built because it is going to be the last segment between Scobey and Plentywood. Even though it is not a 40-foot wide highway, it is certainly much improved over what is there right now. So hopefully we will start construction on the Flaxville project this spring. So I'm going to do everything I can to make sure that we don't split this project or that I don't have to tell other people we are moving their project. But that is going to depend on how the money shakes out in a year or two or three and what the cost of this project is going to be. We will do everything we reasonably can to hold it on line and do the whole thing at one time.
- Q: (Unidentified) Why are we so far off in getting this done you said 2007? Aren't they supposed to go in sequence here?
- A: (Bill McChesney) Yes, and this project has been nominated in the program for a number of years. We just got authorization to start design about two years ago. It takes anywhere from four to six years from the time we nominated the project to get approval to start designing until we turn the first shovel of dirt with all the different processes that you have to go through to get it prepared and designed. Then we try and nominate projects based on anticipated future federal funding but that is kind of a moving target. The reason we are out around 2006 or 2007 is because of all the other projects that were nominated before we anticipate sufficient funding to build this thing. It is a five or six-year design process plus the funding truly isn't going to be available until then. We've got a lot of other projects throughout the sixteen counties in my district that are ahead of this currently. We've got a lot of them that are behind too.
- Q: (Unidentified) I remember they bull dozed the ditch out there for quite a ways because they told us we were getting the new highway in a year or two and how many years ago that was. But they actually went in there and dug the ditches years ago.
- A: (Bill McChesney) Just an aside, you guys may have noticed if you travel around the state over the last eight to ten years, he highways throughout the State of Montana are noticeably better and much improved compared to what they were eight or nine years ago. The reason for that is because we've got a very strong congressional delegation that was able to increase Montana's share of federal funding from about \$130 million per year to about \$300 to \$320 million per year. Because of that and that congressional delegation, we've seen a tremendous increase in our reconstruction and preventative maintenance preservation programs. I grew up in Mathens (Miles City?) and I can remember every spring we would just load up dump trucks with load after load of asphalt to go out and patch holes. We just don't have many roads left and hopefully when these projects are done you won't see that kind of activity going on up in this country. We've come along ways; it just takes time to get there.
- Q: (Bill McChesney) Does anybody irrigate these fields east of Redstone?
- A: (Unidentified) Tom does.
- A: (Tom Keith???? I do.

- Q: (Bill McChesney) Do you run the water towards the roadside towards the highway? Is that the way you run the water?
- A: (Tom _____) Redstone Creek, we gather that through a series of dykes.
- Q: (Bill McChesney) Which way do you run the water from Redstone?
- A: (Tom _____) ... (inaudible) ...
- Q: (Bill McChesney) Would it make it up to the edge of the highway where we would need to ...?
- A: (Tom____) Sometimes I've seen it going over the highway. A lot of times it will run over the railroad tracks though. That is something I want to address. If that closes there, we are going to have to deal with some culverts that would be simple to fix.

Presentation: Rest of the project

Darryl James. Just to walk through the rest of the project – the design team in Helena will go back and based on what we are hearing at this meeting, they will fully develop the alignment to the south. I think we've got enough information on the north alignment to be able to compare these adequately for the social, economic, and environmental impacts. We will go back and once we get the information from the design team, we'll finish this Environmental Assessment. My anticipation is a couple of months on design and we will probably have an Environmental Assessment available after the first of the year. That is a public document available for your review. We will talk about whether a public hearing needs to be held and we will come back out and discuss that with you.

That is our next step. I'm sure you will be hearing from us within the next couple of months anyway either through another project newsletter or a post card notification of a public meeting or the availability of that environmental assessment. Are there any questions on that process or the time line?

Closing:

We've heard some great input from a lot of you. A lot of you were pretty quiet so I'm assuming you have all picked up a comment sheet and anticipate mailing that back into me. Even for those who said something tonight, I would still like to get your written comments. We've got some up front here and there are some at the back. Please take one of these and send us your written comments, it is very important for our record and to make sure that we haven't misinterpreted something here tonight and that we are all on the same page.

Again thank you for coming out tonight. If you didn't sign up on your way in, please do so on your way out. Thanks very much.

FROM THE DESK OF GARY R. NELSON, CPA G. R. NELSON & ASSOCIATES 216 N MAIN STREET PLENTYWOOD, MT. 59254 PH 406-765-1652 FAX 406 765 1520 EMAIL grngrn&a@airtimeisp.net

October 23, 2002

Darryl L. James URS/BRW, Inc. P.O. Box 220 Helena, Montana 59264

Dear Mr. James:

Re: Redstone East & West

Thank you for coming to Redstone to explain the project.

I am a landowner and my area impacted by the new road is between MH 25 and MH 27.

The Northern Route would have a very negative impact on my ranch. Starting with the West end, the highway would bifurcate my feeding pasture. Just to the north of my buildings are State Trust Lands. This would be my normal feeding grounds. Since the state does not like cattle fed on state ground, I have been using that pasture as a winter feeding ground. The northern route would make a lot of that pasture impractical to use.

The Northern Route would also leave the road closer to my building site. Since I do not live there full time, this leaves me more vulnerable to thieves and vandals. I am also concerned about the resulting high approach. I have semi's of hay and grain trucks going in and out the place. My approach is also access for Cloverdale Ranch on the north side.

Going east from the building site the road would make islands of pasture land and former right of way. I don't believe the Department is empowered to compensate for economic impact, only land values. Since Montana owns a good portion of the land affected, my recourse is limited. I can not include the islands into another pasture because they are bordered by land in CRP.

I am concerned about the economic impact of CRP lands being taken. It is likely that these lands may be in CRP for the foreseeable future, especially the State land. The State did not want this land coming out of CRP. How is one compensated for this, when one does not own the land?

My ranch is already cut up by the railroad, the Big Muddy, and the highway. The impact of the railroad does not go away even after they pull up the tracks. The impact of the current status is something my family bargained for. It is difficult to see its value impacted further.

As a member of this community, I want to see this road built in the safest, most economical manner as soon as possible. I also realize that the impact of the changes are mine to bear alone. Please look through the eyes of a rancher for just a little while.

I am also concerned for my neighbors to the east. Nathan Shackelford would be vastly impacted on his place. Ken and Ardelle Hart would have the heart of their place separated.

Thank you for your consideration

Sincerely,

ang R. Nolsen

Gary and Marcia Nelson

Cc Senator Linda Nelson

Redstone - East & West

Public Information Meeting:

A Redstone: Tuesday October 22, 2002

We Invite Your Comments:

favor the lower exerting route for the highway the cost may be greater, one cannot _even though considerably value on safety and it te. would Landowners writer dingscut anymore. They are ~ sto would one Friendly which is no these days. accomplishment is probably going to Gailroad abandon their I believe that a line compromise on right of way . While accomodate would project could be This ne done this is not possible Janvor I would west. I think you Rideton from meeting in Kadstone jur Thank you for the opportune good Comme

To receive project updates and future public meeting notices, please provide your name and address below:

Name: <u>Granul F. States</u> Address: 296A S. Dedstone 59257-9602 Redstone, Ml.



Darryl L. James URS/BRW, Inc. P.O. Box 220 Helena, Montana 59624



UKS BRW, Inc

Redstone - East & West

Public Information Meeting:

□ Redstone: Tuesday October 22, 2002

We Invite Your Comments:

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provide your name and address below:

MDT or URS/BRW staff at the meeting, or mail to: Name: Mr. & Mrs. Quentin M. Bergh 509 W. Laurel Avenue Plentywood, MT 59254 Darryl L. James Addres URS/BRW, Inc. P.O. Box 220 Helena, Montana 59624



BRW, Inc.

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 (800.335.7592) or call Montana Relay at 711.