



June 25, 2012

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

Subject: NH-STPP-IM STWD (107)
D3-D4-D5 Soil Nail Design Build Project
CN 7756000
Amended to include Site 7 (bold)

Dear Kevin McLaury:

This is a request for the Federal Highway Administration's (FHWA's) concurrence that this proposed project meets the criteria for classification as a Categorical Exclusion under the provisions of 23 CFR 771.117(d). This proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201 MCA).

PROJECT PURPOSE AND NEED AND LOCATION

The Montana Department of Transportation (MDT) identified **ten** locations within their existing right-of-ways (ROWs) that exhibited shoulder sloughing, erosion, and landslide behavior caused by the heavy snowmelt and spring rains of 2011 (Figure 1 **and** Figure 2). The **ten** locations share characteristic similarities in the problem, cause of the problem, and technique for fixing the problems and are therefore being addressed together in one Categorical Exclusion under the provisions of 23 CFR 771.117(d). These slope failures have the potential to compromise the safety of the slope and road bed, and in some cases the adjacent properties. The **ten** locations occur at **seven** sites and are named and located as follows:

Site 1: Prairie County, near Terry, Interstate 94 (median) Milepost (MP) 178.8 to 181.5.

Site 2: Rosebud County, near Colstrip, Montana SR 39, MP 38.9 North.

Site 3: Roosevelt County, near Culbertson, Montana SR 16, MPs 85.5, 86.1 and 87.0.

Site 4: Carbon County, north of Red Lodge, Montana SR 78, MPs 9.0 and 15.5.

Site 5: Glacier County, near Cut Bank, US Route 2, MP 262.7.

Site 6: Judith Basin County, west of Geyser, US Route 87/200, MP 20.8.

Site 7: Dawson County, west of Glendive, Montana SR 200S, MP 323.8.

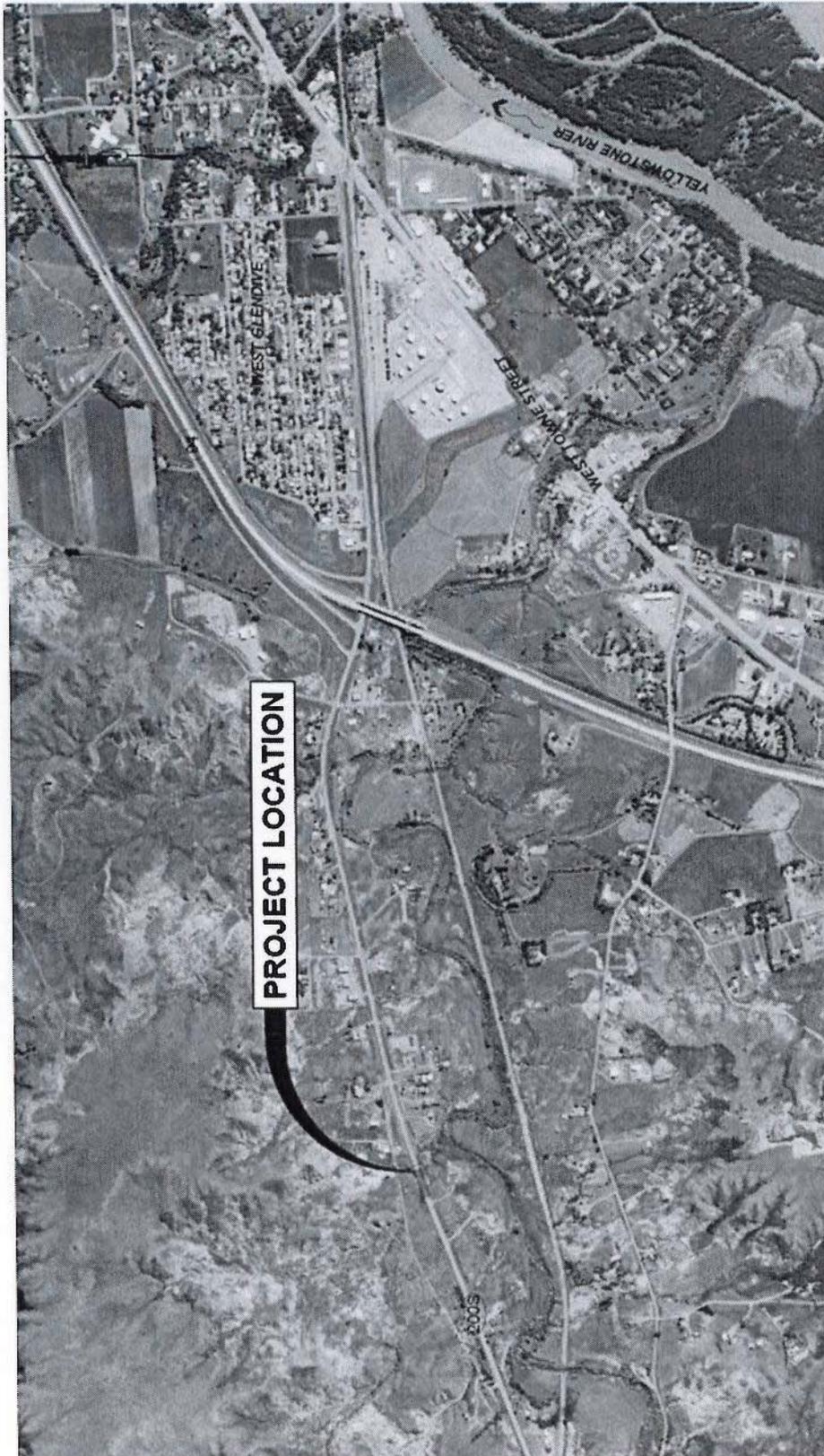


Figure 2 - Site 7 Location Map

EXISTING CONDITION AND PROJECT DESCRIPTION

In general MDT has proposed to remediate these sites using a combination of soil nailing stabilization, grading, and reinforced earth fill techniques (Attachments A and B). The proposed work would be completed using the Service Load Design approach and where applicable in accordance with the FHWA-SA-96-069R publication, *Manual for Design and Construction Monitoring for Soil Nail Walls* (1998) and FHWA-IF-03-017 publication, *Geotechnical Engineering Circular #7* (2003). The proposed work is summarized below with specific details provided in Attachment A:

Site 1: Prairie County, near Terry, Interstate 94 (median) Milepost (MP) 178.8 to 181.5.

This slope failure is approximately 750 feet long and located between the east-bound and west-bound lanes of Interstate 94 (I-94). This landslide is a relatively shallow failure that if left unchecked will continue to impact the west-bound lane with deposition of slide of this site (as of October 2011), the east-bound lanes are certainly in danger of progressive shoulder deterioration leading to loss of shoulder as well as travel lane(s). The remediation at this site is proposed to consist of re-grading to reestablish the original intended shoulder/slope profile. Re-grading may take place from above and below the failure with only a one-lane closure possibly in each direction to allow equipment access. The slope will then be stabilized using hollow bar soil nailing (HBSN) techniques and the implementation of an erosion control mat beneath a high-strength mesh.

Proposed construction start and end dates are March 1st – April 4th of 2012 for set-up, excavation, soil nail stabilization, clean-up, and demobilization.

Site 2: Rosebud County, near Colstrip, Montana SR 39, MP 38.9 North.

Site 2 consists of approximately 380 lineal feet of slope failure along the south-bound shoulder of Montana SR 39. As of October 2011, this slope failure is not impacting the travel lanes. This site has failures occurring up to the north abutment and south abutment of the overpass spanning the Burlington Northern-Santa Fe (BNSF) railroad. North of the railroad tracks, this slide has previously deposited material onto the tracks. This slide currently has a headscarp just outside the guardrail and is not yet showing any deterioration of the travel lanes. This slide is relatively shallow but has a near vertical headscarp leaving this shoulder in a state of certain instability.

The remediation at this site will consist of re-grading of the shoulder from the current headscarp at a 1H:2V slope down approximately 10-12 slope feet, then more gradual at a 4H:1V or flatter slope. The steeper 1H:2V portion of the slope will be permanently stabilized using HBSN and structural reinforced shotcrete techniques. These operations will likely occur from below and may only require a shoulder closure without impacting the south-bound travel lane.

South of the bridge abutment, the slope is relatively intact, but is exhibiting tension cracks parallel to the travel lanes. These cracks indicate an impending slope failure in the

near future if not mitigated. *However the south area is not included in this Categorical Exclusion.*

Proposed construction start and end dates are April 5th – May 30th of 2012 for set-up, excavation, soil nail stabilization, clean-up, and demobilization.

Site 3: Roosevelt County, near Culbertson, Montana SR 16, MPs 85.5, 86.1 and 87.0.

This site consists of three separate slides which have occurred along the west shoulder of the south-bound lane of Montana SR 16. In addition to the heavy rains experienced in the early part of 2011, these slides may be a result of the decoupling of non-structural, end-dumped fill placed along the shoulder nearly 20 years prior. These slides continue to deposit fallen material onto private land. These slides are relatively shallow, but will be relatively difficult to repair using typical grading and HBSN techniques due to the longer slope distance from the travel lanes to the bottom of the slope. Mitigation of slides at mileposts 85.5 and 86.1 will consist of grading at the head scarp to a 1H:2V and the implementation of HBSN and structural reinforced shotcrete techniques. These two slides will be flanked either side of the structural reinforced shotcrete using HBSN with erosion control mat and high strength mesh. In addition to this cap-stone stabilization technique, the remaining slope below the structural reinforced shotcreted portion will be graded out to a 3H:1V or flatter with a reinforced earth slope buttress at the toe of this slope. This buttress will be approximately 10-12 feet in height and situated beginning approximately 5 ft within the right-of-way. The slide at Site 3, milepost 87.0, will be mitigated using the same techniques used at mileposts 85.5 and 86.1, but may not have a reinforced fill at the toe. Material that has migrated outside of the MDT ROW will be removed.

Proposed construction start and end dates are March 1st – April 4th (MP 85.0), April 9th – May 1st (MP 86.1), and May 2nd – May 24th (MP 87.0) of 2012 for set-up, excavation, soil nail stabilization, clean-up, and demobilization.

Site 4: Carbon County, north of Red Lodge, Montana SR 78, MPs 9.0 and 15.5.

Site 4 is comprised of two slides at mileposts 15.5 and 9.0 on Montana SR 78. The remediation at each slide will consist of re-grading of the shoulder from the current headscarp at a 1H:2V slope down approximately 10-12 slope feet, then re-grade to the toe with a more gradual slope. The steeper 1H:2V portion of the slope will be permanently stabilized using HBSN and structural reinforced shotcrete techniques. These operations will likely occur from the roadway and will require a one-lane closure during work hours.

Proposed construction start and end dates are April 2nd – May 4th (MP 9.0) and May 7th – June 22nd (MP 15.5) of 2012 for set-up, excavation, soil nail stabilization, clean-up, and demobilization.

Site 5: Glacier County, near Cut Bank, US Route 2, MP 262.7.

This slide is more complex than the other repairs in that it is on a very steep, long slope. This will require re-grading as a means of force-moment equilibrium balancing.

Additionally, the upper third of this slide will be stabilized using a hybrid pattern of HBSN up to 50-ft in length and structural reinforced shotcrete to control the steepened slope after fill is removed to reduce the driving force weight at this site. Below the stabilized upper third of this slide, the slope will be graded out to approximately a 3H:1V in the middle third of this slope. The lower third of the slope, being accessed from below, will also be stabilized using HBSN and high strength mesh, with the addition of approximately a 15-ft high reinforced earth fill to buttress this slope and place more resisting force at the toe of the slide. Some of this work will occur from the top requiring one-lane traffic patterns during work hours. The middle and lower third of this slide can be constructed from below with minimal traffic impact only for deliveries and access to the work area.

Proposed construction start and end dates are April 15th – June 20th of 2012 for set-up, excavation, upper soil nail stabilization, center wall excavation, center and lower soil nail stabilization, clean-up, and demobilization.

Site 6: Judith Basin County, west of Geyser, US Route 87/200, MP 20.8.

This slide extends approximately 300 lineal feet parallel to the highway. All of the repair for this slide will likely occur from above due to the slope geometry and wetlands at the toe of the slope. Slope repair will consist of excavation in the upper third of the slide to reduce driving force weight and stabilize the head scarp. The slope excavation will be at a batter of 1H:2V for approximately 10-12 feet vertical. The slope will be stabilized using HBSN and structural reinforced shotcrete techniques.

Proposed construction start and end dates are March 1st – April 4th of 2012 for set-up, excavation, soil nail stabilization, clean-up, and demobilization.

Site 7: Dawson County, west of Glendive, Montana 200S, MP 323.8.

The slope failure at Site 7 is approximately 100 linear feet located on the adjacent to the eastbound travel lanes. The slide has resulted in the existing culvert being partially covered by material. Currently, the culvert is dry, however in the event of spring runoff the lack of drainage may cause a problem. There is also a potential of deterioration of the eastbound shoulder as well as the travel lanes if this slide is left untreated. The remediation at this site consists of re-grading to reestablish the slope. The repairs will be 100 linear feet centered at the existing culvert with the total construction area extending to 200 feet centered at the culvert. All slope repair work will be conducted from the bottom of the slide up to the shoulder of the roadway. The material currently blocking the culvert will be removed to allow for drainage and the slope will be reshaped at a 2H:1V up to the steep face of the slope. The steep slope face will be permanently stabilized using HBSN and structurally reinforced shotcrete techniques. HBSN will be placed above the existing culvert in 3-4 rows at a batter of 10H:1V. The shoulder of the roadway will then be re-graded back to match the existing travel lanes.

Proposed construction start and end dates are July 2nd – July 27th of 2012 for set-up, excavation, soil nail stabilization, clean-up, and demobilization.

On-site conditions at each of **ten** locations were assessed by staff from MDT maintenance Districts 3, 4, or 5, GeoStabilization, Inc. (GSI), and Great West Engineering. Assessment and data analysis of the problem, proposed techniques for correcting the problems, and photographs at each location were documented in the design build proposal submitted to MDT by GSI and Great West Engineering (GeoStabilization 2011) (Attachment A). The test sheet protocol is provided in Attachment B. Recommended traffic control procedures are provided in Attachment C.

ASSESSMENT METHODOLOGY

In order to assess the environmental consequences of the proposed action, the direct and indirect effects must be identified, and their significance determined. As defined in 40 CFR 1508.8, direct effects are caused by the action and occur at the same time and place. Indirect effects are also caused by the action, but are later in time or farther removed in distance. Indirect effects must be reasonably foreseeable, and may include growth inducing effects.

The significance of these effects (impacts) is determined by considering both context and intensity. The impacts of the proposed action must be evaluated in context with other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such activities.

In evaluating the potential impacts associated with the proposed project, any reasonably foreseeable action that would occur as a result of the proposed project is considered an indirect impact. Any reasonably foreseeable action that would occur absent the proposed action is identified as a cumulative impact. Significance determinations of the proposed action are made by evaluating the effects associated with the proposed project in context with other projects in the area (cumulative effects).

Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Vegetation	<p>Site 1: Composed of mowed and unmowed grassland growing on a slope in the median between the north-and south-bound I-94 lanes.</p> <p>Site 2: Composed of unmowed grassland and a few short shrubs and forbs growing on a steep slope between the south-bound lane and railroad tracks.</p> <p>Site 3: Composed of mowed and unmowed grassland with scattered shrubs at MP 85.5 and unmowed grassland at MPs 86.1 and 87.0 growing on steep slopes. Slopes are steep and an unpaved road occurs at the bottom of the slope at MPs 85.5 and 86.1.</p> <p>Sites 4-7: Composed of mowed and unmowed grassland on a steep fill slope.</p>	<p>Sites 1-7: The existing shoulder sloughing, erosion, and landslide behavior has resulted in the direct loss of vegetation. The proposed projects would directly benefit vegetation by stabilizing the slopes through re-grading, HBSN, and/or structural reinforcement, and re-vegetating all exposed soil through seeding.</p>	<p>Sites 1-7: 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.</p>	<p>Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.</p>	Not significant. No impacts anticipated.
Prime Farmland	<p>Sites 1-7: The proposed project areas at these sites occur within the right-of-way owned by MDT on established interstates, highways, and/or secondary roads.</p>	<p>Sites 1-7: No prime farmlands, unique farmlands, and farmlands of statewide or local importance exist at these sites.</p>	N/A	N/A	Not significant. No impacts anticipated.
Cultural and Historic Sites, including 4(f) Properties	<p>Sites 1-7: The State Historic Preservation Office (SHPO) provided a list of sites that occur within the township, range, and section containing the ten project areas (Attachment E).</p> <p>There are no known or potential cultural or historical sites or structures at or near the proposed project sites.</p>	<p>Sites 1-7: There would be no direct or indirect impacts to cultural and historic sites.</p>	N/A	N/A	Not significant. No impacts anticipated.

Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Publicly-owned Parklands, and Recreation Areas, including Section 4(f) and Section 6(f) Properties	Sites 1-7: There are no historical sites, parks, recreational, or other properties acquired/improved under Section 6(f) of the 1965 National Land & Water Conservation fund (16 USC 460L, et seq.) or under Section 4(f) of the 1966 US Department of Transportation Act (49 USC 303) that occur on or adjacent to the proposed project areas.	N/A	N/A	N/A	Not significant. No impacts anticipated.
Air Quality	Sites 1-7: This proposed project is located in an "unclassifiable" / attainment area of Montana for air quality under <u>40 CFR 81.327</u> , as amended. As such, this proposed project is not covered under the U.S. Environmental Protection Agency's Final Rule of September 15, 1997 on Air Quality conformity. Therefore, this proposed project complies with Section 176(c) of the <i>Clean Air Act</i> as amended (42 USC 7521(a)).	N/A	N/A	N/A	Not significant. No impacts anticipated.
Noise	Sites 1-7: The proposed projects serve to remediate slopes exhibiting sloughing, erosion, and landslide behavior that compromise the safety of the slope, road bed, and some adjacent properties. The proposed project would not change the road alignment at the sites. As such, these are not Type 1 projects under 23 CFR Part 772.	N/A	N/A	N/A	Not significant. No impacts anticipated.

Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Water Quality	<p>Sites 1-4: There are no stream crossings at or adjacent to the eight areas.</p> <p>Site 5: An unnamed drainage exists at Site 5. The unnamed drainage is shown as an intermittent blue line on the USGS topographical maps.</p> <p>Site 6: There are no stream crossings at or adjacent to the area, but there is one wetland immediately north of the area.</p> <p>Site 7: An unnamed drainage exists at the project site. The unnamed drainage is not shown on USGS topographical maps, but does appear on FEMA panel 300140 0011 A. The drainage at the site includes a culvert passing under the road, the drainage is currently dry.</p>	<p>Sites 1-4: There would be no direct or indirect impacts to water quality and no Section 404 permits are required.</p> <p>Site 5 : There is no defined bed or bank and there is no ordinary high water mark associated with this drainage. There are no wetlands at this location as confirmed by Paul Sturm on July 7, 2011. A Clean Water Act Section 404 Permit is not required for the work proposed at Site 5 in Glacier County.</p> <p>Site 6: There would be no direct impacts to water quality as the proposed work would occur on upland fill slopes.</p> <p>Site 7: There would be no direct impacts to water quality as the proposed work would occur on a dry drainage.</p>	<p>Sites 1-7: An erosion control plan for each site has been prepared in accordance with MDT's BMPs and will be adhered to during construction. MDT is providing a full time inspector for this project and it is anticipated that the inspector will comment on BMP placement. A SWPPP is not required as disturbance is less than one acre at each site.</p>	<p>Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.</p>	<p>Sites 1-5: Not significant. No impacts anticipated.</p> <p>Site 6: Not significant. Potential for minor indirect impacts during construction activities would be mitigated through implementation of the approved erosion control plan.</p> <p>Site 7: Not significant. Potential indirect impacts to the drainage during construction will be mitigated through implementation of the approved erosion control plan.</p>
Floodplains	<p>Site 1: The 100-year floodplain has been mapped along the Yellowstone River by the Federal Emergency Management Administration (FEMA). Site 1 occurs outside of the delineated floodplain and proposed project would not encroach upon the floodplain.</p>	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.

	<p>Site 7: The 100-year floodplain is mapped along Seven Mile Creek by the Federal Emergency Management Administration (FEMA). The 100 year floodplain includes a portion of the intermittent drainage located immediately downstream of Site 7. The project occurs outside of the delineated floodplain.</p>				
Wild and Scenic Rivers	<p>Sites 1-7: There are no wild or scenic designated rivers located within the ten project areas.</p>	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.

Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Wetlands	<p>Sites 1-5: Wetlands are not present at or adjacent to the eight proposed project areas.</p> <p>Site 6: Wetlands are not present at the proposed project area, but are present directly north of the site.</p> <p>Site 7: Wetlands are not present at the project site, but are present in the vicinity outside of the project limits.</p>	<p>Sites 1-5: There are no direct or indirect impacts to wetlands.</p> <p>Site 6-7: There will be no direct impacts as the proposed project area is on an upland fill slope.</p>	<p>Sites 1-7: An erosion control plan for each site has been prepared in accordance with MDT's BMPs and will be adhered to during construction. MDT is providing a full time inspector for this project and it is anticipated that the inspector will comment on BMP placement. A SWPPP is not required as disturbance is less than one acre at each site.</p> <p>All areas disturbed during the construction process on any of these slides will be reseeded per the requirements of the local Natural Resources Conservation Service (NRCS) office.</p>	<p>Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.</p>	<p>Sites 1-5: Not significant. No impacts anticipated.</p> <p>Site 6-7: Not significant. Potential for minor indirect impacts during construction activities would be mitigated through implementation of the approved erosion control plan and seeding of disturbed soil with desirable plants.</p>

Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
General Wildlife	<p>Sites 1-7: Aquatic species are not present and use by terrestrial animals has not been documented at the ten project areas. It is probable that small mammals occupy the areas, at least during part of the year. Other wildlife species are expected to be transitory as the project areas contain marginal habitat, are adjacent to roads, and are subject to MDT road maintenance activities.</p>	<p>Sites 1-7: Potential direct and indirect impacts to wildlife, particularly small mammals, could occur during construction activities. These impacts include displacement and mortality, particularly for individuals with limited mobility.</p>	<p>Sites 1 & 6: Potential impacts to nesting would be further reduced as the proposed work is to be completed by early April 2012; prior to the nesting season.</p> <p>Sites 2-5: In general, construction activities would occur for a portion of the time between March and late June, 2012. Beginning the construction work prior to the nesting season would deter nesting, and thereby potential impacts to nesting birds.</p> <p>Site 7: Potential impacts to nesting would be reduced as the proposed access route will be walked prior to heavy equipment entering the site.</p>	<p>Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.</p>	<p>Sites 1-7: Not significant. Temporary, construction-related impacts to general wildlife are expected to be short-term and minimal.</p>

Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Threatened / Endangered Species	<p>The U.S. Fish & Wildlife Service (USFWS) and Montana Fish, Wildlife & Parks (MFWP) were contacted on December 5, 2011 and on May 9, 2012 regarding Federally listed threatened, endangered, or candidate (TE) species, critical habitat, and State rare species at the ten project areas (Attachment D). A request for information was submitted to the Montana Natural Heritage Program (MTNHP) and received on November 30, 2011. This was updated on June 25, 2012 to include Site 7. See <i>Vegetation</i> for existing habitat.</p> <p>Site 1: The USFWS identified six TE species that occur within Prairie County (Attachment D). Of these species the Interior Least Tern (<i>Sterna antillarum athalassos</i>) and pallid sturgeon (<i>Scaphirhynchus albus</i>) have been mapped within a one-mile radius of Site 1. The Least Tern is present in Montana from mid-May to mid-August and nests along the Yellowstone River. Least Terns seek unvegetated gravel substrates for nesting and avoid areas where relatively thick vegetation provides cover for potential predators. The pallid sturgeon occupies large, turbid segments of the Missouri and Yellowstone Rivers.</p> <p>Site 2: The USFWS identified five TE species that occur within Rosebud County (Attachment D). Of these species no known occurrences have been documented within a one-mile radius of Site 2.</p> <p>Site 3: The USFWS identified five TE species that occur within Roosevelt County (Attachment D). Of these species the distribution of the Whooping</p>	<p>Site 1: The proposed project lacks habitat for the Least Tern and pallid sturgeon. Therefore, there are no direct or indirect impacts.</p> <p>Site 2: The proposed project area lacks occurrence data and habitat for TE species; therefore, there would be no direct or indirect impacts.</p> <p>Site 3: The proposed project areas at MPs 85.5, 86.1, and 87.0 lack roosting and foraging habitat for the Whooping Crane. Therefore, there would be no direct or indirect impacts.</p> <p>Site 4: The proposed project areas at MPs 15.5 and 9.0 lack occurrence data and habitat for TE species; therefore, there would be no direct or indirect impacts.</p> <p>Site 5: The proposed project area lacks occurrence data and habitat for TE species; therefore, there would be no direct or indirect impacts.</p> <p>Site 6: The proposed project area lacks occurrence data and habitat for TE species; therefore, there would be no direct or indirect impacts.</p> <p>Site 7: Ground nests may be present along the access route</p>	<p>Site 1: Any potential for indirect impacts would be further reduced as construction activities are anticipated to be completed by early April 2012, prior to the nesting season.</p> <p>Sites 2-6: No mitigation or monitoring is proposed relative to TE species.</p> <p>Site 7: The access route will be walked to identify any ground nests prior to heavy equipment being allowed to enter the site. If a nest is found, the access route will be altered to avoid impact.</p>	<p>Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.</p>	<p>Sites 1-7: Not significant. No impacts anticipated. No effect for listed species.</p>

	<p>Crane encompasses the three proposed project areas (MPs 85.5, 86.1, and 87.0). The 95% confidence interval distribution includes the area where 95% of the confirmed sitings have occurred. Whooping Cranes fly through Montana during their spring and fall migrations, stopping temporarily to roost or forage. Whooping Cranes roost and forage in grain fields and wet meadows. The closest historical siting occurred more than seven air-miles north of MP 85.5 while the most current (2008) siting occurred 22 miles north of MP 85.5.</p> <p>Site 4: The USFWS identified seven TE species that occur within Carbon County (Attachment D). However, no known occurrences of TE species have been documented within a one-mile radius of each proposed project area (MPs 15.5 and 9.0).</p> <p>Site 5: The USFWS identified seven TE species that occur within Glacier County (Attachment D). However, no known occurrences of TE species have been documented within a one-mile radius of the proposed project area.</p> <p>Site 6: The USFWS identified three TE species that occur within Judith Basin County (Attachment D). However, no known occurrences of TE species have been documented within a one-mile radius of the proposed project area.</p> <p>Site 7: The USFWS identified three TE species that occur within Dawson County (Attachment D). The federally-listed threatened or endangered species that may occur in Dawson County are the endangered pallid sturgeon, interior least tern, and whooping crane, along with the candidate species greater sage-grouse</p>	<p>and may be disturbed or destroyed.</p>			
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	and Sprague's pipit. The Montana Natural Heritage Program lists only the pallid sturgeon in T 16N, R 55E. Aquatic species are not present due to the lack of water.				
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Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
<p>Species of Special Concern</p>	<p>Location information on state rare plant and animal species was received from the MTNHP on November 30, 2011 and updated on June 25, 2012 for Site 7. See <i>Vegetation</i> for existing habitat.</p> <p>Site 1: In vicinity of the proposed project the distribution of five aquatic animals, one reptile, and one bird have been documented.</p> <p>The paddlefish, sturgeon chub, blue sucker, sauger, and spiny softshell are known to use the Yellowstone River which occurs about one-eighth of a mile north of Site 1.</p> <p>A Bald Eagle nest occurs along the Yellowstone River, approximately three air-miles west of Site 1. The 2007 National Bald Eagle Management Guidelines consider the minimum home-range size for nesting Bald Eagles to be within 2.5 miles of the nest site. Recommended timing restrictions are imposed when proposed projects are within a mile of the nest tree.</p> <p>The distribution of the hog-nosed snake includes the project area. Hog-nosed snakes occur in arid areas, farmlands, and floodplains, particularly those with gravelly or sandy soils and also in sagebrush-grassland and pine savannah-grassland habitats.</p> <p>Site 2: A colony of black-tailed prairie dogs has been mapped roughly 0.25 mile east of Site 2. Black-tailed prairie dogs occupy grasslands with slopes of less than 10% and are often selecting areas with past human or animal disturbance.</p>	<p>Site 1: The proposed project area lacks habitat for the paddlefish, sturgeon chub, blue sucker, sauger, spiny softshell, Bald Eagle, and hognose snake. Further the site is unlikely to be used by transitory Bald Eagles and hognose snakes given the areas proximity to I-94 traffic and MDT maintenance activities. Therefore, there would be no direct or indirect impacts to plant and animal species of concern.</p> <p>Site 2: Given the area's dense grass and steep slope, habitat for a prairie-dog colony does not occur. Therefore, there are no direct and indirect impacts to the colony. It is possible that the site could be used temporarily by dispersing prairie dogs. Any potential for direct or indirect impacts would be insignificant as individuals present during construction activities would be able to move into adjacent areas.</p> <p>Site 3: The proposed project areas at MPs 85.5, 86.1, and 87.0 lack occurrence data and habitat for plant and animal species of concern. Therefore, there would be no direct or indirect impacts.</p> <p>Site 4: The proposed project areas at MPs 15.5 and 9.0 lack occurrence data and habitat for plant and animal species of</p>	<p>Sites 1-7: An erosion control plan for each site has been prepared in accordance with MDT's BMPs and will be adhered to during construction. MDT is providing a full time inspector for this project and it is anticipated that the inspector will comment on BMP placement. A SWPPP is not required as disturbance is less than one acre at each site.</p>	<p>Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.</p>	<p>Sites 1-5, and 7: Not significant. No impacts anticipated.</p> <p>Site 6: Not significant. Temporary, short-term impacts to Great Blue Herons foraging in the adjacent wetland may occur during construction activities, and would be considered a minimal impact.</p>

	<p>Site 3: No State rare plant or animal species were mapped within a one-mile radius of the proposed project areas at MPs 85.5, 86.1, and 87.0.</p> <p>Site 4: No State rare plant or animal species were mapped within a one-mile radius of the proposed project areas at MPs 15.5 and 9.0.</p> <p>Site 5: A Long-billed Curlew breeding territory has been mapped one air-mile west of the proposed project area. In general, the Long-billed Curlew nests in prairies and grassy meadows, usually near water, and in damp, grassy hollows or on slopes.</p> <p>Site 6: The proposed project area occurs within the distributional breeding territory of the Great Blue Heron (MTNHP 2011). In vicinity of the site there are no active or inactive nesting colonies, but potential roosting or foraging habitat may occur in the wetland directly north of the project area.</p> <p>Site 7: No State rare plant or animal species we mapped within a one-mile radius of the project site (MTNHP 2012). Dawson County has the following four plant species of special concern: pale-spiked lobelia, blue toadflax, narrowleaf penstemon, and the plains phlox.</p>	<p>concern. Therefore, there would be no direct or indirect impacts.</p> <p>Site 5: Although Site 5 may have limited potential habitat, it is unlikely that the site would be used for nesting given its proximity to a busy highway and the availability of nesting habitat in the general vicinity. Construction activities are anticipated to occur from mid-April to late June, 2012. Beginning the construction work prior to the nesting season would deter nesting, and thereby further reduce the potential for impacting nesting.</p> <p>Site 6: The proposed project area lacks habitat no direct impacts to nesting, foraging, or roosting by the Great Blue Heron would occur. Potential indirect impacts to the Great Blue Heron could occur during construction activities. These impacts include displacement while foraging in the adjacent wetland. This impact is considered minor as ample foraging habitat is available in the general area.</p> <p>Site 7: Ground nests may be present along the access route and may be disturbed or destroyed. Impacts to rare plants is unlikely as the area in question is located within the right-of-way and is mown on a regularly basis.</p>			
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Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Utilities and Railroads	Sites 1-7: The proposed ten project areas occur within the existing right-of-way owned by MDT. No utility involvement will occur at Sites 1 through 7. The slope failure at Site 2 has previously deposited material onto the railroad tracks.	Sites 1-7: No direct or indirect impacts are anticipated. Construction activities are not anticipated to alter services provided by BNSF at Site 2. Typical coordination between MDT and the BNSF railroad would occur at Site 2.	Any and all guard rail and fence removed for the construction at these sites will be replaced.	Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.	Sites 1-7: Not significant. No impacts anticipated.
Hazardous Materials	Sites 1-7: There are no documented or potential hazardous materials, including CERCLA or CECRA sites and underground storage tanks, at the ten project areas.	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.
Visual Resources	Sites 1-7: The proposed project areas occur within the MDT right-of-way on established interstates, highways, and/or secondary roads that traverse through rural landscapes. The existing sloughing, slope failure, and erosion has removed vegetation and exposed soils.	Sites 1-7: Short-term, localized visual impacts are anticipated during construction activities. In the long-term the proposed work would restore the slopes through re-contouring, HBSN, reinforced earth fill techniques, and re-seeding with desirable vegetation; thereby, directly benefitting the visual appearance of these ROWs.	Sites 1-7: An erosion control plan for each site has been prepared in accordance with MDT's BMPs and will be adhered to during construction. All areas disturbed during the construction process on any of these slides will be reseeded per the requirements of the local Natural Resources Conservation Service (NRCS) office. Any and all guard rail and fence removed for the construction at these sites will be replaced.	Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.	Sites 1-7: Not significant. No impacts anticipated.

Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Land Use	Sites 1-7: The proposed projects serve to remediate slopes exhibiting sloughing, erosion, and landslide behavior that compromise the safety of the slope, road bed, and some adjacent properties. The proposed remediation techniques would not alter the existing land-use within the ROW. There would be no changes in access control at any of the proposed projects.	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.
Locally Adopted Plans, Policies, and Controls	Sites 1-7: The proposed projects serve to remediate slopes exhibiting sloughing, erosion, and landslide behavior that compromise the safety of the slope, road bed, and some adjacent properties. The proposed projects at the ten areas would not improve access along the roadway nor alter population growth in the County or closest towns.	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.
Recreational Opportunities	Sites 1-7: The proposed projects serve to remediate slopes exhibiting sloughing, erosion, and landslide behavior that compromise the safety of the slope, road bed, and some adjacent properties. The proposed projects at the ten areas would not alter recreational opportunities.	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.
Right-of-Way Acquisition and Relocations	Sites 1-7: The proposed projects occur within ROW owned and maintained by MDT. No additional acquisition or relocation would be required at the ten areas.	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.
Environmental Justice	Sites 1-6: The ten proposed project areas are devoid of residences; although homes are nearby to Sites 4, 6, and 7.	N/A	N/A	N/A	Sites 1-7: Not significant. No disproportionate impacts to minority and/or low income persons are anticipated.

Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Social / Economic	Sites 1-7: The ten proposed project areas occur within MDT owned ROWs on road systems outside of city limits. The project areas are not located within 1.0 mile of any Indian reservations.	Site 1-7: The proposed projects would not create disproportionately high and adverse human health or environmental effects on minority and low-income populations. There would be no direct or indirect impacts to business or temporary impacts to other property owners during construction activities.	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.
Changes in Grade and Traffic Patterns	<p>Sites 1-7: A preliminary traffic control plan has been developed for each site. Typical MDT drawings for traffic control are in Attachment C.</p> <p>Site 1: A single lane closure on both west- and east-bound traffic lanes should be expected during construction hours. Traffic control will be removed from traffic lanes when GSI or our subcontractors are not working. The typical MDT drawing number 618-24 will likely be followed for traffic control (Attachment C).</p> <p>Site 2: A single lane closure on the south-bound traffic lane should be expected during construction hours. Traffic control will be removed from traffic lanes when GSI or our subcontractors are not working. The typical MDT drawing number 618-12 or 13 will likely be followed for traffic control (Attachment C).</p> <p>Site 3: A single lane closure on the south-bound traffic lane should be expected during construction hours. Traffic control will be removed from traffic lanes when GSI or our subcontractors are not working. The typical MDT drawing number 618-12 or 618-13 will</p>	Sites 1-7: During construction activities there will be minor, short-term temporary inconveniences to the traveling public from increased travel time. No long-term impacts to traffic patterns or access are anticipated	Sites 1-7: Preliminary traffic control plans have been developed for each site (Attachment C).	Sites 1-7: There are no currently active or proposed projects in vicinity of these sites. Road maintenance activities in these right-of-ways would continue at current levels.	Sites 1-7: Not significant. Temporary, minor impacts anticipated.

<p>likely be followed for traffic control (Attachment C).</p> <p>Site 4: A single lane closure on the south-bound lane at MP 9 and at the north-bound lane at MP 15.5 should be expected during construction hours. Traffic control will be removed from traffic lanes when GSI or our subcontractors are not working. The typical MDT drawing number 618-12 or 13 will likely be followed for traffic control (Attachment C).</p> <p>Site 5: A single lane closure on the south-bound traffic lane should be expected during construction hours. Traffic control will be removed from traffic lanes when GSI or our subcontractors are not working. The typical MDT drawing number 618-12 or 618-13 will likely be followed for traffic control (Attachment C).</p> <p>Site 6: A single lane closure on the west-bound traffic lane should be expected during construction hours. Traffic control will be removed from traffic lanes when GSI or our subcontractors are not working. The typical MDT drawing number 618-12 or 13 will likely be followed for traffic control (Attachment C).</p> <p>Site 7: A shoulder closure on the eastbound lane should be expected during construction equipment unloading. The highway lanes will remain open throughout construction (Attachment C).</p>				
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Resource	Description	Potential Direct and Indirect Impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Pedestrian and Bicycle Facilities	Sites 1-7: There are no pedestrian or bicycle facilities located or proposed at the ten project areas.	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.
Public Involvement	Sites 1-7: The proposed projects serve to remediate slopes exhibiting sloughing, erosion, and landslide behavior that compromise the safety of the slope, road bed, and some adjacent properties. No public involvement has occurred. The ten proposed project areas occur within existing ROW owned by MDT. The proposed work will be posted onto the MDT website.	N/A	N/A	N/A	Sites 1-7: Not significant. No impacts anticipated.

CONCLUSIONS

In accordance with 23 CFR 771.117(a), this pending action would not cause any significant individual, indirect (secondary), or cumulative environmental impacts. No extraordinary circumstances as specified in ARM 18.2.261(2), nor unusual circumstances as specified in 23 CFR 771.117(b), have been identified. Therefore, the FHWA's concurrence is requested that this proposed project is properly classified as a Categorical Exclusion.

Concur Heidy Bruner, Date: 6/26/12
Heidy Bruner, P.E. - Engineering Section Supervisor
Environmental Services Bureau

Concur Jeffrey A. Patton, Date: 6-29-12
Federal Highway Administration

REFERENCES

Axline, J. 2012. Historian, Montana Department of Transportation, Helena, Montana. Phone conversation regarding the D3-D4-D5 Soil Nail Design Build Project. January 24th.

Montana Natural Heritage Program (MTNHP). 2011. Data search for threatened, endangered, and sensitive species in vicinity of Sites 1-6 for the D3-D4-D5 Soil Nail DB Project. Obtained on November 30th **and updated on June 25, 2012 for Site 7**, Helena, Montana.

Montana Natural Heritage Program (MTNHP). 2012. Species information from the Montana Field Guide. Obtained in January **and updated on June 25, 2012 for Site 7** at:
<http://fieldguide.mt.gov/default.aspx>

GeoStabilization, Inc. (GSI) 2011. Technical Proposal for D3-D4-D5 Soil Nail Design Build Project, NH-STPP-IM STWD (107), CN 7756. October 3rd. Grand Junction, Colorado. Submitted to Montana Department of Transportation, Helena, Montana.

Attachment A: Project Understand and Approach
Attachment B: Test Material Sheet
Attachment C: Traffic Control
Attachment D: Agency Correspondence

Electronic copy: Tom Martin - Environmental Services Bureau Chief
Heidy Bruner - Environmental Engineering Section Supervisor
Eric Thunstrom - D3 Project Development Engineer
Tom Atkins - D4 Project Development Engineer
Tom Gocksch - D5 Project Development Engineer
Bonnie Gundrum - Resources Section Supervisor
Jake Goettle - Design Build Engineer
Chris Laity - Great West Engineering
Andrea Pipp - Atkins North America, Inc.

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