

**STATE OF MONTANA
DEPARTMENT OF TRANSPORTATION
BID PACKAGE**

Sealed bids for construction of this project will be received by the Montana Department of Transportation, Construction Contracting Section, Room 101, 2701 Prospect, Helena, Montana until 9:00 a.m. on October 22, 2026. All bids will then be publicly opened, reviewed for correctness, and then publicly read.

Federal Aid Project(s):

STPX 32(85)

Richardson Family Mitigation

Bid proposals, Plans, Standard Specifications, Detail Drawings, and Standard Contract Forms are on file for examination and may be obtained from the Construction Contracting Bureau of the Montana Department of Transportation, 2701 Prospect Avenue, P.O. Box 201001, Helena, Montana 59620-1001.

Prime bidders use the Electronic Bid System or bid on-line through Bid Express to produce a bid containing Proposal Forms, Schedule of Items, and Disadvantaged Business Enterprises (DBE) Requirements (if applicable).

MONTANA DEPARTMENT OF TRANSPORTATION

Loran Frazier, Chairperson
Montana Transportation Commission

Christopher Dorrington
Director of Transportation

Contract No.04926
EM:ST:7997001ADV

SPECIAL PROVISIONS

CONTRACT NO. 04926

MONTANA DEPARTMENT OF TRANSPORTATION
SCHEDULE OF ITEMS

CONTRACT ID: 04926

PROJECT: STPX 32(85) 7997085001 RICHARDSON FAMILY MITIGATION

SECTION: 0001 - WETLAND MITIGATION

PROP LINE NO.	ITEM NUMBER	ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY
0010	104030010	MISCELLANEOUS WORK	UNIT	140,000.00
0020	104030011	MISCELLANEOUS ITEMS-LS	LS	1.00
0030	104030060	MISCELLANEOUS ITEMS-CUYD	CUYD	1,233.00
0040	104030067	MISCELLANEOUS ITEMS-ACRE	ACRE	6.80
0050	104030072	MISCELLANEOUS ITEMS-REMOVAL	CUYD	30.00
0060	105070000	CONTRACTOR SURVEY AND LAYOUT	LS	1.00
0070	107100010	CULTURAL RESOURCE PERSON	DAY	20.00
0080	109200005	MOBILIZATION	LS	1.00
0090	201130005	CLEARING AND GRUBBING	ACRE	6.70
0100	202020358	ABANDON WELL	EACH	2.00
0110	203020100	EXCAVATION-UNCLASSIFIED	CUYD	32,701.00
0120	203020185	TEMPORARY CHANNEL DIVERSION	LS	1.00
0130	203020275	EXCAVATION-MUCK	CUYD	10.00
0140	203080100	TOPSOIL-SALVAGING AND PLACING	CUYD	13,829.00
0150	203080112	WETLAND SOIL-SALVAGE AND PLACE	CUYD	50.00
0160	208010150	TEMPORARY EROSION CONTROL-LS	LS	1.00
0170	208010200	TEMPORARY EROSION CONTROL-FIXED	UNIT	500.00
0180	208010383	WILLOW CUTTINGS	LNFT	2,719.00
0190	208010406	ROCK STEP POOL	EACH	3.00
0200	208010486	STREAMBED MATERIAL	CUYD	3,262.00
0210	208010500	BIOENGINEERED BANK	LS	1.00
0220	208010543	FOOTER LOG	LNFT	238.00
0230	208010546	BANK HABITAT LOG	EACH	177.00
0240	208010565	LOG AND ROOT WAD	EACH	17.00
0250	603010032	DRAINAGE PIPE 12 IN	LNFT	455.00
0260	603013412	PIPE-CORR POLYETHYLENE 10 IN	LNFT	22.00
0270	603587020	REMOVE PIPE CULVERT	LNFT	57.00
0280	607100008	FENCE-SPECIAL DESIGN	LNFT	4,840.00
0290	607100009	FENCE - MODIFIED FARM FW	LNFT	5,701.00
0300	607100360	FARM FENCE-PANEL/SINGLE FW	EACH	18.00

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SECTION: 0001 - WETLAND MITIGATION

PROP LINE NO.	ITEM NUMBER	ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY
0310	607100380	FARM FENCE-PANEL/DOUBLE FW	EACH	14.00
0320	607100389	FENCE-WOOD-2 RAIL	LNFT	75.00
0330	607100440	FARM GATE-METAL-TYPE G-3	LNFT	16.00
0340	607100450	FENCE-PEDESTRIAN PASS	EACH	2.00
0350	607100720	DEADMAN	EACH	7.00
0360	607150131	RESET GATE	EACH	1.00
0370	610100060	WETLAND SEEDING - UPLAND	ACRE	19.60
0380	610100065	WETLAND SEEDING - WETLAND	ACRE	11.40
0390	610100565	EROSION CONTROL BLANKET-HIGH-	SQYD	2,049.00
0400	610650028	TREE AND SHRUB PLANTING	LS	1.00
0410	613300100	FILTER MATERIAL	CUYD	674.00
0420	615010034	REMOVE IRRIGATION STRUCTURE	EACH	2.00
0430	615010062	IRRIGATION STRUCTURE	LS	1.00
0440	615010138	IRRIGATION HEADWALL	LS	1.00
0450	615010580	TRASH GUARD	EACH	1.00
0460	617000001	MISCELLANEOUS ITEMS-EACH	EACH	44.00
0470	618030015	TRAFFIC CONTROL-FIXED	UNIT	500.00
0480	618030080	TRAFFIC CONTROL-LS	LS	1.00

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Standard Provisions & Requirements

SPECIAL PROVISIONS
FEDERAL AID PROJECT NO(S). STPX 32(85)
 (REVISED 6-25-26)

The following special provisions are hereby made part of the contract and supplement and/or supersede any sections of the Standard Specifications of Road and Bridge Construction, adopted by the Montana Department of Transportation and the Montana Transportation Commission and all supplements thereto in conflict therewith.

The following documents are hereby incorporated by reference into this contract:

- “Question and Answer Forum”: [Question and Answer Forum](#)
- “Standard Specifications for Road and Bridge construction”:

[Standard Specifications June 2026](#)

- The most recent version of the Detailed Drawings: [Detailed Drawings](#)
- Materials Manual of Test Procedures: [Materials Manual June 25, 2026](#)

The latest version of the Standard Specifications, Biannual updates, and revision summaries can be found at the following website: [Standard Specifications](#)

The Question-and-Answer Forum opens at 5:00 p.m. on the bid letting advertisement date and closes at 8:00 a.m. on the Monday before the bid letting. If Monday is a state holiday, the forum will close on Friday before the bid letting at 3:00 p.m. Answers provided by the Department to the questions, clarifications, and notifications can be posted up to 5:00 p.m. on the day before the letting.

The U.S. Department of Transportation (DOT) operates a toll-free number at 1-800-424-9071, 24 hours a day – 7 days a week. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use this number to report such activities. All information will be treated confidentially, and callers may remain anonymous.

The Department attempts to provide reasonable accommodations for any known disability that may interfere with a person participating in any service, program, or activity of the Department. Alternate accessible formats of this document will be provided upon request. If reasonable accommodation is needed to participate in Department bid lettings, call the Civil Rights Bureau at 444-6331 or TTY 406-444-7696 [TTY 1-800-335-7592 (toll free)].

1. PROJECT DESCRIPTION [102]

The purpose of the Richardson Family Mitigation project is to offset unavoidable impacts of highway improvement projects in Aquatic Watershed #3 Lower Clark Fork River Basin by creating high-quality stream, riparian, emergent wetland, and upland habitat. The project has two main components:

- 1) Establishment of two emergent wetlands in what is currently a hayfield in the southeast part of the property.
- 2) Restoration of Sixmile Creek.

The project is located in Missoula County roughly 4.5 miles west of Frenchtown along Sixmile Creek north of the I-90 corridor and west of Sixmile Road.

2. CONTRACT TIME – FLEX TIME PROCEED DATE [108] (REVISED 1-21-16)

- A. General. This provision modifies Subsection 108.02 of the Specifications.
- B. Notice to Proceed. The notice to proceed will be issued with an effective date of August 7, 2027. The Contractor may change the notice to proceed date to an earlier date if written notification is received at least ten calendar days in advance of the date selected and the selected date is approved by the Project Manager. Include an updated schedule with the notification.

C. Contract Time. Contract time assessment will begin on the notice to proceed date issued by the Department or as changed by the Contractor, whichever is earlier. Work is to be completed in 90 working days.

3. PRE-BID INSPECTION

Prior to bidding, the prospective bidder may access MDT's property at this site to evaluate and review the proposed project prior to the submission of their bid.

4. PRE & POST CONSTRUCTION MEETINGS

Pre-Construction: Coordinate with the Project Manager and Stream Restoration Specialist (SRS) to schedule a mandatory pre-construction meeting to occur at least two weeks prior to the beginning of construction activities. The PM will coordinate with MDT Environmental Services Resources Section Supervisor, who must be present at this meeting.

Post- Construction: Coordinate with the PM and the SRS at least 2 weeks prior to the completion of construction activities to schedule a post-construction meeting. The PM will coordinate with MDT Environmental Services Resources Section Supervisor who must be present at this meeting.

5. STREAM RESTORATION SPECIALIST (SRS) [610]

A. Description. This project involves aquatic restoration (wetland and stream) work to be constructed under the oversight and guidance of a Stream Restoration Specialist (SRS).

B. Contractor Requirements.

1) Hire the following firm as the SRS:

Pinyon Environmental Inc. (Confluence Consulting Inc.)

Rich McElowney

1298 Stoneridge Drive

Bozeman, MT 59718

Phone: Office: 406-602-8502

Cell: 406-599-2138

2) Coordinate with the SRS for scheduling of stream and wetland activities, meetings (including but not limited to pre-construction and post-construction final walk-through meeting), and all activities that require SRS oversight. The Contractor is required to notify the SRS no less than 5 working days in advance of all changes in schedule related to stream construction activities.

3) Report any issues or problems related to the construction of the stream channel(s) and associated features to the SRS and the Engineering Project Manager (EPM).

4) Perform construction related activities with the potential to impact aquatic resources under the oversight of the SRS.

5) Report any change in plan, or issues related to the protection of aquatic resources to both the EPM and the SRS prior to work being completed.

6) Self-report non-compliance to the EPM immediately.

7) Coordinate with the SRS for re-vegetation and shrub planting locations on the site.

C. Stream Restoration Specialist (SRS) Requirements

1) Become familiar with the general morphological characteristics of the site in the project area prior to construction.

2) Attend pre-construction and post-construction meetings.

3) Provide oversight and guidance for the following items:

a) Review, approve or modify the staking of stream channel(s) and associated features prior to initiation and/or during performance of the work.

b) Oversee structure removals to ensure all unauthorized rock material and fabric have been removed from areas shown on plans.

c) Inspect and approve salvaged stream bed/wetland material/shrubs for re-use.

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- d) If needed; field fit stream channel alignment, placement of scour protection, stream bed/bank materials, and wetland cell configuration.
- e) The SRS and MDT Engineering Project Manager will notify the MDT District Biologist before making any design changes that affect stream length, materials, planting or revegetation plans, or any other elements of the stream channel construction under SRS oversight. Permit modifications may be required before work can continue.
- f) Inspect floodplain grading.
- g) Inspect and approve rooted tree/shrub nursery stock, seed mixes, and erosion control fabric. Approve substitutions if necessary.
- h) Oversee locations, depth, and manner of tree/shrub plantings.
- i) Inspect and approve soil depths prior to planting and seeding.
- j) If needed, field fit channel alignment and placement of scour protection and stream bed/bank materials.
- k) The SRS and MDT Engineering Project Manager will notify the MDT District Biologist before making any design changes that affect stream length, materials, planting or revegetation plans, or any other elements of the stream channel construction under SRS oversight. Permit modifications may be required before work can continue.
- l) Immediately notify the EPM of any non-compliance. The SRS has the authority to stop work under direction of the EPM until the situation is brought into compliance.
- m) Oversee BMP removal and reclamation action.
- n) Advise MDT survey of any changes or features to capture in the as-built survey.
- 4) All contact and communications with resources agencies must go through EPM and MDT Environmental Services Bureau.
- D. Measurement and Payment.
Stream Restoration Specialist will be paid as a unit cost under the "MISCELLANEOUS WORK" bid item; \$120,000 is earmarked for the Stream Restoration Specialist.

6. PREQUALIFIED STREAM RESTORATION CONTRACTORS

- A. Description. This project is the construction of a stream and wetland mitigation site.
- B. Requirements. A Prequalified Stream Restoration Contractor will complete all stream, stream bank, floodplain, and revegetation work as shown in the plans and described elsewhere in the bid documents.
 - 1) A list of pre-qualified stream restoration contractors is located at the following website: <http://www.mdt.mt.gov/business/contracting/prequalified.shtml> (under stream restoration)
 - 2) The Contractor and Stream Restoration Contractor must attend a pre-work meeting on site to discuss the proposed stream work with the Stream Restoration Specialist (SRS), MDT District Biologist and Project Manager. Notify the Project Manager to schedule the meeting a minimum of 10 calendar days prior to the desired meeting time. Construction equipment, task sequencing, and construction methods will be discussed and finalized before work can begin.
 - 3) The Contractor and Stream Restoration Contractor must attend an onsite post-construction meeting to discuss the finished work with the SRS, MDT District Biologist and Project Manager. Notify the Project Manager to schedule the meeting a minimum of 10 calendar days prior to the desired meeting time.
 - 4) The Stream Restoration Contractor may request adjustments to the stream design during construction to minimize disturbance, impacts, and to field-fit the design. All adjustments must be approved by Project Manager and SRS prior to execution of the work. The Project Manager will coordinate the proposed adjustments with the MDT District Biologist prior to approval.

7. CONTRACT DOCUMENTS [102] (REVISED 1-15-26)

The following documents are now available within the Contractors Reference Material on the Department's Contracting and Bidding webpage

<https://www.mdt.mt.gov/business/contracting/> :

- 1) [Table of Contractor's Submittals](#). (Revised 1-15-26)
- 2) [Traffic Control Rate Schedule](#) (Revised 3-9-23)
- 3) [Erosion Control Rates](#) (Revised 1-09-25)

8. LABOR AND CIVIL RIGHTS REQUIREMENTS [102] (REVISED 1-15-26)

Executive Orders 13658 and 13706 do not apply to this contract. Pay the minimum wage rates contained elsewhere in the bid package and comply with the required contract provisions contained in the form FHWA 1273 included with this contract. To obtain more information, contact the Department's Construction Engineering Services Bureau at 2701 Prospect, Helena, MT (406)475-2258, (800)335-7592 (TTY) or (406)444-7297 (Fax).

Ensure bulletin board requirements contained in the FHWA Form 1273 are met. Please see the following webpage for required bulletin board materials:

[Bulletin Board Materials & Requirements](#)

9. BIDDER'S PROPOSED AGGREGATE SOURCE(S) [103] (REVISED 8-07-25)

No later than 7 calendar days after the date of bid-opening (the date of bid opening to count as the first full day), submit to ECCS form MDT-CON-106-02-3 in accordance with Subsection 103.11.

10. CONTRACTOR SURVEY AND LAYOUT - MODIFIED

Furnish Contractor Survey and Layout in accordance with Subsection 105.08.2

MDT will provide design surfaces in digital format for contractor's use during construction.

The SRS may adjust the channel layout, grade, or depth as necessary to make it fit with the land, to avoid existing vegetation, or other unforeseen elements.

MDT will conduct all right-of-way and monumentation surveys.

11. PARTNERING [105] (ADDED 1-11-24 M)

In accordance with Subsection 105.05.1, this contract requires Level (II) facilitation.

12. DOMESTIC MATERIALS REQUIREMENTS [106] (REVISED 11-13-25)

A. Steel and Iron Materials. Furnish iron and steel materials in accordance with subsection 106.09. A manufactured product consisting primarily of steel and iron as defined in 23 CFR 635.410 is accepted under subsection 106.09.

B. Construction Materials. Furnish construction materials manufactured in the United States. Construction materials include articles, materials, or supplies that are or consist primarily of:

- Non-ferrous metals.
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables).
- Glass (including optic glass).
- Fiber optic cable (including drop cable).
- Optical fiber.
- Lumber.
- Drywall, and
- Engineered wood.

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Construction materials exclude cement and cementitious materials, aggregates including stone, sand, or gravel, or aggregate binding agents (e.g., asphalt binder) or additives (e.g., polymer modifiers and admixtures).

Manufacturing processes for the construction material must occur in the United States. Manufacturing processes for each of the bulleted construction materials above are defined in 2 CFR 184.6 and are summarized below.

- a) Non-ferrous metals: Initial smelting or melting through final shaping, coating, and assembly.
- b) Plastics: Initial combination of plastic, polymer based, or composite materials until item is in its final form.
- c) Glass: Initial batching and melting, annealing, cooling, and cutting.
- d) Fiber Optic Cable: Initial ribboning, buffering, and fiber stranding and jacketing.
- e) Optical Fiber: Initial preform fabrication through completion of draw.
- f) Lumber: Initial debarking, treatment, and planing.
- g) Drywall: Initial blending of gypsum, cutting, and drying of sandwiched panels.
- h) Engineered Wood: Initial combination of constituents until item is in its final form.
- C. Manufactured Products. Furnish manufactured products as defined in 2 CFR

184.3 that meet the requirements of 23 CFR 635.410. Beginning with the letting of November 13, 2025, the final fabrication of all manufactured products must occur in the United States. Beginning with the November 12, 2026 bid letting, the product must be manufactured in the United States and the cost of the components of the manufactured product that are mined, produced or manufactured in the United States must be greater than 55% of the total cost of all components of the manufactured product.

With respect to precast concrete products that are classified as manufactured products, ensure the components of precast concrete products that consist wholly or predominantly of iron or steel or a combination of both meet the requirements of subsection 106.09.

D. General. Domestic materials preference applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to a project. It does not apply to tools, equipment, and supplies brought to the construction site and removed at or before the completion of the project (e.g., temporary aluminum scaffolding). Buy America preference does not apply to equipment and furnishings that are used at or within the finished infrastructure project but are not permanently affixed to the structure (e.g., movable chairs, desks, or computer equipment used at or within the project but are not integral or permanently affixed to a structure).

Refer to the decision tree in Section 3.5 of MT 601 to aid in appropriately categorizing specific materials.

Submit Form MDT-MAT-407 "Manufacturer's Certificate of Compliance" for every material identified as a construction material or manufactured product. Do not incorporate materials covered by Form MDT-MAT-407 into the project until all required documentation is submitted to the Department. Ensure suppliers and manufacturers understand the domestic material and contract requirements to supply the required materials and associated documentation.

The Department will not accept items installed until all supporting documentation has been reviewed and is found to be in accordance with the contract requirements. Insufficient or unavailable documentation or documentation showing products containing construction materials of foreign origin are grounds for removal and replacement at the contractor's expense. The Department has designated contract materials as either "construction materials" or "manufactured products" by their respective 9-digit material codes in section MT 601 of the Montana Materials Manual. The Department recognizes there will be situations where a product or material may not fit the designation indicated in section MT 601. In these cases, submit documentation demonstrating or justifying the supplier or manufacturer's position that their specific item has been misclassified to the Project Manager at least 10 business days in

advance of installation. The Department, in conjunction with FHWA, will review the submitted documentation and decide as to how that specific product or material will be classified. These determinations will be final, and the appropriate documentation as defined above is required.

The Department further recognizes there will be situations when a product or material may not be addressed in MT 601. In these cases, submit certification of the material's domestic origin appropriate for the material classification to the Project Manager prior to installation.

The US DOT has found that it is in the public interest to issue a waiver of domestic preferences in certain situations. For construction materials and manufactured products, the domestic preference may be waived if the total value of non-compliant material is under \$1,000,000 or 5% of the total applicable project costs, whichever is less. Submit actual individual material costs, minus manufacturing costs outside the defined manufacturing processes outlined above, along with justification in the form of invoices, bills of lading, or other appropriate documents to the Department if requesting the waiver.

The above waiver does not apply to iron and steel, the existing de minimis standard for iron and steel under subsection 106.09 continues to apply.

A project with a total contract value of \$500,000 or less is exempt from all domestic preference regulations including steel and iron.

13. SUBCONTRACTING CONSULTANTS [108] (REVISED 2-27-14 M)

The following consultants performed work on the project.

- Confluence Consulting, Inc
- Pinyon Environmental, Inc
- Trax Engineering, PLLC

14. NOTICE TO BIDDERS [108] (ADDED 11-21-08)

This project is funded in whole or in part by funds received from the Federal Highway Administration (FHWA), and its construction is wholly contingent on the state's continued receipt of those federal funds. If the federal funds are reduced or not received, the Department may choose to terminate the contract for convenience under the provisions of Subsection 108.10. Any bidder on this project, by submitting its bid, understands and accepts the possibility of the contract being terminated in the event federal funds are reduced or not available and by submitting a bid, each bidder waives any claims for costs or damages other than as specifically allowed by Subsection 108.10.2. In particular, bidders understand and accept that no payment will be allowed for any claimed anticipated profit for work not performed.

15. ENVIRONMENTAL SPECIFICATIONS [208] (ADDED 9-9-21M)

The Contractor is required to review and meet the specifications of the following subsections:

Migratory Bird Treaty Act Compliance – Vegetation Removal	Subsection 208.03.4A(1)
Migratory Bird Treaty Act Compliance – Structures	Subsection 208.03.4A(2)
Work in Bear Habitat	Subsection 208.03.4E
Aquatic Invasive Species	Subsection 208.03.2D

16. MONTANA FLOODPLAIN AND FLOODWAY MANAGEMENT ACT [107] (REVISED 4-14-10)

A. Description: This contract is located within the regulated floodplain of the Six Mile Creek, FIRM 30063C0865E, Community Panel Number 865E. MDT has obtained a preconstruction floodplain permit #26-16 from the Missoula County Floodplain Administration Program, (200 Broadway Missoula MT 59802, 406-258-4841) for the permanent features

associated with this contract. A copy of this floodplain permit is available upon request from the PM.

B. Review Subsection 208.03.3(J) for more information.

This floodplain permit does not cover the construction of temporary facilities such as work bridges, work pads, cofferdams, temporary detours, diversions, etc. This permit does not include access to and from authorized locations, sequencing, or construction methodology required to construct authorized features, or other impacts to areas outside of the planned construction footprint.

C. Materials. Vacant

D. Requirements. Contact the floodplain administrator indicated above to determine floodplain permitting requirements, if any, for the temporary facilities and any other work within the floodplain not covered here or within the preconstruction floodplain permit.

If an additional floodplain permit is required, complete and submit the Joint Application for Proposed Work in Montana's Streams, Wetlands, Floodplains, and Other Water Bodies and required information directly to the floodplain administrator according to the floodplain permitting requirements along with the applicable fee. The Joint Application Form can be downloaded from: <http://dnrc.mt.gov/divisions/water/operations/floodplain-management/permitting-and-regulations>

1) If an additional floodplain permit is not required, but the floodplain administrator requires other information, prepare and submit it directly to the floodplain administrator.

2) Submit copies of the application and other required information to the PM concurrently with the submittals required in Subsections 208.03.4(B) and 208.03.4(C). Obtain all required permits or authorizations and furnish copies or permit approvals to the PM before starting activities that require permits.

E. Method of Measurement and Basis of Payment. Work described in this provision is not measured for payment. Include the cost to obtain this permit and provide required information in the mobilization bid item.

17. STORM WATER PERMITTING REQUIREMENTS UNDER THE MT POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES) [208] (REVISED 8-10-23)

A. Description. The DEQ regulates storm water discharges under the MPDES program. If the bid package contains blank erosion control plans, a construction storm water discharge permit authorization will be required. If not, a storm water discharge permit authorization may be required for this project depending on Contractor's operations. Sum the disturbance area (as defined by DEQ) identified in the contract with the area of disturbance caused by contractor operations to determine if the permit acreage threshold is exceeded. Contractor operations can include, but are not limited to, the following support activities: staging areas, access roads, material storage areas, temporary concrete, or asphalt batch plants, borrow areas, areas used for fill placement, etc. If the summed disturbance area is one acre or more, use the DEQ authorization to discharge under the MPDES General Permit for Storm Water Discharges Associated with Construction Activity (General Permit) for this project. In order to facilitate permit transfer, separate NOI packages are required for areas within the right-of-way and areas outside of the right-of-way. A NOI package includes a Notice of Intent, with a topographic map, a SWPPP, the erosion control plans, sage grouse consultation letter, if applicable, and supporting documentation.

Blank Erosion Control Plans, and a topographic map, are provided with the plans if the plans include greater than 1 acre of disturbance. Complete the erosion control plans as required by the general permit. Complete the SWPPP using DEQ's most current SWPPP Form.

B. Materials. Follow the requirements described in the Department's *Erosion and Sediment Control Best Management Practices Manual (December 2016)*. Rescind Section 208 detailed drawings. Submit to the Project Manager for review and acceptance BMPs proposed for use that are not included in the Manual.

C. Construction Requirements.

1) MPDES Permit Required.

a) Submit one NOI package and the associated fees to DEQ for ground disturbance areas shown in the plans or within the right-of-way. For ground disturbance areas shown in the plans and any other areas within the right-of-way where Contractor activities causing ground disturbance are planned, the Contractor is the sole permittee until construction is complete and the General Permit is transferred to the Department or another entity.

The Department is not responsible for delays caused by incomplete or inaccurate submittals by the Contractor.

Comply with the requirements of the General Permit and implement the SWPPP. Provide an electronic copy of the NOI Package submitted to DEQ and confirmation for receipt of a complete NOI Package from DEQ to the Project Manager prior to conducting any ground disturbance activities.

Do not begin construction activities until the required copy of the NOI Package submitted to DEQ and confirmation for receipt of a complete NOI Package from DEQ is received by the Project Manager.

b) Furnish and install public signage as required by the General Permit. Include the cost of the required sign(s) in the Temporary Erosion Control Lump Sum bid item. Submit a separate NOI package and the associated fees to DEQ for ground disturbance and support activity areas outside the right-of-way and not shown in the plans. Contractor furnished material sources, staging areas, plant sites, or any other Contractor caused ground disturbance outside the right-of-way and not shown in the plans, are the Contractor's responsibility and must be submitted under a separate NOI package from the ground disturbance within the right-of-way. For all support activities outside the right-of-way which are not part of a larger commercial operation serving multiple unrelated construction activities and will not continue operation beyond the completion of the contracted road construction activity, a notice of intent package must be submitted to DEQ to obtain an authorization under the General Permit. Sand and gravel borrow area operations, gravel pits, and/or concrete batch plants that will continue operation beyond the completion of the contracted road project, are part of a larger commercial operation, or serving multiple unrelated construction activities, must obtain permit coverage under the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (MSGP) regardless of acreage size of the activity if the activity does not already have MSGP authorization. The Contractor is the sole permittee until stabilization is complete and the General Permit is terminated or transferred to another entity. The Department is not responsible for delays caused by incomplete or inaccurate submittals to DEQ by the Contractor.

Provide copies of all NOI Packages submitted to DEQ and confirmations for receipt of complete NOI Packages from DEQ to the Project Manager prior to conducting any ground disturbance activities.

Be responsible for all temporary erosion, sediment, and pollution prevention controls for Contractor furnished material sources, staging areas, plant sites, or any other Contractor caused ground disturbance outside the right-of-way and not shown in the plans.

c) Complete and document all inspections in accordance with the requirements of the General Permit. Use DEQ's most current self-inspection form available online at: <https://deq.mt.gov/files/Water/WQInfo/Documents/WPBFForms/2023-Attachment-B-MTR100000.pdf>. Provide a copy of all inspection reports to the Project Manager within 7 calendar days of the inspection.

Report potential noncompliance in accordance with applicable regulations, guidance, and permit conditions. Submit to the Project Manager within 7 calendar days of sending or receiving all correspondence to or from regulatory agencies regarding potential noncompliance or violations.

The temporary erosion and sediment control measures and devices to prevent pollution and control sediment transport and soil erosion will be inspected as part of the final inspection to ensure they are maintained and functioning properly. Do not transfer or terminate the General

Permit coverage until the BMPs are inspected and accepted and all records required under the permit, including inspection and monitoring reports, are furnished to the Project Manager and authorization is received from the Department. The Department may require that certain BMPs be replaced by another type of BMP as a condition of permit transfer.

Upon approval of site conditions, measures, devices and all pertinent records, the Department will notify the Contractor to begin the Permit Transfer Notification in DEQ FACTS. Once completed, provide verification that all fees have been paid and the permit is ready for transfer in DEQ FACTS. The Department is not liable for the completeness or accuracy of Contractor records completed prior to the permit transfer. Ensure permit conditions and responsibilities are met until confirmation of the transfer is received from DEQ. Defend and hold the Department harmless from any violations, claims, enforcement actions, penalties or fines issued for Contractor activities or recordkeeping that occurred prior to the transfer of the General Permit.

If the Department concurs that final stabilization has been met during the final walk-through, the Contractor may submit a Notice of Termination form to DEQ. Pay the annual fee invoice due at the time of termination. Submit the annual fee invoice to the Project Manager for reimbursement.

2) MPDES Permit not Required.

The BMP-Administration item is included in contracts that may not meet either criteria for an MPDES permit but include ground disturbing activities. Complete BMP inspections and install BMPs, if necessary, in accordance with Section 208, if no storm water permit is required. Utilize form MDT-ENV-014, Water Pollution Control Inspection Report. A certified SWPPP Administrator is not required to conduct the inspections if no permit is required.

D. Method of Measurement. DEQ MPDES fees and monitoring costs associated with obtaining and maintaining the General Permit for ground disturbance areas both within and outside the right-of-way are not measured separately for payment.

If no permit is necessary, include the cost of all erosion control, devices, and inspections in the BMP-Administration bid item.

E. Basis of Payment. No additional payment will be made for the DEQ MPDES fees and monitoring costs associated with the General Permit. Include these costs in the Temporary Erosion Control-Lump Sum bid item.

For project including the BMP-Administration item, include the cost of all erosion control, devices, and inspections in the BMP-Administration bid item. Partial payment for the BMP-Administration will be monthly based on the lump sum contract price in accordance with Table 208-2 in Subsection 208.05.1.

Payment for BMPs required by an event or extra work, and approved by the Project Manager, will be measured and paid for in accordance with the Erosion Control Rate Schedule contained in the contract at a unit price of \$1.00 per unit.

18. INCREASE IN TURBIDITY [208] (REVISED 10-8-15)

A. Description. Montana Fish, Wildlife and Parks (FWP) has determined that this project may cause a significant increase in turbidity.

B. Requirement. Contact the Department of Environmental Quality (DEQ) to determine narrative conditions required to meet short-term (318 Authorization) water quality standards and protect aquatic biota.

1) Complete and submit the Joint Application for Proposed Work in Montana's Streams, Wetlands, Floodplains, and Other Water Bodies (Application Revised 6-5-2015) and all required attachments, according to the applications instructions. Form can be down loaded from: <http://dnrc.mt.gov/licenses-and-permits/stream-permitting>.

2) Application fees are the responsibility of the Contractor.

3) Do not begin any work that will affect a Montana stream, wetland, floodplain, and/or other water body until a valid 318 Authorization is received from DEQ. Other permits/authorizations may also be required for the proposed work.

C. Basis of payment. Include the cost to obtain this permit in the mobilization bid item.

19. CLEAN WATER ACT SECTION 404 PERMIT AND SECTION 401 CERTIFICATION

A. Description. This provision describes the project work that has been authorized under Sections 404 and 401 of the Clean Water Act (CWA) and the associated conditions that must be adhered to for compliance with CWA requirements.

B. Section 404 CWA Nationwide Permit 27 Description. The permanent features of this project are authorized under U.S. Army Corps of Engineers (USACE) Nationwide Permit 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities (Army Corps File Number NWO-2018-00230-MT).

1) The proposed restoration work, based on the information submitted to USACE on April 20, 2026, meets the reporting requirements for "Aquatic Ecosystem Restoration, Enhancement, and Establishment Activities" described in Department of the Army Nationwide Permit 27 (NWP 27).

2) The proposed restoration work in waters of the United States may commence on or after May 20, 2026.

3) This authorization is valid until March 14, 2031.

4) Obtain the 2026 Nationwide Permit 27 Fact Sheet that fully describes the Nationwide Permit 27 and lists the General Conditions that must be adhered to for this authorization to remain valid. Adhere to the General Conditions.

C. Section 404 CWA Nationwide Permit 33 Description. Obtain authorization for the temporary features of this project (e.g. work bridges, work pads, cofferdams, diversions, etc.) under USACE Nationwide Permit 33 – Temporary Construction, Access, and Dewatering. Pre-construction notification may be required. Review the 2026 Nationwide Permit 33 Fact Sheet and 2026 Nationwide Permits Regional Conditions Omaha District - State of Montana and determine if pre-construction notification is required.

1) Pre-construction notification required.

a) Prepare a 404 permit application for Department review utilizing USACE's Regulatory Request System (RRS) <https://rrs.usace.army.mil/rrs/>.

b) Designate the Contractor as the Owner and the Department as the Applicant. Use MDTUSACEdataManager@mt.gov as the Applicant email. Assign the District Environmental Engineering Specialist (DEES) read/write access to the request.

c) Complete all applicable RRS fields and upload required attachments, including but not limited to the joint application form, highlighted plans, Biological Resources Report, Aquatic Resources Form, Endangered Species Act/Section 7 documentation, Section 106 cultural resources documentation, and cover letter.

d) Once a complete submittal has been created, designate the DEES as the Owner. Notify the DEES that the application is ready for review. The Department is not responsible for delays caused by incomplete or inaccurate submittals by the Contractor.

e) Do not begin work on temporary facilities in waters of the United States until the Department has submitted the RRS request to USACE and written confirmation of Section 404 authorization or NWP verification has been provided by the Project Manager

2) Pre-construction notification not required.

a) Prepare and submit a "No Pre-construction Notification Required" request using USACE's RRS. The RRS submittal must include a description of all Contractor-planned temporary facilities and a restoration plan

b) Provide the Department with a copy of the RRS submittal and Department of Army Letter, including the restoration plan. Allow 5 working days for the Project Manager to review the submittal, letter and restoration plan.

c) For temporary discharges authorized under Nationwide Permit 33 without pre-construction notification, the authorization is valid until March 14, 2031.

3) Obtain the 2026 Nationwide Permit 33 Fact Sheet that fully describes Nationwide Permit 33 and lists the General Conditions that must be adhered to for this authorization to remain valid.

D. CWA Section 404 Regional Conditions. Obtain and adhere to the 2026 Nationwide Permits Regional Conditions, Omaha District, State of Montana, Effective January 8, 2026, that also apply to this project and must be adhered to for these authorizations to remain valid.

E. CWA Section 401 Water Quality Certification is granted for Nationwide Permit 33 by the Montana Department of Environmental Quality (DEQ), provided that certain general and special conditions are met. DEQ has waived individual 401 Water Quality Certification for the project' Nationwide Permit 27.

1) Obtain the water quality certification requirements issued by DEQ on December 15, 2025. Adhere to those general and special conditions.

F. Copies of the 2026 Nationwide Permit Fact Sheets for Nationwide Permits 27 and 33, the 2026 Nationwide Permit Regional Conditions for the State of Montana, and DEQ's 401 Water Quality Certification requirements for the 2026 Nationwide Permits are available upon request from Environmental Services or on the web at:

<http://www.mdt.mt.gov/business/contracting/environmental/cwa.shtml>.

Coordinate with the Project Manager if you have questions regarding this authorization. Proposed changes to the permanent structures should be directed to the Project Manager for coordination with the District Environmental Project Engineer in the Environmental Services Bureau. Temporary facility permitting and/or general permit questions should be directed to the project manager for coordination with the District Environmental Engineering Specialist.

20. STREAM PROTECTION ACT 124 [208]

A. Description. The proposed project has been authorized by Preconstruction Stream Protection Act (SPA) 124 No.: MDT-R2-07-2026 AMDT 1, by the Montana Department of Fish, Wildlife, and Parks (FWP); provided the General and Special Conditions listed below are followed. This Preconstruction SPA 124 authorizes the permanent features at the following locations:

Waterbody
Six Mile Creek – Richardson
Family Mitigation Site

B. General Conditions

1) Adhere to the general provisions listed in Subsection 208.03.3 edition of the MDT Standard Specifications for Road and Bridge Construction.

2) Comply with all the conditions as included in the Preconstruction SPA 124 authorization and the STREAM PROTECTION AUTHORIZATION 124 special provision in the contract bid package.

C. Special Conditions

1) No instream work from November 15 to July 1. Please contact SPA Program Manager if exceptions are needed in order to enhance re-vegetation efforts or plant survival.

2) Avoid, minimize, or mitigate impacts to riparian buffers during construction throughout the project area. Clearly identify areas of impact in the riparian zone throughout the project area and install biodegradable sediment and erosion controls to mitigate potential water quality impacts. If geotextile silt fence is used, ensure it is removed once the site is stabilized.

3) If practicable, salvage existing woody shrubs for replanting. On-site shrubs should be transplanted immediately or stored in water until planted.

4) Ensure the trunk diameter for woody habitat structures matches the specifications provided in the application site plans. Trees placed as part of bank/instream structures should be left long enough to allow for burial and anchoring.

5) A prequalified Stream Restoration Specialist (SRS) shall provide construction oversight and guidance on-site to the contractor on all aspects stream restoration, revegetation, and woody shrub planting.

D. The proposed work exceeds the scope of the Programmatic Environmental Assessment for an FWP issued Water Quality Discharge Permit (318 Permit) therefore application to the Montana Department of Environmental Quality for 318 Permit is required.

Copies of the Preconstruction SPA 124 Authorization are available upon request from Environmental Services.

Contact the Project Manager for coordination with the District Biologist on questions regarding this authorization.

Waterbody

Six Mile Creek – Richardson Family Mitigation Site

21. PROJECT SPECIFIC 318 AUTHORIZATION

A. Description. The Montana Department of Transportation (MDT) has secured a 318 Short-Term Turbidity Authorization (318 Authorization) from the Montana Department of Environmental Quality (DEQ), Permit Number MTB013717. This special provision establishes that the Contractor shall assume full operational control, regulatory accountability, and sole legal liability for the 318 Authorization for the duration of all in-stream and riparian construction activities.

B. Administrative Requirements. Within ten (10) calendar days of receiving the formal Notice of Award, and prior to the start of any ground disturbing activities, the Contractor shall complete the following administrative actions:

1) DEQ Facts Registration. The Contractor shall maintain or establish an active user profile and organization ID in DEQ FACTS.

2) Permit Transfer Execution. In coordination with the Project Manager, the Contractor shall co-execute the Permit Transfer Notification (PTN) in DEQ FACTS. The Contractor's authorized representative shall electronically sign the "Transferee" certification, formally accepting all conditions, requirements, and monitoring liabilities of the 318 Authorization.

3) Fees. The Contractor shall be responsible for all fees associated with the processing of the PTN.

C. Operational and Compliance Obligations.

1) The Contractor is designated as the Permittee and Operator of Record.

2) Notice to Proceed. Do not begin any work that will affect a Montana stream, wetland, floodplain, and/or other water body until a valid 318 Authorization is received from DEQ. Other permits/authorizations may also be required for the proposed work.

3) Best Management Practices (BMPs). The Contractor shall design, install, inspect, and maintain all erosion, sediment, and turbidity control BMPs in accordance with Section 208.

4) Monitoring and Reporting. The Contractor shall perform all visual or instrument-based turbidity monitoring, logging, and reporting as required by the 318 Authorization and in accordance with Section 208. Copies of all logs shall be provided to the Project Manager.

D. Indemnification and Liability.

1) The Contractor assumes sole regulatory liability for any water quality violations, unauthorized sediment plumes, or non-compliance penalties issued by DEQ, Montana Fish, Wildlife and Parks (FWP), or the U.S. Army Corps of Engineers resulting from construction operations.

2) The Contractor shall defend, indemnify, and hold harmless MDT from any fines, administrative penalties, legal fees, or work stoppages resulting from the Contractor's failure to maintain the conditions of the 318 Authorization.

E. Basis of Payment. All costs associated with registering in DEQ FACTS, executing the PTN, paying transfer fees, implementing BMPs, and conducting any required water quality monitoring shall not be paid for separately but shall be considered incidental to the stream-work bid items.

Coordinate with the Project Manager if you have questions regarding this authorization. Proposed changes to the permanent structures should be directed to the Project Manager for coordination with the District Environmental Project Engineer in the Environmental Services Bureau. Temporary facility permitting and/or general permit questions should be directed to the project manager for coordination with the District Environmental Engineering Specialist.

22. HISTORICAL CULTURAL SITES – CONSTRUCTION EQUIPMENT RESTRICTIONS AND PERSONNEL REQUIREMENTS

Description. A National Register Eligible cultural site exists within the project limits and requires special provisions to avoid adverse effects. The work within the following site boundary is subjected to the restrictions specified below:

- A. Archaeological Site 24MO1639
- B. Inclusion of a Secretary of the Interior Professionally Qualified Archaeologist on site during all ground disturbing activities to oversee compliance with the Monitoring and Unanticipated Discovery Plan
- C. Fulfillment of the Monitoring and Unanticipated Discovery Plan for Cultural Resources which includes documentation of cultural materials, reburial of cultural materials, and verification that any deeper significant subsurface materials are not disturbed.
- D. Heavy equipment use will halt for 30 minutes for every 2 hours of operation to allow for the disturbed surface to be inspected for cultural materials. It is encouraged that these 30-minute pauses for archaeological documentation are co-scheduled with other pauses in activity, such as for equipment maintenance, personnel breaks, or other reasons.
- E. Inclusion of a Confederated Salish and Kootenai (CSKT) Preservation Office Monitor during ground disturbing activities.
- F. An estimated rate of \$750 per day for the CSKT Preservation Office Monitor. Payment will be based on the actual number of days the person's presence is required as documented by invoice.
- G. Contact the Project Manager to coordinate with the MDT Archaeologist, Laura Evilsizer, with questions regarding these requirements.

23. THREATENED AND ENDANGERED SPECIES – BULL TROUT:

- A. Description. Bull trout, a threatened species protected under the Endangered Species Act, are documented in the Clark Fork River and potentially use Six Mile Creek (a tributary to the Clark Fork River).
- B. Construction Requirements
 - 1) Implement means to reduce the potential for sediment transport to the Clark Fork River resulting from culvert removal and channel activation activities along Six Mile Creek.
 - 2) Schedule channel activation and culvert removal activities to coincide with the period of lowest stream flows, most likely occurring between August and November.
 - 3) Monitor all dewatering activities visually to ensure bull trout are not trapped. In the unlikely event a live bull trout is found within a dewatering area, immediately return it to the stream.
 - 4) To reduce the potential for sediment delivery long-term along the new Six Mile Creek channel sections:

SPECIAL PROVISIONS

CONTRACT NO. 04926

- a) Seed new banks with herbaceous wetland and riparian plant species indigenous to the region.
 - b) Follow bank stabilization procedures and materials per special provisions.
 - c) Install brush layer in the bank wraps per plans.
 - 5) Sequence instream construction activities such that as many of the necessary construction activities as possible occur "in the dry."
 - 6) Do not allow materials excavated from inside any dewatering structures to enter any stream.
 - 7) Ensure best management practices for erosion control are applied to this project, including, but not limited to:
 - a) Install and maintain appropriate BMPs to prevent erosion and sediment transport;
 - b) Reseed and revegetate all disturbed areas with desirable vegetation;
 - c) Stabilize disturbed channel banks using appropriate BMPs; and
 - 8) Collect and dispose of all waste fuels, lubricating fluids, herbicides, and other chemicals in accordance with all applicable laws, rules, and regulations to ensure no adverse environmental impacts will occur.
 - 9) During active construction periods, inspect equipment daily to ensure hydraulic, fuel, and lubrication systems are in good condition and free of leaks to prevent these materials from entering any water body.
 - 10) Locate vehicle servicing and refueling areas, fuel storage areas, and construction staging and materials storage areas to ensure that spilled fluids or stored materials do not enter any water body.
 - 11) Monitor structures designed to minimize sediment and pollutant discharges such as settling ponds, vehicle and fuel storage areas, hazardous materials storage sites, erosion control structures, and coffer dams each workday and immediately following precipitation events to ensure these structures are functioning properly. These structures should be sized appropriately to handle foreseeable precipitation events and stream flow conditions.
 - 12) Upon locating dead or injured bull trout, notify the MDT's Project Manager and contact the USFWS Field Office at (406) 449-5225 within 24 hours. Record information relative to the date, time, and location of dead or injured bull trout when/if found. Include any activities that were occurring at the location and time of injury and/or death of each fish and provide this information to the USFWS.
- Contact MDT's Project Manager for coordination with the District Biologist if you have any questions regarding this authorization.

24. SITE PREPARATION

- A. Description. In addition to Section 201 of the standard specifications, SITE PREPARATION includes activities specified in Sections CONTROL OF SURFACE AND SUBSURFACE WATER, ACCESS ROAD, TRAFFIC CONTROL, FENCE REMOVAL, DISPOSAL AND REPLACEMENT, IRRIGATION STRUCTURE REMOVAL, ABANDON EXISTING MONITOR WELLS, and TEMPORARY CHANNEL DIVERSION. In addition, this work consists of clearing and or grubbing and salvaging woody material within the work area. It may require the use of small, low ground pressure equipment to minimize the impact to these areas and to meet permit requirements. The work includes:
 - 1) Remove and disposal of stone, rubbish, and all other surface litter in designated areas by transporting off-site and salvaging and stockpiling woody material for use in the channel and floodplain. The intent is for most of the natural materials to be used on-site, as directed by the PM and/or the SRS.
 - 2) Coordination of necessary clearing and grubbing operations to allow timely completion of construction staking of a project.
- B. Construction. The clearing and grubbing limits will be established by the PM and/or the SRS in conjunction with the determination of construction limits. Only grub the areas

directed by the SRS and/or the PM to minimize impact. Clearing consists of the cutting, removing, disposal and cleaning up of all rubbish. Trees and shrubs designated for preservation will be marked and protected from scoring, barking or other injury during construction operations. Grubbing consists of the removal and disposal of all objectionable debris to a depth of not less than 1 foot (12 inches) below the original ground surface.

1) All salvaged shrubs and trees within the project limits not utilized for rootwad logs, bank habitat logs, and footer logs, will be removed whole and intact, to the extent possible, including root structure for use as woody debris within the site. Place woody debris as directed by the SRS.

Place backfill around salvaged woody material to partially or completely bury wood to ensure they provide suitable microtopography on the floodplain, and as directed by the SRS.

2) Storage & Disposal: Stockpile all woody material grubbed from the site for re-use in stream and floodplain construction. If not used, this material may be chipped or disposed of at an off-site location by the Contractor.

C. Method of measurement. Site preparation is measured at the unit price per acre for clearing and grubbing.

D. Basis of payment. The completed work for site preparation is included in the payment per acre for clearing and grubbing.

25. CONTROL OF SURFACE AND SUBSURFACE WATER

A. Description. The contractor is responsible for control of surface water, subsurface water, and drainage during the construction period. All temporary fills, crossings, and culverts necessary to promote drainage during construction will be installed and removed at the Contractor's expense prior to acceptance of the work. Any claims arising from upstream or downstream damages as a result of the construction or failure of these temporary works will be the Contractor's responsibility. It is the responsibility of the Contractor to control the surface and sub-surface water and drainage in any excavation area, dewatering placement area and material stockpile area. Should construction activities encounter groundwater or inadequate drainage, the Contractor may be directed by the PM to construct drainage facilities or develop a de-watering plan at the Contractor's expense.

B. Measurement and Payment. No payment will be made for dewatering or the control and drainage of surface/sub-surface water. Costs incurred for control of surface and subsurface water should be paid under the lump sum price bid for temporary erosion control.

26. ACCESS ROAD

A. Description. This work is the inspection, maintenance, reclamation, and revegetation of the access road and all appurtenances, including but not limited to the road, bridges, culverts, gates, fencing, and adjacent vegetation. The contractor must evaluate the access sites to ensure adequate capacity and width for equipment access to and from the site. MDT assumes no responsibility for and has made no assessment of the capacity of the access sites.

B. Construction Requirements. Conduct an on-site review of the access roads, including culverts at least 2 weeks prior to the start of construction. Coordinate with the MDT PM to attend the review.

Maintain existing roads and develop haul routes, as necessary, for access to the work areas. Due to the presence of unstable soils in certain areas of the sites, the contractor may be required to minimize disturbance to the site with tracked, or balloon-tired equipment as deemed appropriate by the PM. Restore the access road and all appurtenances to original condition or better upon completion of the work. In vegetated areas, this will include tilling of compacted soils prior to seeding.

C. Measurement and Payment. All costs associated with this provision and its requirements are incidental to and included in payment for other items of work.

27. ASPHALT AND CONCRETE DISPOSAL

A. Description: This work consists of the removal, handling, transport, and lawful disposal or recycling of existing concrete, reinforced concrete, asphalt pavement, asphalt rubble, and associated debris encountered within the limits of the project, as shown on the Plans or as directed by the Project Manager.

B. Construction Requirements. Remove and transport and dispose of concrete and asphalt encountered on the surface or within 6" of the finished grade within the project limits. Disposal or recycle these materials at a facility permitted or approved to accept such materials.

1) The Contractor is responsible for complying with all haul route restrictions, weight limits, disposal regulations, and environmental requirements.

2) Temporary stockpiling of debris onsite will only be permitted at locations approved by the Project Manager that provide adequate containment measures to prevent migration of sediment or pollutants.

3) Immediately clean any debris or sediment deposited on public roadways as a result of hauling operations.

C. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price listed below.

Pay Item	Pay Unit
Asphalt and Concrete Disposal	Miscellaneous Items – Removal - CUYD

28. IRRIGATION STRUCTURE REMOVAL

A. Description. Remove and dispose of existing irrigation structures (1) as shown in the plans.

B. Construction Requirements. As shown in plans: remove irrigation structures on the project site as shown in plans. All pipe and structure appurtenances must be completely removed. Only use equipment that will not damage the existing wetlands.

C. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed below.

Pay Item	Pay Unit
Remove Irrigation Structure	EA

29. ABANDON EXISTING MONITOR WELLS

A. Description. Abandon Two (2) groundwater monitoring wells. Wells to be abandoned are shown on the plans. Do not disturb other monitoring wells adjacent to the project without first contacting the Project Manager (PM).

B. Construction Requirements. Abandon wells in accordance with ARM 36.21.810, ARM 36.21.670, and the definitions contained in ARM 36.21.634 to ensure wells do not act as a drain to the wetland cells.

1) Monitoring wells not designated to be abandoned but that are in conflict with construction operations may be abandoned and then replaced at the completion of construction. The Contractor is responsible for all costs associated with abandonment and replacement monitor wells. Replacement wells must be drilled and installed in the same approximate location as the abandoned well. Replacement wells must be installed by a licensed well contractor to a depth of 12 feet below ground surface (bgs) using 2-inch ID schedule 40 PVC pipe. Replacement well installation must occur prior to winter shutdown.

C. Measurement and Payment. Abandon existing monitoring wells on a per each basis at the unit price for Abandon Well. Abandoned and replaced monitor wells (Wells abandoned at Contractor's discretion) are not measured for payment.

30. CHANNEL CONSTRUCTION

A. Description of Work. This work consists of constructing the new portion of the Six Mile Creek channel as called for on the plans from Station 0+00 to 34+40.

B. Materials. Utilize materials specified in the individual special provisions for each required component.

C. Construction Requirements.

1) Sequence

a) Construct a temporary bypass as specified in Special Provision TEMPORARY

CHANNEL DIVERSION

b) Survey, stake and excavate the proposed channel and floodplain.

c) Construct the proposed channel per the plans.

d) Where fill is required to bring subgrade to elevations for imported streambed material, place and compact soils from on-site borrow in accordance with Section 203.03.2.D and compact soils to a minimum 90% of maximum density in accordance with Section 203.03.3.

e) Construct the design channel/floodplain in accordance with plans from rock weirs downstream to approximately station 22+50 where diversion is routed back into existing channel.

f) Construct the remainder of the channel in all locations outside of the existing channel. Maintain a 5' buffer between the existing channel and the work.

g) Divert water flow to the newly created channel in a gradual manner to minimize sediment transport. Turn in half the flow the first day (50% of the streams total volume into the new channel and 50% to remain in the existing channel); divert the remaining stream flow the second day.

h) Construct the remaining sections of channel by either temporarily pumping or diverting water around the area of work through a pipe. Approximate channel sections within the existing channel are 20+30 - 21+50, 19+30 – 19+60, 11+55 – 11+85, 6+90 – 7+25, 0+00 – 0+30.

i) Construct the floodplain depressions as shown on the plans.

j) Apply the floodplain roughening and micro topography features to the stream floodplain.

k) Place topsoil on floodplain areas and seed per the vegetation plan as the last step in the construction sequence for channel and floodplain construction.

2) An alternate construction sequence may be submitted to the SRS and EPM for approval.

D. Method of Measurement and Basis of Payment. Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed in the individual component specifications.

31. TEMPORARY CHANNEL DIVERSION.

A. Description. This work includes the installation of a temporary stream diversion prior to excavation and channel construction. The diversion plan provided is intended as a guide for the upper segment of the project (Segment 1) between channel station 24+00 and 34+40.

B. Materials. Culvert pipe may be HDPE, PVC, CSP, or RCP. The pipe diameter should have a minimum diameter of 30 inches. Larger pipe sizes are acceptable.

1) Cofferdam materials are left to the discretion of the contractor but may include pit run, sandbags, bulk bags, barrier rail, or sheet piles.

2) Streambed Material. Provide material meeting specifications provided in the Streambed Material Special Provision.

C. Construction Requirements. Excavate a channel in the existing embankment as shown on the plans. Install streambed material as specified in Special Provision STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL to the elevations shown on the plans.

- 1) Install a temporary diversion culvert at the locations shown on the plans.
- 2) Backfill the temporary diversion culvert with the existing embankment material or other suitable material and compact to meet the requirements of Table 203-1.
- 3) Provide temporary outlet protection at the outlet of the temporary diversion pipe. Temporary outlet protection material and configuration is at the discretion of the contractor provided it is removable, prevents erosion, and doesn't damage existing vegetation.
- 4) Construct a temporary coffer dam upstream of the existing culvert inlet to facilitate its removal and to divert the stream flow to the temporary culvert. The coffer dam should be water tight and sturdy enough to isolate the construction area from water for the duration of the culvert removal, and Segment 1 construction.
- 5) Once segment channel construction is complete, divert the water flow to the newly created channel in a gradual manner to minimize sediment transport. Allow one half the flow to enter the channel on the first day (50% of the streams total volume into the new channel and 50% to remain in the diversion pipe); divert the remaining stream flow into the new channel on the second day.
- 6) The upper drop pool structure may be constructed after the temporary diversion is removed in the active channel.
- 7) The temporary diversion channel and pipe should be removed after Segment 1 channel is constructed and approved by the SRS and PM. Streambed material may be salvaged for use prior to reclamation. The embankment should be backfilled and compacted (per Table 203-1) to the line and grade shown on the plans.

D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Temporary Channel Diversion	LS

- 1) The temporary channel diversion included in the plans provides an option for temporary water diversion for the upper segment of channel construction. The contractor is responsible for providing a comprehensive water diversion plan / schedule for temporary water diversion for the entire project.
- 2) Prior to the start of construction, the contractor must submit a diversion plan that defines the method for diversion to the PM for approval. The diversion should be designed for a flow rate range of 2 to 10 cfs.

32. TOPSOIL SALVAGING & PLACING

A. Description. This work consists of salvaging, stockpiling and placing topsoil in all areas within construction limits except the existing channel/pond in conformance with the lines, grades and depths shown in the Contract Documents or as ordered by the SRS or PM. Excess excavation is to be stockpiled at the designated locations on the Richardson Family Mitigation site (See Grading Plans).

B. Materials. Topsoil salvaged from the upland channel change areas of the project may differ in composition from topsoil that is salvaged from most of the wetland cell or stream channel excavation.

- 1) Apply topsoil in upland channel change areas with topsoil salvaged from the same upland area.

C. Construction Requirements. Salvage topsoil to a minimum depth of 6 inches within the areas identified for clearing and grubbing limits or salvage as ordered by the SRS or PM. Place salvaged topsoil to the lines and depths as indicated in the plans and details.

- 1) Limit access to stream and floodplain restoration sites to reduce compaction of soils. Restrict equipment movement, including light trucks, traversing the site to avoid planting

areas. Unless directly required for installation of material at that location, all equipment is restricted to the locations necessary for construction. Minimize the number of access routes to accomplish the work to prevent compaction of site soils.

2) Before applying topsoil to any area that received heavy traffic during construction (i.e. compacted surface), prepare the location by ripping and loosening the compacted surfaces to a depth of 1.5 feet.

D. Measurement and Payment. Topsoil salvaging and placing is measured and paid as Topsoil-Salvaging and Placement as described in Subsections 203.04.5 and 203.05. Payment at the contract unit price is full compensation for all resources necessary to complete the work.

33. WETLAND SOD SALVAGING AND PLACING

A. Description. This work consists of salvaging, storing wetland sod from the existing riparian areas and transplanting within the proposed project.

1) Materials.

a) Wetland Sod – Viable sod with a minimum thickness of 8 inches will be identified by the SRS for use in the project area. Sod will originate from a similar hydrologic and climatic regime as the zone being sodded to ensure plant species suitability and viability.

B. Construction Requirements. Prior to construction, the SRS and/or Aquatic Mitigation Specialist will identify and mark suitable wetland sod to be salvaged for use on the project. Materials suitable for use in sodding, sod mats and transplanting, or other plantings will be used for such purposes in the construction of the project to the fullest extent practical prior to the import of materials from off site.

1) Where possible, the wetland sod will be stripped, transported, and placed immediately in one operation to the fullest extent practical. Any materials requiring salvage and stockpiling for sodding at a later date will be kept viable by cooling, moistening, or other measures as needed.

2) Sod mats will be placed as directed by the SRS. Set the sod firmly in place to ensure complete contact with the base material. Place sod over the entire surface with minimal voids or loose and protruding edges that would likely be dislodged by flowing water. Place loose topsoil between sod mats to eliminate voids and thoroughly wet the sod immediately after placement and the filling of the voids. Fill any voids found after wetting with additional topsoil.

C. Measurement and Payment. Wetland Soil-Salvage and Place measurement and payment for completed and accepted quantities will be on a cubic yard sum basis installed. Measurement will be made for area of installed wetland sod and a depth of 8" will be assumed for volume measurement. All materials, labor, equipment and incidentals are included in the cubic yard bid price.

34. SOIL AMENDMENTS

A. Description of Work. This work includes the amendment of soils within the wetland impoundments with bentonite clay to reduce the hydraulic conductivity of the wetlands.

B. Materials. Topsoil –Topsoil specified in Special Provision TOPSOIL SALVAGING & PLACING.

1) Bentonite will be free flowing, high swelling, granular sodium bentonite. The bentonite will have a free swell of at least 18 cc / 2 gm as measured by ASTM Standard Test Method D 5890 and meet the following gradation:

Sieve Size	% Retained
8	0.6
10	3.1
16	22.5
20	13.7

Sieve Size	% Retained
60	2.8
100	8.1
200	4.6

C. Construction Requirements. Strip topsoil in accordance with plans and Special Provision TOPSOIL SALVAGING & PLACING.

1) Apply bentonite to soil free of vegetation, trash, roots, frozen material, stones over four inches in diameter, or other objectionable material. Slopes to be treated shall be flattened to 3:1 or flatter. Fill holes with onsite compacted material. Grade surfaces to remove irregularities and thoroughly till soil, if necessary, to reduce the soil to its native particle size.

2) Spread bentonite uniformly at the specified application rate measured in pounds of bentonite per square foot of surface area per lift thickness. The amount of bentonite per lift and the number of lifts is shown on the drawings.

3) Uniformly spread the bentonite on the surface using a truck drawn spreader box, agriculture lime spreader, mechanized conveyor-fed material spreader box or other type of drop spreader approved by the PM. Broadcast spreaders are not acceptable. Pre-measured tarpaulins or cloths placed in different locations will be weighed after spreading material to verify that the specified application rate is met.

4) The bentonite may also be applied at the specified rate by distributing 100-pound bags of material in a marked grid pattern. Open each bag and spread the material evenly within each grid square using hand rakes.

5) Thoroughly mix the bentonite with a rototiller, soil stabilizer or other similar mixing equipment approved by the PM. Small or medium sized tractor drawn rototillers are acceptable but self-propelled industrial rototillers are preferred. The rototiller will be capable of digging to a depth at least equal to one compacted lift thickness. Use a minimum of two passes of the mixer. For the first pass set the mixing depth to approximately $\frac{1}{2}$ of the full lift depth, then reset the mixer to full depth for the second pass. Adjust the speed of the mixer to ensure complete and uniform mixing of the materials. Bentonite may be incorporated with stockpiled material and then placed in the desired area or incorporated with material in place, such as the sides and bottom of the pit.

6) To yield sufficient water content, bentonite will be applied and mixed with a relatively dry soil, then watered, re-mixed and compacted. In certain instances, it may be necessary to wet the soil previous to applying the bentonite to prevent the bentonite from "balling up". Conversely, it may be necessary to dry the soil to achieve the recommended moisture content. Practice runs are recommended with unfamiliar material to find the most desirable application mixing/(de)watering and re-mixing process.

7) A plant or pugmill type mixer may be used to produce the required soil-bentonite mixture as specified. Pass heavy silts or clay type materials through a soil pulverizer or hammermill to precondition the soil prior to introduction into the mixing chamber. The mixed soil bentonite material produced by a plant mixing system will be directly transported to the job site and placed immediately to minimize moisture loss.

8) Thickness of the finished, mixed, and compacted blanket will be six inches except as specified on the drawings. The blanket will be constructed in one lift.

9) Except as otherwise specified on the drawings, the methods of compaction is intended to achieve 90 percent of maximum density as determined by Standard Proctor Test, ASTM D698.

10) The bentonite treated soil lift will have a water content sufficient to secure compaction. The amount of water added should be sufficient to bring the mixture moisture to a level 2-3% wet of optimum. Extra water may be added initially to allow for evaporative loss during the mixing process.

11) Compact each lift by traversing the entire surface with not less than two passes of a pneumatic-tired roller exerting a pressure of not less than 50 pounds per square inch. Partially penetrating pad foot compactors, such as those found on landfill compactors, may be used on cohesive material or other suitable equipment approved by the PM may also be used.

12) Compaction with a sheepsfoot roller or a track type tractor will not be allowed.

13) Place a (minimum) 6-inch thick protective cover layer of topsoil over the bentonite-treated blanket to protect the blanket from drying cracks, except as otherwise specified on the drawings or by the SRS.

14) Dust masks and goggles are recommended to be worn by all personnel on the site during bentonite application and while mixing for protection against bentonite dust.

15) The contractor will provide adequate documentation to MDT to certify moisture and compaction requirements have been met. Furnish Optimum Moisture, Maximum Density and associated test data as described by ASTM D698, D1556, D2167, or equivalent. At least 1 test per acre is required.

D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each listed pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Miscellaneous Items	Acre
Topsoil Salvaging and Placing	Cubic Yard

35. ROCK WEIR / STEP POOL CONSTRUCTION

A. Description of Work. This work includes the removal of the existing 6-foot culvert and embankment regrading required to install the proposed drop pool structures from Station 33+89 to 34+40.

B. Materials. Bio-degradable Erosion Control Fabric – Use Erosion Control Fabric specified in Special Provision COIR WRAPPED LIFTS.

1) Weir Rocks. Provide rock that is hard, durable, resistant to weathering and water action, free from structural defects, and has a natural, unbroken and unscarred appearance. Provide rock that meets the dimensions on the plans ranging from approximately 2.0 to 3.0 feet in diameter. Rock meeting these requirements may be available on site at the culvert outlet and is acceptable for use.

2) Streambed Material. Provide material meeting specifications provided for Streambed Material in Special Provision STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL.

3) Filter Material. Provide suitable well graded material meeting the gradation for Filter Material No 2. Per Table 701-20 with a maximum liquid limit of 30 based on AASHTO T89 method A. Filter material will meet all other requirements of STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL with the exception of gradation requirements. Gravel excavated from the existing channel may be salvaged and used or combined with imported material if it meets the specifications of this section. Approval of material by SRS is required.

C. Construction Requirements.

1) Sequence

a) Construct during the low flow periods in summer, fall and winter.

b) Construct the temporary diversion as specified in Special Provision

TEMPORARY CHANNEL DIVERSION.

c) Excavate and contour the existing embankment (Access Road) to the line and grades shown on the plans. Asphalt debris and other foreign material should be removed and hauled to an appropriate offsite disposal location.

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- d) Remove and dispose of the existing culvert and concrete rubble at the outlet. Salvage any rock that meets the requirements for footer and weir rocks.
- e) Place rock for drop pool structures in accordance with elevations and dimensions shown on plans and details at the direction of the SRS.
- f) Place the bottom course of weir rock for drop structure to the depth shown on the plans to establish the drop structure foundation and to key the structure together.
- g) Place above-grade weir rocks in an interlocking manner atop the bottom course of rock until final grade shown in plans and profiles is met. Match the weir elevations and widths as closely as possible to those shown on the plans to ensure successful fish passage.
- h) Place streambed material as shown in plans. Wash in filter material as specified in Special Provision STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL, to ensure piping through the rock weirs does not occur. Care should be taken to ensure the rock weirs are free of voids.
- i) Place erosion control fabric on each side of the drop pool structure one roll width wide (8 feet). Anchor the fabric as closely as possible to the drop pool structure rocks. Fill any gaps between the fabric and drop pool structure rocks with stream bed material.
- j) Do not divert the stream flow into to the drop pool structures without the approval of the SRS and EPM.
- k) Divert the stream to the drop pool structure per the requirements defined in the Temporary Channel Diversion special provision.
- 2) An alternate construction sequence may be submitted to the SRS and EPM for approval.
- D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each listed pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Remove Pipe Culvert	Linear Feet
Excavation – Unclassified	Cubic Yard
Streambed Material	Cubic Yard
Erosion Control Blanket – High Performance	Square Yard
Rock Step Pool	Each

36. COIR WRAPPED LIFTS

- A. Description of Work. This work includes the installation of soil wraps for bank protection utilizing coir fabric, stakes, topsoil and gravel.
- B. Materials. Coir Erosion Control Netting. Use a Biodegradable Erosion Control Blanket that is a machine produced mat of 100% biodegradable spun coir fabric for longevity of up to 48 months. (Note: functional longevity may vary depending upon climactic conditions - soil, geographical location, and elevation.) Coir Erosion Control Netting will conform to the properties in the table below.

Coir Erosion Control Netting - Minimum Average Roll Values			
Property	Test Method	Value	Units
Thickness	ASTM D6525	.4	In.
Water Absorbency	ASTM D1117	184	%
Mass/Unit Area	ASTM 6475	18.96	Oz/sy
Light Penetration	ASTM 6567	36	%

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Coir Erosion Control Netting - Minimum Average Roll Values			
Tensile Strength – Dry	ASTM D 4595-86	112	Lbs/ft
Elongation MD – Dry	ASTM D6818	51	%
Permissible Unvegetated Shear Stress		4.46	Psf
Permissible Unvegetated Velocity		10	Ft/s
Roll Size		9.83 X 165	ft

C. **Bio-Degradable Erosion Control Fabric.** The erosion control fabric will be of consistent thickness with the coir evenly distributed over the entire area of the mat. The fabric will be covered on the top and bottom sides with 100% biodegradable woven natural organic fiber netting. The fabric will consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as Leno weave) to form an approximate 0.50 x 1.0 in (1.27 x 2.54 cm) mesh. The blanket will be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket will be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge).

Erosion Control Fabric - Material Content			
Component	Material	Value	Units
Matrix	100% Coconut Fiber	.5	Lbs/sq yd
Netting	Leno Woven 100% biodegradable jute	9.3	Lbs/1000 sq.ft
Thread	Biodegradable		

Property	Test Method	Value	Units
Thickness	ASTM D6525	.23	In.
Resiliency	ECTC Guideline	85	%
Water Absorbency	ASTM D1117	365	%
Mass/Unit Area	ASTM 6475	9.79	Oz/sy
Swell	ECTC Guidelines	40	%
Smolder Resistance	ECTC Guidelines	Yes	
Stiffness	ASTM D1388	.11	Oz-in
Light Penetration	ASTM 36567	16.2	%
Tensile Strength – MD	ASTM D6818	206.4	Lbs/ft
Elongation MD	ASTM D6818	15.3	%
Tensile Strength – TD	ASTM D6818	145.2	Lbs/ft
Elongation TD	ASTM D6818	12.9	%
Biomass Improvement	ASTM 7322	473	%
Permissible Unvegetated Shear Stress		2.35	Psf
Permissible Unvegetated Velocity		10.0	Ft/s
Roll Size		8 x 112	ft

D. **Stakes.** For Coir Netting, use wooden stakes with dimensions of 2.0 inch x 2.0 inch, a minimum of 18 inches long.

E. Streambed and Toe Material. Provide material meeting specifications provided for Streambed Material and Toe Material in Special Provision STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL

F. Filter Material. Provide suitable well graded material meeting the gradation for Filter Material No 2. Per Table 701-20 with a maximum liquid limit of 30 based on AASHTO T89 method A. Filter material will meet all other requirements of STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL with the exception of gradation requirements. Gravel excavated from the existing channel may be salvaged and used or combined with imported material if it meets the specifications of this section. Approval of material by SRS is required.

G. Topsoil. Use salvaged topsoil or salvaged vegetated sod mats from onsite. The SRS will inspect all topsoil / sod used for placement in coir lifts prior to placement.

H. Construction Requirements. Place streambed material (riffles) or toe material (pools) as shown in plans. Wash in filter material as specified in STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL to ensure a firm base is prepared for laying the coir. Care should be taken to ensure the base is free of voids.

I. Construct the coir wrapped lifts over the prepared streambed or toe material to the dimensions shown on the plans. The streambed material in the lower portion of the wrap should meet the specifications for either Stream Bed Material (in riffles) or toe material where specified on the plans. Use topsoil in the top layer of the wrap as shown on the plans.

J. Broadcast seed on the surface of the topsoil and on the face of the soil lift prior to final placement of coir netting as shown on the plans. Ensure that the fabric has full contact with the top soil beneath (i.e. no voids). See the vegetation plan for seeding specifications.

K. Stake the coir netting in place using manufacturer's recommendations for stream bank application or alternative method as approved by the SRS and EPM. Maximum spacing of stakes on netting seams and edges is 3 feet. Install stakes throughout interior spaces of netting segments. Maximum spacing of stakes throughout the netting segments is on 3-foot centers.

L. Drive stakes through the coir fabric into the ground so the top of the stake is within 1 inch of the netting surface or until refusal. Cut stakes that extend more than 1 inch above the coir netting to meet this specification.

M. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Bioengineered Bank	LS

37. BRUSH LAYERING

A. Description of Work. This work consists of installing willow cuttings along constructed banks to provide fish and wildlife habitat and bank protection.

B. Materials. Source stem cuttings locally (10-mile radius of project) from native willow species. The SRS will approve source of cuttings. Cuttings must be between ½" and ¾" diameter at the butt end. Prune all cuttings and branches prior to placement. Cuttings must be long enough to extend a minimum of 2' past the face and to the bank-full elevation and 6" below the low water elevation.

C. Construction Requirements

1) Install brush layering on locations shown in the plans. Prepare the bank as specified on the plans and in Special Provision STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL.

2) Place cuttings with base (larger end) in the bank to an elevation at least 6" below the low water elevation. Install the cuttings at a density of 4 cuttings / lineal foot. Ensure cuttings are laid flush with the bed.

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- 3) Spread filter material over cuttings to ensure a uniform bed for placement soil lifts.
- 4) Install soil wraps in accordance with Special Provision COIR WRAPPED LIFTS.
- D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed below.

Pay Item	Pay Unit
Willow Cuttings	LNFT*

*Measured along the streamside face of the bank in which the Coir Wrapped Lift is installed.

38. STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL

- A. Description of Work. This work includes the construction of hardened riffles and the placement of streambed material in the reconstructed portion of Six Mile Creek.
- B. Materials.
- C. Streambed Material. Provide material consisting of rounded to sub-rounded cobbles and stones that are substantially free of shale or products from crushing or blasting operations. Use naturally rounded and smooth streambed material, such as rock that originated from a former stream, river or glacial deposit. Rock will be hard and durable with less than 35 percent wear when tested for resistance to abrasion in conformance to ASTM C535. Bulk density will not be less than 165 pounds per dry cubic foot. The least dimension of any one piece will not be less than 1/3 the greatest dimension. Shot quarry rock, crushed Rock, broken concrete or recycled construction products will not be allowed. Each load of Rock will be reasonably well graded from the smallest to the maximum size specified. The Rock Type specified herein will achieve the desired gradation. However, the EPM will coordinate with the CONTRACTOR to review Rock sources and mixtures and adjust gradations to achieve a desired overall gradation. As such, the Rock Type gradations provided herein should not be considered overly strict, conservative or limiting. The contractor is encouraged to suggest variations to the gradations of this Rock Type to achieve a suitable overall rock gradation. Material will meet the gradation requirements specified in the table below:

Sieve Size	Percent Passing by Weight
9"	100
5"	80 to 90
3"	40 to 60
2.5"	20 to 30
1.6"	10 to 20
.75"	0 to 10

- 1) Hardened Riffle and Toe Material. Material will meet the specifications of Streambed material except it will meet the following gradation requirements.

Sieve Size	Percent Passing by Weight
22"	100
12"	80 to 90
8"	40 to 60
6"	20 to 30
4"	10 to 20
2"	0 to 10

2) **Filter Material.** Provide suitable well graded material meeting the gradation for Filter Material No 2. Per Table 701-20 with a maximum liquid limit of 30 based on AASHTO T89 method A. Filter material will meet all other requirements of STREAMBED MATERIAL, HARDENED RIFFLES AND TOE MATERIAL with the exception of gradation requirements. Gravel excavated from the existing channel may be salvaged and used or combined with imported material if it meets the specifications of this section. Approval of material by SRS is required.

D. **Construction Requirements.** Treat channel bed by removing organics and creating prismatic working surface. Place material in at least two lifts that are 6 to 12 inches thick. Apply a compaction to each lift using pressure from an excavator bucket or track equipment. Wash filter material into each riffle material lift until water no longer seeps into the bed.

1) Continue placing, compacting, washing riffle material to the centerline elevations and typical section for riffles shown on the plans.

E. **Measurement and Payment.** Payment for completed and accepted quantities will be made at the unit bid price for each listed pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Miscellaneous Items - CUYD	Cubic Yard
Streambed Material	Cubic Yard
Filter Material	Cubic Yard

39. WOODY HABITAT STRUCTURES

A. **Description of Work.** This work includes the construction of in stream log structures to provide aquatic habitat in pools.

B. **Materials.**

1) **Logs.** Use either Douglas fir or Lodge pole pine logs. Both logs with rootwads (Log and Rootwad) and without rootwads (Footer Log) attached are required. Use logs with minimum trunk and root fan dimensions as shown on the plans. Exposed log ends should have a natural appearance without flat chain-sawed butts. Trees meeting the requirements are available at the northwest end of the site and can be utilized upon approval of the SRS. Those that have started to decompose are not acceptable.

C. **Construction Requirements.** Excavate the bank to the elevations and extents shown on the plans. The specific location, angle, and length of projection of the logs into the active channel will be as specified in the plans and at the direction of the SRS.

1) Install brush layering and coir wrapped lifts about woody habitat structures in accordance with Special Provisions COIR WRAPPED LIFTS and BRUSH LAYERING respectively.

D. Place salvaged shrubs on top of the root wads with roots to be buried in the stream bank and branches extending over stream channel. Backfill with toe material as specified on plans and wash in excavated soils to fill voids. Compact the shrubs and the buried portion of the trunk by tamping with excavator bucket.

1) Plant shrubs and seed in accordance with Special Provisions TREE AND SHRUB PLANTING and REVEGETATION.

E. **Measurement and Payment.** Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Log and Rootwad Log	Each

Footer Log	Each
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40. FLOODPLAIN ROUGHENING

A. Description of Work. This section specifies preparatory work and operations necessary to create floodplain roughness. Floodplain roughness consists of excavating ridges and furrows (micro-topography) in constructed floodplain surfaces and placing woody debris within these micro-topography features. This treatment creates areas within the floodplain to trap seed and organic matter for new plant growth and helps to slow flood waters as it flows over the floodplain, thereby allowing water to infiltrate into the soil, increasing temporary water storage, attenuating floods, and improving water quality.

B. Materials. Provide large logs (Log and Rootwad) and small logs (Bank Habitat Log) to the dimensions shown on the plans. Roughen and break saw-cut ends of the logs that will be exposed above the finished grade to create a natural experience.

C. Construction Requirements. Ridges and furrows; Floodplain micro-topography will extend over the entire floodplain surface in each treatment area as shown on the plans. Approximately 20 percent of the total surface area will consist of furrows and approximately 20 percent will consist of ridges. Ridges are elevated areas that are 6 inches above the surface grade and approximately 3 feet long and 3 feet wide. Furrows are low areas that are about 6 inches below the surface grade and also approximately 3 feet long and 3 feet wide.

1) Log and brush placement; partially bury the large and small logs randomly in the floodplain treatment. Bury the logs to a depth below the finished grade as shown on the plans or as directed by the SRS.

D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each listed pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price. Payment for developing the ridges and furrows is included in the cost of the grading.

Pay Item	Pay Unit
Log and Rootwad	Miscellaneous Items - Each
Bank Habitat Log	Each

41. HEADGATE AND HEADWALL

A. Description of Work. This work includes the installation of a diversion structure to divert water to the constructed mitigation wetlands.

B. Materials.

1) Concrete. Furnish General Class concrete as specified in Section 551.

2) Bedding Material – Furnish No. 2 Bedding Material as specified in Table 701-20.

3) Headgate. The mounting type will be “flat back” wall mounted. The gate will provide a minimum seating head of 23 feet. The gate will be self-contained, with yoke and bench stand operators, in accordance with the requirements of these specifications. The specific gate design and configuration is shown in the plans.

4) Construction is of grey iron with an all-bolted steel frame with 1/4" minimum thickness. The stem will be cold rolled steel. The stem is operated at the structural frame top by a heavy cast-bronze lift nut and a cast iron wheel.

5) Assure a dependable seating closure with a practical degree of water tightness by using adjustable cast iron wedge blocks, held securely in place by two machine bolts. The cast iron seats will be machined or ground. A solid rim handwheel is required. Use galvanized steel per ASTM A-123 for the rail material.

6) Riprap: Class III Riprap in per Section 701.06 and Table 701-21.

C. Construction Requirements

1) Excavate to the elevations shown in the plans and in accordance with 603.03.2.

2) Install bedding as shown on plan details and in accordance with 603.03.4.

- 3) Construction Requirements. Construct Headwall in accordance with the plans and Section 615 of the Standard Specifications.
- 4) Install pipe end flush with downstream face of cutout hole in headwall as specified on plans. Seal pipe in place with non-shrink grout as specified on plans.
- 5) Mount headgate to headwall in accordance with manufacturer instructions.
- 6) Install bedding material for riprap in accordance with the plans.
- 7) Place riprap on bank slopes in accordance with plans and Section 613.03.1.
- 8) Install coir wrapped lift in accordance with Special Provision COIR WRAPPED

LIFTS.

- 9) Backfill and compact material to grades indicated on plans.
- D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Irrigation Headwall	LS

42. TRASH GUARD

- A. Trash Guard: Construct the trash guard to envelope the opening of the headgate with openings in the guard no greater or less than 6". Construct the guard of 3/8" stainless or galvanized steel rod. The guard will clear the headgate to allow unimpeded operation of the headgate and will protrude from the headwall no more than 6" from the face of the installed headgate. The guard will be bolted to the headwall with stainless steel or galvanized 3/8" expansion anchors. Mount trash guard to headwall.
- B. Method of Measurement and Basis of Payment.
- C. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Trash Guard	EA

43. 12" DUAL WALL HDPE DIVERSION PIPE

- A. Description of Work. This work includes the installation of a pipe system including (2) 30° bends to convey water to the constructed mitigation wetlands.
- B. Materials. Furnish 12" corrugated high density polyethylene dual wall pipe meeting AASHTO M294, Type S or ASTM F2306. Furnish (2) 12" plain end corrugated HDPE dual wall corrugated pipe 30 degree elbows, Type N-12 or ASTM F-2306.
 - 1) Join pipe with joints meeting the requirements of AASHTO M252, AASHTO M294, or ASTM F2306. Pipe will be watertight according to the requirements of ASTM D3212. Gaskets will meet the requirements of ASTM F477. Gaskets will be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket is free from debris. A joint lubricant available from the manufacturer will be used on the gasket and bell during assembly.
 - 2) Pipe will have a reinforced bell with a polymer composite band. The bell tolerance device will be installed by the manufacturer.
 - 3) Fittings will conform to AASHTO M252, AASHTO M294, or ASTM F2306. Bell and spigot connections will utilize a spun-on or welded bell and valley or saddle gasket meeting the watertight joint performance requirements of AASHTO M252, AASHTO M294 or ASTM F2306.
 - 4) Furnish No. 2 Bedding Material as specified in Table 701-4.

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5) Rodent guard will be stainless steel construction with minimum bar diameters of 5/16" and a maximum bar spacing of 1.5". Mount the rodent guard securely to the outlet of the pipe with a hinged design to allow access to the pipe.

C. Construction Requirements. Install pipe in accordance with the plans and Section 603.

1) Install rodent guard recessed in the pipe outlet no more than 2' with 5/16"x 1 1/2" stainless steel hardware.

D. Method of Measurement and Basis of Payment. Payment for completed and accepted quantities will be made at the unit bid price for each listed pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Drainage Pipe 12"	LNFT

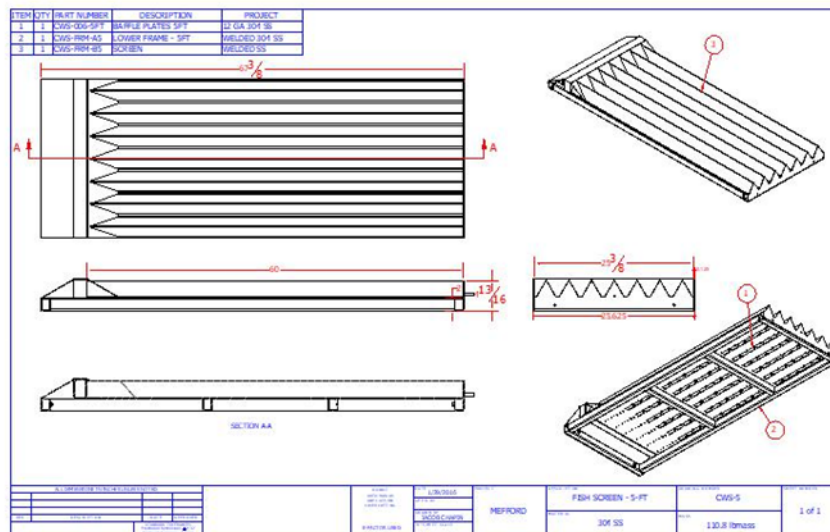
44. FISH SCREEN AND HOUSING

A. Description of Work. This work includes the installation of a fish screen and housing.

B. Materials.

1) Corrugated Water Screen – The Corrugated Water Screen will be provided by Wild Fish Engineering & Corrugated Water Screens LLC, located at 1900 Hoyt St. Lakewood, CO 80215.

2) A screen will be provided as shown below. The screen, baffles and frame will be constructed of 304 stainless steel. The screen fabric will be 16 ga SS perforated plate with 3/32" holes providing ~40 percent open area. The baffle plates beneath the screen will be adjustable to between 4 and 12 percent open area. The screen will be designed to provide an approach velocity to the screen surface for fish of between 0.1 and 0.2 ft/s.



3) Fish Screen Frame and Housing– Carbon steel will be furnished and fabricated in accordance with the plans and Sections 556 and 711.

4) Pipe stubs will be Schedule 40 welded pipe in accordance with ASTM A53.

5) All welding of components of the fish screen and housing will be in accordance with Section 624.

6) The fish screen frame and housing will be powder coated black. Surface preparation for finishes and finishing material specifications shall be in accordance with Section 612.

7) Headgate. The mounting type shall be "flat back" wall mounted. The gate will provide a minimum seating head of 23 feet. The gate will be self-contained, with yoke and bench stand operators, in accordance with the requirements of these specifications. Specific gate design and configuration shall be as shown on plans.

8) Construction is of grey iron with an all-bolted steel frame with 1/4" minimum thickness. The stem will be cold rolled steel. The stem is operated at the structural frame top by a heavy cast-bronze lift nut and a cast iron wheel.

9) Adjustable cast iron wedge blocks, held securely in place by two machine bolts, will assure a dependable seating closure with a practical degree of water tightness. The cast iron seats will be machined or ground. A solid rim handwheel is required. Rail material will be galvanized steel per ASTM A-123.

10) Mounting bolts will be stainless steel or galvanized steel.

11) Bypass Pipe - Furnish 10" corrugated high density polyethylene dual wall pipe meeting AASHTO M294, Type S or ASTM F2306.

12) Join pipe with joints meeting the requirements of AASHTO M252, AASHTO M294, or ASTM F2306. Pipe will be watertight according to the requirements of ASTM D3212. Gaskets will meet the requirements of ASTM F477. Gaskets will be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket is free from debris. A joint lubricant available from the manufacturer will be used on the gasket and bell during assembly.

13) Pipe will have a reinforced bell with a polymer composite band. The bell tolerance device will be installed by the manufacturer.

14) Fittings will conform to AASHTO M252, AASHTO M294, or ASTM F2306. Bell and spigot connections will utilize a spun-on or welded bell and valley or saddle gasket meeting the watertight joint performance requirements of AASHTO M252, AASHTO M294 or ASTM F2306.

15) Bedding Material – Furnish No. 2 Bedding Material as specified in Table 701-4.

16) Pipe Coupler – Pipe coupler will be PVC Bell x Schedule 40 Bell. PVC fittings are manufactured from PVC pipe stock conforming to material properties as outlined in ASTM D1784 cell class 12454.

17) The coupler will meet ASTM F1336 Standard Specification for PVC Gasketed Sewer Fittings, ASTM D3034 Type PSM PVC Sewer Pipe and Fitting.

18) The Elastomeric Gasket push on joints for all of the pipe coupler will meet ASTM D3212 Standard Specification for Joints for Drain and Sewer Plastic

19) Pipes Using Flexible Elastomeric Seals. The flexible elastomeric provided seals will conform to ASTM F477.

C. Construction Requirements. Excavate to the elevations shown on plans and in accordance with 603.03.2.

1) Install bedding as shown on plan details.

2) Fasten headgate to fish screen housing in accordance with plans and in accordance with manufacturer instructions. Headgate may be fastened to housing using all thread studs welded to the housing or bolts fastened to the wall.

3) Install fish screen housing ensuring the housing is level and plum and key elevations are set in accordance with the plans.

4) Connect diversion pipes and bypass pipe with pipe coupler.

5) Install fish screen frame and fish screen into fish screen housing.

6) Prior to backfilling the structure, the EPM will inspect the installation of the fish screen. Backfill as shown on plan details and in accordance with 603.03.4.

7) Install bedding and bypass pipe to outlet into channel. The bypass channel should be installed simultaneously with CHANNEL CONSTRUCTION and COIR WRAPPED LIFTS to prevent the need to cut the coir fabric.

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D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Miscellaneous Items - LS	Lump Sum
Pipe - Corr Polyethylene 10 In.	Linear Feet

45. FLUME

A. Description of Work. This work includes the installation of a flume structure to measure flows from the diversion pipe.

B. Materials. The flume shall meet the dimensions shown on the plans. The flume shall be a cutthroat style flume, one-piece construction and made of fiberglass reinforced plastic.

1) A laminated, high-visibility staff gauge with 1/10-foot increments shall be installed as shown on the plans.

2) Furnish General Class concrete as specified in Section 551.

3) Wire mesh in shall be 6" by 6" / #6 x #6-gauge welded wire and shall be provided in accordance with the plans and Section 711.01.3.

4) Furnish No. 2 Bedding Material as specified in Table 701-4.

5) Furnish stabilizing rock consisting of rounded to sub-rounded cobbles and stones that are substantially free of shale or products from crushing or blasting operations. Rock gradation shall be 4"-6" diameter.

C. Construction Requirements. Excavate to the elevations shown on plans and in accordance with 603.03.2.

1) Install bedding as shown on plan details and in accordance with 603.03.4.

2) Construct forms and install flume to set the flume at the location and elevations shown on plans and in accordance with the cutthroat flume installation instructions.

3) Install stabilizing rock on downstream and upstream sides of structure to tie into existing grade.

D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each listed pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Irrigation Structure	Lump Sum

46. FILL SITES AND WETLAND IMPOUNDMENT

A. Description of Work. This work includes the disposal of excavated soils from the channel/floodplain excavation and the construction of wetland impoundments.

B. Materials. Topsoil – Topsoil specified in Special Provision TOPSOIL SALVAGING & PLACING.

1) Use soils excavated from the channel/floodplain construction as fill material.

C. Construction Requirements. Strip topsoil in accordance with plans and Special Provision TOPSOIL SALVAGING & PLACING.

1) Import, place and compact fill from on-site excavation to a minimum 95% of maximum density in accordance with the plans and Section 203.03.2.D and compact soils in accordance with Section 203.03.3.

2) Grading of areas in proposed wetlands may vary slightly from plan to incorporate variability in the proposed wetland. Grading of wetlands will be directed by the SRS.

D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each listed pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Topsoil – Salvaging and Placing	Cubic Yard
Excavation – Unclassified	Cubic Yard

47. EXCLOSURE FENCING

A. Description of Work. This work consists of constructing 8-foot-tall wildlife enclosure fencing around selected tree/shrub planting zones.

B. Materials.

1) Wooden posts (Corner posts) of the following material and dimensions.

a) Length – 12 foot

b) Material – 5" Dia. Treated wood posts

2) Metal posts (Line posts) of the following material and dimensions.

a) Length – 10 foot

b) Material – steel

c) Type – with stability spade and studded on one side.

d) Weight – minimum 12 lbs per post

3) Fence Fabric of the following material and dimensions.

a) Material – 12.5 gauge woven wire steel fence. Minimum breaking load of 1,400

lbs.

b) Height – minimum 8 feet tall.

c) Fence fabric size opening – Min 4 inches, Max 6 inches

d) Stays/fasteners – steel wire, or equivalent strength metal clip/fastener in

sufficient quantity to securely fasten the netting to the posts

C. Construction Requirements. The PM will mark the perimeter of each enclosure area. Avoid uneven ground topography.

1) Install corner posts in all corners and vertices where the angle of fence varies greater than 10 degrees. Insert posts 4 feet deep into undisturbed ground with appropriate fence post driver.

2) Install line posts on 10-foot centers. Wider spacing may be allowed in certain areas with approval of the PM. Insert posts 2 feet deep into undisturbed ground with appropriate fence post driver.

3) Install single panel wildlife fence in accordance with Standard Drawing No. 607-50 at midpoint of all line posts where corner post spacing is greater than 200 feet.

4) Attach fence fabric to the posts with metal fasteners. Use a minimum of 5 evenly spaced fasteners per post. Stretch the netting during the course of installation to prevent sagging and buckling. Create two reclosable openings (See Detail) per enclosure to allow access. Coordinate the location of the opening with the PM.

5) Following installation of posts and fence fabric, the PM and contractor will jointly walk the fence perimeter for final inspection. The contractor must close openings greater than 6 inches between the ground and mesh to prevent access by wildlife. A physical barrier such as a log or soil must be placed to close the opening.

D. Measurement and Payment. Measurement will be made by the lineal feet of finished fencing and includes all costs for line posts, fence fabric, gates, panels, and corner posts. Payment for the completed and accepted enclosure fencing is made under the item Fence - Special Design.

48. TREE AND SHRUB PLANTING

A. Description of Work. This work consists of furnishing, delivering and planting trees and shrubs of the type and quantity specified below. This work includes the preparation of planting sites and furnishing all materials and incidental items necessary to complete the planting. Unless otherwise specified, all tree and shrub plantings will occur within the Fenced Enclosures. All containerized Tree and Shrub Plantings must be done from April 1 to June 1 of the year following channel construction.

B. Materials. Furnish containerized plant material of the type and size specified below. Furnish plants nursery grown in Montana, Idaho, Oregon or Washington. 1-Gallon plants/trees must have grown for not less than 4 months and not more than 12 months in the container the plant is delivered in. Furnished plants must be root tight in the container, without being root bound.

1) The PM must inspect and approve the use of all containerized plants prior to planting. Delivered plants must be in a strong, healthy growing condition. Replace all weak, malformed, visibly stressed or damaged stock prior to planting at no cost to the MDT. Keep plants stored on site in a cool and moist condition.

SPECIES	CONTAINER SIZE / MINIMUM HEIGHT	QUANTITY
Shrubs:		
Thinleaf alder (<i>Alnus tenuifolia</i>)	1 gal/2 ft.	20
Thinleaf alder (<i>Alnus tenuifolia</i>)	5 gal/5 ft.	20

2) Furnish 120 linear feet of 3-foot-wide burlap rolls. Furnish burlap with a weight of 10 ounces per square yard and chemically treated with rot resistant solutions to retard decomposition.

3) Furnish 80 Wooden Stakes 1.5-inch X1.0-inch X 12 inches long for purposes of securing the burlap to the ground.

4) Furnish 160 metal staples, 1-inch wide x 6-inch-long for securing the burlap to the ground around each planting hole.

C. Construction Requirements. The enclosure fencing must be installed and functional prior to planting activities occurring within an individual planting zone. However, it is not necessary for each and every planting zone to be fenced prior to the contractor being allowed to begin the planting operation in a zone where fencing is finished.

1) Plant all trees and shrubs between April 1 and June 1 following channel construction. Plant all stock within 72 hours of delivery to the project site. Keep all stock watered and protected from browsing and other forms of damage prior to planting.

2) All Plantings will occur within the upstream-most enclosure shown on Plan sheet 23.

3) Within each enclosure, trees and shrubs are to be planted per the following instructions.

a) The SRS will mark locations of the shrub plantings.

b) Burlap is to be supplied in 3-foot-wide rolls. Roll the material out and secure all exposed edges and seams with contractor-furnished metal staples at a spacing of 1 staple per 3 feet. The contractor may propose and be given permission to secure the edges in an alternative fashion.

c) Install each plant by using a sharp implement [scissors are recommended] to create a "T" shaped opening in the center of the burlap strip, just large enough to excavate the planting hole and insert the root ball of the plant. Excavate the hole so that the final planting depth and diameter is slightly larger than the dimensions of the container the plant was grown and delivered.

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- d) After placement of each plant, thoroughly water the planting area to saturation.
- e) Rewater each plant with a minimum of 1 gallon per shrub and 5 gallons per tree 48 hours after planting, and then again 72 hours later [120 hours after planting].
- D. Measurement and Payment. Payment for completed and accepted quantities will be made at the unit bid price for each listed pay item listed below. All materials, labor, equipment and incidentals are included in the unit bid price.

Pay Item	Pay Unit
Tree & Shrub Planting	Lump Sum

49. REVEGETATION

A. Description. This work consists of re-seeding all ground disturbed during the course of the project. There are two different revegetation zones as defined below. The PM or SRS will designate which areas are classified as Wetland for final measurement prior to ordering seed for each of the zones.

- 1) Wetland. This revegetation zone represents the following habitat sites:
 - a) The seasonally wet floodplain area that encompasses the new stream channel.
 - b) The excavated areas associated with Wetland 1 and Wetland 2.
- 2) Upland. This revegetation zone represents all remaining disturbances that are generally drier and not likely to develop saturated soil conditions. Seed the upland seed blends (Grass and Legumes) in 2 separate operations, as described below.

3) Furnish Bio-degradable Erosion Control Fabric meeting the specifications of Bio-degradable Erosion Control Fabric in Special Provision COIR WRAPPED LIFTS. Use only 100% biodegradable products.

4) Furnish the following seed mixes for each revegetation zone from a source on the department's QPL. Individual substitute species are only allowed if the specified species is not available and the substitution is pre-approved by MDT's Reclamation Specialist.

B. Materials. Seed blend submittals must be approved prior to seeding by the PM in consultation with the Aquatic Mitigation Staff. Furnish the following seed blends for each revegetation zone.

Reclamation Seed Mixture-Wetland			Drill Seeding Rate		
Scientific Name	Common Name	Variety	PLS / sq. ft.	% of Mix	Pounds PLS/ acre
<i>Elymus canadensis</i>	Canada wildrye	Helena Valley or VNS	10	8	4.0
<i>Pascopyrum smithii</i>	Western wheatgrass	Rosana	4	3	2.0
<i>Deschampsia Cespitosa</i>	Tufted hairgrass	Nortran	28	24	0.5
<i>Glyceria grandis</i>	American mannagrass	VNS	13	11	0.5
<i>Poa palustris</i>	Fowl bluegrass	VNS	25	22	0.5
<i>Leymus cinereus</i>	Basin wildrye	Magnar or Trailhead II	10	8	3.0
<i>Asclepias speciosa</i>	Showy milkweed	VNS	2	2	1.0
<i>Carex aquatilis</i>	Water sedge	VNS	10	8	1.0
<i>Carex nebrascensis</i>	Nebraska sedge	VNS	12	10	1.0
<i>Camassia quamash</i>	Small Camas	VNS	5	4	2.0

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Reclamation Seed Mixture-Wetland			Drill Seeding Rate		
Scientific Name	Common Name	Variety	PLS / sq. ft.	% of Mix	Pounds PLS/ acre
GRAND TOTAL			119	100	15.5

Reclamation Seed Mixture-Upland			Drill Seeding Rate		
Scientific Name	Common Name	Variety	PLS / sq. ft.	% of Mix	Pounds PLS/ acre
Elymus trachycaulus	Slender wheatgrass	Pryor, First Strike or	6	8	2.0
Elymus lanceolatus	Streambank wheatgrass	Sodar	11	12	3.0
Pascopyrum smithii	Western wheatgrass	Rosana	11	13	5.0
Leymus cinereus	Basin wildrye	Magnar or Trailhead II	10	11	3.0
Nassella viridula	Green needlegrass	Lodorm or Fowler	13	15	3.0
Bromus marginatus	Mountain Brome	Garnet	11	13	5.0
Festuca idahoensis	Idaho fescue	Winchester	5	6	0.5
Poa secunda	Big bluegrass	Sherman	10	11	0.5
Peritoma serrulata	Rocky mountain beehplant	VNS	2	2	1.0
Helinthus maximiliani	Maximillian sunflower	VNS	2	3	0.4
Monarda fistulosa	Beebalm	VNS	3	3	0.1
Vicia americana	American vetch	VNS	2	3	3.0
GRAND TOTAL			86	102	26.5

C. Construction Requirements. Regrade all areas to final plan elevations and dimensions. The disturbed areas should blend into the surrounding ground without significant grade separation. Condition the topsoil by disking or harrowing following final grading to create an even seeding substrate.

- 1) For bidding purposes, assume all areas will be drill seeded at the specified rates.

D. Construction Requirements. Regrade all areas to final plan elevations and dimensions. The disturbed areas should blend into the surrounding ground without significant grade separation. Replace topsoil as directed by the PM.

- 1) Install final seeding between Oct 15th and May 15th.
- 2) Areas designated for reseeding that are not disturbed by construction should be prepared using conventional tillage methods within 10 days of final seeding.
- 3) Condition all drill seeded areas by disking or harrowing following final grading to create a firm, weed free seedbed.
- 4) Drill seed the mixes at the specified rates. Use a drill equipped with an agitator and multiple seed boxes or use other methods to ensure even distribution of seed.
- 5) If, following final grading, some areas are too wet to operate drill seeding equipment safely or effectively, broadcast seeding will be allowed at double the drilled seeding rate. Areas broadcast seeded must be scarified with a chain harrow or rake immediately following seeding in order to cover and incorporate the seed into the upper ¼ to ½ inch of soil.

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6) Install Erosion Control Fabric on spillways and swales of wetland berms as specified on plans. Fasten fabric with biodegradable pegs or wooden stakes in accordance with manufacturer guidelines.

E. Measurement and Payment. All measurements and payments to complete the specified tasks will be made under the following pay items.

Pay Item	Pay Unit
Wetland Seeding - Wetland	Acre (nearest tenth)
Wetland Seeding - Upland	Acre (nearest tenth)
Erosion Control Blanket – High Perform	Square Yards

END OF SECTION I

MDT NONDISCRIMINATION AND DISABILITY ACCOMMODATION NOTICE

Montana Department of Transportation (“MDT”) is committed to conducting all of its business in an environment free from discrimination, harassment, and retaliation. In accordance with State and Federal law MDT prohibits any and all discrimination and protections are all inclusive (hereafter “protected classes”) by its employees or anyone with whom MDT does business:

Federal protected classes

Race, color, religion, national origin, sex, age, disability, and genetic information.

State protected classes

Race; color; national origin; familial or marital status; pregnancy, childbirth, or medical conditions related to pregnancy or childbirth; creed; social origin or condition; genetic information; sex, sexual orientation, gender identification or expression; ancestry; age; mental or physical disability; political or religious affiliations or ideas; military service or veteran status; vaccination status or possession of immunity passport.

For the duration of this contract/agreement, the PARTY agrees as follows:

(1) Compliance with Regulations: The PARTY (hereinafter includes consultant) will comply with all Acts and Regulations of the United States and the State of Montana relative to Non-Discrimination in Federally and State-assisted programs of the U.S. Department of Transportation and the State of Montana, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

(2) Non-discrimination:

- a. The PARTY, with regard to the work performed by it during the contract, will not discriminate, directly or indirectly, on the grounds of any of the protected classes in the selection and retention of subcontractors, including procurements of materials and leases of equipment, employment, and all other activities being performed under this contract/agreement.
- b. PARTY will provide notice to its employees and the members of the public that it serves that will include the following:
 - i. Statement that PARTY does not discriminate on the grounds of any protected classes.
 - ii. Statement that PARTY will provide employees and members of the public that it serves with reasonable accommodations for any known disability, upon request, pursuant to the Americans with Disabilities Act as Amended (ADA).

- iii. Contact information for PARTY's representative tasked with handling non-discrimination complaints and providing reasonable accommodations under the ADA.
- iv. Information on how to request information in alternative accessible formats.
- c. In accordance with Mont. Code Ann. § 49-3-207, PARTY will include a provision, in all of its hiring/subcontracting notices, that all hiring/subcontracting will be on the basis of merit and qualifications and that PARTY does not discriminate on the grounds of any protected class.

(3) Participation by Disadvantaged Business Enterprises (DBEs):

- a. If the PARTY receives federal financial assistance as part of this contract/agreement, the PARTY must comply with applicable federal and state laws regarding the DBEs, including but not limited to 49 CFR Part 26.
- b. By signing this agreement the PARTY assures that:
The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.
- c. PARTY must include the above assurance in each contract/agreement the PARTY enters.

(4) Solicitation for Subcontracts, Including Procurement of Materials and Equipment:

In all solicitations, either by competitive bidding, or negotiation, made by the PARTY for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the PARTY of the PARTY's obligation under this contract/agreement and all Acts and Regulations of the United States and the State of Montana related to Non-Discrimination.

(5) Information and Reports: The PARTY will provide all information and reports required by the Acts, Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information and its facilities as may be determined by MDT or relevant US DOT Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the PARTY will so certify to MDT or relevant US DOT Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

(6) Sanctions for Noncompliance: In the event of a PARTY's noncompliance with the Non-discrimination provisions of this contract/agreement, MDT will impose such sanctions as it

or the relevant US DOT Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the PARTY under the contract/agreement until the PARTY complies; and/or
- b. Cancelling, terminating, or suspending the contract/agreement, in whole or in part.

(7) Pertinent Non-Discrimination Authorities:

During the performance of this contract/agreement, the PARTY, for itself, its assignees, and successor in interest, agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Federal

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601 *et seq.*), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Sections 162 and 301(g) of the Federal-Aid Highway Act of 1973, (Public Law No. 93-87, 87 Stat. 250, codified at 23 U.S.C. § 324), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Section 520 of the Airport and Airways Improvement Act of 1982, (49 U.S.C. § 47123), (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (Public Law No. 100-259), (broadened the scope, coverage, and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients, and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, (42 U.S.C. §§ 12131 through 12189), which prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and

certain testing entities as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;

- Title IX of the Education Amendments of 1972, as amended, which prohibits discrimination on the basis of sex in education programs or activities (20 U.S.C. § 1681 *et seq.*).

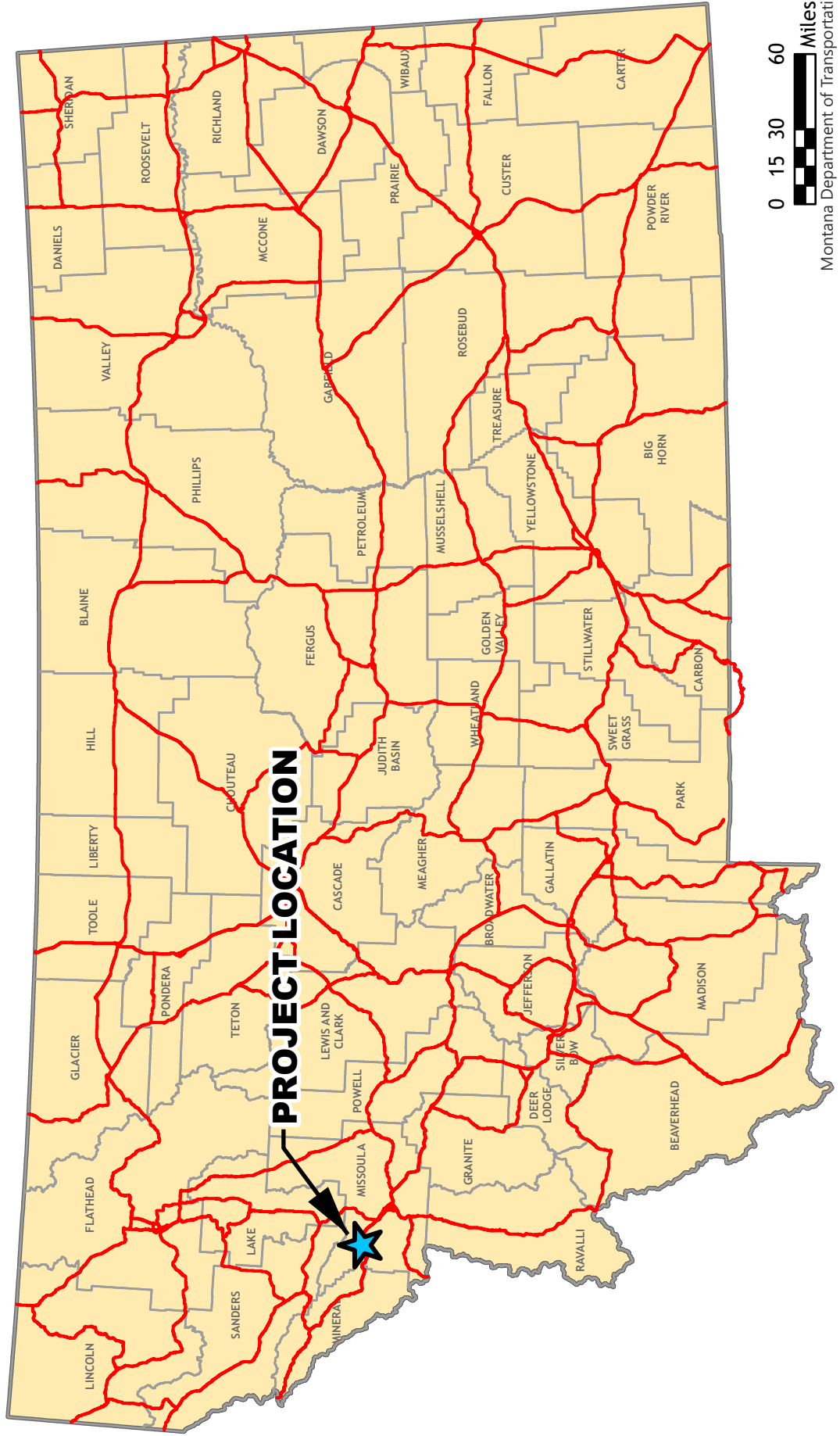
State

- Mont. Code Ann. § 49-3-205 Governmental services;
- Mont. Code Ann. § 49-3-206 Distribution of governmental funds;
- Mont. Code Ann. § 49-3-207 Nondiscrimination provision in all public contracts.

(8) Incorporation of Provisions: The PARTY will include the provisions of paragraphs one through seven in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and/or directives cited therein. The PARTY will take action with respect to any subcontract or procurement as MDT or the relevant US DOT Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the PARTY becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the PARTY may request MDT to enter into any litigation to protect the interests of MDT. In addition, the PARTY may request the United States to enter into the litigation to protect the interests of the United States.



**FEDERAL AID PROJECT NO. STPX 32(85)
AQUATIC RESOURCES MITIGATION
RICHARDSON FAMILY MITIGATION
CONTROL NUMBER 7997001
PROJECT LOCATION STATE MAP - MONTANA**





**FEDERAL AID PROJECT NO. STPX 32(85)
AQUATIC RESOURCES MITIGATION
RICHARDSON FAMILY MITIGATION
CONTROL NUMBER 7997001
PROJECT LOCATION QUAD MAP - MISSOULA COUNTY**

SECTION II

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