

**WESTSLOPE FISHING ACCESS**  
**TECHNICAL SPECIFICATIONS**

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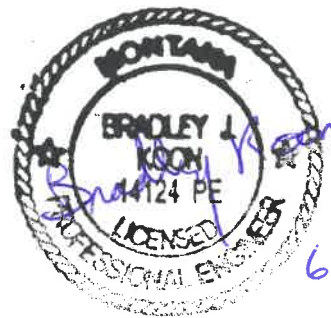
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## **SECTION 01300**

### **SUBMITTALS**

#### **PART 1 - GENERAL**

Add the following:

##### **1.2 SHOP DRAWINGS, PRODUCT DATE, AND SAMPLES**

- F. Shop drawings, technical specifications, testing requirements and product data that shall be submitted for this project but are not limited to:
1. Class II Riprap Gradation
  2. Soil Separation Fabric
  3. Erosion Control Mat
  4. Asphalt Mix
  5. Cattle Guards
  6. Crushed Base Course
  7. Crushed Top Surfacing
  8. Culverts
  9. Seed Mix
  10. SWPPP Plan
  11. Fencing Material data sheets including but not limited to wire, fence posts, and gates.
  12. Project signage materials.

#### **PART 2 – PRODUCTS – NOT USED**

#### **PART 3 – EXECUTION – NOT USED**

#### **PART 4 – MEASUREMENT AND PAYMENT – NOT USED**

**END OF SECTION 01300**

## SECTION 01350

### MOBILIZATION, INSURANCE & BONDING

#### Additional Section

#### **PART 1 – GENERAL**

##### 1.1 DESCRIPTION

- A. This item encompasses the preparatory work and operations performed by the contractor for mobilizing personnel, equipment, supplies, and incidentals to and from the work site. It involves obtaining necessary permits, establishing project offices and facilities, securing contract bonds and insurance, and addressing other project-related tasks.
- B. Contractor administration, bonding, insurance, and site document costs are included in mobilization.
- C. All equipment transported to the project site must be in good mechanical condition and free of fuel, oil, lubricants, or any leaks. The contractor shall promptly remove any equipment that may discharge environmentally damaging fluids.
- D. All equipment transported to the project site must undergo thorough cleaning to prevent introduction of weeds. Contractor shall clean every piece of equipment that returns to the site even if it has already been present.
- E. All subcontractor costs for the work described above is included as well.

#### **PART 2 – PRODUCTS – NOT USED**

#### **PART 3 – EXECUTION – NOT USED**

#### **PART 4 – MEASUREMENT AND PAYMENT**

##### 4.1 MEASUREMENT

- A. Measurement for this item will be based upon percentage of work completed.

##### 4.2 PAYMENT

- A. Partial payments for mobilization, insurance and bonding will be made based on the lump sum bid price as follows:
  - 1. 25% of the amount bid for mobilization, insurance & bonding when the contractor has moved on-site and begun construction.
  - 2. 50% of the amount bid for mobilization, insurance & bonding when the contractor has completed 50% of the contract amount and is completely mobilized to the project site.
  - 3. 100% of the amount bid for mobilization, insurance & bonding when the contractor has completed 100% of the contract amount and completely de-mobilized from the project site.

**END OF SECTION 01350**

## SECTION 01400

### CONTRACTOR QUALITY CONTROL AND OWNER QUALITY ASSURANCE

#### PART 3 – EXECUTION

Modify the following:

##### 3.1 GENERAL

- B. Sampling and testing to assure specification conformance are performed by the Contractor or the Contractor's testing agency as quality assurance testing.
  
- C. The Contractor may select a testing agency to perform quality assurance testing. (ASTM E329 is referenced as a guide to the selection of a qualified testing agency.) The Contractor will pay for (or provide) the quality assurance testing. Quality assurance testing frequency is at Engineer's discretion for individual products.

#### PART 4 – MEASUREMENT AND PAYMENT

Modify the following:

##### 4.1 PAYMENT FOR TESTING

- B. Contractor will pay all quality assurance testing costs.

##### 4.2 RETESTING

- A. Quality assurance re-testing due to failing initial tests will be performed by the Contractor or the Contractor's quality assurance agency. Re-test costs are incidental to the work and no separate payment is made for this item.

**END OF SECTION 01400**

## SECTION 01570

### CONSTRUCTION TRAFFIC CONTROL

#### **PART 4 – MEASUREMENT AND PAYMENT**

Modify or add the following:

##### 4.1 PAYMENT

- A. Traffic control will be paid in one lump sum basis. No separate measurement for each traffic control device will be made. The lump sum payment is full reimbursement for all costs of furnishing, installing, maintaining, replacing and operating the construction traffic control systems throughout the work period. The construction traffic control system includes but is not limited to, signs, barricades, pavement marking, watering, flag persons and pilot cars.
- B. Partial payments for traffic control will be made based on the lump sum bid price as follows:
  - 1. 75% of the amount bid for traffic control when the contractor has completed work on the proposed approach and no longer is working within MDT right-of-way.
  - 2. 100% of the amount bid for traffic control when 100% of the contract amount has been completed.

**END OF SECTION 01570**

## SECTION 01700

### CONTRACT CLOSEOUT

#### **PART 1 - GENERAL**

Modify or add the following:

##### 1.1 CLEANUP

- A. Before Final Inspection (as outlined in Section 15.05 of the General Conditions) execute the following.
  - 11. All construction debris shall be removed from the site.
  - 12. All wheel ruts shall be filled in and leveled.
  - 13. Additional re-seeding not specified in the project plans may be necessary to repair any construction related impacts or damage.
  - 14. All final slopes shall be dressed manually to remove woody debris, accumulated trash and oversized material.
  - 15. All topsoil surfaced shall be hand raked to provide a uniform appearance.
  - 16. The contractor is required to dress all gravel, pavement, and concrete edges to remove abrupt edges and ensure a smooth transition.

#### **PART 4 – MEASUREMENT AND PAYMENT**

Add the following:

##### 4.1 PAYMENT

- A. All final cleanup work is considered incidental to other items in the contract. No separate payment shall be made for it.

**END OF SECTION 01700**

## SECTION 02115

### FENCING & GATES

#### Additional Section

#### **PART 1 – GENERAL**

##### 1.1 DESCRIPTION

- A. This work consists of all equipment, labor, hauling and incidentals to installing barbed-wire and smooth-wire fencing and gates where specified in the project drawings.
- B. Barbed-Wire fencing shall be installed along all right-of-way boundaries with Montana Department of Transportation per the project drawings.
- C. Smooth-Wire fencing is to be used in all other places on the project site.
- D. Barbed-Wire fencing along the reclamation area is to be only placed where needed to complete existing fencing at that area.

#### **PART 2 – PRODUCTS**

##### 2.1 FENCING MATERIALS

- A. All fencing materials used on the project shall meet or exceed the standard laid out in Montana Department of Transportation Section 712.

##### 2.2 GATES

- A. Furnish gates complete with all necessary hinges, latch, and drop-bar locking device for the type of gate and gateposts specified. Weld in accordance with Section 624 of the Montana Department of Transportation Standard Specifications.
- B. Gates shall be constructed in accordance with Montana Department of Transportation Detail Drawing 607-02.
- C. Gates shall be factory painted with a high-quality enamel paint to reduce corrosion in a neutral color that is approved by the owner.

#### **PART 3 – EXECUTION**

##### 3.1 INSTALLATION

- A. Install wire fence per Montana Department of Transportation Section 607.03.4 and these specifications.
- B. Remove trees, rocks and brush as necessary for fence installation. Contractor shall take care to only clear and disturb what is necessary for fence installation.
- C. T posts shall be driven by mechanical or manual post drivers. Any posts damaged by driving shall be replaced at the contractor's expense and not be used for the proposed fencing. All post shall be plum to the proposed grade.
- D. Wooden fence posts may be driven or excavated. Posts damaged by driving shall be replaced at the contractor's expense and not be used for the proposed fencing. All posts shall be plum to the proposed grade. Excavated post holes shall be backfilled with uniform and compacted 6-inch lifts.
- E. All wire shall be installed after setting of posts. All wire shall be stretched once installed up to the manufacturer's recommendations.
- F. Fence wire shall be on the roadway side of the fence.



- G. For wooden post fences, install one metal line post every 500 feet and in smaller runs between gate posts to serve as lightning protection.

**PART 4 – MEASUREMENT AND PAYMENT**

**4.1 BARBED-WIRE FENCE (MDT)**

- A. This item is measured and paid for by the length foot of barbed-wire fence (MDT) specified in the contract documents, complete in place, at the contract unit price bid for “Barbed-Wire Fence (MDT)”. Price and payment is full compensation for furnishing, installation and for all tools, labor and incidentals necessary to complete this item.
- B. PAYMENT IS MADE UNDER:
  - 1. Barbed-Wired Fence (MDT) – per length foot.

**4.2 SMOOTH-WIRE FENCE**

- A. This item is measured and paid for by the length foot of smooth-wire fence specified in the contract documents, complete in place, at the contract unit price bid for “Smooth-Wire Fence (Site)”. Price and payment is full compensation for furnishing, installation and for all tools, labor and incidentals necessary to complete this item.
- B. PAYMENT IS MADE UNDER:
  - 1. Smooth-Wire Fence (Site) – per length foot.

**4.3 BARBED-WIRE FENCE (RECLAMATION SITE)**

- A. This item is measured and paid for by the length foot of barbed-wire fence (Reclamation Site) specified in the contract documents, complete in place, at the contract unit price bid for “Barbed-Wire Fence (Reclamation Site)”. Price and payment is full compensation for furnishing, installation and for all tools, labor and incidentals necessary to complete this item.
- B. PAYMENT IS MADE UNDER:
  - 1. Barbed-Wired Fence (Reclamation Site) – per length foot.

**END OF SECTION 02115**

## SECTION 02230

### STREET EXCAVATION, BACKFILL AND COMPATION

#### **PART 1 - GENERAL**

Modify or add the following:

##### 1.1 DESCRIPTION

- A. This work is the topsoil excavation and salvage, excavation, filling or backfilling, and subgrade preparation to the specified lines, grades and cross sections as preparation for overlying base course or other courses as shown in the contract documents. Also included is the removal and disposal of debris, excess soils, the furnishing and placement of fill materials, and compaction.

#### **PART 4 – MEASUREMENT AND PAYMENT**

Modify or add the following:

##### 1.1 METHOD OF PAYMENT

- A. Excavation Above Subgrade
  - 1. This item is paid for under the Excavation & Embankment lump-sum bid item, as specified in the contract documents.
  - 2. Payment for the above reference bid item shall constitute full compensation for all labor, equipment, tools and incidentals necessary to complete the work.
  
- C. Embankment in Place.
  - 1. This item shall be paid for under the Excavation & Embankment lump-sum bid item, as specified in the contract documents. Payment for Excavation & Embankment bid item shall constitute full compensation for all labor, equipment, tools and incidentals necessary to complete the work.

**END OF SECTION 02230**

**SECTION 02235**

**CRUSHED BASE COURSE**

**PART 1 - GENERAL**

Modify or add the following:

1.1 DESCRIPTION

- A. This work consists of all equipment, labor and incidentals to placing compacted crushed gravel surfacing on the access road, round-a-bout and parking area in accordance with all project specifications and on the drawings.
- B. This work consists of all equipment, labor and incidentals to placing compacted crushed base course on the access road, round-a-bout, parking area and under all structures as specified in the project drawings.

**PART 2 – PRODUCTS**

Modify or add the following:

2.3 GRADATION

- A. No modifications to text

- 1. Add table for Crushed Surface Course Gradation

<b>CRUSHED SURFACE COURSE SIZING</b>	
SIEVE SIZE	% PASSING
3/4 INCH	100%
NO. 4 SIEVE	40-80%
NO. 10 SIEVE	25-60%
NO. 200 SIEVE	8-20%

**END OF SECTION 02235**

## SECTION 02240

### RIPRAP

#### Additional Section

#### **PART 1 – GENERAL**

##### 1.1 DESCRIPTION

- A. This work consists of all equipment, labor, hauling and incidentals to placing riprap where specified in the project plans.

#### **PART 2 – PRODUCTS**

##### 2.1 GENERAL

- A. Riprap shall be class II random riprap as described in Tables 701-21 and 701-22 of the most recent volume of the Montana Department of Transportation Standard Specifications.
- B. Installation of the riprap shall conform to Section 613 of the Montana Department of Transportation Standard Specifications Section 613 and this projects specifications.

#### **PART 3 – EXECUTION**

##### 3.1 INSTALLATION

- A. Place the rock protection at the locations specified in the contract.
- B. Place the stone on either side of the boat ramp to form the specified cross section. Uniformly distribute the smaller stones throughout the work. Manipulate the stones as necessary by hand or machine to provide a uniform surface and stable mass.
- C. Place riprap around the pipe opening without damaging the pipe. Repair damaged pipe at contractors expense.

#### **PART 4 – MEASUREMENT AND PAYMENT**

##### 4.1 MEASUREMENT AND PAYMENT

- A. This item is measured and paid for by the cubic yards of riprap specified in the contract documents, complete in place, at the contract unit price bid for “Class II Riprap”. Price and payment is full compensation for furnishing, crushing, loading, hauling, spreading, shaping, and for all tools, labor and incidentals necessary to complete this item.
- B. PAYMENT IS MADE UNDER:
  - 1. Class II Riprap – per cubic yard.

**END OF SECTION 02240**

## SECTION 03370

### PRECAST VAULT LATRINE

#### Additional Section

#### **PART 1 – GENERAL**

##### 1.1 DESCRIPTION

- A. This specification covers all work necessary to construct and place a precast vault latrine.

##### 1.2 REFERENCES

- ASTM C33 Concrete Aggregates  
ASTM C39 Method of Test for Compressive Strength of Cylindrical Concrete Specimens  
ASTM C94 Standard Specification for Ready-Mixed Concrete ASTM C143 Method of Test for Slump of Concrete  
ASTM C150 Standard Specification for Portland Cement  
ASTM C172 Standard Practice for Sampling Freshly Mixed Concrete  
ASTM A185 Standard Specification for Steel Welded Wire Reinforcement, Plain, or Concrete  
ASTM C192 Method of Making and Curing Test Specimens in the Laboratory  
ASTM C231 Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method  
ASTM C309 Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete  
ASTM C494 Standard Specification for Chemical Admixtures for Concrete  
ASTM A615 Standard Specification for Deformed and Plain Carbon-Steel bars for Concrete Reinforcement  
ASTM C618 Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete  
ASTM C979 Standard Specification for Pigments for Integrally Colored Concrete  
ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort  
ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete  
ACI 306 Cold Weather Concreting  
ACI 318 Building Code Requirements Structural Concrete and Commentary (includes Errata)  
PCI MNL 116 Quality Control for Plants and Production of Precast Prestressed Concrete Products

##### 1.3 MANUFACTURER CRITERIA

- A. Manufacturer must be ISO 9001 certified at the time of bid.  
B. Manufacturing plant must be PCI certified at the time of bid.  
C. Manufacturer must not have defaulted on any contract with the last five years.  
D. Manufacturer must provide stamped, engineered drawings prior to acceptance.  
E. Manufacturer must be pre-approved prior to bidding.  
F. Manufacturer shall provide a one year warranty.  
G. UL 752 Bullet Resistance on 4" thick concrete samples.

#### 1.4 CODE COMPLIANCE

- A. The precast building must meet all local, state and federal requirements for building type. The precast building shall conform to current editions of the IBC.

#### 1.5 PRODUCT SUBMITTALS

- A. Prior to construction, the contractor shall submit the following information for approval.
1. Engineering product drawings (full-set), details, cut sheets, calculations and concrete testing results.
  2. Product color to be approved by the owner.
  3. Installation Instructions.
  4. O&M Manuals

#### 1.6 DESIGN CRITERIA

- A. The vault building shall be designed to individually meet the following criteria.
1. The building shall be constructed entirely of concrete.
  2. Roof Snow Load
    - 350 psi snow load
  3. Floor Load
    - 400 psi foot floor load
  4. Wind Load
    - 150 miles per hour (3-second gust) wind exposure C.
  5. Earthquake
    - Seismic design category E earthquake.
  6. All wall to floor interior surface seams shall have at a minimum 1" radius covering of high-strength grout.
  7. Depth of vault shall be no deeper than 5'
  8. A 12" diameter pipe shall be installed to vent the vault and the pipe shall be at least 3' above the highest point of the roof. Vent pipe shall have insect screen.
  9. Vault building shall have a minimum 4-inch wall, 4 ½-inch roof, and 5-inch floor thickness.
  10. The vault building shall have a one-piece floor unit to prevent panel migration.
  11. The vault building shall have a one-piece full length width vault to act as a building foundation.

## PART 2 – PRODUCTS

#### 2.1 CONCRETE - GENERAL

- A. The concrete mix design will be designed to ACI 211.1 for concrete production with good workability.
- B. At a minimum, concrete will contain 675 pounds of cementitious material per yard. Cement shall be low alkali type III conforming to ASTM C-150
- C. Coarse aggregates used in concrete mix design shall conform to ASTM C33 with designated size of coarse aggregate #67.
- D. Water/cement ratio shall not exceed 0.45. Slump shall not exceed 5-inches.
- E. Air-entraining admixtures shall conform to ASTM C260. Water reducing admixtures shall conform to ASTM C494, Type A.

## 2.2 CONCRETE – COLD WEATHER

- A. Cold weather concrete placement in accordance with ACI 306
- B. Concrete shall not be placed if ambient temperature is expected to be below 35°F during the curing period unless heat is readily available to maintain temperature of the concrete at least 50°F.
- C. Any material containing frost or lumps of frozen material shall not be used.

## 2.3 CONCERE – HOT WEATHER

- A. The temperature of the concrete shall not exceed 90°F at the time of placement. When the ambient temperature reached 90°F, the concrete is to be protected with moist covering.

## 2.4 REINFORCEMENT

- A. All reinforcing stall shall conform to ASTM A615. All welded wire fabric shall conform to ASTM A185.
- B. All reinforcement shall be new, free of dirt, oil, paint, grease, loose millings or rust.
- C. Details not shown of drawings or specified are to ACI318.
- D. Steel reinforcement is centered in the cross-sectional area of the walls and will have at least 1 ¼” of cover on the under surface of the floor.
- E. The maximum allowable variation for center to center spacing of reinforcing steel is ½”.
- F. Full lengths of reinforcing steel shall be used whenever possible. When splicing is necessary on longer runs, splices are alternated from opposite sides of the components for adjacent steel bars.
  - 1. Lap bars under #4 minimum of 12” bar diameters.
  - 2. Lap bars larger than #4 minimum of 24” bar diameters.
- G. Reinforcing bars shall be bent cold. No bars partially embedded in concrete are field bend unless approved by the engineer.

## 2.5 CAULK, GROUT, ADHESIVES AND SEALER

- A. Caulking service temperatures from -40°F to 194°F.
- B. Interior joints will be caulked with a paintable silicone based caulk.
- C. Exterior joints will be caulked with a Tri polymer sealant caulk which complements the exterior color.
- D. Grout shall be non-shrink type and shall be painted to match the color of surrounding concrete.
- E. Cement base coating shall be formulated with a very fine aggregate system and is a built-in bonding agent.

## 2.6 DEAD BOLT

- A. Shall be certified ANSI/BHMA A156.6-2001 Grade 1.
- B. Heavy duty tamper resistant.
- C. 2 ¾” backset.
- D. U.S. 26D finish.

## 2.7 DOORS

- A. Shall have steel construction.

- B. Are flush panel type 1 3/4" thick, minimum 16-gauge galvanized steel, top painted with DTM ALKYD.
  - C. Door Frames are knockdown or welded type, single rabbet, minimum 16-gauge prime coated steel top painted with DTM ALKYD, width to suit wall thickness.
  - D. Three (3) rubber door silencers are provided on latch side of frame.
- 2.8 DOOR HINGES
- A. Contractor shall install three hinges per door.
  - B. Hinges shall be dull with chrome plating 4 1/2" x 4 1/2", adjustable tension, and automatic closing for all doors.
- 2.9 DOORSTOP
- A. Stop shall be dome style meeting ANSI 156.16.
- 2.10 DOOR SWEEP
- A. Shall have an adjustable brush.
  - B. Shall be provided at the bottom of the door.
- 2.11 DOUBLE COAT HOOK
- A. Type 304 stainless steel, 16-gauge.
  - B. Formed construction with a satin finish.
  - C. 3/16" X 7/8" nail for anchor.
  - D. Top hook shall extend 2 1/2" from the wall.
  - E. Bottom hook shall extend 1 1/4" from the wall at a minimum.
- 2.12 GRAB BARS
- A. Type 304 stainless steel, 18-gauge with 1 1/2" clearance.
  - B. Rated for 300-pound top loading.
- 2.13 LOCKSET
- A. Grade 1 cylindrical lockset for exterior door that meeting or exceeds ANSI A156.2 Series 4000.
  - B. Inside and outside handles. Both handles shall function to open door unless outside handle is locked by inside push button. Inside handle shall always be active.
  - C. Push-button shall disengage automatically when inside lever is turned or the door is closed.
  - D. Emergency slot on outside of door shall be accessible with coin or screwdriver etc.
  - E. U.S. 26D finish.
- 2.14 PAINT
- A. All paints and materials shall be considered "top-of-the-line components".
  - B. Paints lead content shall not exceed .06% by weight.
  - C. Paint Type Schedules
    1. Interior Floor Paing – Gray in color, chemical resistant urethane.
    2. Interior walls and ceiling – White in color, modified acrylic, water repellent penetrating stain. Clear acrylic anti-graffiti sealer.
    3. Exterior concrete slab – clear sealer.
    4. Exterior walls and roof – Same color as walls or roof, water repellent penetrating stain. Clear acrylic anti-graffiti sealer.
    5. All metal surfaces – DTM ALKYD.
- 2.15 RISER
- A. Shall meet ADA standards.
  - B. One-piece molded HDPE.
  - C. Smooth texture.



- D. High impact resistance in extremely cold weather.
- 2.16 SEALERS AND CURING COMPOUNDS
  - A. Curing compounds shall be colorless, comply with ASTM C309, type I or 1-D.
  - B. Weatherproofing sealers on building exterior shall be clear water repellent penetrating sealer.
- 2.17 SIGNS
  - A. All signs shall have raised letters, pictograms, and braille meeting ADA standards.
  - B. (1) sign located above riser stating "No Trash in Vault".
  - C. All signs shall be  $\frac{3}{4}$ " inset into the wall with a 45-degree bevel.
  - D. All signage to be anchored into concrete walls with  $\frac{1}{4}$ " x  $\frac{3}{4}$ " concrete anchor nails.
- 2.18 TOILET PAPER DISPENSERS
  - A. Construction shall consist of  $\frac{1}{4}$ " thick, type 304 stainless steel.
  - B. Shall have capacity for 3 rolls minimum.
  - C. Fastening system shall be able to withstand 300 pounds of loading.
- 2.19 POLYETHYLENE VAULT LINERS
  - A. Made of a Roto molded 8460 polyethylene.
  - B. Shall be one piece.
  - C. Minimum thickness of 0.1
  - D. Molded dovetail embeds to attach liner to vault walls.
  - E. Attach two welded C-channels to attach liner to the bottom of the vault.
- 2.20 WALL VENTS
  - A. Vent cover shall be 14-gauge, type 304 stainless steel painted with DTM. Fastened to wall using high-strength anti-rust tap con fasteners.
  - B. Vent louver frame shall be a "non-vision" frame with 0.1" extruded, aluminum jet coat finish.
  - C. Shall be installed with insect screen.
  - D. Covers to be installed recessed a  $\frac{3}{4}$ " minimum on exterior walls with a 45-degree bevel. Interior to be flush mounted. Wall vent shall not be extruding from the wall once installed.
- 2.21 WINDOWS
  - A. Frames shall be constructed of steel.
  - B. Glazing shall be 3/16" thick translucent with pebble finish mar-resistant Lexan.
  - C. Windows to have  $\frac{3}{4}$ " recess with 45-degree bevel.
  - D. Windows to have vandal resistant fasteners.
- 2.22 VAULT CLEANOUT COVER
  - A. Plate for vault cover shall be  $\frac{1}{4}$ " thick diamond plate steel.
  - B. Lid shall be hinged for opening and closing with a padlock.
  - C. Lid shall be gasketed to provide an airtight seal.

### **PART 3 – MANUFACTURING**

- 3.1 MIXING AND DELIVERY OF CONCRETE
  - A. Shall be in accordance with ASTM C94, Sections 12.6 – 12.9
    1. Aggregate and water shall be adjusted to compensate for differences in the saturated surface-dry conditions.
    2. Concrete shall be discharged ASAP once mixed. Time of mixture shall not exceed 30 minutes.

- 3.2 PLACING AND CONSOLIDATION OF CONCRETE
- A. Concrete shall be consolidated using mechanical vibrators. Vibration shall be sufficient as to accomplish compaction but to the point of segregation of material.
- 3.3 FINISHING CONCRETE
- A. Interior floor and exterior slabs shall be floated and troweled.
- B. All exterior walls and screen walls are any one of the available textures.
- C. All exterior surfaces of roof panels shall be cast to simulate any one of the available textures. The underside of the overhang will have a smooth finish.
- 3.4 CRACKING AND PATCHING
- A. Cracks in concrete components which are judged to affect the structural integrity of of the building shall be rejected immediately.
- B. Small holes, depressions, and air voids patched with a suitable material. The patch will match the finish and texture of the surrounding surface.
- C. Patching will not be allowed on defective areas anywhere the building structural integrity can be affected.
- 3.5 CURING AND HARDENING CONCRETE
- A. Concrete surfaces shall not be allowed to dry out from over exposure of hot, dry weather during the initial during period.

#### **PART 4 – FINISHING AND FABRICATION**

- 4.1 STRUCTURAL JOINTS
- A. Wall components shall be joined together with two welded plate pairs at each joint. Each plate is 6" long and located one pair in the top quarter and one pair in the bottom quarter of the seam. Weld plates shall be anchored into the concrete panels and welded together with one continuous weld. Inside seams are a paintable caulk. Outside seams shall be a caulk in coordinating building color or clear.
- B. Walls and roof are joined with weld plates, 3" x 6" at each building corner.
- C. The joint between the floor slab and walls shall be joined with a grout mixture on the inside, a matching colored caulk on the outside and two (2) weld plates 6" long per wall.
- 4.2 PAINTING & STAINING
- A. An appropriate curing time shall be allowed prior to paint application to concrete.
- B. Some applications may require acid etching. A 30% solution of hydrochloric acid is used, flushed with water, and allowed to air dry thoroughly.
- C. Painting shall not be done outside in cold, frosty, damp or temperatures below 50°F.
- D. Painting shall not be done in dusty areas.
- E. All surface voids shall be filled prior to painting.
- F. Schedule to finishes
1. Inside concrete surfaces
    - Floors – one coat of 1-part water based chemical resistant urethane.
    - Walls and Ceilings – two coats of a modified acrylic, water repellent penetrating stain, followed by one coat of clear sealer.
  2. Exterior concrete surfaces
    - Walls – Two coats of water repellent penetrating stain in the same color as the walls or roof followed by one coat

- of clear acrylic anti-graffiti sealer.
- 3. Metal surfaces
  - Two coats of DTM ALKYD.

#### **PART 5 – TESTING**

- 5.1 Testing will only be performed by qualified individuals who have been certified ACI Technician Grade 1.
- 5.2 Sampling is in accordance with ASTM C172.
- 5.3 The following tests are performed on concrete used in the manufacture of toilets. All testing is performed in the CXT (PCI certified) laboratories.
  - A. Air content – tested per AST C231 on the first batch of concrete. The air content is in the rang of 5.0% +/- 1.5%.
  - B. Compressive strength of the cylinders – tested to ASTM C39.
    - 1. Two are tested at release (minimum strength of 2500 psi)
    - 2. One is tested at seven days (minimum strength of 4500 psi)
    - 3. Two are tested at 28 days (minimum strength of 5000 psi)
- 5.4 Copies of all test reports shall be made available to the customer as soon as 28-day test results are available.

#### **PART 6 – INSTALLATION**

- 6.1 Contractor shall install building per manufacturer instructions.
  - A. Contractor shall submit manufacturer installation instructions prior to constructing building.

#### **PART 7 – WARRANTY**

- 7.1 Supplier shall supply a one-year manufacturer’s warranty against defects in materials and workmanship for the premanufactured building product as delivered to the purchaser.
- 7.2 The manufacturer's warranty guarantees that the premanufactured product building shall be free from defects in materials and workmanship that adversely affect its functionality, structural integrity, or overall performance during the one-year warranty period.
- 7.3 In the event of a valid warranty claim, Supplier shall, at its sole discretion, either repair or replace the defective parts or the entire premanufactured product building.

**END OF SECTION 03370**

# Montana Fish, Wildlife & Parks

## SPECIFICATIONS FOR WORK AND SPECIAL PROVISIONS

### Contents:

1. Scope of Work
2. Project Meetings
3. Utilities and Barriers
4. Repair and Replacement Quality
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6. Material Sources
7. Environmental Protection
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9. Permits and Regulatory Requirements
10. Smoke and Dust Control
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12. Sanitary Facilities
13. Incorporation of Montana Public Works Specification
14. Construction Scheduling Requirements
15. Construction Staking
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## 1. SCOPE OF WORK

This project includes the construction fishing access site on the Rock Creek. Specific improvements included in the project are a new site approach, boat ramp, precast concrete latrine, ADA sidewalk and parking, gravel access road, gravel parking lot, and round-a-bout. Reclamation work on the opposite side of Rock Creek is also included in the project scope.

## 2. PROJECT MEETINGS

Pre-Construction Conference. After the Contract has been awarded, but before the start of construction, a pre-construction conference will be held at a time and place mutually agreed to by the parties. The conference shall be attended by the following: the Contractor and his superintendent; the principal subcontractors; representatives of principal suppliers and manufacturers, as appropriate; the Engineers and his construction observer; representatives of the Owner and others as appropriate.

Unless previously submitted, the Contractor shall bring the following submittals to the conference: list of proposed Subcontractors; proposed construction schedule; schedule for submitting shop drawings and other submittals; schedule procurement dates; construction technique submittal forms (as applicable); preliminary payment schedule; and tentative schedule of values. Work shall not start prior to the Engineer's receipt of these submittals. The Engineer will preside at the conference and will arrange for keeping the minutes and distributing copies of the minutes to all persons attending the meeting.

## 3. UTILITIES AND BARRIERS

Notification. The Contractor shall contact the one call locate number in advance of performing any excavation work on the site to obtain utility locates over the entire area to be impacted by construction of the project. The Contractor shall immediately notify the Engineer of the discovery of any utilities that are in conflict with the work that were not previously identified in the plans.

Identification. All utilities that may conflict with the work shall be the Contractor's responsibility to locate before any excavation is performed. Field markings provided by the utilities shall be preserved by the Contractor until actual excavation commences. All utility locations on the Drawings should be considered approximate and should be verified in the field by the Contractor. The Contractor shall also be responsible for locating all utilities that are not located on the Drawings.

Temporary Utilities. The Contractor shall provide all temporary electrical, lighting, telephone, heating, cooling, ventilating, water, sanitary, first aid, fire protection, and other utilities and services necessary for the performance of the work. All fees, charges,  
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and other costs associated therewith shall be paid for by the Contractor.

Conflicts with Existing Utilities. For any utilities shown on the plans which are damaged or require temporary support to allow performance of the work, the Contractor shall contact the utility's owner and make all arrangements and pay all costs associated with the repair and/or temporary support of the utility. The Contractor shall comply with all requirements of the utility's owner.

The Contractor is responsible for the repair of any utilities that were properly marked by the utility locator and damaged by the Contractor, whether they are shown on the plans or not.

Barriers. The Contractor shall temporarily remove all fences, barricades, minor structures, and other obstructions that interfere with the prosecution of the work. Removal shall not extend beyond designated construction limits or right-of-way without first obtaining written authorization from the owner of the barrier.

Fences and barricades used for the confinement or exclusion of livestock, animals, or persons shall be replaced at the end of each work day to the extent necessary to perform the restrictive intent of the barrier.

Unless otherwise directed by the Engineer or indicated on the Drawings, all barriers so removed shall be replaced following the completion of the work to as good or better condition than existed prior to the start of work. The requirement applies to small trees and decorative shrubs as well as fences, barricades, and minor structures.

The Contractor shall replace at his own expense all barriers damaged or destroyed.

#### **4. REPAIR AND REPLACEMENT QUALITY**

General. Items requiring repair or replacement due to damage or removal or otherwise necessitated in the course of pursuance of the work and which are not otherwise specified herein, shall be repaired or replaced to the following levels of quality.

Paved and Gravel Roads, Driveways, and Sidewalks. Repair or replacement shall be to a thickness and grade matching the existing condition. Quality of materials and methods shall comply with respective sections of the current edition of the Montana Public Works Standard Specifications.

Water and Sewer Main and Services. Repair or replacement shall be in a manner consistent with the existing condition using materials conforming to the Uniform Plumbing Code, the current editions of the DEQ 1 and DEQ 2 circulars, American Water Works Association Standard Specifications, and the requirements of the Montana Department of Environmental Quality. Construction shall also comply with the current edition of the Montana Public Works Standard Specifications. Repair or replacement will not be allowed with materials like the existing installation if they do not conform to the above-referenced standards.

Electrical, Telephone, Cable TV, Natural Gas, and Petroleum Lines. Repair or replacement shall be to the standards required by the utility owner and at the utility owner's option may be performed by the utility owner with full cost assessed to the Contractor.

Fences. All fences adjacent to any work site are to be maintained to the satisfaction of the abutting property owners. The Contractor shall notify the landowners of the need to temporarily removed or relocate fences for access to the work and shall coordinate such activities with the respective landowners in regards to removal, relocation, and restoration of fences prior to commencing work.

Any fence removed or destroyed during the course of the Contract shall be reinstalled or reconstructed in like kind at no cost to the Owner or the landowner. The cost for this work shall be considered incidental and no additional compensation will be allowed.

Other Items. Repair or replacement of other items not covered by the preceding shall be to the standards required by the owner of the item and at the owner's option may be performed by the owner of the item with full cost assessed to the Contractor.

Decisions Regarding Repair Versus Replacement. The decision of repair versus replacement of an affected item shall be at the discretion of the Engineer upon consultation with the owner of the item. The decision shall be based on a determination of whether repaired quality can equal the quality of a replacement installation. The Engineer's authority shall be final in this regard.

Limits of Repair and Replacement. The limits of areas to be repaired or replaced shall be determined by the Engineer in the field based on the extent of damage or removal sustained. The determination shall be based on insuring that all damaged or removed portions of the existing installation are fully restored. The authority of the Engineer shall be final in this regard. All work effects outside limits as described in these Contract

Documents are subject to repair and replacement quality as described herein.

Repair by Party Owning or Maintaining Item. The party owning or maintaining the item under consideration shall have the exclusive right to undertake repair or replacement themselves and charge the Contractor for full costs incurred or to direct and supervise the Contractor to repair or replace the item to their standard of quality. The authority of the owner of the item shall be final in this regard.

## **5. GENERAL CONSTRUCTION REQUIREMENTS**

Quality Assurance. The Engineer will monitor the construction of work covered by this section to determine if the work is being performed in accordance with the contract requirements. The Engineer does not have the authority or the means to control the Contractor's methods of construction. It is, therefore, the Contractor's responsibility to utilize all methods, equipment, manpower, and other means necessary to assure that the work is installed in compliance with the Drawings and Specifications, and laws and regulations applicable to the work. All buried work items shall be installed in the presence of the Engineer or may not be considered for payment.

Grade and Alignment. The Contractor shall provide all construction staking as required to define the locations of the improvements to be installed under this contract.

Tolerances. Construction tolerances for the work shall be as outlined in the Technical Specifications.

Construction Limits. Construct activities shall be limited to area no more than 40-feet from the edge of excavation and embankment, or any other improvements shown on the plans, except that disturbance of wetlands will be minimized to the extent possible. Equipment access between roads and the construction site shall be limited to a single route to minimize disturbance. Disturbance and equipment access beyond these limits is not allowed without the written approval of both the Engineer and the owner of the affected property. If so approved, disturbance beyond construction limits shall meet all requirements imposed by the landowner; this includes existing roads used and/or improved as well as the construction of new access roads. Special construction, reclamation, or post-construction road ripping or other closure provisions required by the landowner on access roads beyond the construction limits shall be performed by the Contractor at no additional cost to the Owner.

Areas of Disturbance. Approved areas of disturbance are those areas disturbed by construction activities within the construction limits and along designated or approved access routes. Such areas shall be fine graded to blend with the existing terrain. Other areas that are disturbed by the Contractor's activities outside the limits noted above will be considered as site damage or unapproved areas of disturbance subject to the repair and replacement quality as specified herein. Such areas will also require the reclamation operations noted above and as specified herein, but costs of such work shall be borne by the Contractor. This includes areas selected by the Contractor outside

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the defined construction limits for mobilization, offices, equipment, or material storage. Stockpiling of gravel on-site is not allowed except within the parking lot at locations approved by the Owner.

## **6. MATERIAL SOURCES**

Additional material is needed for embankment to construct this project. The Contractor will be responsible for placement and import from an off-site site location secured by the Contractor. The material shall be clean material, suitable for use as fill material, and subject to the approval on the Engineer. Haul routes shall be within the corridors of disturbance created by this project.

## **7. ENVIRONMENTAL PROTECTION**

The Contractor shall comply with all laws and regulations of the United States Corps of Engineers and Environmental Protection Agency, Montana Department of Fish, Wildlife and Parks, Department of State Lands, Department of Environmental Quality, the Department of Natural Resources and Conservation, and with all other Federal, State, and Local laws and regulations controlling pollution of the environment. He shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

The Contractor also agrees to comply with the requirements of any permits obtained for the project by the Owner. These permits include but may not be limited to the permits listed under the Permits and Regulatory Requirements section. Copies of any of these permits are available upon request from the Engineer.

The Contractor shall be responsible for submitting and obtaining a temporary discharge permit from the Montana Department of Environmental Quality for the discharge of any water related to the construction of this project. A construction Dewatering Discharge Permit, issued by the Department of Environmental Quality, is required if water from construction is discharged to state waters. The Department of Environmental Quality must be contacted immediately if either contaminated soil or contaminated groundwater is encountered.

The Contractor shall be responsible for submitting and obtaining a storm water discharge permit from the Montana Department of Environment Quality. The cost of any erosion control measures or other work required by the permit shall be included in the bid and are considered incidental to the project.

## **8. WEED CONTROL**

Prior to mobilizing equipment to the project site, the Contractor shall clean his equipment and vehicles to assure no weeds are imported. If there is an abnormal

growth of noxious weeds on a project site after construction as determined by the Owner or local weed control authority, the Contractor may be responsible for weed control under the contract warranty. All equipment is subject to inspection by the Engineer/Owner prior to mobilizing to site.

**9. PERMITS AND REGULATORY REQUIREMENTS**

Jurisdiction. The performance of this work shall be under the jurisdiction of the following agencies, departments, and standards and compliance with the requirements thereof is required:

**Federal Level:** United States Law

**State Level:** Department of Environmental Quality; Department of Fish, Wildlife & Parks; Montana Department of Transportation; Montana Building Code Division; Uniform Building Code; Uniform Plumbing Code; Uniform Mechanical Code; National Electric Code; State annotations to these codes; and Montana State Law.

**Local Level:** Granite County

Contractor's Responsibility. The Contractor shall familiarize himself with the requirements of all regulatory agencies pertaining to the performance of the work on the project.

The Contractor shall secure and pay for all additional permits, licenses, and fees necessary for the performance of the work, not already obtained by FWP.

The Contractor shall perform all work in accordance with the regulatory requirements. Any conflict between the Contract Documents and the regulatory requirements shall be brought to the immediate attention of the Engineer.

The following permits shall be in place prior to starting construction:

Permit	Entity Providing Permit	Entity Submitting Permit
Section 404	Army Corps of Engineers	FWP
SPA 124	FWP	FWP
318 Authorization	Montana Dept. of Environmental Quality	FWP
Approach	Montana Dept. of Transportation	FWP
Floodplain Development	Granite County	FWP
Wastewater	Granite County/DEQ	FWP
SWPPP	Montana Dept. of Environmental Quality	Contractor

**10. SMOKE AND DUST CONTROL**

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The Contractor shall have informed himself of all applicable State Board of Health requirements and similar State or Federal requirements pertaining to control of or abatement of air pollution. The Contractor shall have provided or be prepared to provide such air pollution control measures as are required to comply with the minimum standards established by such agencies.

Hauling of material and transport of equipment along public roadways or through the towns and adjacent other structures and dwellings shall require effective dust abatement procedures. This also applies to the unloading and placement of spoils material at deposition sites. The Contractor shall utilize environmentally sound methods for watering and/or otherwise chemically treating dust-generating surfaces to comply with all applicable legal standards for airborne particulates. Prior to any work, the Contractor shall submit a written plan for dust abatement procedures identifying at a minimum the following:

- Times and nature of dust generating activity on public roads and at deposition sites.
- Nature and chemical characterization of dust abatement materials to be used.
- Method of application of dust abatement materials to be used.
- Time schedule for application of dust abatement materials to be used.
- Availability of equipment and operators for emergency application of dust abatement materials at other than scheduled times.

Watering for dust control is considered incidental to the Contract and shall be performed at no additional cost to the Owner.

## **11. SITE CLEAN UP**

The Contractor shall be responsible for final clean up at the end of the project to a level satisfactory to the Owner. All construction debris, no matter how small, shall be collected and removed from the site. All wheel ruts shall be filled in and be leveled to match the adjacent grade and material. Re-seeding, re-sodding, or other re-surfacing may be necessary to repair any construction related impacts or damage.

All construction survey markings, stakes, temporary paint marks, flagging and other devices shall be removed regardless of who installed them. All excess pavement, concrete, gravel, soil, or other construction materials not intended for permanent use shall be removed.

All final slopes shall be dressed manually to remove woody debris, accumulated trash and oversized material. Any new slope or topsoil surfaces shall be hand raked to provide a uniform appearance. The Contractor shall dress all gravel, pavement and concrete edges to eliminate abrupt edges and provide a smooth transition. All construction related temporary sediment control devices shall be removed as soon as  
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practical.

Unless specifically noted otherwise, all final cleanup work shall be incidental to other work items in the contract and no separate payment shall be made.

## **12. SANITARY FACILITIES**

Temporary sanitary facilities shall be provided during construction and maintained by the Contractor who will comply with state and local regulations. The cost of furnishing, installing,

and maintaining sanitary facilities shall be considered incidental to other items of work and no additional compensation will be allowed.

## **13. INCORPORATION OF MONTANA PUBLIC WORKS SPECIFICATION**

All work not specially described in the technical specifications of these bid documents shall be performed in compliance with the applicable technical specifications section found in Montana Public Works Specification- Sixth Edition. The Montana Public Works Specifications shall be modified to require the Contractor to provide compaction and concrete testing through an independent testing laboratory, not the Owner.

## **14. CONSTRUCTION SCHEDULING REQUIREMENTS**

Any construction below the ordinary high-water mark of the Clark Fork River shall occur during seasonal low water periods in the early spring or late fall. The Contractor is required to obtain concurrence from the Engineering and FWP before beginning this work. Once started the Contractor shall maintain continual progress during normal working hours until the work below the ordinary high-water mark is 100% complete.

All other work above the ordinary high-water mark may occur at anytime within the allotted contract days.

## **15. CONSTRUCTION STAKING**

Construction staking will be provided as follows:

- Parking area edges and radius points (with references)
- Centerline of access road (with references)
- Ramp round-a-bout area interior and edges (with references)
- Boat ramp (4 points total, 2 at north end, 2 at water's edge)
- Latrine (4 points)
- Fencing (fence ends and gates)
- Approach road centerline (with references)
- Centerline of ditches (with references)

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- Culvert Inverts (2 points each culvert)

All staking will be provided in a single trip. Contractor is responsible for protection of the stakes, replacement of lost stakes, referencing stakes that will be disturbed by construction and any additional staking needed beyond those listed above.

## 16. GEOTECHNICAL CONDITIONS

A geotechnical investigation was not completed for this project. It is the responsibility of the Bidders to conduct all investigations and determine the soil type and diffing conditions that may be encountered with this project prior to bid preparation.

## 17. MEASUREMENT AND PAYMENT

A. **Scope:** This section describes the method of measurements and the basis of payment for all work shown on the drawings and required by the Contract Documents. This measurement and payment section shall take precedence over all other references to measurement and payment referenced in these specifications (with the exception of any addenda).

B. **Bid Prices:** The bid price for each item of the Contract in the Bid Proposal shall cover all work shown on the drawings and be defined in the specifications and other contract documents. All costs in connection with the work including furnishing all materials, equipment, and tools, and performing all necessary labor and supervision to fully complete the work, shall be included in the lump sum or unit price bid items on the proposal. The amounts shown on the proposal shall be the contract price.

No item that is required by the Contract Documents for the proper and successful completion of the work will be paid for outside of or in addition to the prices submitted in the Bid Proposal. All work not specifically set forth as a pay item in the Bid Proposal shall be considered a subsidiary obligation of the Contractor and all cost in connection therewith shall be included in the prices bid.

Retainage at the amounts specified in the General Conditions will be withheld from each progress payment.

C. **Estimated Quantities:** Any estimated quantities stipulated in the Bid Proposal or other Contract Documents are approximate and are to be used only as a basis for estimating probable cost of the work and for the purpose of comparing the bids submitted for the work.

D. **Method of Measurement:** No measurement will be made on bid items representing a lump sum bid.

**E. Basis of Payment:**

**100. Mobilization, Insurance & Bonding**

- ◆ General: This bid item shall include the costs associated with mobilizing to the project site, insurance, bonding, permitting, and submittals.
- ◆ Work Included:
  - All labor, tools, equipment, materials, royalties, and incidentals needed to complete the work as specified;
  - Transport and set up all equipment, materials, and other items needed to complete the project;
  - All permits, coordination, and compliance inspections required for the work;
  - Insurance and bonding;
  - Prepare and provide submittals, construction schedule, and all other paperwork required by the contract documents prior to construction startup.
- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

**101. Traffic Control**

- ◆ General: This bid item shall include any necessary traffic control during the project duration
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Flaggers necessary during work within MDT R/W.
  - Necessary Signage for trucking required transporting material to and from site.
  - Construction signage necessary for traffic control while in MDT R/W.
  - All work related to staying in compliance with MDT approach permit and traffic control requirements.
- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum

bid item listed in the proposal.

## **201. Clear and Grubbing**

- ◆ General: This bid item shall include the removal of trees, stumps, brush, and other matter that are within the boundaries of disturbance activities.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Clearing and Grubbing;
  - Export of material to off-site as required;
  - Locating proper off-site disposal location;
  - Survey;
  - Watering and dust control;
- ◆ Measurement: Measurement shall be per acre of clear and grub completed. Measurement shall be rounded to the nearest one-hundredth of an acre.
- ◆ Payment: Payment shall be by the unit price bid for each acre of clearing and grubbing completed in the proposal.

## **202. Excavation and Embankment**

- ◆ General: This bid item shall include the removal and storage of topsoil, unclassified excavation, embankment backfill, grading, and compaction of earthwork materials generated by the site.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Grading, embankment, excavation and compaction;
  - Export of material off-site as required;
  - Survey;
  - Watering and dust control;
  - Remove and replace existing topsoil in seeded areas;
- ◆ Measurement: Measurement shall be one lump sum bid item.

- ♦ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal .

### **203. Soil Separation Fabric**

- ♦ General: This bid item shall include the installation of soil separation fabric.
- ♦ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide and install soil separation fabric;
  - Survey as required to locate fabric.
- ♦ Measurement: Measurement shall be per square yard of soil separation fabric installed. Measurement shall be rounded to the nearest square yard.
- ♦ Payment: Payment shall be by the unit price bid for each square yard of soil separation fabric installed listed in the proposal.

### **301. Gravel Surfacing**

- ♦ General: This bid item shall include the placement of the new gravel surfacing for roads and parking.
- ♦ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Grading to prepare subgrade;
  - Import, place, and compact crushed base course;
  - Import, place, and compact crushed top surfacing;
  - Compaction testing;
  - Survey;
  - Watering and dust control;
  - Fine grading.
- ♦ Measurement: Measurement shall be per square yard of gravel surfacing section installed. Measurement shall be rounded to the nearest square yard.
- ♦ Payment: Payment shall be by the unit price bid for each square yard of gravel surfacing section installed listed in the



proposal.

### 302. Approach Asphalt Surfacing

- ◆ General: This bid item shall include the installation of asphalt surfacing for the proposed site approach.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Placement of underlying crushed base course with compaction;
  - Survey line and grade;
  - Provide required tack coat;
  - Provide and place, and compact asphalt;
  - Required testing of crushed base course and asphalt.
- ◆ Measurement: Measurement shall be per square yard of asphalt surfacing section installed. Measurement shall be to the nearest square yard.
- ◆ Payment: Payment shall be by the price bid per square yard of asphalt surfacing section installed as listed in the proposal.

### 303. Class II Riprap

- ◆ General: This bid item shall include the installation of class II riprap.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Furnishing Class II riprap
  - Excavation and grading;
  - Export of material off site as required;
  - Riprap/drain rock installation adjacent to boat ramp structure;
- ◆ Measurement: Measurement shall be per cubic yard of riprap material installed. Measurement shall be to the nearest cubic yard.
- ◆ Payment: Payment shall be by the unit price bid per cubic

yard of riprap listed in the proposal.

### 304. Push-in Concrete Boat Ramp

- ◆ General: This bid item shall include the installation of push-in concrete boat ramp.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Excavation and embankment;
  - Tasks associated with meeting permitting requirements;
  - Provide and install slide rails and screened gravel construction pad, and concrete beam;
  - Form and pour concrete;
  - Slide slab into place;
  - Riprap/drain rock installation adjacent to structure;
  - Provide and install turbidity curtain.
- ◆ Measurement: Measurement shall be per square foot of the concrete surface area of push-in concrete boat ramp installed. Measurement shall be to the nearest square foot.
- ◆ Payment: Payment shall be by the unit price bid per square foot of push-in concrete boat ramp listed in the proposal.

### 305. Cast-in-Place Concrete Boat Ramp

- ◆ General: This bid item shall include the installation of cast-in place concrete boat ramp.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Excavation and embankment;
  - Tasks associated with meeting permitting requirements;
  - Install and compact screened gravel,
  - Form and pour concrete;
  - Riprap installation adjacent to structure.
- ◆ Measurement: Measurement shall be per square foot of the concrete surface area of cast-in-place concrete boat ramp

installed. Measurement shall be to the nearest square foot.

- ◆ Payment: Payment shall be by the unit price bid per square foot of cast-in-place concrete boat ramp listed in the proposal.

### **306. Concrete Sidewalk Section**

- ◆ General: This bid item shall include the installation of concrete sidewalk.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Placement of underlying crushed gravel with compaction;
  - Survey line and grade;
  - Provide and place concrete;
  - Install contraction and expansion joints;
  - Finishing and brooming;
  - Hot and cold weather concreting procedures.
- ◆ Measurement: Measurement shall be per length foot of sidewalk installed. Measurement shall be to the nearest foot.
- ◆ Payment: Payment shall be by the price bid per length foot of sidewalk installed as listed in the proposal.

### **307. Concrete ADA Parking Slab**

- ◆ General: This bid item shall include the installation of concrete ADA Parking Slab.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Placement of underlying crushed gravel with compaction;
  - Survey line and grade;
  - Provide and place concrete;
  - Install contraction and expansion joints;
  - Finishing and brooming;
  - Hot and cold weather concreting procedures.

- ◆ Measurement: Measurement shall be per square foot of ADA parking pad installed. Measurement shall be to the nearest square foot.
- ◆ Payment: Payment shall be by the price bid per square foot of ADA parking slab installed as listed in the proposal.

#### **401. Revegetation & Reseed**

- ◆ General: This bid item shall include the topsoil, seeding, mulch and fertilizing of areas disturbed by construction, or explicitly called out in project plans.
- ◆ Work Included:
  - All labor, tools, equipment, materials, royalties, and incidentals needed to complete the work as specified;
  - Fine grading and conditioning of topsoil;
  - Provide and place seed, mulch and fertilizer;
  - Reclamation of topsoil as required;
  - Maintenance of seeded area as required by specifications.
- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

#### **402. Erosion Control Mat**

- ◆ General: This bid item shall include installation of the erosion control mat.
- ◆ Work Included:
  - All labor, tools, equipment, materials, royalties, and incidentals needed to complete the work as specified;
  - Fine grading and conditioning of topsoil;
  - All additional hardware required to pin mat down on sloped surfaces;
  - Maintenance of mat area as required by specifications.
- ◆ Measurement: Measurement shall be per square yard of erosion control mat installed. Measurement shall be rounded to the nearest square yard.

- ◆ Payment: Payment shall be by the unit price bid for each square yard of soil separation fabric installed listed in the proposal.

#### 403. Project Erosion Control & SWPPP

- ◆ General: This bid item shall include the installation of maintenance of erosion control measures and compliance with project SWPPP.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Obtain and manage Storm Water Pollution Prevention Permit, including permit fees;
  - Install and maintain erosion control barriers;
  - Install and maintain vehicle tracking pad;
  - Survey;
  - Maintenance of permit requirements until it is released.
  - Removal of temporary erosion control features.
  - All fees, materials, labor, and incidentals needed to create and maintain project SWPPP.
- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

#### 404. Barrier Rocks

- ◆ General: This bid item shall include the installation of proposed barrier rocks and entrance boulder.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Furnishing rocks/boulder that meets project size specifications;
  - Barrier rock installation locations per project plans.
  - All excavation required to place each rock.
- ◆ Measurement: Measurement shall be per barrier rock installed.
- ◆ Payment: Payment shall be by the unit price bid per barrier

rock installed listed in the proposal.

#### **405. Boulder**

- ◆ General: This bid item shall include the installation of proposed boulder in the parking lot.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Furnishing boulder that meets project size specifications;
  - Boulder installation location per project plans;
  - All excavation to place boulder.
- ◆ Measurement: Measurement shall be per boulder installed.
- ◆ Payment: Payment shall be by the unit price bid per boulder installed listed in the proposal.

#### **501. Cattle Guards**

- ◆ General: This bid item shall include the installation of (2) cattle guards.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Excavation and embankment;
  - Provide and construct pressure treated timber foundation frame;
  - Provide and install cattle guard grid and end wings;
  - Provide and install single panel as required on both sides of cattle guard.
- ◆ Measurement: Measurement shall be per each cattle guard installed.
- ◆ Payment: Payment shall be by the unit price bid for each cattle guard installed listed in the proposal.

#### **502. Precast Vault Latrine**

- ◆ General: This bid item shall include providing and installing precast concrete latrines.

- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide compaction testing from an independent testing firm;
  - Survey as required;
  - Repair and replacement of any items not specifically mentioned elsewhere in these specifications;
  - Excavation and backfill;
  - Remove spoils generated by installation;
  - Provide and install crushed base course;
  - Provide and install precast concrete latrine;
  - Fine grading of disturbed area.
- ◆ Measurement: Measurement shall be per each latrine installed.
- ◆ Payment: Payment shall be by the unit price bid for each latrine installed listed in the proposal.

**503. 14' Double Panel Gate**

- ◆ General: This bid item shall include the installation of a 14-foot wide metal double panel gate.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide and install gate, gate hardware and closures;
  - Provide and install single panel as required on both sides of gate.
  - Provide and install open position wood posts.
- ◆ Measurement: Measurement shall be per each double panel metal gate installed.
- ◆ Payment: Payment shall be by the unit price bid for each double panel metal gate installed listed in the proposal.

**504. 16' Single Panel Gate**

- ◆ General: This bid item shall include the installation of a 16-foot wide metal single panel gate.

- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide and install gate, gate hardware and closures;
  - Provide and install single panel as required on both sides of gate.
  - Provide and install open position wood posts.
- ◆ Measurement: Measurement shall be per each double panel metal gate installed.
- ◆ Payment: Payment shall be by the unit price bid for each double panel metal gate installed listed in the proposal.

**505. Barbed-Wire Fence (MDT)**

- ◆ General: This bid item shall include the installation of barbed wire fence along MDT R/W.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Line clearing;
  - Provide and install fence posts, panels, wire, staples;
  - Excavation and backfill for fence posts.
- ◆ Measurement: Measurement shall be per lineal foot of barbed wire fence installed along MDT R/W. Measurement shall be to the nearest foot. Measurement shall exclude single panels adjacent to gates.
- ◆ Payment: Payment shall be by the unit price bid per lineal foot of barbed wire fence listed in the proposal.

**506. Smooth-Wire Fence (Site)**

- ◆ General: This bid item shall include the installation of smooth wire fence within the project site.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Line clearing;
  - Provide and install fence posts, panels, wire, staples;
  - Excavation and backfill for fence posts.



- ◆ Measurement: Measurement shall be per lineal foot of smooth wire fence installed within the project site. Measurement shall be to the nearest foot. Measurement shall exclude single panels adjacent to gates.
- ◆ Payment: Payment shall be by the unit price bid per lineal foot of smooth wire fence listed in the proposal.

**507. Barbed-Wire Fence (Reclamation Site)**

- ◆ General: This bid item shall include the installation of barbed wire fence within the reclamation site on the south side of Rock Creek.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Line clearing;
  - Provide and install fence posts, panels, wire, staples;
  - Excavation and backfill for fence posts.
- ◆ Measurement: Measurement shall be per lineal foot of barbed wire fence installed within the reclamation site. Measurement shall be to the nearest foot. Measurement shall exclude single panels adjacent to gates.
- ◆ Payment: Payment shall be by the unit price bid per lineal foot of barbed wire fence listed in the proposal.

**508. Signs**

- ◆ General: This bid item shall include the installation of signs. One no-trespassing sign and one stop sign.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Survey;
  - Excavation and backfill of foundations.
  - Provide and install concrete foundations, anchors, supports, hardware and sign faces.
- ◆ Measurement: Measurement shall be per each sign installed.

- ◆ Payment: Payment shall be by the price bid per each sign installed as listed in the proposal.

#### **509. Precast Parking Stops**

- ◆ General: This bid item shall include the placement of new precast concrete parking stops.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide and place parking stop;
  - Provide and install rebar and rebar end caps;
  - Any modifications to the parking stop necessary for installation;
  - Survey as necessary.
- ◆ Measurement: Measurement shall be per each concrete parking stop installed.
- ◆ Payment: Payment shall be by the unit price bid for each concrete parking stop installed listed in the proposal