

SPECIFICATIONS FOR WORK

SPECIAL PROVISIONS

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1. PROJECT DESCRIPTION

The Project involves construction work associated with Cree Crossing WMA Irrigation Pump Projecte, Fish, Wildlife & Parks (FWP) project # 7115337, located in Phillips County, MT as identified in the project drawings. The project generally includes supplying and installing an irrigation pump, electrical panel, wiring, pipe and incidentals.

2. PROJECT RELATED CONTACTS

Project contacts are designated as follows:

Owner:	Montana FWP 1420 E. Sixth Ave. PO Box 200701 Helena, MT 59620-0701	Project Representative:	Paul Valle FWP Project Manager 600 N. Park Ave. Helena, MT 59620-0701 406-841-4013 (wk) 406-431-3755 (cell) 406-841-4004 (fax)
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3. SITE INSPECTION

All Bidders should satisfy themselves as to the construction conditions by personal examination of the site described in this document. Bidders are encouraged to make any investigation necessary to assess the nature of the construction and the difficulties to be encountered.

4. SOILS INFORMATION

Geotechnical investigation work has not been done for this Project. It is the responsibility of the Contractor to conduct all investigations and determine the soil type and digging conditions that may be encountered with this Project prior to bid preparation.

5. ENGINEERING, INSPECTIONS, AND TESTING

The Contractor’s work will be periodically tested and observed to insure compliance with the Contract Documents. Complete payment will not be made until the Contractor has demonstrated that the work is complete and has been performed as required. If the project manger detects a discrepancy between the work and the requirements of the Contract Documents at any time, up to and including final inspection, such work will not be completely paid for until the Contractor has corrected the deficiency.

The Project manger will periodically monitor the construction of work to determine if the work is being performed in accordance with the contract requirements. The Project manger does not have the authority or 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. Any discrepancies noted shall be brought to the Contractor's

attention, who shall immediately correct the discrepancy. Failure of the Engineer Project manger to detect a discrepancy will not relieve the Contractor of his ultimate responsibility to perform the work as required.

The Contractor shall inspect the work as it is being performed. Any deviation from the Contract requirements shall be immediately corrected. Prior to any scheduled observation by the Project manger, the Contractor shall again inspect the work and certify to the Project manger that he has inspected the work and it meets the requirements of the Contract Documents. All buried work items shall be inspected by the Project manger prior to backfilling, or may not be considered for payment.

The work will be subject to review by the Project Representative. The results of all such observations shall be directed to the Contractor only through the Project Representative.

5.1 Services Provided by the Contractor. The Contractor shall provide the following services:

- a. Any field surveys to establish locations, elevations, and alignments as stipulated on the Plans. FWP reserves the right to set preliminary construction staking for the project. The Contractor is responsible to notify FWP for any construction staking discrepancies.
- b. Preparation and certification of all required shop drawings and submittals as described in the General Conditions.
- c. All tests requiring the services of a laboratory to determine compliance with the Contract Documents shall be performed by an independent commercial testing laboratory acceptable to the Project manger. The laboratory shall be staffed with experienced technicians properly equipped, and fully qualified to perform the tests in accordance with the specified standards.
- f. The Contractor shall provide the Engineer Project manger with a written schedule indicating dates for specific testing and inspection services to be performed. The schedule shall be updated as required to give the Engineer Project manger at least one week's advance notice. The Contractor shall notify the Project manger immediately of any change or shall be subject to pay engineering fees as herein defined.

5.2 Services Provided by the Owner. The Owner shall provide the following services at no cost to the Contractor except as required for retests as defined in the Contract Documents.

- a. The Project manger may check compaction of backfill and surfacing courses using Proctor information supplied by the Contractor. These tests are to determine if compaction requirements are being fulfilled in accordance with the Contract Documents. It is ultimately the responsibility of the Contractor to insure that this level of compaction is constant and met in all locations.

6. ENGINEERING INTERPRETATIONS

Timely engineering decisions on construction activities or results have an important bearing on the Contractor's schedule. When engineering interpretation affects a plan design or specifications change, it should be realized that more than 24 hours may be required to gain the necessary Owner participation in the decision process including time for formal change order preparation as required.

7. REJECTED WORK

Any defective work or nonconforming materials or equipment that may be discovered at any time prior to the expiration of the warranty period, shall be removed and replaced with work or materials which shall conform to the provisions of the Contract Documents. Any material condemned or rejected shall be removed at once from the project site. Failure on the part of the Project manager to condemn or reject bad or inferior work or to note nonconforming materials or equipment on the Contractor's submittals shall not be construed to imply acceptance of such work. The Owner shall reserve and retain all its rights and remedies at law against the Contractor and its Surety for correction of any and all latent defects discovered after the guarantee period.

The Project manager will have the authority to reject work which does not conform to the Contract Documents and will provide the Owner with a list of defective work and nonconforming materials or equipment. The Owner will then promptly provide the Contractor with the list of defective work on nonconforming materials or equipment.

8. UTILITIES

The exact locations of existing underground utilities that may conflict with the work are not precisely known. It shall be the Contractor's responsibility to contact the owners of the respective utilities and arrange for field location services. **One Call Locators, 1-800-424-5555**

8.1 Notification. The Contractor shall contact, in writing, all public and private utility companies that may have utilities that may be encountered during excavation. The notification includes the following information:

- a. The nature of the work that the Contractor will be performing.
- b. The time, date and location that the Contractor will be performing work that may conflict with the utility.
- c. The nature of work that the utility will be required to perform such as moving a power pole, supporting a pole or underground cable, etc.
- d. Requests for field location and identification of utilities.

A copy of the letter of notification shall be provided to the Project manager. During the course of construction, the Contractor shall keep the utility companies notified of any change in schedule or nature of work that differs from the original notification.

- 8.2 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.
- 8.3 Removal or Relocation of Utilities. All electric power, street lighting, gas, telephone, and television utilities that require relocation will be the responsibility of the utility owner. A request for extending the specified contract time will be considered if utility owners cause delays.
- 8.4 Public Utilities. Water, sewer, storm drainage, and other utilities owned and operated by the public entities shall, unless otherwise specifically requested by the utility owner, be removed, relocated, supported or adjusted as required by the Contractor at the Contractor's expense. All such work shall be in accordance with these Specifications, or the Owner's Standard Specifications or written instructions when the work involved is not covered by these Specifications.
- 8.5 Other Utilities. Utilities owned and operated by private individuals, railroads, school districts, associations, or other entities not covered in these Special Provisions shall, unless otherwise specifically requested by the utility owner, be removed, relocated, supported or adjusted as required by the Contractor at the Contractor's expense. All work shall be in accordance with the utility owner's directions, or by methods recognized as being the standard of the industry when directions are not given by the owner of the utility.
- 8.6 Damage to Utilities and Private Property. The Contractor shall protect all utilities and private property and shall be solely responsible for any damage resulting from his construction activities. The Contractor shall hold the Owner and Engineer harmless from all actions resulting from his failure to properly protect utilities and private property. All damage to utilities shall be repaired at the Contractor's expense to the full satisfaction of the owner of the damaged utility or property. The Contractor shall provide the Owner with a letter from the owner of the damaged utility or property stating that it has been repaired to the utility owner's full satisfaction.
- 8.7 Structures. The Contractor shall exercise every precaution to prevent damage to existing buildings or structures in the vicinity of his work. In the event of such damages, he shall repair them to the satisfaction of the owner of the damaged structure at no cost to the Owner.
- 8.8 Overhead Utilities. The Contractor shall use extreme caution to avoid a conflict, contact, or damage to overhead utilities, such as power lines, streetlights, telephone lines, television lines, poles, or other appurtenances during the course of construction of this project.

- 8.9 Buried Gas Lines. The Contractor shall provide some means of overhead support for buried gas lines exposed during trenching to prevent rupture in case of trench caving.
- 8.10 Pavement Removal. Where trench excavation or structure excavation requires the removal of curb and gutter, concrete sidewalks, or asphalt or concrete pavement, the pavement or concrete shall be cut in a straight line parallel to the edge of the excavation by use of a spade-bitted air hammer, concrete saw, colter wheel, or similar approved equipment to obtain a straight, square clean break. Pavement cuts shall be 2 feet wider than the actual trench opening.
- 8.11 Survey Markers and Monuments. The Contractor shall use every care and precaution to protect and not disturb any survey marker or monuments, such as those that might be located at lot or block corners, property pins, intersection of street monuments or addition line demarcation. Such protection includes markings with flagged high lath and close supervision. No monuments shall be disturbed without prior approval of the Engineer. Any survey marker or monument disturbed by the Contractor during the construction of the project shall be replaced at no cost to the Owner by a licensed land surveyor.
- 8.12 Temporary Utilities. The Contractor shall provide all temporary electrical, lighting, telephone, heating, cooling, ventilating, water, sanitary, fire protection, and other utilities and services necessary for the performance of the work. All fees, charges, and other costs associated therewith shall be paid for by the Contractor.

The Contract Plans show utility locations based on limited field observation and information provided to the Project manager by others. **The Project manager cannot guarantee their accuracy.** The Contractor shall immediately notify the Engineer of any discrepancies with utility locations as shown on the Contract Drawings and/or their bury depths that may in any way affect the intent of construction as scoped in these specifications.

There will be no separate payment for exploratory excavation required to locate underground utilities.

9. CONSTRUCTION SAFETY

The Contractor shall be solely and completely responsible for conditions of the jobsite, including safety of all persons (including employees) and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to U.S. Department of Labor (OSHA), and all other applicable federal, state, county, and local laws, ordinances, codes, and regulations. Where any of these are in conflict, the more stringent requirement shall be followed. The Contractor's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations

and penalties set forth therein.

10. CONSTRUCTION LIMITS AND AREAS OF DISTURBANCE

- 10.1 Construction Limits. Where construction easements or property lines, are not specifically called out on the Plan Drawings, limit the construction disturbance to 10 feet when measured from the edge of the slope stake grading, or to the adjacent property line, whichever is less. Disturbance and equipment access beyond this limit is not allowed without the written approval of both the Project manager 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.
- 10.2 Areas of Disturbances. Approved areas of disturbance are those areas disturbed by construction activities within the construction limits and along designated or approved access routes. Such areas may require reclamation and revegetation operations, including grading to the original contours, top soiling with salvaged or imported topsoil, seeding, fertilizing, and mulching as specified herein. Other areas that are disturbed by the Contractor's activities outside of the limits noted above will be considered as site damage or unapproved areas of disturbance subject to Repair and Replacement Quality as specified in the General Conditions. This includes areas selected by the Contractor outside the defined construction limits for mobilization, offices, equipment, or material storage.

11. PROTECTION OF ADJACENT IMPROVEMENTS

Retain and protect all adjacent improvements not called for removal on the drawings. Restore all damaged items to pre-existing condition.

12. TREE PROTECTION AND PRESERVATION

The Contractor and the Owner shall individually inspect all trees within the project construction limits prior to construction. The Owner shall determine which trees are to be removed and which trees are to be preserved. Construction of the grading, utilities and various roadway facilities must not, in the opinion of the Engineer, significantly damage the trees root system or hinder it's chances for survival. Reasonable variations from the plans, as determined by the Engineer, may be employed to ensure the survival of trees.

13. CONSTRUCTION SURVEYS

The Contractor will be responsible for all layout and construction staking utilizing the Engineer's existing control and coordinate data for the project. Dimensions and elevations indicated in layout of work shall be verified by the Contractor. Discrepancies between Drawings, Specifications, and existing conditions shall be referred to the Engineer for adjustment before

work is performed. The Engineer may set location and grade stakes prior to construction; however, it is ultimately the responsibility of the Contractor to check and verify all construction staking for the project.

Existing survey control (horizontal and vertical) has been set for use in the design and ultimately the construction of these improvements. A listing of the coordinates and vertical elevation for each of these control points may be included in the project drawings.

The Contractor will be responsible for preserving and protecting the survey control until proper referencing by the Contractor has been completed. Any survey control obliterated, removed, or otherwise lost during construction will be replaced at the Contractor's expense.

Contractor shall be aware of property pins and survey monuments. Damage to these pins will require replacement of such by a registered land surveyor at no cost to the owner.

The Contractor is responsible for the location and elevation of all the construction contemplated by the Contract Documents.

The Contractor shall provide construction staking from the Contractor's layouts and the control points. Contractor's construction staking includes at a minimum:

1. Slope stakes located at critical points as determined by the Engineer.
2. Blue tops every longitudinally and transversely for subgrade and crushed base to verify finish grading of course.
3. Location and grade stakes for drainage features and retaining walls.
4. Location stakes for roadside safety items, permanent and temporary traffic control, and misc. items as determined by the Engineer.

Prior to commencing work, the Contractor shall carefully compare and check all drawings, each with the other that in any way affects the location or elevation of the work to be executed by him, and should any discrepancy be found, he shall immediately report the same to the Engineer for verification and adjustment. Any duplication of work made necessary by failure or neglect on his part to comply with this function shall be done at his sole expense.

Original field notes, computations and other records take by the Contractor for the purpose of quantity and progress surveys shall be furnished promptly to the Engineer and shall be used to the extent necessary in determining the proper amount of payment due to the Contractor.

These field notes, computations and other records shall be neat and orderly. Field notes shall be complete and in a standard format approved by the Engineer. Unless waived in each specific case, all quantity surveys made by the Contractor shall be made under the direct supervision of the Engineer.

14. MATERIAL SOURCES AND CONSTRUCTION WATER

The Contractor shall be responsible for locating all necessary material sources, including aggregates, earthen borrow and water necessary to complete the work. The Contractor shall be responsible for meeting all transportation and environmental regulations as well as paying any royalties. The Contractor shall provide the Project manager with written approvals of landowners from whom materials are to be obtained prior to approval.

The Contractor may use materials from any source, providing the materials have been tested through representative samples and will meet the Specifications.

Water for compaction efforts shall be supplied by the Contractor.

15. MATERIALS SALVAGE AND DISPOSAL

If the Owner requests to salvage material removed from the project, notify the Owner within 24 hours prior to delivery at a specific location approved by the Owner.

Haul and waste all excavated material to a legal site and obey all state, county, and local disposal restrictions and regulations.

16. STORED MATERIALS

Contractor shall use an approved storage area for materials. Materials and/or equipment purchased by the Contractor may be paid for on a monthly basis providing invoices for said materials and equipment are presented to the Engineer, and such materials have been approved through the submittal process are stored and insured.

17. STAGING AND STOCKPILING AREA

Contractor shall use staging and stockpiling sites for temporary traffic control devices and equipment as approved by the Owner. Contract drawings may show approved staging and stockpiling locations. Notify Owner within 24 hours for approval of staging and stockpiling sites not shown on the contract drawings.

18. SECURITY

The Contractor shall provide all security measures necessary to assure the protection of equipment, materials in storage, completed work, and the project in general.

19. CLEANUP

Cleanup for each item of work shall be fully completed and accepted before the item is

considered final. If the Contractor fails to perform cleanup within a timely manner the Owner reserves the right to shut down construction activities.

20. ACCESS DURING CONSTRUCTION

Provide access to all public and private roadways and approaches along the project throughout the construction period.

21. CONSTRUCTION TRAFFIC CONTROL

The contractor is responsible for providing safe construction and work zones within the project limits by implementing the rules, regulations, and practices of the Manual on Uniform Traffic Control Devices, current edition.

22. SANITARY FACILITIES

On-site toilet facilities for employees of Contractor and Subcontractors shall be provided and maintained in a sanitary condition.

23. RECORD DRAWINGS

The Contractor's Superintendent shall maintain at the project site, a "Record Set of Drawings" showing field changes, as-built elevations, unusual conditions encountered during construction, and such other data as required to provide the Owner with an accurate "as constructed" set of record drawings. The Contractor shall furnish the "Record Set" to the Engineer following the Final Inspection of the Project.

The Contractor's final estimate and final payment will not be processed until the "Record Set" of drawings are received and approved by the Engineer.

24. PROPOSAL ITEM DESCRIPTIONS AND ESTIMATED QUANTITIES

1. Ames Manufacturing floating pump System:

* Description: This bid item includes all equipment, materials, labor and associated work necessary for supplying and installation of an Ames Manufacturing floating pump system (FPS 1040) including 10" 40' discharge 10" geared butterfly valve, tires, self leveling floats, cat walk and hand railing as noted in the specifications and drawings. This bid item also includes the installation, as designated in the specifications and project drawings.

* Estimated Quantity:

- 1- lump sum

2. Pump:

- * Description: This bid item includes all equipment, labor and associated work for Supplying and installing a (6RB-1200-30) Cornell pump providing 2000 GPM at 50' of head as noted in the specifications and drawings.
 - * Estimated Quantity:
 - 1- lump sum
3. Self-cleaning suction screen:
- * Description: This bid item includes all equipment, labor and associated work for the installation of an Ames manufacturing (FLD 1236 Self cleaning suction screen as noted in the specifications and drawings.
 - * Estimated Quantity:
 - 1- lump sum
4. Roto-Phase power converter:
- * Description: This bid item includes all equipment, labor and associated work for installing a HD-30-460-XT2PC Roto-Phase Power converter noted in the specifications and drawings.
 - * Estimated Quantity:
 - 1- lump sum
5. Electrical panel:
- * Description: This bid item includes all equipment, labor, materials and associated work for installing a 480 volt, 3 PH, electrical panel including 200' of wire as noted in the specifications and drawings.
 - * Estimated Quantity:
 - 1- lump sum
6. PVC discharge pipe:
- * Description: This bid item includes all equipment, labor, materials and associated work for installing 200' of 10" plastic SDR 26 PVC discharge pipe as noted in the specifications and drawings.
 - * Estimated Quantity:
 - 200 feet – per foot

SPECIFICATIONS FOR WORK

TECHNICAL PROVISIONS

Incorporation of Montana Public Works Technical Specifications.

The Technical Specifications as found in Montana Public Works Standard Specifications (MPWSS), Sixth Edition, April 2010, is hereby incorporated by reference and made a part of this Contract:

Incorporation of Montana Fish, Wildlife & Parks Technical Specifications and Modifications to MPW Technical Specifications.

In addition to the MPWSS Technical Specifications are the following Montana Fish, Wildlife & Parks Technical Specifications (modifications to MPWSS Technical Specifications).

SECTION 99999 - Pump Systems

SECTION 99999

PUMP SYSTEMS

All applicable portions of this specification section in the MPWSS shall apply with the following additions, deletions and/or modifications.

PART 2 PRODUCTS

Add the following:

2.3 PIPE COMPONENTS

A. Floating pump system

Furnish and install pre-fabricated floating pump system including 10" x 40' discharge, 10" geared butterfly valve, tires, self leveling floats, catwalk and hand railing. An acceptable product is manufactured by the following supplier:

FPS1040 (or approved equal)
Ames Manufacturing Inc.
3114 W Front St
Williston ND 58801
701-572-1968
www.amesfloatingpumps.com/Floating.aspx

B. Pump

Furnish and install pump providing 2000 GPM at 50' head. An acceptable product is manufactured by the following supplier:

Cornell 6RB-1200-30 pump (or approved equal)
Cornell Pump Company
P.O. Box 6334
Portland Oregon 97228-6334
503-653-0330
www.cornellpump.com/

C. Suction screen

Furnish and install self cleaning suction screen. An acceptable product is manufactured by the following supplier:

FLD1236 (or approved equal)
Ames Manufacturing Inc.
3114 W Front St
Williston ND 58801

701-572-1968

www.amesfloatingpumps.com/Floating.aspx

D. ROTO-PHASE

Furnish and install a Roto-phase power converter. Products shall be compatible with pump manufacture.

E. Electrical panel

Furnish and install a 480 volt 3 PH electrical panel including 200' of wire. Products shall be compatible with pump manufacture.

E. Discharge Pipe

Furnish and install 200' of 10" SDR 26 PVC plastic discharge pipe.

PART 3 EXECUTION

Add the following:

3.6 PUMP STATION AND ELECTRICAL COMPONENTS

- A. Follow the manufacturer's recommendations for installation procedures.
- B. Follow all state and local electrical codes.

PART 4 MEASUREMENT AND PAYMENT

Add the following:

4.6 PIPE COMPONENTS

- A. Floating pump system installation will be measured and paid by the lump sum (LPSM) including all labor, equipment, materials and incidentals required for the completion of the work.
- B. Pump installation will be measured and paid by lump sum (LPSM) including all labor, equipment, materials and incidentals required for the completion of the work.
- C. Suction screen installation be measured and paid by the lump sum (LPSM) including all labor, equipment, materials and incidentals required for the completion of the work.

- D. Roto-Phase converter will be measured and paid by the lump sum (LPSM) including all labor, equipment, materials and incidentals required for the completion of the work.
- E. Electrical panel will be measured and paid by the lump sum (LPSM) including all labor, equipment, materials and incidentals required for the completion of the work.
- F. Discharge pipe will be measured and paid by the linear foot (LNFT) including all labor, equipment, materials and incidentals required for the completion of the work.

END OF SECTION 99999