Steamboat Rock State Park Shoreline Stabilization

Gravity Division
Columbia Basin Project, Washington

Solicitation No. 140R1026B0001

U.S. Department of the Interior
Bureau of Reclamation
Columbia Pacific Northwest Interior Region 9
Boise, Idaho

SPECIFICATIONS
February 2026

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Steamboat Rock State Park Shoreline Stabilization
Columbia Basin Project, Washington

FOREWORD

Work is located within Steamboat Rock State Park, approximately 14 miles to the southwest of Grand Coulee, Washington, in Grant County. The principal components of the work include slope protection in the form of void filled riprap filled with topsoil and revegetation on the strip below elevation 1572.00.

PRE-OFFER SITE VISIT: SEE SECTION L AND STANDARD FORM-1442 FOR SITE VISIT INFORMATION.

FOR DATE AND PLACE OF BID OPENING, SEE "SOLICITATION, OFFER, AND AWARD," STANDARD FORM 1442.

FOR INFORMATION REGARDING BUREAU OF RECLAMATION'S PUBLICATION "RECLAMATION SAFETY AND HEALTH STANDARDS" INCLUDING REVISIONS AT https://www.usbr.gov/safety/rshs/index.html **WHICH IS APPLICABLE TO WORK UNDER THIS CONTRACT, SEE CLAUSE AT "WBR 1452.223-81 SAFETY AND HEALTH."**

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CONTINUATION OF

SECTION B – SUPPLIES OR SERVICES AND PRICES

BANKS LAKE

STEAMBOAT ROCK STATE PARK SHORELINE STABILIZATION

COLUMBIA BASIN PROJECT, WASHINGTON

B.1 PRICE SCHEDULE

(a) Offers will be considered for award on the following Price Schedule, but no bid will be considered for award on only a part of the Price Schedule.

(b) Offers are subject to the terms and conditions of this solicitation.

(c) Quantities in the Price Schedule are estimated quantities for comparison of bids only. Except as provided in the contract clause at FAR 52.211-18, Variation in Estimated Quantity, no claim shall be made against the Government for overruns or underruns. The contract clause at FAR 52.211-18, Variation in Estimated Quantity does not apply to lump sum items.

(d) See the contract clause at WBR 1452.232-81, Payment for Mobilization and Preparatory Work, for CLIN 1.

(e) Definitions:

(1) CLIN – Contract Line Item Number

PRICE SCHEDULE

CLIN	Section	Supplies or Services	Quantity and Unit	Unit Price	Amount
1	WBR 1452.232 -81	Mobilization and Preparatory Work	For the lump sum of		$
2	01 31 30	Contract Document Management System	For the lump sum of		$
3	31 23 11	Furnishing and Placing Compacted Fill	2277 yd^3	$	$
4	31 25 14	Erosion Control Blanket	5497 yd^2	$	$

PRICE SCHEDULE

CLIN	Section	Supplies or Services	Quantity and Unit	Unit Price	Amount
5	31 37 00	Riprap	3660 Ton	$	$
6	32 91 19	Topsoil	976 yd^3	$	$
7	32 92 15	Plant Plugs	For the lump sum of		$
8	32 92 20	Seeding and Soil Supplements	For the lump sum of		$

TOTAL FOR PRICE SCHEDULE $_____

END OF SUPPLIES OR SERVICES AND PRICES

Signature Sheet / Certification of Technical Specifications

Project Title: Steamboat Rock State Park Shoreline Stabilization

Region: Columbia Pacific Northwest Interior Region 9

Technical Specifications
Project Title: Steamboat Rock State Park Shoreline Stabilization

Prepared by: STACEY CARLSON Digitally signed by STACEY CARLSON Date: 2026.02.05 12:23:37 -07'00' Date: _____

Technical Approval: JANICE BACONGUIS Digitally signed by JANICE BACONGUIS Date: 2026.02.05 14:52:01 -07'00' Date: _____

1. The person signing the specifications package as "Prepared by" shall have developed or assembled the written specifications.
2. The person signing the specifications package for "Technical Approval" shall have been in responsible charge of the overall design including developing or assembling the specifications. This person will typically be the design team leader. In cases where the designs described by the specifications meet the criteria for preparation by a registered engineer or architect, this person shall be registered with the applicable professional designation after their signature, such as P.E. for professional engineer or R.A. for registered architect. By this signature, this person is certifying the written specifications convey the design intent as portrayed on the drawings included therein. For specifications package containing designs from multiple disciplines, it is the signing individual's responsibility to ensure (using procedures defined by his/her organization) that the technical information prepared by other professions and disciplines and depicted in the document is compatible with the overall design intent and that the documents used to depict that information (e.g., drawings) include signatures with appropriate professional registration designations.
3. Revisions to designs after drawings and written specifications are originally signed will be reviewed by a design team representative (typically the design team leader). The review of written specifications revisions must be documented on a signature sheet included with the revised written specifications (see below).

AMD/MOD No.	Technical Approval Signature:	Prepared By Signature:	Revised Sections:

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DIVISION 01 - GENERAL REQUIREMENTS

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SECTION 01 11 00
SUMMARY OF WORK

PART 1 GENERAL

1.01 LOCATION

A. Work is located within Steamboat Rock State Park, approximately 14 miles to the southwest of Grand Coulee, Washington, in Grant County, 99123.

1.02 PRINCIPAL COMPONENTS OF WORK

A. Slope Protection in the form of void filled riprap and topsoil with revegetation along the shoreline.

1.03 SUMMARY OF WORK

A. The general intent of this work is to protect the existing bank slopes from further erosion. The proposed action was developed by the Bureau of Reclamation (Reclamation) in coordination with managing partners and other consulting parties to protect the area by placing riprap on the slope.

B. Temporary Roads are not permitted in the drawdown zone of Banks Lake and this project shall not be constructed from land in the drawdown zone. The Contractor must submit a plan for use of all access points to the job site and indicate all temporary storage areas as part of the pre-work plan. This plan must be reviewed and approved by Reclamation Contracting Officer's Representative and Project Management before construction begins.

1.04 SPECIFICATIONS REQUIREMENTS

A. Requirements in Division 1, General Requirements, apply to Divisions 2 through 52.

B. Imperative statements in these specifications are Contractor requirements, unless otherwise stated.

C. Where specifications are written in streamlined form, words "shall be" are included by inference where a colon (:) is used within sentence or phrase.

1.05 DEFINITIONS

A. When specifications use a word or term defined in Federal Acquisition Regulations (FAR), definition of the word or term shall be in accordance with FAR sections in effect at the time solicitation was issued.

1.06 ACRONYMS

A. The following acronyms apply to specifications Divisions 1 through 52:

1. CO: Contracting Officer.
2. COR: Contracting Officer's Representative.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 14 10
USE OF SITE

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 REFERENCE STANDARDS

A. Bureau of Reclamation (USBR)

1. Cleaning Manual-2012 — Inspection and Cleaning Manual for Equipment and Vehicles to Prevent the Spread of Invasive Species (Technical memorandum No. 86-68220-07-05) 2012 Edition
Available online at:
http://www.usbr.gov/mussels/prevention

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 14 10-1, Land Use and Landscape Rehabilitation Plan:

1. For each Contractor use site on Government land.

a. Show use location and extent of impact. Uses include but are not limited to the following:

1) Buildings and service areas including offices, shops, warehouses, storage areas, fuel and oil storage areas, and fabrication yards.

2) Parking areas, temporary roads, and haul routes.

3) Utilities including air, power, and water lines; fire hydrants; and compressor station.

4) First-aid and medical facilities.

5) Areas for processing, storing, and disposing of waste materials from construction operations.

6) Temporary fences.

b. Describe methods to preserve, protect, and repair, vegetation (such as trees, shrubs, and grass) and other landscape features on or adjacent to jobsite, which are not to be removed and which do not interfere with work

required under this contract. Include methods to mark work area limits, protect disturbed areas, and prevent erosion.

c. Describe methods to protect, and repair if damaged, existing improvements and utilities at or near jobsite.

d. Describe methods for removing temporary structures and facilities, cleanup, and rehabilitating site after completion of construction activities.

e. Describe methods to minimize impact, protect, and repair if damaged, the log booms during construction activities.

f. Describe methods of construction in the event of Banks Lake freezing.

g. Describe methods of construction in the event of high or low water.

2. Submit revised drawings of changes in use of Government land made during design and erection stages or after use of Government land is in operation.

1.04 PROJECT CONDITIONS

A. Government land may be used for temporary construction facilities as shown on the drawings.

B. No temporary structures are allowed within the Banks Lake drawdown zone, which ranges from 1565’ to 1570’.

C. On-site construction to take place between October 1st, and May 1st.

D. There is no land access to the area of work. Access to site is from the reservoir side. The work day is to start no earlier than 7 a.m. and end no later than 7 p.m. from Monday to Friday to minimize the disturbance caused by the construction activities.

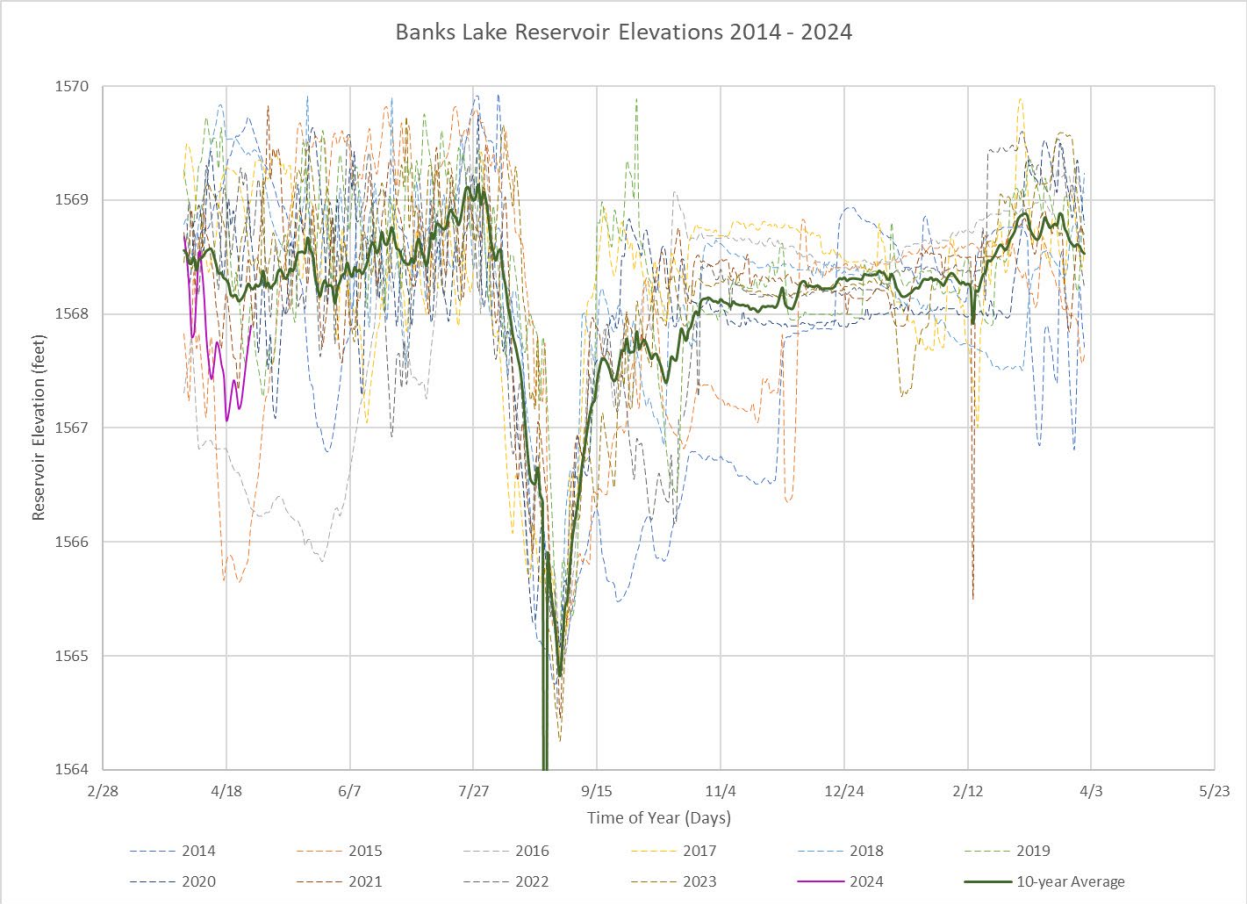
E. Retain the integrity of the existing terrain with minimal construction impact.

F. Location, construction, operation, maintenance, and removal of construction facilities on Government land will be subject to approval of COR.

G. Do not interfere with work of other contractors or the Government in vicinity, or with reservations made by the Government for use of such land.

H. Housing for construction personnel will not be permitted on Government land, except housing for guards or watchmen as may be approved by COR.

I. Figure of historical and mean reservoir elevations from 2014 to 2024 (as of publication)



PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 CLEANING

A. Construction equipment:

1. Before bringing on site, clean construction equipment to remove dirt, vegetation, and other organic material to prevent introduction of noxious weeds, and invasive plant and animal species.
2. Contractor cleaning procedures shall result in equipment being cleaned as well or better than the procedures described in Cleaning Manual.
3. COR will inspect construction equipment following procedures described in Cleaning Manual before allowing equipment onsite.

3.02 RESTORATION

A. Restore Contractor use areas to pre-construction condition.

B. Seed disturbed areas of Government land used for construction purposes and not required for completed installation in accordance with Section 32 92 20 - Seeding and Soil Supplements with species of native plants, or other approved perennial species, as recommended by an experienced local horticulturist.

END OF SECTION

SECTION 01 31 19
PROJECT MANAGEMENT AND COORDINATION

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 PROJECT COORDINATION

A. The following meetings are considered significant, but do not relieve the Contractor from the responsibility of other meetings required by the specifications.

1. Contractor Progress Review Meetings:

a. Meeting shall be held weekly at the work site project office. Prepare agenda and distribute 24 hours before the meeting.

b. Contractor to provide virtual call-in option via Microsoft teams.

c. Prepare and distribute meeting minutes.

d. Attendees: Responsible representatives who have been fully informed of specifications with respect to technical requirements, and coordination necessary to complete construction. Representatives shall be determined on an as needed basis and typically should include:

1) Project Manager from Contractor.

2) Field Superintendent from Contractor.

3) COR and other Representatives from Bureau of Reclamation.

4) Representatives may attend by telephone and / or video conference.

e. Purpose:

1) Review, schedule, construction progress, and coordination.

a) Review submittals register, submittals currently in review and approval, and meeting submittals due dates or delivery time frames.

b) Review safety, security, environmental, schedule, project issues and concerns, submittals, contractor Requests for Information (RFI), Requests for Proposals (RFP), pending Contract Modifications, and other project related items.

c) Provide 3 week look-ahead schedule at least 2 hours before start of meeting.

d) Review as-built drawings.

e) Provide meeting minutes from the previous weekly meeting.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 31 30
CONTRACT DOCUMENT MANAGEMENT SYSTEM

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Contract Document Management System:

1. Payment: Lump sum price offered in the Price Schedule.

1.02 DEFINITIONS

A. CDMS: Contract Document Management System.

1. Contract Documents include, but are not limited to:
   - a. Submittals.
   - b. DIRs: Daily Inspection Reports
   - c. RFCs: Request for Change (Contractor generated document).
   - d. RFIs: Request for Information (Contractor generated document).
   - e. Bureau of Reclamation (Reclamation) Inspection Reports.
   - f. Contract Schedules.
   - g. Meeting Agendas and Meeting Minutes.
   - h. Letters and Memos.

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 – Submittals.

B. RSN 01 31 30-1, Approval Data:

1. Documentation of system capabilities.
2. Instructions for system use.

C. RSN 01 31 30-2, Final Data:

1. DVD/flash drive of documents uploaded to CDMS.

1.04 QUALIFICATIONS

A. System provider: At least 5-years successful performance in providing required services.

1.05 CDMS REQUIREMENTS

A. CDMS shall be capable of generating, storing, tracking, categorizing, and managing Contract Documents.

B. Access:

1. Web-based:

   a. Contract Documents are stored and accessed by authorized individuals via an internet site.

   b. Compatible with web browsers Microsoft Edge, Apple Safari, Mozilla Firefox, and Google Chrome.

2. Ability to upload Contract Documents and make available for user download in supported file formats, minimum:

   a. Portable Document Format (.pdf).

   b. MS Word.

   c. MS Excel.

   d. MS Project.

   e. Oracle Primavera P6 Project Manager.

   f. Drawing (.dwg).

   g. Contract Manager.

3. Allow Contract Documents to be prepared by Contractor or by Government.

   a. Preparing organization will control access of documents. See Document Security and Backup paragraph below.

4. Contractor and Government shall each have a COR for CDMS:

   a. Each CORPR shall have capabilities to assign users within their organization and assign user rights that control access to documents based on user class and document type.

   b. Each organization shall be capable of defining its access hierarchy.

   c. Inclusion of users will be prerogative of organizational project manager.

   d. Government shall be able to create and modify project properties (i.e., Contractor, project location, description, bid amount, project directory, etc.).

5. Email notifications shall be automatically sent to selectable users when new documents are submitted and available for viewing or alerts are generated. Examples:

   a. Updates to project information (e.g., entry of a new submittal);

   b. Changes to project information (e.g., approval of a submittal);

c. Alerts (e.g., submittal under review for >15 days without action).

6. Ability to link files; examples:

a. Submittal linked to a Specification or Drawing.

C. Reports:

1. CDMS shall generate reports that list and sort documents by status; examples:

a. Submittals that have been approved.

b. Invoices paid to date.

c. RFIs under review.

2. Generate alerts when documents requiring action approach or exceed allowable time.

3. Generate customizable summary reports; examples include:

a. Submittal Turn-around.

b. RFI Turn-Around.

c. CM Processing Turn-Around.

d. Total CM costs.

e. Total CM Request Exposure.

4. Printable, exportable as searchable .pdf or printer -friendly HTML, and exportable to Excel, XML, or CSV.

5. Ability to link from an item in a report directly to the item by clicking on it:

a. For example: in a submittal report, clicking on a submittal that is 15-days old takes you directly to information on that submittal.

6. Capable of producing a complete and logically organized set of documents within CDMS in both .pdf and .xml format.

D. Document Security and Backup:

1. SSL encryption for secured data exchange between browser and server (Secure access to documents and information).

2. Allow document access security until authoring party chooses to share it with others:

a. Show parties that have access to a document.

b. Extent of document sharing shall be determined by authoring party.

c. Once documents are shared, track documents so that changes cannot occur without a record of changes.

3. Backup/Archiving to FTP site of documents to which an organization has access on a regular (minimum monthly) basis.

4. Documents shall be downloadable to FTP sites where Government and other organizations can each access their own data confidentially.

E. General Tracking and Control:

1. Documents shall be grouped into categories (Submittals, RFI, Daily Inspection Reports, and Meeting Minutes).
2. CDMS shall track:
   a. When documents were received or returned, as well as status of documents (e.g., Under Review; or Returned, Approved or Rejected, etc.).
   b. Document changes, including who entered or changed document and date change was made.
   c. When a reviewer has opened an item.

F. Submittal Tracking and Control:

1. Ability to create master list of submittals ("Schedule of Submittals".)
2. Customizable standard submittal form for entering information:
   a. Required information includes:
      1) Required submittal number (RSN), title, description, and specification section.
   b. Upload submittal data in electronic format.
3. Track date received, date response due, date returned, and status:
   a. Status designations may be modified to fit Government standard designations – Approved, approved subject to identified changes, or not approved.
4. Supply Submittal Tracking form for Government to enter review comments and action taken. Allow customizing of submittal tracking form:
   a. Allow for Government to route submittal to third parties (e.g., consultant, internal design or operations and maintenance groups, etc.) by generating design-review transmittals with each submittal package item, to track status of individual sub-items within submittal package, and to route each sub-item to the appropriate reviewers.
5. Ability to generate automatic notification after specified days without response.

G. RFI Tracking and Control:

1. Supply standard RFI form to enter information.
2. Ability to create or attach documents to the RFI form or links to other documents within CDMS.
3. Ability for Government to route RFI to appropriate reviewers and for reviewers to enter comments into standard response form.

H. Inspection Reports Tracking and Control:

1. Ability to attach Reclamation standard inspection and report forms into CDMS and ability to create customizable inspection forms in CDMS. Typical forms:

   a. Daily Inspection Report (DIR).

   b. Survey requests.

   c. Plant inspection reports.

   d. Testing reports.

2. Ability to link or attach photos to forms and link forms to other documents within CDMS.

I. Cost Tracking and Payment Request Management:

1. Ability to import payment bid items cost from MS Excel spreadsheets.

2. Ability to edit percent complete and payment amount each month. Format to be spreadsheet, e.g. items available for editing at once, rather than needing to edit one item at a time, save, open next item and edit that, etc.

J. Correspondence:

1. Ability to generate letters and memos:

   a. Ability to attach documents to letters and memos, and to reference other documents within CDMS.

   b. Ability to automatically assign sequential numbers to letters and memos.

2. Ability to generate responses to letters and memos:

   a. System automatically generates memo suffixes; e.g., 1st response to Memo 32 to be 32.1, 2nd response to be 32.2, etc.

3. Official correspondence from Reclamation to Contractor shall contain Reclamation's official letterhead and corresponding logos.

4. Ability to generate meeting agendas and meeting minutes and to attach documents to the minutes:

   a. CDMS shall automatically assign sequential meeting numbers.

K. Miscellaneous Tracking and Controls:

1. Ability to generate logs tracking RFIs, CORs, COs, Submittals, Memos, DIRs, survey requests, plant inspection reports, and testing reports.

2. Ability to filter logs based on criteria, e.g., for Submittals: Specification Section, Days Out, Status (approved, partially approved, approved subject to identified changes and resubmit, or not approved.); for RFI's: Days out, Status (Open/Closed), Specification Section/Dwg No., and Responsibility/Ball-In-Court.

3. Ability to sort logs based on a criterion, e.g., for Submittal, Specification Section, Days Out, Status, or other criteria determined by COR.

4. Ability to provide forms to match Reclamation's CM Form and Progress Payment Form or other forms when needed.
5. Ability to track Cost Exposure with links to RFI and CM requests.
6. Ability to measure productivity benchmarks on a project, such as computing average review days for RFIs and submittals, categorize CMs, and track total CM percentages by category.
7. Ability for keyword search of documents in database.
8. Ability to allow online Payment Requests (electronic invoicing) by Contractor.

PART 2 PRODUCTS

A. Commercially available products having essential characteristics of Parts 1 and 3.

PART 3 EXECUTION

3.01 IMPLEMENTATION

A. CDMS shall be in place and operating before Contractor transmits any Contract Documents, to Government, except RSN 01 31 30-1, Approval Data:

1. CDMS operation includes COR, or other authorized Government representative, having program control to assign users and user rights to Government personnel to access appropriate areas of the system.

B. Contractor shall input entries to the Schedule of Submittals before making submittals. Include:

1. RSNs listed in Table 01 33 00A – List of Submittals.
2. Scheduled submittal date.

C. Contractor shall provide a report of submittal status monthly or as requested by COR. Submittal status report shall be in a table format and include:

1. Required Submittal Number (RSN).
2. Section Title.
3. Submittal Title.
4. Date Submitted.
5. Date of Response.
6. Approval Status (approved, partially approved, approved subject to identified changes and resubmit, or not approved.)
7. Days in Review.
8. Due Date.

D. CDMS shall be operational until final project closeout.

END OF SECTION

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SECTION 01 32 10
CONSTRUCTION PROGRAM

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Costs:

1. Developing Baseline Schedule: Include in lump sum price offered in the Price Schedule for Mobilization and Preparatory Work.
2. Updating and Using Construction Program: Include as part of Contractor's overhead.

1.02 DEFINITIONS

A. Schedule: The Critical Path Method (CPM) of planning and scheduling a construction project where activities are arranged based on activity relationships and network calculations determine when activities can be performed and the critical path of the project.

B. Project Calendar(s): Cross reference of numerical work days with calendar days. Project calendars serve as the basis for day/date conversion and assign work days and non-workdays.

C. Resources: Equipment, labor or crews, materials, subcontractors, fabricators, manufacturers, and consultants.

D. Out of Sequence Work: An activity that starts before its predecessor activities are completed.

1.03 REFERENCE STANDARDS

A. Associated General Contractors of America (AGC)

1. AGC Manual — Construction Planning and Scheduling Manual, 2004

1.04 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

1. Furnish database files in format compatible with Oracle Primavera P6 Professional Project Management.
2. Upon request, provide information and data used to develop and maintain the Construction Program to the CO.

B. RSN 01 32 10-1, Representative Information:

1. Designation of authorized representative to develop and maintain Construction Program. Include resume with training and experience.

C. RSN 01 32 10-2, Baseline Schedule:

1. Include:

a. Construction Program/Schedule database.

b. Definition of project calendars.

c. Primavera layout file (.plf).

d. Primavera file extension (.xer)

e. Gantt chart (Bar chart) for project on 11 by 17-inch print(s) and in portable document format (.pdf).

f. Activity report including logic constraints consisting of predecessors, successors, and constraint dates.

g. Tabular listings of resources and resource limitations used to produce baseline schedule. Correlate resources with schedule assumptions and offered price. Resource listings may be independent of schedule database.

h. Narrative explanation of project schedule development. Include impacts of resource limitations and weather conditions on project schedule development. Include planned number of work hours per day and hours per day for subcontractors.

D. RSN 01 32 10-3, Updated Schedule Reports:

1. This submittal is required for a proper invoice for progress payments in accordance with the clause at FAR 52.232-27 - Prompt Payment for Construction Contracts.

2. Include:

a. Construction Program database with updated activity and milestone data.

b. Definition of project calendars if revised from baseline calendars.

c. Primavera layout file (.plf).

d. Primavera file extension (.xer)

e. Gantt chart for project on 11 by 17-inch print(s) and in portable document format (.pdf).

f. Narrative report specifically stating status of project.

1) When negative float exists, cite specific actions and conditions which caused "behind schedule" condition and provide proposed course of action to complete the project within the specified delivery time. When float changed from previous month's updated schedule, explain reason for change.

2) List of Contractor-initiated changes to current schedule stating reason for action taken and unresolved issues relating to the Construction Program. Government reserves the right to reject Contractor-initiated changes to current schedule which negatively impact Government action which was initiated on the basis of current schedule.

3) Discuss contract milestones and significant activities that were started, continued, or completed during the update period or scheduled during the next update period.

g. Submittal Register:

1) List submittals as listed in Table 01 33 00A.

2) Update Submittal Register monthly to include submittals and revised submittals. Register fields shall include RSN name and number, date submitted, date of response, status (e.g., approved, not approved, resubmittal required).

3) This register document is separate from scheduling database.

E. RSN 01 32 10-4, Time Impact Analysis:

1. Include:

a. Construction Program database with proposed revised activity and milestone data.

b. Proposed revised schedule due to change or delay. Highlight or list added, changed, or deleted activities.

c. Primavera layout file (.plf).

d. Primavera file extension (.xer)

e. Gantt chart for project on 11 by 17-inch print(s) and in portable document format (.pdf).

f. Narrative report explaining results and conclusions.

1.05 QUALIFICATIONS

A. Representative: Experienced in developing and maintaining construction schedules and knowledgeable of activities and progress on-site to develop and maintain accurate and reliable schedules. Experience shall include scheduling for at least two other projects of comparable complexity and Primavera P6 training offered by certified instructors.

1.06 GENERAL

A. Develop, maintain, and use Construction Program to plan, monitor, evaluate, and report accomplishment of work.

1.07 SCHEDULES

A. Prepare construction schedules using Critical Path Method outlined in AGC Manual. Use a computer software program to perform mathematical analysis of scheduling data.

1. Prepare schedule based on required sequence and interdependence of activities. Logically sequence activities.

2. Prepare detailed activity network for accomplishing required work organized by Work Breakdown Structure (WBS). Utilize WBS in lieu of activity codes for organization of schedule. If activity codes are utilized in addition to WBS, use unique activity code names assigned as project codes rather than global codes.

3. Activities except "Award" shall have predecessor activities and activities except "Contract Complete" shall have successor activities.

4. Meet contract requirements; milestone(s) in accordance with the clause at FAR 52.211-10, Commencement, Prosecution, and Completion of Work; and relevant clauses and specification sections. Include interim milestone dates, Government interface dates, contract completion date, and other time or seasonal constraints specified in contract documents.

5. Include work of subcontractors, Government interfaces, and contract milestones.

6. Schedule activities to occur as early as possible without unwarranted constraints.

7. Adjust Construction Program/schedule for seasonal weather conditions. Provide a narrative explaining the expected weather and plan for incorporation in schedule. Consider work influenced by high or low ambient temperatures or precipitation. Utilize Primavera P6 calendars to depict historical weather days that impact work. Assign weather calendars to work impacted by weather.

8. Reference activities to contract line item number (CLIN) and specification section identified in the Schedule using user-defined fields.

9. Define activities to level of detail resulting in their durations being no greater than 20 workdays.

    a. Durations for administrative activities (e.g., submittals and reviews) fabrication, manufacturing, and typical level of effort activities (e.g., dewatering, storm water management) will not be subject to workday duration limitation.

10. Include separate activities for submittal preparation and submittal reviews when submittal addresses work that involves significant quantities, long lead times, is on the critical path or near critical path, or as requested by the COR. Assign Government submittal review activities to a seven-day calendar with durations as specified in Section 01 33 00 - Submittals. Include Required Submittal Number (RSN) in activity description.

11. Include separate activities for fabrication or manufacturing when work involves significant quantities, long lead times, is on the critical path or near critical path, or as requested by the COR

12. Include contract title, contract number, and Contractor's name on transmittal cover sheet and each sheet of Gantt chart.

13. For each activity on Gantt chart, display activity identification number, activity description, planned or original duration, start date, finish date, total float, and calendar identification. Do not display early start and late start fields.

14. Include table of abbreviations used in the schedule, listed and defined alphabetically.

15. Use finish to start logic relationships between activities. Do not utilize start to start, finish to finish, or start to finish logic relationships. Start to start logic may be utilized on start milestones and finish to finish logic may be utilized on finish milestones only. Do not use positive or negative lead or lag times.

16. Use durations in units of whole workdays.

17. Provide best estimate of time required to complete activity considering quantity of work, work conditions, location of work, and planned resources for activity.

18. Equate durations of Government reviews and other identified actions to maximum number of calendar days specified in their respective paragraphs.

19. Establish workday calendar(s) and use these in the schedule to translate activity's workday duration into calendar dates. Use unique calendar names; do not use software default calendar names. Save calendars as project calendars, not global calendars.

B. Baseline Schedule:

1. Represents Contractor's as-planned approach to accomplishing the work. Do not include actual start dates, percent completes, or actual finish dates.

C. Updated Schedule:

1. Meet monthly with COR at Government's project office, or at a location approved by the COR, to review progress made to end date of progress payment period. Establish dates that activities were started and completed and remaining duration for each activity started but not completed during the period.

   a. Discuss and mutually agree upon changes to the schedule.

   b. Out-of-sequence activities are not allowed. Revise logic to reflect change in work plan.

   c. Finalize updated Construction Program database with mutually agreed upon changes.

2. Following receipt of executed contract modification, incorporate activity data stipulated in modification into current schedule for inclusion in next scheduled progress update. Provide appropriate logic relationships for revised activities.

3. Assign a unique project file name for each schedule update.

1.08 TIME IMPACT ANALYSIS

A. Provide time impact analysis for contract changes (e.g., change order, proposed modification, or value engineering change proposal) to support a claim or request for equitable adjustment to the contract due to delay or accelerated schedule.

B. The CO may use time impact analysis to determine if time extension or reduction to contract milestone dates is justified.

1. Time impact analysis is required for contract changes whether the Contractor's current schedule milestone dates are the same as, earlier than, or later than, those required under the contract.

2. Changes, additions, or deletions to activities; activity durations; activity time frames; or activity predecessors and successors will not automatically determine that extension or reduction of contract time is warranted or due the Contractor.

3. Time extensions for performance will be considered only to the extent that the Contractor's current scheduled milestone dates exceed contract milestone dates.

C. Float is not for exclusive use by or benefit of either the Government or the Contractor.

D. Prepare a single time impact analysis for modifications issued after Notice to Proceed (NTP) and prior to approval update.

E. Perform time impact analyses using data in most recent approved schedule update prior to change or delay event.

1. Prepare proposed revised schedule and narrative description describing and highlighting changes or delays.

2. Prepare summary comparing results of two schedule analyses: One using current schedule data from last approved updated schedule prior to event requiring analysis, and one using proposed schedule data incorporating changes or delays.

a. Show contract milestones and activities whose periods of performance have shifted as result of change which affects production and/or manufacture schedules, material orders, construction seasons, and labor and/or equipment utilization.

b. For activities directly affected by change or delay, include the current and proposed items:

1) Activity description.

2) Types and quantities of major pieces of equipment, principal manpower, and pacing materials (materials that affect activity start, duration, or finish).

3) Activity duration.

4) Narrative containing rationale used in developing the proposed logic relationships and activity data.

c. Data date for impacted schedule used in comparison shall be the same as approved updated schedule data date.

d. Base schedule comparisons on status of work and available float at time the CO directs or proposes change to the work, the Contractor submits a value engineering change proposal, or when a delay occurs as shown in approved updated schedule.

1.09 REVIEW AND EVALUATION

A. Baseline Schedule:

1. Within 21 calendar days after receipt of baseline schedule:

   a. COR will approve or not approve proposed baseline schedule.

   b. Upon request from the CO, meet with COR for a joint review of proposed baseline schedule.

   c. If schedule is not approved, revise and resubmit within 7 calendar days following date of rejection letter.

2. Do not proceed with onsite work, except mobilization and surveying, until baseline schedule has been approved by the Government.

B. Updated schedules:

1. Submit updated Construction Program schedule monthly.

2. Submit updated schedule at least seven days prior to the submission of each invoice request for progress payment.

3. If updated schedule is not approved, revise and resubmit updated schedule within 7 calendar days following date of rejection letter.

4. The COR will schedule pre-submittal meeting with the Contractor's representative each month to review draft updated schedule prior to the Contractor submitting RSN 01 32 10-3, Updated Schedule.

C. Failure to include elements of the work in schedules will not release Contractor from completing required work under the contract.

D. Performance will be evaluated by the Government using approved CPM schedules.

1.10 FAILURE TO COMPLY

A. Failure to comply with requirements of this Section shall be grounds for determination by the CO that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within specified time.

B. The CO may terminate the Contractor's right to proceed with the work, or separable part of it, in accordance with default terms of this contract.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 33 00
SUBMITTALS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 REFERENCE STANDARDS

A. American Society of Mechanical Engineers (ASME)

1. ASME Y14.1-12 — Decimal-inch Drawing Sheet Size and Format

B. National Institute of Building Sciences (NIBS)

1. NIBS NCS-14 — United States National CAD Standards, Version 6

1.03 DEFINITIONS

A. Days: Calendar days.

B. Required Submittal Number (RSN): Identifies items to be submitted together as a complete submittal.

C. Submittal Types, as listed in Table 01 33 00A - List of Submittals:

1. A - Approval:
   a. Government will respond as to adequacy of submittal.
   b. Approval Submittals: Considered "shop drawings" within the terms of the clause at FAR 52.236-21, Specifications and Drawings for Construction.
2. I - Informational:
   a. Government will acknowledge receipt of Informational submittals.
   b. Government may reject an Informational submittal when the submittal does not satisfy contract requirements. Contractor shall correct mistakes or deficiencies in rejected Informational submittals and resubmit.
   c. Informational Submittals: Considered "shop drawings" within terms of the clause at FAR 52.236-21, Specifications and Drawings for Construction, except that approval by Government is not required.

1.04 SUBMITTAL REQUIREMENTS

A. In case of conflict between requirements of this section and requirements included elsewhere in these specifications, requirements included elsewhere take precedence.

B. General:

1. Prepare in English.
2. Label with contract number and title, and RSN.
3. Measurement Units: US Customary Units.
4. Provide a unique transmittal number for each submittal.

C. Drawings:

1. Minimum Identification in Title Block:
   a. Contract number and title.
   b. Contractor's or supplier's title and drawing number.
   c. Date.
2. Reserve 3- by 3-inch space next to title block for review stamps.
3. Size: D size (22 inches by 34 inches) as defined by ASME Y14.1.
4. Draw to scale using computer drafting or drafting equipment, unless otherwise specified.
   a. Computer drafted drawings:
      1) In accordance with NIBS NCS.
      2) Electronic file format: Compatible with AUTOCAD, Version 2018 or later.
      3) Compile using "eTransmit" utility in AUTOCAD.
   b. Drawing prepared with drafting equipment, when allowed: Lettering shall be neat.
5. Drawings Designated as "Government Format" in Specifications:
   a. Computer drafted.
   b. Government will provide an electronic AutoCAD format template.
   c. Title block and sheet format:
      1) As shown on standard drawing 40-D-7102.
      2) Government will provide template.
      3) Government will provide specific title block information to be used.
6. Final Drawings:

a. Computer drafted.

b. Government will provide an electronic AutoCAD format template.

c. Show as-built changes, including revision dates, made during installation. Indicate changes by clouding.

7. Electronic Files: On DVD/flash drive of documents uploaded to CDMS.

D. Product Data:

1. Mark manufacturer's data for commercial products or equipment, such as catalog cut sheets.

a. Identify manufacturer's name, type, model, size, and characteristics.

b. Illustrate that product or equipment meets requirements of specifications.

c. Mark items to be furnished in a manner that will photocopy (no highlighter).

d. Strike through items that do not apply.

E. Certifications:

1. Certifications by a Registered Professional: Signed and sealed by registered professional.

2. Manufacturer’s Certifications: Signed by authorized representative of manufacturer.

1.05 SUBMITTALS PROCEDURES

A. Submit only checked submittals. Submittals without evidence of Contractor's approval will be returned for resubmission.

B. Submit complete sets of required materials for each RSN as specified in “Submittals Required” column in Table 01 33 00A - List of Submittals. A complete set includes listed items for RSNs with multiple parts.

C. Submit sets specified in “Sets to be sent:” columns in Table 01 33 00A - List of Submittals.

1. Submittals identified with “CDMS” in the “Sets to be sent” column shall be submitted electronically in accordance with Section 01 31 30 - Contract Document Management System.

D. Include the following information in transmittal letters:

1. Contract number and title.

2. RSN for each attached submittal.

3. Responsible code.

4. Number of sets for each RSN.

5. Identify submittal as initial or resubmittal.

E. Resubmittal of submittals not approved:

1. Mark changes such that they are readily identifiable and show revision date.
2. Describe reasons for significant changes in transmittal letter.
3. Resubmit returned submittals within 21 days after receiving the comments, unless otherwise directed.
4. Requirements for initial submittals apply to resubmittals.

F. More than one RSN may be submitted under a transmittal letter, provided responsible code is same.

1.06 REVIEW OF SUBMITTALS

A. Time Required:

1. Submittal review will require 28 days for review of each submittal or resubmittal, unless otherwise specified.
2. Time required for review of each submittal or resubmittal begins when complete sets of materials required for a particular RSN are received and extends through return mailing postmark date.

B. Time in Excess of Specified:

1. CO may extend contract completion date to allow additional time for completing work affected by excess review time.
   a. Time extension will be to extent that excess review time caused delay to contract completion date.
   b. Time extension will not exceed time used in excess of specified number of days for review of submittals or resubmittals.
   c. Concurrent days of excess review time resulting from review of 2 or more separate submittals or resubmittals will be counted only once in extending contract completion date.
2. No time extension will be allowed if Contractor fails to make complete approval submittals in sequence and within time periods specified.
3. Adjustment for delay will be made only to the extent that:
   a. Approval was required under the contract, and.
   b. Requests for approval were properly and timely submitted and were approved.
4. Adjustment will be subject to terms of paragraphs (b) and (c) of clause at FAR 52.242-14, Suspension of Work.

C. Return of Submittals:

1. Return of submittals will be by CDMS response or hard copy, as applicable.
2. Approval Submittals: Will be returned either approved, approved with comments or not approved.
   a. Revise and resubmit submittals not approved.
   b. Do not change designs without approval of CO after drawings, documentation, and technical data have been approved.
3. Informational Submittals: Government will acknowledge Informational submittals.
   a. Informational submittals will not be returned when they satisfy contract requirements.
   b. Informational submittals that do not satisfy contract requirements may be returned for resubmittal or additional information may be requested.

1.07 HARD COPY TRANSMITTALS

A. Addresses for codes listed in Table 01 33 00A - List of Submittals:

1. Contracting Officer (CO), Bureau of Reclamation Contracting Officer, CPN-7300 1150 N. Curtis Rd, Boise, ID 83706-1234.
2. Contracting Officer Representative (COR) Bureau of Reclamation, CPN-3550, PO Box 620 Grand Coulee, WA 99133.

B. Send original transmittal letter with appropriate number of sets to office listed in "Responsible Code" column in Table 01 33 00A - List of Submittals.

C. Send copy of transmittal letter with appropriate number of sets to offices that are not responsible code, but show "Sets to be sent" in Table 01 33 00A - List of Submittals.

D. When "Sets to be sent" is 0, send a copy of transmittal letter to that office.

E. Submittals required by specifications, but not listed in Table 01 33 00A - List of Submittals:

1. Submit in accordance with this section.
2. Submit to COR, unless otherwise specified.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

Table 01 33 00A. - List of Submittals

* Submittal Types: A - Approval, I – Information
**Y indicates Yes, the submittal is required to be shown on the Construction Schedule – See Section 01 32 10 – Construction Program
*** CO indicates Contracting Officer, COR indicates Contracting Officer Representative. CDMS indicates Contract Document Management System.

RSN	Clause or Section Title	Submittals required	Due date or delivery time	Type *	CP **	Respon-sible code	Sets to be sent: ***	
							CO	COR
I-1	Release of Claims (1452.204-70)	Release of Claims (DI-137) against United States	After completion of work and prior to final payment	A		CO	1	0
I-2	Payrolls and Basic Records (52.222-8)	Certified payrolls	Weekly for each week any contract work is performed	I		COR	CDMS	
I-3	Subcontracts (Labor Standards) (52.222-11)	1)List of subcontractors 2) Statement and Acknowledgement Form (SF-1413) for each subcontract	Within 14 days after award and within 14 days of Award of any new subcontract.	I		COR	CDMS	
I-4	Bonds (52.228-15)	Performance and payment bonds	Within 10 days of contract award	A		COR	1	0
I-5	Liability Insurance (1452.228-70)	Acceptable evidence showing that insurance has been obtained	Within 10 days of contract award	A		COR	1	0
I-6	Security Requirements (1452.228-70)	Security Program	Submitted and approved prior to mobilization	A		COR	CDMS	
I-7	Security Requirements (WBR 1452.237-80)	List of onsite employees	At least 14 days before employee arrival	I		COR	CDMS	
01 14 10-1	Use of Site	Land Use and Landscape Rehabilitation Plan	At least 28 days before use of Government land	A	Y	COR	CDMS	
01 31 30-1	Contract Document Management System	Approval Data	Within 7 days of Award	A		COR	0	1
01 31 30-2	Contract Document Management System	Final Data	Within 14 days of completion of work	I		COR	CDMS	
01 32 10-1	Construction Program	Representative Information	Within 7 days after receipt of Notice of Award	A		COR	CDMS	
01 32 10-2	Construction Program	Baseline Schedule	Within 21 days after receipt of Notice to Proceed	A	Y	COR	CDMS	

Table 01 33 00A. - List of Submittals

* Submittal Types: A - Approval, I – Information
**Y indicates Yes, the submittal is required to be shown on the Construction Schedule – See Section 01 32 10 – Construction Program
*** CO indicates Contracting Officer, COR indicates Contracting Officer Representative. CDMS indicates Contract Document Management System.

RSN	Clause or Section Title	Submittals required	Due date or delivery time	Type *	CP **	Respon-sible code	Sets to be sent: ***	
							CO	COR
01 32 10-3	Construction Program	Updated Schedule Reports	With monthly requests for progress payments	A	Y	COR	CDMS	
01 32 10-4	Construction Program	Time Impact Analysis	Within 28 days after the CO directs a contract change with schedule impacts. Or With proposal for future modification, value engineering proposal, or request or claim for equitable adjustment to the contract.	A	Y	COR	CDMS	
01 35 10-1	Safety Data Sheets	Complete LHM And SDS	At least 28 days before the start of construction activities	I		COR	CDMS	
01 35 10-2	Safety Data Sheets	Updated LHM And SDS	At least 14 days before jobsite delivery of hazardous material not previously listed	I		COR	CDMS	
01 35 20-1	Safety and Health	Safety Program	At least 28 days before the start of construction activities, including mobilization.	A	Y	COR	CDMS	
01 35 20-2	Safety and Health	Job Hazard Analysis List	At least 28 days before the start of construction activities	A		COR	CDMS	
01 35 20-3	Safety and Health	Monthly Accident Summary Report	Monthly	I		COR	CDMS	
01 35 30-1	Contractor's Onsite Safety Personnel	Qualifications	At least 28 days before the start of construction activities	A		COR	CDMS	
01 35 30-2	Contractor's Onsite Safety Personnel	Safety Inspection Reports	At least once each week	I		COR	CDMS	
01 46 00-1	Quality Procedures	Contractor Quality Control Plan (QCP)	At least 28 days before the start of construction activities	A	Y	COR	CDMS	
01 46 00-2	Quality Procedures	Contractor's Daily Report	Weekly when on-site	A		COR	CDMS	

Table 01 33 00A. - List of Submittals

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*** CO indicates Contracting Officer, COR indicates Contracting Officer Representative. CDMS indicates Contract Document Management System.

RSN	Clause or Section Title	Submittals required	Due date or delivery time	Type *	CP **	Respon-sible code	Sets to be sent: ***	
							CO	COR
01 46 00-3	Quality Procedures	Summary of Monthly Test Results	Monthly	A		COR	CDMS	
01 46 20-1	Testing Agency Services	Testing Agency Services Plan	At least 28 days before beginning on site work	A		COR	CDMS	
01 55 00-1	Vehicular Access and Parking	Initial Digital Recording	Within 2 days of completing video	I		COR	CDMS	
01 55 00-2	Vehicular Access and Parking	Post Construction Digital Recording	Within 2 days of completing video	I		COR	CDMS	
01 55 00-3	Vehicular Access and Parking	Post Repair Digital Recording	Within 2 days of completing video	I		COR	CDMS	
01 55 20-1	Traffic Control	Traffic control plan	At least 28 days before mobilization	A		COR	CDMS	
01 57 20-1	Environmental Controls	Copy of applicable Air Quality Permit	Submitted and accepted at least 28 days prior to mobilization	I		COR	CDMS	
01 57 30-1	Water Pollution Control	Water Quality Management Plan/Stormwater Pollution Prevention Plan	Submitted and accepted at least 28 days prior to mobilization	A	Y	COR	CDMS	
01 57 30-2	Water Pollution Control	Spill Prevention, Control, And Countermeasure (SPCC) Plan	At least 28 days before delivery or storage of oil	A		COR	CDMS	
01 57 30-3	Water Pollution Control	Water Pollution Control Product Data	Submitted and accepted at least 28 days prior to mobilization	A	Y	COR	CDMS	
01 57 50-1	Tree and Plant Protection	Protection Plan	At least 28 days before commencing on-site construction work	A		COR	CDMS	
01 57 90-1	Preservation of Historical and Archeological Data	Proposed Use Areas	At least 28 days before commencing on-site construction work	A		COR	CDMS	
01 71 20-1	Surveying	Surveying Plan	At least 28 days before beginning survey work	A	Y	COR	CDMS	

Table 01 33 00A. - List of Submittals

* Submittal Types: A - Approval, I – Information
**Y indicates Yes, the submittal is required to be shown on the Construction Schedule – See Section 01 32 10 – Construction Program
*** CO indicates Contracting Officer, COR indicates Contracting Officer Representative. CDMS indicates Contract Document Management System.

RSN	Clause or Section Title	Submittals required	Due date or delivery time	Type *	CP **	Respon-sible code	Sets to be sent: ***	
							CO	COR
01 71 20-2	Surveying	Resumes	At least 28 days before beginning survey work; At least 28 days before personnel change	A		COR	CDMS	
01 71 20-3	Surveying	Accuracy Check Results	At least 14 days before beginning survey work	I	Y	COR	CDMS	
01 71 20-4	Surveying	Completed and Reduced Survey Notes	Accompanying progress payment requests	A		COR	CDMS	
01 71 20-5	Surveying	Workday's survey notes	When requested	I		COR	CDMS	
01 74 00-1	Cleaning and Waste Management	Waste production and disposal plan	At least 28 days before starting onsite work	A		COR	CDMS	
01 74 00-2	Cleaning and Waste Management	Waste production and disposal records	Within 7 days of waste disposal	I		COR	CDMS	
01 74 00-3	Cleaning and Waste Management	Environmental consultant resume	At least 35 days before beginning environmental assessment	A		COR	CDMS	
01 74 00-4	Cleaning and Waste Management	Environmental site assessment	Within 14 days of completion of work	A		COR	CDMS	
01 78 30-1	Project Record Documents	Electronic Media Release Form	Upon Request	I		COR	CDMS	
01 78 30-2	Project Record Documents	Progress As-built Drawings	Updated Weekly	I		COR	CDMS	
01 78 30-3	Project Record Documents	Draft As-built Drawings	Within 28 days of completion of work	A		COR	CDMS	
01 78 30-4	Project Record Documents	Final Drawings	Within 28 days of completion of work	I		COR	CDMS	
31 23 02-1	Compacting Earth Materials	Test Results	Within 24 hours of taking field test or 3 days for tests performed in the laboratory	I		COR	CDMS	
31 25 14-1	Rolled Erosion Control Mats and Blankets	ECB Approval Data	At least 28 days before starting onsite work	A		COR	CDMS	
31 37 00-1	Void Filled Riprap	Test Results	At least 28 days before starting onsite work	A		COR	CDMS	

Table 01 33 00A. - List of Submittals

* Submittal Types: A - Approval, I – Information
**Y indicates Yes, the submittal is required to be shown on the Construction Schedule – See Section 01 32 10 – Construction Program
*** CO indicates Contracting Officer, COR indicates Contracting Officer Representative. CDMS indicates Contract Document Management System.

RSN	Clause or Section Title	Submittals required	Due date or delivery time	Type *	CP **	Respon-sible code	Sets to be sent: ***	
							CO	COR
32 91 19-1	Topsoil	Topsoil Test Results	At least 28 days before starting onsite work	A		COR	CDMS	
32 92 15-1	Revegetation	Nursery Cut Sheets	At least 28 days before starting onsite work	A		COR	CDMS	
32 92 15-2	Revegetation	Watering Schedule	At least 28 days before starting onsite work	A		COR	CDMS	
32 92 20-1	Seeding and Soil Supplements	Seeding Plan	At least 28 days before starting onsite work	A		COR	CDMS	
32 92 20-2	Seeding and Soil Supplements	Certifications	At least 28 days before starting onsite work	A		COR	CDMS	

END OF SECTION

SECTION 01 35 10
SAFETY DATA SHEETS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 DEFINITIONS

A. LHM: List of Hazardous Materials.

B. SDS: Safety Data Sheet.

1. Referred to as Material Safety Data Sheets in the clause at FAR 52.223-3, Hazardous Material Identifications and Material Safety Data - Alternate 1.

1.03 APPLICATION

A. For the purposes of this contract, "delivered under this contract" in paragraph (b) of the clause at FAR 52.223-3, Hazardous Material Identification and Material Safety Data - Alternate 1, includes:

1. Materials delivered to Government.
2. Materials incorporated into work.
3. Materials used by the Contractor during contract performance at the jobsite.

1.04 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 35 10-1, Complete LHM and SDS.

C. RSN 01 35 10-2, Updated LHM and SDS:

1. Comply with paragraph (e) of clause at FAR 52.223-3, Hazardous Material Identification and Material Safety Data - Alternate 1.

1.05 DELIVERY

A. Do not deliver hazardous materials to jobsite which are not included on original or previously updated LHM and SDS before receipt of updated LHM and SDS by Project Manager.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 35 20
SAFETY AND HEALTH

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in the prices offered in the Price Schedule for other items of work.

1.02 REFERENCE STANDARDS

A. Applicable Tribal and State Safety and Health Regulations for Construction.

B. Bureau of Reclamation (USBR)

1.	RSHS	Reclamation Safety and Health Standards including revisions posted at https://www.usbr.gov/safety/rshs/index.html
2.	FIST 1-1	Hazardous Energy Control Program available at: www.usbr.gov/power/data/fist_pub.html

C. Code of Federal Regulations (CFR)

1.	29 CFR 1926.32	Definitions, Construction
2.	29 CFR 1926.103	Respiratory Protection

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 35 20-1, Safety Program:

1. Written safety program in accordance with RSHS.
2. Cover aspects of on site and applicable off site operations and activities associated with this contract.
3. Follow the outline in Appendix B with RSHS.
4. Will not be accepted for review by the COR unless it addresses, in order, lettered and numbered per Appendix B, a narrative for each applicable item in the outline. For items in the outline that do not apply to this contract write “Not applicable to Contract” next to the number/letter.
5. A generic company safety program is not acceptable. Safety Program must be site specific for this contract.

6. Submitted and accepted prior to commencing onsite work, including mobilization.

C. RSN 01 35 20-2, Job Hazard Analysis List:

1. Provide a list of JHA's that shall be submitted throughout the project.

D. RSN 01 35 20-3, Monthly Accident Summary Report:

1. In accordance with RSHS.

1.04 DOCUMENTATION AND RECORDS

A. Prepare and retain all safety plans, programs, training content, and training records that are applicable to the scope of the work and make them available to the COR unless they are already included in the written safety program. Some examples include but are not limited to:

1. Confined Space and when deemed necessary by existing and/or introduced hazards of Permit Required Confined Space through the Written Program and Training Records.
2. Forklifts and Other Industrial Trucks Training Records.
3. Emergency Action Plans Written Program and Training Records.
4. Fall Protection Written Program and Training Records.
5. Fire Protection and Prevention Written Program and Training Records.
6. Flammable and Combustible Liquids Written Spill Control Plan.
7. General Safety and Health Provisions, Written Safety Program, and Regular Safety Inspection Records.
8. Hazard Communication Written Program and Training Records.
9. Ladder Written Compliance Program and Training Records.
10. Lockout/Tagout: Refer to RSHS Section 15 Hazardous Energy Control Program (HECP) Training Records.
11. Bloodborne Pathogens Exposure Control Plan, Training Records.
12. Methylenedianiline Training Records, if applicable.
13. Occupational Noise Exposure Written Program and Training Audiometric Testing Records.
14. Personal Protective Equipment (PPE) Hazard Assessments and Training Records.
15. Power Operated Hand Tools Training Records.
16. Respiratory Protection Written Program and Training Records.
17. Safety Training and Education Written Program and Training Records.
18. Welding, Cutting, and Brazing Written Program and Training Records.]

1.05 SAFETY AND HEALTH

A. Provide and maintain a work environment and procedures that:

1. Safeguard the public and Government's personnel, and Contractor employees exposed to Contractor operations and activities.
2. Avoid interruptions of site operations and delays in project completion dates.
3. Control costs in contract performance.

B. Do not begin on site work, including mobilization, until the COR accepts the Safety Program.

C. Participate in Contractor Safety Program Review meeting prior to mobilization.

D. Minimum work crew shall consist of no less than two (2) people.

E. Develop Job Hazard Analyses for each distinct phase of work under the contract.

1. Do not begin a phase of work until a JHA is acceptable to COR and shared with construction employees.
2. Activities involving hazardous materials shall have the appropriate Safety Data Sheet(s) attached to the JHA.

F. Comply with RSHS 29 CFR 1926, and Washington Administrative Codes (WAC) 1926.

1. Reclamation Safety and Health Standards (RSHS) may be downloaded at https://www.usbr.gov/safety/rshs/index.html.
2. Construction Safety and Health Standards promulgated by the Secretary of Labor may be obtained from any regional or area office of the Occupational Safety and Health Administration of the U.S. Department of Labor.

G. Correct safety and health violations identified by the CO or the COR.

H. When the Contractor fails or refuses to correct a compliance directive, the CO may issue an order to stop all or part of the work.

1. When satisfactory corrective action is taken, an order to resume work will be issued.
2. The Contractor shall not be entitled to extension of time or to claim for damage or to additional compensation by reason of either the directive or stop order.
3. Failure of the CO to order discontinuance of the Contractor's operations shall not relieve the Contractor of the responsibility for the safety of personnel and property.

I. Maintain accurate record of and report to the CO and COR the following occurrences during performance of this contract:

1. Death.

2. Occupational disease.

3. Traumatic injury to employees or the public.

4. Property damage in excess of $2,500.

J. The rights and remedies of the Government provided in this section are in addition to any other rights and remedies provided by law or under this contract.

1. In the event there is a conflict between requirements contained in RSHS, specification paragraphs, Contractor's approved Safety Program, referenced safety and health codes, and standards, or the U.S. Department of Labor Construction Safety and Health Standards, promulgated under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327 et seq.), as amended, the more stringent requirement shall prevail.

K. Provide appropriate safety barricades, signs, and warnings.

L. The Contractor shall be responsible for providing medical and emergency assistance in a timely manner consistent with recognized emergency protocols.

M. In instances where local emergency responders are not readily available, the responsibility to provide emergency services shall default back to the Contractor.]

N. Perform all training as required by federal, state, and local regulations prior to any activity that requires it.

1. Training records must be submitted to the COR upon request.

2. In no case shall an employee perform work until all required training is complete.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 35 30
CONTRACTOR'S ONSITE SAFETY PERSONNEL

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 DEFINITIONS

A. ABIH: American Board of Industrial Hygiene.

1.03 REFERENCE STANDARDS

A. Bureau of Reclamation (USBR)

1. RSHS — Reclamation Safety and Health Standards, including revisions posted at https://www.usbr.gov/safety/rshs/index.html

B. Code of Federal Regulations (CFR)

1. 29 CFR Part 1926.32 — Definitions

1.04 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 35 30-1, Qualifications:

1. Contractor's Onsite Safety Representative.

C. RSN 01 35 30-2, Safety Inspection Reports:

1. Prepare detailed weekly safety inspection reports listing noted deficiencies, digital photos, abatement dates and follow-up action for all jobsite activities.
2. Inspection report shall include findings of jobsite walk-through with Government representative.

1.05 QUALIFICATIONS

A. Contractor's Onsite Safety Representative:

1. Competent supervisory employee with current safety and health related training, experience and duties on at least three projects of similar nature, size, complexity, and work to be performed as the current project.

2. OSHA Construction 30-Hour Training Course including applicable elective subjects: Ergonomics; Excavations; Materials Handling, Storage, Use and Disposal; Motor Vehicles, Mechanized Equipment and Marine Operations; Rollover Protective Structures and Overhead Protection; and Signs; Signals and Barricades; Powered Industrial Vehicles; Safety and Health Programs; Current first aid CPR certification.
3. Include resume with current telephone numbers of references, description of safety representative responsibilities, and copies of training certifications.
4. Shall participate in the planning and preparation of all activities including but not limited to:
    a. Development, submission and approval of JHAs.

1.06 APPLICATION

A. Designate an employee as the Contractor's Onsite Safety Representative prior to start of construction.

B. Contractor's Onsite Safety Representative Authorities, Duties, and Responsibilities:
1. Responsible for effectively implementing the Contractor's Safety Program.
2. The Safety Representative shall coordinate all emergency response activities.
3. Recommend controls for observed hazards or predicted hazards.
4. Full authorization to correct unsafe acts on the spot, including the authority to stop work to correct safety and health problems.
5. Lead weekly safety meetings at the jobsite.
6. Onsite, during any and all construction activities.
7. Assemble, review, and sign each Job Hazard Analysis (JHA).
    a. Review of JHA with employees.
8. Verify the correct use of respiratory protection and personal protective equipment.
9. Conduct and prepare weekly safety inspections in conjunction with the onsite government representative listing noted deficiencies, their abatement dates, follow up action. The report shall be available for review onsite.
10. Provide direct oversight and assemble a detailed report of all incident reviews, near-misses, accidents, and emergency response or rescue actions.
11. The Onsite Safety Representative may have other non-safety duties.

1.07 QUALITY ASSURANCE

A. Contractor's Onsite Safety Representative:
1. The effectiveness of the Contractor's Onsite Safety Representative in prosecuting the safety program will be subject to continued review and approval by the COR.

2. Should the Contractor's onsite safety representative's effort be deemed insufficient the Contractor may be required to provide the services of a qualified, full-time safety and health representative at no additional cost to the Government.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

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SECTION 01 42 10
REFERENCE STANDARDS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 REFERENCE STANDARDS

A. Referenced editions of standard specifications, codes, and manuals form a part of this specification to the extent referenced.

B. These specifications take precedence when conflicting requirements occur between specifications and referenced standard.

1.03 JOBSITE REFERENCE STANDARDS

A. Maintain at fabrication site, access to referenced standard specifications, codes, and manuals required for work in progress at fabrication site. Make available for use by the Government.

B. Maintain onsite, access to referenced standard specifications, codes, and manuals required for onsite work in progress. Make available for use by the Government.

1.04 AVAILABILITY

A. Code of Federal Regulations (CFR): Available online at

1. https://www.ecfr.gov/, authorized by the National Archives and Records Administration (NARA).

B. Bureau of Reclamation Documents:

1. Reclamation Safety and Health Standards (RSHS) may be downloaded at https://www.usbr.gov/safety/rshs/index.html.

2. Bureau of Reclamation manuals and other publications including significant scientific, technical, and engineering works are available upon request of the CO.

C. Industrial and Governmental Documents:

1. When a reference has a joint designation (e.g., ANSI/IEEE) these specifications generally cite the proponent organization (e.g., IEEE).

2. Addresses for obtaining industrial and governmental (other than Federal and Bureau of Reclamation specifications and standards) specifications, standards,

and codes are listed in Table 01 42 10A – Addresses for Specifications, Standards, and Codes.

Table 01 42 10A – Addresses for Specifications, Standards, and Codes

Acronym	Name and Address	Telephone
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, NW., Suite 249 Washington, DC 20001 www.aashto.org	202-624-5800 800-231-3475
AGC	Associated General Contractors of America 333 John Carlyle Street, Suite 200 Alexandria, VA 22314 www.agc.org	703-548-3118
ANSI	American National Standards Institute 1819 L. Street, NW. Washington, DC 20036 www.ansi.org	202-293-8020
ASTM	ASTM International P.O. Box C700 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 www.astm.org	610-832-9585
IEEE	Institute of Electrical and Electronics Engineers 3 Park Avenue,17th Floor New York, NY 10016-5997 www.ieee.org	212-419-7900
UL	Underwriters Laboratories, Inc. 333 Pfingsten Road Northbrook, IL 60062-2096 www.ul.com	847-272-8800

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

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SECTION 01 46 00
QUALITY PROCEDURES

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 DEFINITIONS

A. Quality Assurance: Inspection and tests performed by Government to ensure compliance with terms of contract.

B. Quality Control: Activities performed by Contractor to ensure work conforms to contract requirements.

1. The clause at FAR 52.246-12 - Inspection of Construction, requires Contractor to establish an inspection system to ensure quality.
2. Quality Control includes activities in addition to specified Contractor Quality Testing to ensure work conforms to contract requirements.

C. Contractor Quality Testing: Specified tests performed by Contractor.

1. Government may use test results for Quality Assurance.
2. Contractor may use test results as part of Contractor's Quality Control.
   a. Government anticipates tests will be part of Contractor's Quality Control Program.
   b. Tests do not relieve Contractor of providing adequate quality control measures in accordance with the clause at FAR 52.246-12 - Inspection of Construction.

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 – Submittals.

B. RSN 01 46 00-1, Contractor Quality Control Plan (QCP):

1. Outline Contractors Quality Control Program. As a minimum, cover construction operations, both onsite and offsite, work by subcontractors, fabricators, suppliers, and purchasing agents. Include:
   a. Description of quality control organization. Include chart showing lines of authority and acknowledgement that Quality Control Supervisor (QCS)

staff shall implement the three-phase control system for all aspects of work specified.

b. Identify staff including a QCS who reports to project manager.

1) QCS Resume: Include designation of authorized individual as QCS to develop and manage quality control processes.

2) An alternate QCS with equal authority to act on behalf of the primary QCS should they not be present on the project site.

3) Names, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a QC function.

c. Letter to QCS, signed by an authorized official of the firm.

1) Describe responsibilities and delegates sufficient authorities to adequately perform the functions of the QCS.

2) Including authority to stop work not in compliance with the contract.

d. QCS shall issue letters of direction to other quality control representatives outlining duties, authorities, and responsibilities. Furnish Letters to Government.

e. Procedures for:

1) Scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers and purchasing agents.

2) Control, verification, and acceptance testing procedures for each specific test to include:

a) Test name.

b) Specification paragraph requiring test.

c) Feature of work to be tested.

d) Test frequency.

e) Person responsible for each test.

3) Tracking:

a) Preparatory.

b) Initial.

c) Follow-up control phases and control.

d) Verification and acceptance tests including documentation.

e) Construction deficiencies from identification through acceptable corrective action. Establish procedures to verify correction of identified deficiencies.

4) Reporting procedures, including proposed reporting formats.

f. Base program upon the following definable features of work. Include preparatory, initial, and follow-up, for each definable feature:

1) List will be agreed upon during a coordination meeting prior to start of construction.

2. Detail implementation of Quality Control Plan listed Paragraph 3.01 below.

3. Include Quality Testing Plan that address methods, procedures, frequencies, and scheduling for performing quality testing as required in other specification sections.

C. RSN 01 46 00-2, Contractor's Daily Report:

1. Submit daily reports on a weekly basis.

2. As a minimum, Contractor's Daily Report shall include:

a. Record of all Contractor's activities throughout shift regardless of how minor or complex.

b. Started at beginning of shift, written during shift, and completed at the end of shift.

c. Prepare finished report in such detail that a person not familiar with the day's work could determine what was done and calculate Contractor's direct cost for that day.

d. Include temperature (maximum/minimum), wind conditions, estimated humidity, sunshine, and precipitation (type and intensity), if necessary, for the type of work being performed.

e. Note Name of contractor's representative on site during the shift and hours on site.

f. Document subcontractor activity.

g. Identify specific safety incidents noted during shift including action(s) taken, including:

1) Names of people involved.

2) Correction taken, including personnel involved.

h. Document significant discussions held between Reclamation and Contractor personnel or other parties involved with project.

i. Main body of report:

1) Locations and a detailed description of all work, including:

a) Sketches or photographs where appropriate to assist in description.

b) Description shall reflect what, where, when, why, who, and how work was being performed.

c) Provide:

i. Record of quantities installed.

ii. Specific stations or location of work.

iii. Description by CPM program activity (if applicable).

iv. Show labor classification, work labor force and equipment actually used during shift.

v. Equipment that is idle or being repaired shall be noted.

j. List of materials and equipment delivered to job site

1) Materials installed during shift.

2) Materials refused or wasted during shift.

3) Include:

a) Changes in site conditions.

b) Modifications in design and installation.

c) Photographs taken.

d) Environmental compliance or noncompliance.

e) Hazardous waste and material concerns.

f) Landowner contacts.

g) Worker complaints.

i. Potential problems observed.

D. RSN 01 46 00-3, Summary of Monthly Test Results.

1.04 QUALIFICATIONS

A. Contractor shall designate employee as Quality Control Supervisor (QCS).

B. Quality Control Supervisor (QCS):

1. Experienced QCS with minimum of 2 years' experience in charge of quality control for construction similar in nature to that required by this contract.

2. Both QCS and alternate shall have the authority to stop work if necessary.

3. May hold other duties.

1.05 TESTING ACCEPTANCE

A. Material acceptance based on passing of both quality control testing and quality assurance testing.

B. Government quality assurance testing results will prevail in the event of a discrepancy between Contractor's test results and Government test results.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 QUALITY CONTROL PLAN

A. Base program upon definable features of work listed above. Include three phases for each feature:

1. Preparatory Phase:

a. Performed prior to beginning of work:

1) Notify COR, in writing, 7-days in advance for beginning required actions of preparatory phase.

2) Review approved submittals and identify missing information or required submittals.

3) Review of each paragraph of applicable specifications and references.

4) Review of contract plans or shop drawings.

5) Verify materials and/or equipment have been tested, submitted, and approved.

6) Verify provisions in place to provide required inspection and testing.

7) Examine work area to verify required preliminary work has been completed.

8) Physical examination of required materials, equipment, and sample work to assure:

a) Materials are on hand and conform to approved shop drawings or submitted data

b) Have been properly stored.

9) Review of appropriate job hazard analyses.

10) Discussion of procedures for constructing work, including review of repetitive deficiencies.

11) Arrange quality control testing if required.

b. Preparatory Meeting:

1) Conducted by QCS. Attended by the superintendent, other quality control personnel, foreman responsible for definable feature, and Government.

2) Discuss results of preparatory phase actions. Document by separate minutes prepared by QCS, attached to daily Contractor's Quality Control Report.

2. Initial Phase:

a. Accomplished at beginning of a definable feature of work.

b. Verify that control for feature of work developed in Preparatory Meeting is implemented and feature of work is performed to the level of workmanship required.

c. Perform as detailed below:

1) Review minutes of Preparatory Meeting.

2) Check preliminary work.

3) Verify adequacy of controls to ensure full contract compliance.

4) Establish levels of workmanship.

5) Resolve all differences.

6) Check safety to include compliance with safety plan and Job Hazard Analysis (JHA).

a) Review JHA with workers.

d. Notify the COR, in writing, 7 days in advance of beginning any of the required actions of the initial phase.

e. Initial Phase Meeting: Conducted by QCS. Attended by superintendent, other quality control personnel, foreman responsible for definable feature and Government.

1) Results of initial phase actions shall be discussed in Initial Phase Meeting. Documented by separate minutes prepared by QCS, attached to daily Contractor's Quality Control Report.

3. Follow-Up Phase:

a. Perform daily checks to assure continuing compliance with contract requirements, including safety and control testing until completion of particular feature of work.

b. Make checks a matter of record in Contractor's Quality Control documentation.

c. Conduct final follow-up checks and confirm all deficiencies are corrected prior to start of additional features of work.

d. Quality control personnel shall continually refer to standards set in Preparatory Meeting and Initial Phases.

3.02 QUALITY ASSURANCE

A. During course of work, Government may perform quality assurance tests. Tests performed by Government will be used to ensure compliance with contract requirements and not as a replacement for specified Contractor quality testing.

1. Upon request, make measuring and testing devises available for use by Government for verification tests.

B. Contractor's QCS:

1. At project site during work activities and shall have complete understanding of all aspects of the work being performed.
2. The effectiveness of the QCS in prosecuting the QC Program will be subject to continued review and approval by the CO.
3. Should the QCS's efforts be deemed insufficient Contractor may be required to replace the QCS at no additional cost to Government.

C. The effectiveness of Contractor's QC Program will be subject to continued review and approval by the CO/COR.

END OF SECTION

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SECTION 01 46 20
TESTING AGENCY SERVICES

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for items of work requiring applicable testing agency services.

B. Progress Payments: If test reports are not submitted in a timely manner, the Contractor will be considered to be in non-compliance and delaying that phase of the work to which the testing applies. The CO may retain appropriate amounts of applicable progress payments.

1.02 REFERENCE STANDARDS

A. ASTM International (ASTM)

1.	ASTM D3666-16	Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
2.	ASTM D3740-12a	Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
3.	ASTM E329-14a	Agencies Engaged in Construction Inspection, Testing, or Special Inspection
4.	ASTM E543-15	Agencies Performing Nondestructive Testing

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 46 20-1, Testing Agency Services Plan:

1. Include:

   a. Names of agencies to perform sampling and testing.

   b. Agency accreditation to perform specified testing or agency qualifications to perform specified testing.

   c. Resumes of personnel performing tests.

   d. Samples of report forms.

2. No change in the approved plan may be made without written concurrence by the COR.

1.04 QUALIFICATIONS

A. Testing agency organization:

1. Agencies testing construction materials: Meet requirements of ASTM E329.
2. Agencies testing concrete and concrete aggregates: Meet requirements of ASTM C1077.
3. Agencies testing concrete masonry units: Meet requirements of ASTM C1093.
4. Agencies testing soil and rock: Meet requirements of ASTM D3740.
5. Agencies testing bituminous paving materials: Meet requirements of ASTM D3666.
6. Agencies engaged in nondestructive testing: Meet requirements of ASTM E543.

B. Equipment:

1. Calibrate measuring devices, laboratory equipment, and instruments at established intervals.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 CONTRACTOR QUALITY TESTING

A. Employ accredited independent agency to perform sampling, testing, and reporting as required in Sections requiring testing.

3.02 GOVERNMENT CONTRACT QUALITY ASSURANCE

A. During the course of the work, the Government may perform quality assurance tests. Tests performed by the Government will be used to ensure compliance with contract requirements and not as replacement for specified Contractor quality testing.

END OF SECTION

SECTION 01 51 00
TEMPORARY UTILITIES

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the price schedule for other items of work.

1.02 REFERENCE STANDARDS

A. Institute of Electrical and Electronics Engineers (IEEE)

1. IEEE C2-23 National Electrical Safety Code (NESC)

1.03 TEMPORARY ELECTRICITY

A. Provide electric power required for construction.

B. Provide generators, transmission lines, distribution circuits, transformers, and other electrical equipment and facilities required for obtaining power and distributing power to points of use.

C. Comply with IEEE C2 clearances and spacing for temporary communications and supply lines.

1.04 TEMPORARY WATER

A. Potable water is not available on site.

B. Provide water required for construction purposes.

C. Water from Banks Lake will be available for construction purposes.

1. Make arrangements with COR for use of water.
2. Government will designate locations from which water may be obtained.
3. Use of a screened intake is required, see article 2.01 Screened Intake.
4. No charge will be made for water obtained from this source.

D. Provide means of conveying water to points of use.

1.05 SANITARY FACILITIES

A. Contractor personnel may use on-site restrooms.

B. If the need exists, Contractor shall provide and mobilize a honey bucket at no additional cost for use at the project site.

PART 2 PRODUCTS

2.01 SCREENED INTAKE

A. Design screen to maintain an approach velocity not exceeding 0.33 feet per second during all operational conditions.

B. Circular Screen Opening: Circular screen face openings must not exceed 3/32-inch in diameter. Perforated plate must be smooth to the touch with opening punched through in the direction of approaching flow.

C. Slotted or Rectangular Screen Openings: Slotted or rectangular screen face openings must not exceed 1.75 mm(approximately 1/16 inch) in the narrow direction.

D. Square Screen Openings: Square screen face openings must not exceed 3/32-inch on a side.

E. Material: The screen material must be corrosion resistant and sufficiently durable to maintain a smooth uniform surface with long term use.

F. Other Components: Other components of the screen facility (such as seals) must not include gaps greater than the maximum screen opening defined above.

G. Open area for screen material to be at least 27 percent.

PART 3 EXECUTION

3.01 REMOVAL

A. Remove temporary equipment and facilities upon completion of work under this contract.

END OF SECTION

SECTION 01 55 00
VEHICULAR ACCESS AND PARKING

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 REGULATORY REQUIREMENTS

A. Meet requirements established by jurisdictional authority for use of existing roadways and haul routes; including seasonal or other limitations or restrictions, payment of excess size and weight fees, and posting of bonds conditioned upon repair of damage.

B. Comply with applicable regulations for haul routes over public highways, roads, or bridges.

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 55 00-1, Initial Digital Recording.

C. RSN 01 55 00-2, Post Construction Digital Recording.

D. RSN 01 55 00-3, Post Repair Digital Recording.

1.04 SITE CONDITIONS

A. Rights-of-way for access to work from existing roads will be established by Government.

1. In accordance with clause at FAR 52.236-10, Operations and Storage Areas.
2. Subject to clause at FAR 52.249-10, Default (Fixed-Price Construction).

PART 2 PRODUCTS

2.01 MATERIALS

A. Materials to maintain and repair existing roadways, parking areas, and haul routes: In accordance with requirements of jurisdictional authority.

B. Materials to construct, maintain, and repair temporary roadways, parking areas, and haul routes: As approved by COR.

C. Materials to maintain roadways and parking areas constructed under this contract and used by Contractor for construction work: In accordance with specified requirements for construction of those roadways and parking areas.

PART 3 EXECUTION

3.01 EXAMINATION

A. Investigate condition of available public or private roads for clearances, restrictions, bridge-load limits, bond requirements, and other limitations that affect or may affect access and transportation operations to and from jobsite.

B. Contractor is allowed to open existing log boom while working at the project site, but shall close boom at the end of each work day to prevent access to site by others.

3.02 RECORDS

A. Make preconstruction, post construction and post repair digital recordings of the Steamboat parking lot and boat ramp.

1. DVD/Flashdrive format with a minimum 720p resolution.
2. Label:
   a. Contract number and title.
   b. Contractor’s name.
   c. Date recording is made.
   d. Preface video with this information.

B. COR will be present during recording. Notify COR at least 3 days prior to recording.

3.03 ESTABLISHED ROADWAYS AND PARKING AREAS

A. Established roadways and parking areas are available for Contractor's use subject to existing restrictions and approval of the COR.

B. Designated existing onsite streets and driveways may be used for construction traffic. Tracked vehicles are not allowed.

C. Designated areas of existing parking facilities may be used by construction personnel.

3.04 HAUL ROUTES

A. Perform work on rights-of-way established by Government as necessary to construct and maintain any roads, bridges, or drainage structures required for establishment and use of haul routes for construction operations.

B. Use existing available public highways, roads, or bridges as haul routes subject to applicable local regulations.

C. Minimize interference with or congestion of local traffic.

D. Provide barricades, flaggers, and other necessary precautions for safety of public where haul routes cross public highways or roads.

3.05 MAINTENANCE

A. Maintain roadways, parking areas, and haul routes in a sound, smooth condition.

B. Maintain roadbed, side slopes, structures, and surfacing of roads and parking areas until completion and acceptance of all work under this contract. As approved by COR, defer until latest practicable date within specified completion period, placement of surfacing on roads or parking areas subject to heavy and deteriorating use by Contractor's construction operations or equipment.

C. Maintain surfacing of gravel-surfaced roads and parking areas in a smooth condition until completion and acceptance of work under this contract.

D. Snow removal for convenience of Contractor or to facilitate work operations of Contractor is considered to be normal required maintenance.

E. The Contractor may add granular surfacing as necessary to ensure the safe use of the staging site.

3.06 REPAIR

A. Promptly repair ruts, broken pavement, potholes, low areas with standing water, and other deficiencies to maintain road surfacing and drainage in original or specified condition.

3.07 REMOVAL

A. Remove materials used to construct temporary roadways, parking areas, and haul routes prior to contract completion. Recycle salvageable materials as approved by COR.

END OF SECTION

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SECTION 01 55 20
TRAFFIC CONTROL

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost: Include in prices offered in the Price Schedule for other items of work.

1.02 REFERENCE STANDARDS

A. Federal Highway Administration, Department of Transportation

1.	MUTCD, Part 6	Part 6, Temporary Traffic Control, Manual on Uniform Traffic Control Devices, 2009 Edition with Revisions 1 and 2, (http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm)

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 55 20-1, Traffic control plan.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 TRAFFIC CONTROL

A. Meet requirements of MUTCD, Part 6.

B. Provide cones, delineators, concrete safety barriers, barricades, flasher lights, danger signals, signs, and other temporary traffic control devices as required to protect work and public safety.

C. Provide flaggers and guards as required to prevent accidents and damage or injury to passing traffic.

D. Do not begin work along public or private roads until proper traffic control devices for warning, channeling, and protecting motorists are in place in accordance with approved traffic control plan.

E. Maintain traffic flow and conduct construction operations to minimize obstruction and inconvenience to public traffic.

F. Provide unobstructed, smooth, and dustless passageway for one lane of traffic through construction operations.

G. Construct temporary connections for one lane of traffic between existing roadway and new construction.

H. Protect roads closed to traffic with effective barricades and warning signs. Illuminate barricades and obstructions from sunset to sunrise.

I. Provide flaggers and traffic control devices during barge loading operations.

J. Remove traffic control devices when no longer needed.

END OF SECTION

SECTION 01 56 10
PROTECTION OF EXISTING INSTALLATIONS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work, except as specified.
2. Costs for repair of installations damaged by the Contractor's operations are the Contractor's responsibility.

1.02 PROJECT CONDITIONS

A. Project is located within Steamboat Rock State Park. Drawings included in these specifications show existing installations and facilities, but may not show all existing installations and facilities.

1. Existing installations include, but are not limited to, log booms, boat launch, boat ramp, parking lot, fences, landscaping, and curbing.

B. Obtain the location of embedded conduit, pipe, cable, ground mat, and other buried items before performing any drilling or anchor installation.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 PROTECTION

A. Provide protection for personnel and existing facilities from harm due to the Contractor's operations. Protection shall be subject to approval of the Government.

B. Arrange protective installations to permit operation of existing equipment and facilities by the Government while work is in progress.

C. Contractor is allowed to open existing log boom while working at the project site, but shall close boom at the end of each workday to prevent access to site by others.

D. Contractor may be issued a key, which must be signed out and returned at the end of construction, as coordinated by the COR.

3.02 REMOVAL OF PROTECTIVE INSTALLATIONS

A. Remove protective installations after purpose has been served. Materials furnished by the Contractor to provide protection remain property of the Contractor.

3.03 REPAIR

A. Repair, at Contractor's expense, damage to existing installations due to Contractor's operations or Contractor's failure to provide proper protection. At the Government's option, damage may be repaired by the Government, and the Contractor will be backcharged repair costs.

END OF SECTION

SECTION 01 56 15
PROTECTION OF EXISTING UTILITIES

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 REFERENCE STANDARDS

A. Bureau of Reclamation (USBR)

1. RSHS Reclamation Safety and Health Standards

B. Institute of Electrical and Electronics Engineers (IEEE)

1. IEEE C2-2023 National Electrical Safety Code (NESC)

1.03 PROJECT CONDITIONS

A. Drawings included in these specifications show existing utilities, but may not show all utilities existing at the jobsite.

B. Obtain location of buried conduit, pipe, cable, ground mat, and other buried items before excavating.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 INTERFERENCE WITH OPERATION OR MAINTENANCE

A. Do not interfere with operation or maintenance service on utilities, existing on date offers are received.

1. Provide for access to utilities in a manner satisfactory to owners and operators and the Government.

B. Provide required temporary structures; make necessary repairs, replacements, or similar operations; and furnish indemnity or other bonds.

END OF SECTION

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SECTION 01 56 20
EXISTING FENCES

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 EXISTING CONDITIONS

A. Wooden fence has been installed in the spring of 2022. Contractor to verify locations.

PART 2 PRODUCTS

2.01 MATERIALS

A. Salvage and reuse existing fencing materials if structurally sound and not damaged during removal.

B. Provide replacement materials of similar type, when necessary.

PART 3 EXECUTION

3.01 FENCE REMOVAL

A. Remove existing fences where necessary for performance of the work, only when authorized by the COR. Maintain fences, where designated, until work is completed or their removal is authorized.

3.02 TEMPORARY FENCES

A. Where fences are removed, provide temporary fence protection for adjacent lands to prevent public access.

B. If the Contractor does not provide necessary temporary fencing or protection within a reasonable time after need for fencing or protection arises, the CO may seek appropriate remedies for install of temporary fencing at the expense of the contractor.

C. Remove temporary fences and protection as a part of cleanup operations prior to final acceptance of completed work.

3.03 FENCE REBUILDING

A. Where fences are removed to accommodate construction, rebuild at original locations.

B. Construct rebuilt fencing that is structurally sound and matches, or is better than, existing fencing installation.

END OF SECTION

SECTION 01 56 32
TEMPORARY SAFETY FENCE

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in Price Schedule for other items of work.

PART 2 PRODUCTS

2.01 SAFETY FENCE

A. Fence:

1. High-density polyethylene grid.
2. Minimum height: 48-inch.
3. Color: Safety orange.
4. Recovered Material Content:
   a. 90 to 100 percent.
5. Postconsumer Content:
   a. 60 to 100 percent.

B. Posts: Steel fence posts.

PART 3 EXECUTION

3.01 INSTALLATION

A. Erect fence around work areas at location approved by the COR.

B. Space posts 10 feet, maximum, on center.

C. Secure grid to posts.

3.02 MAINTENANCE AND REMOVAL

A. Maintain fence until work in area is complete and accepted by the COR.

B. Remove fence when no longer required.

END OF SECTION

SECTION 01 57 20
ENVIRONMENTAL CONTROLS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work, except as specified.
2. Costs for damages and work stoppage are the Contractor's responsibility.

1.02 REFERENCE STANDARDS

A. Bureau of Reclamation (USBR)

1. RSHS — Reclamation Safety and Health Standards, including revisions posted at https://www.usbr.gov/safety/rshs/index.html

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 57 20-1, Copy of applicable Air Quality Permit:

1. Air Quality Permits are required for certain construction-related activities including, but not limited to, earthmoving, sandblasting, aggregate processing, welding, spray-coating operations, or other processes which discharge pollutants into the open air.

1.04 REGULATORY REQUIREMENTS

A. Comply with Federal, State, and local laws and regulations.

B. Comply with RSHS.

C. Conform to most stringent requirement in cases of conflict between specifications, regulatory requirements, and RSHS.

D. Contractor shall be responsible for damages resulting from dust originating from Contractor operations in accordance with clause at FAR 52.236-7, Permits and Responsibilities.

E. The CO may stop construction activity in violation of Federal, State, or local laws and additional expenses resulting from work stoppage will be responsibility of Contractor.

1.05 DUST CONTROL

A. Provide dust control and abatement during performance of work.

B. Provide water in accordance with Section 01 51 00 Temporary Utilities.

C. Provide means of conveying water to point of use and applying water.

D. Use pressure spray or distributor bar to apply water evenly.

E. Apply water only for dust abatement.

1. Use water from Banks Lake.
2. Pumps will be screened in accordance with NMFS fish screen criteria. See Section 01 51 00 Temporary Utilities, Part 2 Products, 2.01 Screened Intake.

F. Prevent, control, and abate dust pollution on rights-of-way provided by Government or elsewhere during performance of work.

G. Provide labor, equipment, and materials, and use efficient methods to prevent dust nuisance or damage to persons, property, or activities, including, but not limited to, crops, orchards, cultivated fields, wildlife habitats, dwellings and residences, agricultural activities, recreational activities, traffic, and similar conditions.

1.06 AIR POLLUTION CONTROL

A. Use reasonably available methods and devices to prevent, control, and otherwise minimize atmospheric emissions or discharges of air contaminants.

B. Do not operate equipment and vehicles that show excessive exhaust gas emissions until corrective repairs or adjustments reduce such emissions to acceptable levels.

1.07 NOISE CONTROL

A. Do not exceed noise levels of 65 decibels during nighttime 7:00 pm to 7:00 am and 80 decibels during daytime 7:00 am to 7:00 pm, as measured at nearest noise-sensitive areas such as residences and schools.

B. Only construction activities approved by COR will be allowed during hours of 7:00 pm to 7:00 am.

C. Noise barriers and equipment mufflers required.

1.08 LIGHT CONTROL

A. Direct stationary floodlights shall shine downward at an angle less than horizontal.

B. Shield floodlights so that floodlights will not be a nuisance to surrounding areas.

C. Direct lighting so that residences are not in direct beam of light.

D. Correct lighting control problems when they occur as approved by the COR.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

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SECTION 01 57 30
WATER POLLUTION CONTROL

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 REFERENCE STANDARDS

A. Bureau of Reclamation (USBR)

1. RSHS — Reclamation Safety and Health Standards, including revisions posted at https://www.usbr.gov/safety/rshs/index.html

B. Code of Federal Regulations (CFR)

1. 40 CFR, Part 112 — Oil Pollution Prevention

C. Public Law

1. Sections 311, 402, and 404 — Clean Water Act (Public Law 92-500, as amended)

D. Washington State Law

1. Revised Code of Washington (RCW) 77.55: — Construction Projects in State Waters.

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 57 30-1, Water Quality Management Plan/Stormwater Pollution Prevention Plan

1. Detailed comprehensive Water Quality Management Plan for construction activities that involve or are in the vicinity of any stream, flowing or dry watercourse, lake, wetland, reservoir, or underground water source, as required by the stormwater permit (see 01 57 30 – 4) for discharges from construction sites.

   a. Name of person who will be responsible for implementing and carrying out plan.

   b. Relationship of methods and descriptions herein to conditions of required permits specified in article titled "Contractor Responsibilities" and identified in project permits obtained by the government.

c. Precautions which will be taken to avoid sediment discharge resulting in increased turbidity or accidental spills of pollutants into a river, stream, watercourse, or lake.

d. Demonstrated compliance with State and local wastewater and stormwater disposal.

e. Methods of handling and treating wastewater/stormwater, including drawings or maps indicating discharge points and best management practices to prevent water pollution. Provide estimates of amount of wastewater/stormwater which may be handled and treated at each location.

f. Methods for preventing or controlling runoff and erosion for construction sites, both during and after construction, including:

1) Access and haul roads;

2) Stockpile, borrow, and waste areas;

3) Construction equipment yards;

4) Buffer zones; and

5) Other impacted areas.

g. Information on vegetative practices, structural control, silt fences, straw dikes, sediment and operator controls, stormwater controls, and solid waste controls. Address site specific stormwater controls for appropriate stormwater management measures including velocity dissipators. Address solid waste controls for building materials and offsite tracking of sediment.

h. Must conform with this specification and the Department of Ecology's most recent Stormwater Management Manual for Eastern Washington.

i. Provide information outlining how verification of compliance with Washington Administrative Code (WAC) 173-201A-200 will be determined for:

1) Fresh water designated uses and criteria for monitoring and compliance to be in accordance with WAC 173-201A-200 for "Salmonid Spawning, Rearing, and Migration" for turbidity for work within Banks Lake.

a) Establish monitoring locations with defined depths of reading within the water column and/or distance from activity for:

i. Measured background: representative location outside the area being disturbed.

ii. Measured Point of Compliance: at WAC 173-201A criteria from disturbance activity near project site.

b) Frequency of monitoring

c) Description of monitoring equipment and related records of calibration

d) Sample reporting forms for recording compliance

e) Provide Exceedance Protocol for returning to compliance through:

i. Verification of exceedance reading and photographic documentation of work activities at the time of verification,

ii. Cessation of in-water work disturbance work activities,

iii. Additional monitoring frequency for system response and recovery tracking, and

iv. Enhanced best management practices proposed to address the exceedance causation in order to allow for resumption of work.

j. Include copy of the Section 402/NPDES/Construction General Permit to the plan.

C. RSN 01 57 30-2, Spill Prevention, Control, and Countermeasure (SPCC) Plan:

1. Submit when SPCC Plan is required in accordance with 40 CFR, Part 112.

a. SPCC Plan is required where release of oil and oil products could reasonably be expected to enter into or upon navigable waters of the United States or adjoining shorelines in quantities that may be harmful (40 CFR, Part 110), and aggregate on site oil storage capacity is over 1,320 gallons. Only containers with capacity of 55 gallons and greater are included in determining on site aggregate storage capacity.

2. Reviewed and certified by a registered professional engineer in accordance with 40 CFR, Part 112, as required by section 311 of the Clean Water Act (Public Law 92-500 as amended).

D. RSN 01 57 30-3, Water Pollution Control Product Data

1. Weed-free certification for straw containing materials (e.g. bales, wattles), if used, current within the last 3 years; and

2. Any other manufacturers' certifications for additional water pollution control/erosion control products.

1.04 REGULATORY REQUIREMENTS

A. Construction Safety Standards:

1. Comply with sanitation and potable water requirements of section 7 of RSHS.

B. Laws, Regulations, and Permits:

1. Perform construction operations to comply, and ensure subcontractors comply, with:

   a. Applicable Federal, State, and local laws, orders, regulations, and Water Quality Standards concerning control and abatement of water pollution; and terms and conditions of applicable permits issued by permit issuing authority.

   b. If conflict occurs between Federal, State, and local laws, regulations, and requirements, the most stringent shall apply.

C. Contractor Violations:

1. If noncompliance should occur, immediately (verbally) report noncompliance to the CO and COR. Submit specific written information within 2 days.

2. Violation of applicable Federal, State, or local laws, orders, regulations, or Water Quality Standards may result in the CO stopping site activity until compliance is ensured.

3. The Contractor shall not be entitled to extension of time, claim for damage, or additional compensation by reason of such a work stoppage.

4. Corrective measures required to bring activities into compliance shall be at the Contractor's expense.

1.05 REQUIRED PERMITS

A. Stormwater Discharge Permit Associated with a Construction Site (National Pollutant Discharge Elimination System (NPDES)):

1. Permit:

   a. Prior to discharging stormwater or other pollutants, the Contractor will apply for a permit from the Environmental Protection Agency as required under Section 402 of the Clean Water Act (Public Law 92-500, as amended). Apply online to the EPA at: https://www.epa.gov/npdes/2022-construction-general-permit-cgp

   b. Notice of Intent (NOI): Both the Bureau of Reclamation and the Contractor shall sign the NOI to obtain coverage under a stormwater general permit to control stormwater discharges from the construction site, as required under Section 402 of the Clean Water Act (Public Law 92-500, as amended).

2. Prepare a Stormwater Pollution Prevention Plan (SWPPP) as required by the Stormwater Discharge Permit that is site specific and conforms with this specification and the Department of Ecology's most recent Stormwater Management Manual for Eastern Washington (https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/stormwater-permittee-guidance-resources/stormwater-manuals.)

3. Implement site specific sediment, erosion, and pollution prevention control measures to prevent erosion caused by stormwater runoff.

4. Comply with the terms and conditions to obtain and maintain the stormwater discharge permit.

5. Monitoring and Treatment:

   a. Provide monitoring and water treatment, if necessary, to achieve compliance with permit conditions

   b. Provide recordkeeping required of the section 402 permittee, as stated in the section 402 permit.

6. Sampling: Include sampling in monitoring required of the Contractor to meet section 402 requirements, as well as required laboratory tests to determine effluent characteristics.

7. Monitoring Results:

   a. Provide monitoring results to the CO 2 weeks prior to submittal deadline to appropriate State and/or Environmental Protection Agency (EPA) Regional Administrator.

   b. Send copies of all information transmitted to EPA and/or the State to the CO.

B. Section 404 Permit:

1. The Bureau of Reclamation has acquired the permit to discharge dredged or fill material into waters of the United States (including wetlands) as required under section 404 of the Clean Water Act (Public Law 92-500 as amended).

2. Reclamation will make known the conditions of permit by providing it to the Contractor.

3. Terms and Conditions:

   a. Comply with terms and conditions of the approved permit and permit enclosures.

   b. Provide recordkeeping as required by the permit.

C. Hydraulic Project Approval (HPA)

1. Reclamation has acquired a permit to perform construction in or near State of Washington waters, as required under Washington State Law RCW 77.55.

2. Reclamation will make known the conditions of the permit by providing it to the contractor.

3. Terms and Conditions:

   a. Comply with Washington State's provisions listed in the permit

   b. Provide recordkeeping required by the permit and provide to the CO at the beginning and end of construction, or at any point in time after

construction has started if there will be longer than 2 weeks with no construction site activity.

D. 401 Water Quality Certification

1. Reclamation was issued a Water Quality Certification Order from the Washington State Department of Ecology to perform construction in or near State of Washington Waters, as required under Section 401 of the Clean Water Act, as amended.
2. Reclamation will make known the conditions of the permit to the contractor.
3. Terms and conditions:
   a. Comply with terms and conditions listed in the Water Quality Certification Order No. 24018.
   b. Provide recordkeeping as required by the Water Quality Certification Order No. 24018.

1.06 CONTRACTOR RESPONSIBILITIES

A. Permits:

1. Any permits obtained by the Bureau of Reclamation are exceptions to the clause at FAR 52.236-7, Permits and Responsibilities, which requires the Contractor to obtain necessary licenses and permits.
   a. The Government will obtain the 404, 401 (if applicable), and the HPA permits.
   b. The contractor is responsible for obtaining the Section 402/NPDES/Construction General (Stormwater Discharge) Permit.

B. Monitoring:

1. Conduct monitoring in order to meet the requirements of the permits which may include:
   a. Sampling,
   b. Site inspections, and
   c. Required laboratory tests to determine effluent characteristics.

C. Reporting Results:

1. The Government will report required monitoring results to appropriate agencies. The section 402 wastewater discharge permit has specific reporting requirements for the permittee for noncompliance when effluent limitations are exceeded.

D. Recordkeeping:

1. Retain records and data required by permits.
2. Submit copies of records to the CO.

PART 2 PRODUCTS

2.01 STRAW CONTAINING MATERIALS

A. Straw containing materials (e.g. wattles or bales), if used: Certified weed free current within the last 3 years.

PART 3 EXECUTION

3.01 POLLUTION CONTROLS

A. Control pollutants by use of sediment and erosion controls, wastewater and stormwater management controls, construction site management practices, and other controls including State and local control requirements.

B. Sediment and Erosion Controls:

1. Establish methods for controlling sediment and erosion which address vegetative practices, structural control, silt fences, straw dikes, sediment controls, and operator controls as appropriate.
2. Institute stormwater management measures as required, including velocity dissipators, and solid waste controls which address controls for building materials and offsite tracking of sediment.

C. Wastewater and Stormwater Management Controls:

1. Pollution prevention measures:
   a. Use methods of dewatering, unwatering, or stockpiling earth and rock materials which include prevention measures to control silting and erosion, and which will intercept and settle any runoff of sediment-ladened waters.
   b. Prevent wastewater from general construction activities such as drainwater collection, aggregate processing, concrete batching, drilling, grouting, or other construction operations, from entering flowing or dry watercourses without the use of approved turbidity control methods.
   c. Divert stormwater runoff from upslope areas away from disturbed areas.
2. Turbidity prevention measures:
   a. Use approved methods for prevention of excess turbidity that are not harmful to aquatic life.
   b. Wastewaters and stormwaters discharged into surface waters shall meet conditions of section 402, the National Pollutant Discharge Elimination System (NPDES) permit.

c. Do not operate mechanized equipment in waterbodies without having first obtained a section 404 permit, and then only as necessary to perform the required construction.

D. Construction Site Management:

1. Contractor construction operations:

a. Perform construction activities by methods that will prevent entrance, or accidental spillage, of solid matter, contaminants, debris, or other pollutants or wastes into streams, flowing or dry watercourses, lakes, wetlands, reservoirs, or underground water sources.

1) Pollutants and wastes include, but are not restricted to: refuse, garbage, cement, sanitary waste, industrial waste, hazardous materials, radioactive substances, oil and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution.

2. Stockpiled or deposited materials:

a. Do not stockpile or deposit excavated materials or other construction materials, near or on, stream banks, lake shorelines, or other watercourse perimeters where they can be washed away by high water or storm runoff, or can in any way encroach upon the watercourse.

3. Petroleum product storage tanks management:

a. Place oil or other petroleum product storage tanks at least 150 feet from streams, flowing or dry watercourses, lakes, wetlands, reservoirs, and any other water source.

b. Do not use underground storage tanks.

c. Construct storage area dikes at least 12 inches high or graded and sloped to permit safe containment of leaks and spills equal to storage tank capacity located in the area plus sufficient freeboard to contain the 25-year rainstorm.

1) Line diked areas with an impermeable barrier at least 50 mils thick.

d. Areas for refueling operations: Lined with impermeable barrier at least 10 mils thick covered with 2 to 4 inches of soil.

4. Fueling:

a. Dedicated fueling area shall be protected from stormwater run-on and runoff and shall be located at least 50 feet from downstream drainage facilities and watercourses.

b. Fueling must be performed on level-grade areas.

c. Protect fueling areas with spill containment berm and pad to prevent run-on, runoff, and to contain spills.

d. Absorbent spill clean-up materials and spill kits shall be available in fueling areas and on fueling trucks and used on small spills instead of

hosing down. Affected absorbent material and spill kits should be removed promptly and disposed of properly after use.

e. Equipment in designated fueling areas shall not be left unattended during fueling activities.

f. Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut-off to control drips.

g. Fuel tanks shall not be "topped-off."

5. Equipment:

a. All equipment working above, below, or proximal to the OHWM will need bio-based oils.

b. All equipment working/operating within the ordinary high water mark must use a biodegradable, non-toxic hydraulic fluid meeting the toxicity requirements of the EPA and the US Fish and Wildlife Service in the hydraulic systems.

c. Equipment must be maintained in good working condition and inspected daily to ensure that fuel, lubricants, hydraulic fluid, and other material harmful to fish or other aquatic life are not leaked or spilled into the lake, banks, or shorelines.

d. Secondary containment measures must be used whenever slope or site conditions could direct spills of fuels, lubricants, hydraulic fluid, or other harmful materials to waters of the state.

e. Equipment operators must have immediate access to spill containment materials and must operate according to the site-specific spill prevention and control plan.

f. Washing of equipment, vehicles, tools, etc must be done at locations where wash waters will not be discharged to the lakebed, streams, or wetlands.

g. Equipment and all construction and deconstruction materials will be stored in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluids, sediments, sediment-laden water, chemicals, or any other toxic or harmful material from entering waters of the state.

END OF SECTION

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SECTION 01 57 35
OIL SPILL PREVENTION

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for items of work that require oil spill prevention measures.
2. Contractor is responsible for damages resulting from oil spills resulting from work performed under this contract.

1.02 REFERENCE STANDARDS

A. ASTM International (ASTM)

1. ASTM D 2103-10 Polyethylene Film and Sheeting

1.03 REGULATORY REQUIREMENTS

A. Comply with Federal, State, and local regulations for oil-spill and control regulations.

PART 2 PRODUCTS

2.01 MATERIALS

A. Polyethylene Sheeting: ASTM D 2103.

1. Thickness: 6 mils, minimum.

PART 3 EXECUTION

3.01 ONSITE SPILL PREVENTION

A. Contractor is responsible for spills or leaks during performance of this contract which occur as a result of, or are contributed to by the actions of the Contractor's agents, employees, or subcontractors.

B. Perform following before draining and transferring oil or removing bushing operations:

1. Place polyethylene sheeting below barrels, hoses, and connections used for draining oils.
2. Overlap, triple-fold, and tape adjoining sheets to trap spilled oil and to not contaminate surfaces.

3. Inspect hoses and gaskets used for pumping for holes, cracks or deterioration. Inspect fittings for proper connections. Repair or replace damaged hoses, gaskets, and fittings to COR's satisfaction.
4. Place drip pans under pumps and connections.
5. Place pumps and hoses so they are not a tripping hazard.
6. Have available onsite sorbent materials and cleanup equipment. Includes but not limited to the following:
   a. Shovels.
   b. Brooms.
   c. Department of Transportation recovery drums.
   d. Rags.
   e. Vermiculite, minimum: 50 pounds.
   f. Sorbent booms and sorbent pads.
   g. Solvents.

C. Monitor pumping operations at all times.

3.02 SPILLS OR LEAKS

A. Stop source of spill or leak.

B. Stop migration of spill or leak.

C. Place berm of sorbent material around perimeter of spill.

D. Solidify free standing oil.

3.03 REPORTING

A. Report spills or leaks, regardless of quantity, to COR immediately.

B. Make follow-up written report to COR no later than 7 days after initial report. Include in a narrative form, as a minimum, the following:
   1. Description of item spilled and the Safety Data Sheet (SDS). Include identity, quantity, manifest number.
   2. Whether or not amount spilled is EPA or State reportable. If so, when it was reported.
   3. Exact time and location of spill including a description of the area involved.
   4. Containment procedures initiated.
   5. Summary of communications with media or Government officials other than COR.

6. Description of clean-up procedures employed or to be employed at the site.

C. Disposal location and methods.

3.04 CLEANUP

A. Clean up spills or leaks to satisfaction of COR and in a manner that complies with applicable Federal, State, and local laws and regulations.

B. Pump spills not practical for solidifying into Department of Transportation drums. Label and date drums.

C. Place contaminated porous solids; such as, but not limited to; soil, asphalt, wood, and paper into Department of Transportation removable head drums or bins. Label and date drums or bins.

D. If spill exceeds onsite control and cleanup capabilities, hire outside subcontractor specializing in environmental cleanup to perform cleanup.

E. For cleanup operations, document extent of spill, effectiveness of cleanup operations, and point in time when the environment has been decontaminated as approved by COR.

F. Perform cleanup, in compliance with regulatory agency guidance, at no additional cost to Government.

3.05 DISPOSAL

A. Handle and dispose of spilled or leaked materials, and all contaminated sorbent materials, in accordance with applicable Federal, State, and local regulations. Provide Government with copies of all Resource Conservation and Recovery Act (RCRA) disposal manifests and waste reports, as relevant.

END OF SECTION

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SECTION 01 57 50
TREE AND PLANT PROTECTION

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work, except as specified.
2. Costs for repair or treatment of injured vegetation and replacement of trees or shrubs are the Contractor's responsibility.

1.02 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 57 50-1, Protection Plan:

1. Description of protective barriers or other methods used to protect vegetation from damage or injury caused by construction operations.

PART 2 PRODUCTS

2.01 REPLACEMENT TREES AND SHRUBS

A. Species: Same as removed tree or shrub or other species approved by the COR.

B. Size: Same size as removed tree or shrub, or maximum practicable size that can be planted and sustained in the particular environment as approved by the COR.

PART 3 EXECUTION

3.01 PRESERVATION AND PROTECTION

A. Preserve natural landscape and preserve and protect existing vegetation not required or otherwise authorized to be removed.

1. Submit requests to remove vegetation not specifically required to be removed to the COR.

B. Conduct operations to prevent unnecessary destruction, scarring, or defacing of natural surroundings in the vicinity of the work.

C. Move crews and equipment within the rights-of-way and over routes provided for access to the work in a manner to prevent damage to grazing land, crops, or property.

D. Protect vegetation from damage or injury caused by construction operations, personnel, or equipment by the use of protective barriers or other methods approved by the COR.

E. Minimize, to the greatest extent practicable, clearings and cuts through vegetation. Irregularly shape authorized clearings and cuts to soften undesirable aesthetic impacts.

F. Do not use trees for anchorages except in emergency cases or as approved by the COR.

1. For such use, wrap the trunk with a sufficient thickness of approved protective material before rope, cable, or wire is placed.

2. Submit requests to use trees for anchorage, except for emergencies. Include description of protective material.

G. Use safety ropes where tree climbing is necessary; do not use climbing spurs.

3.02 REPAIR, TREATMENT, OR REPLACEMENT

A. The Contractor is responsible for injuries to vegetation caused by Contractor operations, personnel, or equipment.

B. Employ the services of an experienced arborist or licensed tree surgeon to direct repair, treatment, and replacement of injured vegetation. Submit qualifications of experienced arborist or licensed tree surgeon to COR prior to employment.

C. Repair or treat injured vegetation without delay and as recommended by and under direction of an experienced arborist or licensed tree surgeon.

D. Remove and dispose of trees or shrubs not required or otherwise authorized to be removed that, in the opinion of the COR, are injured beyond saving.

E. Replace removed tree or shrub with tree or shrub approved by the COR.

1. Remove and replace replacement trees or shrubs that die within the 1-year period. Maintain such replacements for a period of 1 year from the date of replacement.

END OF SECTION

SECTION 01 57 90

PRESERVATION OF HISTORICAL AND ARCHAEOLOGICAL DATA

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Except as provided for an equitable adjustment, include in prices offered in the Price Schedule for other items of work.

1.02 DEFINITIONS

A. Cultural resources: Includes prehistoric, historic, architectural, and traditional cultural properties. These include, but are not limited to, human skeletal remains, archaeological artifacts, records, and material remains related to such property.

B. Cultural items: Native American cultural items (i.e., funerary objects, sacred objects, objects of cultural patrimony, or human remains) for which protection is prescribed under the Native American Graves Protection and Repatriation Act (NAGPRA) - Public Law 101-601; 104 Stat. 3042, Section 3(d); and 43 CFR Part 10.4.

C. Human remains: Physical remains of the body of a person.

D. Funerary objects: Native American items that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed intentionally at the time of death or later with or near individual human remains.

E. Native American: Of, or relating to, a tribe, people, or culture that is indigenous to the United States.

F. Sacred Objects: Native American items that are specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents. These items are specifically limited to objects that were devoted to a traditional Native American religious ceremony or ritual and which have religious significance or function in the continued observance or renewal of such ceremony.

G. Objects of cultural patrimony: Native American items having ongoing historical, traditional, or cultural importance central to the Indian tribe itself, rather than property owned by an individual tribal member. These objects are of such central importance that they may not be alienated, appropriated, or conveyed by any individual tribal member.

1.03 REFERENCES

A. Bureau of Reclamation 2017. Plan for the Treatment of Human Remains, Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony from Site 45GR1008, Steamboat Rock State Park, Banks Lake, Washington.

B. Bureau of Reclamation 2018. Memorandum of Agreement Between the Columbia-Cascades Area Office, Bureau of Reclamation and the Confederated Tribes of the Colville Reservation and the Washington State Historic Preservation Officer and the Washington State Parks and Recreation Commission and the Confederated Tribes and Bands of the Yakama Nation Regarding the Treatment of 45GR1008, Banks Lake Reservoir, Grant County, Washington.

C. Bureau of Reclamation 2021. Archaeological Monitoring Plan: Steamboat Rock Area Closure Log Boom, Grant County, Washington.

D. The above plans and MOA are agreements between the Bureau of Reclamation, the Washington State Historic Preservation Officer, the Confederated Tribes of the Colville Reservation, the Confederated Tribes and Bands of the Yakama Nation, and the Washington State Parks and Recreation Commission regarding management of Steamboat Rock State Park and potential impacts to cultural resources. The discovery provisions in these agreements apply to construction of the Steamboat Rock Shoreline Stabilization Project.

1.04 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 57 90-1, Proposed Use Areas:

1. Areas identified as Contractor Use Areas on the drawings may be used without CO approval prior to work. All other areas to be used require CO approval prior to work.

    a. Prior to use of areas outside of the identified work areas or Contractor Use Areas, Contractor must provide written documentation demonstrating that the use area has been inventoried for cultural resources to the CO and COR for approval by the Project Archaeologist as required by the National Historic Preservation Act.

    b. Once the CO has received approval of site use by the Project Archaeologist, the areas are subject to review under the National Environmental Policy Act and related laws.

    c. CO shall retain the authority to designate all use areas as approved for work.

    d. Review and approvals could take up to 45 days.

1.05 PROJECT CONDITIONS

A. Federal legislation provides for protection, preservation, and collection of scientific, prehistorical, historical, and archeological data, including relics and specimens, which might otherwise be lost due to alteration of terrain as a result of any Federal construction project.

B. Any person who, without permission, injures, destroys, excavates, appropriates, or removes any historical or prehistorical artifact, object of antiquity, or archeological resource on public lands of the United States is subject to arrest and penalty of law.

C. Comply with state laws when operating on non-Federal and non-Indian lands.

D. Discovery of Resources

1. When the Contractor, or any of the Contractor's employees, or parties operating or associated with the Contractor, in performance of this contract discover cultural resources on any lands:

   a. Immediately cease work at that location. If the discovery may be NAGPRA cultural items as defined above, cease all activities within 50 feet (15.2 meters) of the discovery.

   b. No one other than the Archaeological Monitor on site has the authority to notify a Reclamation official about the discovery. If a discovery is made by the contractor or contractor employee, the Monitor must be notified and given time and space to assess the discovery.

   c. The Monitor must provide immediate verbal notification to Reclamation's Project Archaeologist, Gia DiMaggio; 208-590-6147; gdimaggio@usbr.gov giving the location and nature of the findings.

2. No later than 24 hours after the discovery, the Archaeological Monitor will send written documentation of the discovery to Gia DiMaggio; Bureau of Reclamation Project Archaeologist; 208-590-6147; gdimaggio@usbr.gov. After confirming the validity of the discovery, Project Archaeologist will then forward the written notification of the discovery to the Area Manager no later than three days after receiving written notification from the Monitor. The written statement needs to include: The geographical location by county and State;

   a. The contents of the discovery; and

   b. The steps taken to secure and protect the human remains or cultural items.

3. Once all pertinent Reclamation representatives are informed, and have had time to examine the validity of the discovery, they must provide immediate verbal and written notification to:

   a. Guy Moura of the Confederated Tribes of the Colville Nation; 509-634-2695; or Brenda Covington; 509-634-2699.

b. Casey Barny of the Confederated Tribes and Bands of the Yakama Nation; 509-865-5121, x4378; or Jessica Lally; 509-865-5121, x4766

4. In the event of a NAGPRA discovery, Reclamation must then carry out the protocol outlined by a signed and approved Plan of Action (POA) for any human remains or cultural items that are to be removed if in place avoidance and protection actions are not feasible. The attached POA calls for all discoveries to be left in-situ however possible. If the discovery cannot be left in place for fear of damage from project activities, the POA addresses the collection protocol as well as a need for the development of a post discovery plan between Reclamation representatives and the tribes.

5. Where a NAGPRA discovery occurs on Federal lands, do not notify state officials. All notifications of a discovery shall be to a Reclamation Archaeologist who may then contact pertinent Tribal officials.

6. Exercise care so as not to disturb or damage cultural resources uncovered during construction activities and provide such cooperation and assistance as may be necessary to preserve the findings for removal or other disposition by the Area Manager.

   a. In order to certify when the project activities may resume after a work stoppage, written certification must be sent from the Area Manager to the project manager no later than 30 days after receiving written or verbal documentation of a discovery. The written certification must provide: A copy of the signed POA with redaction of any confidential or sensitive information;

   b. Instructions for protecting, securing, stabilizing, or covering the human remains or cultural items, if appropriate;

   c. The date (no later than 30 days after the date of the written certification) on which lawful activity may resume around the discovery

7. On-site archaeological monitors will be present during the construction period. Archeological monitors will work with the Area Manager and Reclamation Archaeologists to assure preservation of the important natural and cultural features and to provide professional oversight to help prevent ground disturbances that might adversely impact buried archaeological materials, including human remains, and to make sure the appropriate protocols are followed in the event of an inadvertent discovery of human remains.

   a. On-site archaeological monitors have the authority to stop work at any time. Any stoppage of work will be temporary to allow time to contact Project Archaeologist and the Area Manager.

   b. No ground-disturbing work of any kind, or work to access or install the shoreline stabilization riprap, is to be performed by the Contractor or Sub-Contractors without an on-site monitor present.

E. Where appropriate by reason of discovery, the Area Manager may order delays in time of performance or changes in work, or both. When such delays or changes are ordered, an

equitable adjustment will be made in the contract in accordance with applicable clauses of the contract.

1. Work is to cease immediately upon discovery of human remains or cultural items, and all activities must cease within 50 feet (15.2 meters) of the discovery.
2. Work is not to begin until written notification to proceed is received from the Area Manager.

F. The Contractor is held to the minimal ground disturbance as defined in this specification and design. As such there will be no temporary haul routes to or across the construction sites and staging areas will be approved by the Area Manager as part of the Land Use plan prior to construction. The Contractor shall make every effort to minimize, or even eliminate any additional ground disturbance.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

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SECTION 01 71 20
SURVEYING

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 DEFINITIONS

A. GPS: Global Positioning System

B. GNSS: Global Navigation Satellite Systems

C. TPS: Terrestrial Positioning Systems (i.e. total stations and automatic levels)

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 71 20-1, Surveying Plan:

1. Describe work layout and survey methods.
2. Surveying schedule.
3. Example of field records format on electronic data collection devices.

C. RSN 01 71 20-2, Resumes:

1. Professional Land Surveyor or Professional Engineer responsible for supervising and directing survey work.
2. Construction surveyor.

D. RSN 01 71 20-3, Accuracy Check Results:

1. Accuracy check of Government-established primary control.

E. RSN 01 71 20-4, Completed and Reduced Survey Notes:

1. Copy of completed and reduced survey notes (electronic or paper) for a survey or portion of survey. Include ASCII coordinate files.
2. Field records on electronic data collection devices: Include electronic files and paper copies of notes.

F. RSN 01 71 20-5, Workday's survey notes:

1. Copies when requested by Government.

1.04 PRIMARY CONTROL

A. The Government has established primary control to be used for establishing work lines and grades.

B. Primary control consists of bench marks and horizontal control points in work vicinity as shown on drawings.

C. The Government will provide complete listing and identification of primary control within 14 days after issuance of Notice to Proceed.

D. Check and verify primary control and resolve discrepancies with Government before beginning work.

E. Preserve and maintain primary control points until otherwise authorized. Government may reestablish damaged or destroyed primary control points and backcharge reestablishment cost to the Contractor.

1.05 QUALIFICATIONS

A. Responsible Surveyor:

1. Professional Land Surveyor or Professional Engineer.
2. Registered in Washington.
3. When GPS/GNSS is utilized, shall have working knowledge of geodesy, GNSS/GPS capabilities.

B. Construction Surveyors:

1. Under supervision and direction of Professional Land Surveyor or Professional Engineer.
2. Minimum 2 years' experience in charge of construction surveys for construction projects similar in nature to that required by this contract.
3. In charge of construction surveys for at least 2 projects similar in nature to that required by this contract.

PART 2 PRODUCTS

2.01 SURVEYING MATERIALS AND EQUIPMENT

A. Provide materials required for surveying work, including, but not limited to, stakes, spikes, steel pins, templates, platforms, and tools.

1. Except as required to be incorporated in work or left in place, surveying materials remain property of Contractor.

B. Instruments:

1. GNSS/GPS: Dual or multi-frequency survey grade receivers using accepted standards of practice.

2. TPS: Check total station level calibration, vertical index and horizontal collimation daily, as recommended by instrument manufacturer. Include pre-measurement checks in surveyor reports.

3. Check and adjust optical plummets, tribrachs, tripods, and leveling bubbles daily and after harsh treatment or long-term storage. For barometers and thermometers, check regularly for accuracy.

PART 3 EXECUTION

3.01 LAYOUT OF WORK SURVEYS

A. Establish lines and grades for work layout from Government-established primary control points.

B. Establish measurements required for work execution to specified tolerances.

C. Provide stakes, markers, and other survey controls necessary to control, check, and guide construction. Place and mark controls so COR can monitor progress without the use of survey equipment.

3.02 QUANTITY SURVEYS

A. Perform surveys and computations to determine quantities of work performed or placed during each progress payment period.

B. Perform surveys necessary for the Government to determine final quantities of work in place. Final payment quantities will be based on the Government's original terrain data and submitted survey notes and computations.

C. Perform quantity surveys in presence of authorized Government representative, unless specifically waived. Notify the Government at least 24 hours before performing a quantity survey.

D. Use Government provided AutoCAD Civil 3D 2018 drawing template (DWT), Figure Prefix Database, Linework Code Set to import survey points file and to import survey data and generate 3D surfaces. Naming utilities for original ground and final ground surfaces include project year, project I.D., abbreviated project name, OG (Original Ground), FG (Final Ground) (e.g., xx-xxx NDM OG_01 or xx-xxx NDM FG_01).

1. Use Government provided codes and special codes from Figure Prefix Database Manager and Linework Code Set when collecting topographic data points and importing survey data into drawing file. Refer to Government provided Linework Code Set for Special Codes, Line Segment Codes and Curve Segment Codes.

2. Survey data points (Numeric Point ID, Northing, Easting, Elevation, and Description) shall be provided to the Government as a comma delimited ASCII text format only (csv). When importing survey point data (project coordinates only) into AutoCAD Civil 3D 2018 Survey Data Base (SDB), the point file format shall be PNEZD (comma delimited). See surveyor's report as shown on drawings for geodesy details.
3. Geo-reference drawing file in accordance with Government furnished geodesy.
4. Include in each drawing all metadata (i.e. surveyors report) including but not limited to, control points table associated with specific surveying event, survey methodology, equipment, datums, units, control points used, check shot Northing, Easting and Elevation differences, geodesy, and post processing survey software and version.
5. Control point table in AutoCAD Civil 3D 2018 survey drawing shall display point number, project coordinates, orthometric heights (elevations), and description or point name. Northings, Eastings and orthometric heights shall be shown to the nearest 0.01 ft. Use point table style "Survey Control Points" provided by Government when inserting survey control table in survey drawing files.

3.03 SURVEY REQUIREMENTS

A. Alignment Staking:
   1. Each 50 feet on tangent.
   2. Each 25 feet on curves, plus the following:
      a. Horizontal event points:
         1) Points of curvature (PC)
         2) Points of tangency (PT)
      b. Vertical event points:
         1) Vertical point of intersection (VPI)
         2) Vertical curve (VC)

B. Slope Staking: Each 50 feet on tangent and each 25 feet on curves, stake every 10 feet in elevation on slopes.

C. Quantity surveys: Original, final, and intermediate Digital Terrain Models (DTMs) for structure sites and other locations as required for quantity surveys. Volumetric quantities shall be determined by preliminary (before) and final (as-constructed) DTM.

D. Set additional stakes as required by COR.

E. As-builts: As required for structures and other features of work.

3.04 ACCURACY

A. Degree of Accuracy:

1. Alignment of Tangents and Curves: Within 0.1 foot.
2. DTMs and slope stakes: Within 0.10 foot, horizontally and vertically.
3. Horizontal Control Surveys: Precision shall be dictated by expected use of control point utilizing accepted standards of practice.
4. Vertical Control Surveys: Close within 0.05 foot times the square root of the circuit length in miles.

B. Beginning and ending of each survey shall include check measurement on known survey point(s).

3.05 FIELD RECORDS

A. Record field notes, computations, and other surveying data on electronic data collection devices or in fieldbooks. Field records shall be complete and accurate record of survey.

B. Record survey data in accordance with recognized professional surveying standards.

1. Notes or data not in accordance with standard formats will be rejected.
2. Electronic files of notes on electronic data collection devices: In approved format.
3. Fieldbooks:
   a. Illegible notes or data or erasures in a fieldbook will be sufficient cause for rejection of part or all of fieldbook.
   b. Corrections by ruling or lining out errors will be permitted.
   c. Copied notes or data will not be permitted.
   d. Rejection of part or all of a fieldbook may necessitate resurveying.

C. Field notes shall include as a minimum:

1. Daily title page.
2. Date of survey.
3. Names and duties of survey crew members.
4. Pertinent atmospheric conditions, such as temperature, pressure and ppm settings.
5. Explanatory notes about conditions(s) that might affect accuracy or result of survey.
6. Instrument data:
   a. Instrument model(s) and serial numbers, including GPS antenna type(s), offsets, measurement to ARP (Antenna Reference Point), atmospheric

conditions entered, curvature and refraction constant, sea level correction, scale factor, prism model and offset.

b. Care and adjustment of instruments including pegging the leveling instrument, level rod length checks, use of rod levels, collimation of total stations, prism model and offsets, and other pertinent information.

7. Survey location.

8. Diagrams or sketches.

9. Pertinent record information and references.

10. Original "raw" data values (without mathematical manipulations and without corrections for errors) of distance, angle, and elevations.

11. Monuments found or set; with complete descriptions (e.g., found 5/8-inch rebar with 1 ½-inch plastic yellow cap, including markings), and description of stampings.

12. Consecutively number pages in upper right hand corner.

END OF SECTION

SECTION 01 74 00
CLEANING AND WASTE MANAGEMENT

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work except as specified.
2. Cost of environmental site assessments are the Contractor's responsibility.

1.02 REFERENCE STANDARDS

A. Bureau of Reclamation (USBR)

1.	RSHS	Reclamation Safety and Health Standards, including revisions posted at http://www.usbr.gov/ssle/safety/RSHS/rshs.html

B. Code of Federal Regulations (CFR)

1.	40 CFR 261.3	Definition of Hazardous Waste
2.	49 CFR 171-179	Transportation - Hazardous Waste Regulations

1.03 DEFINITIONS

A. Hazardous waste: Defined as hazardous by 40 CFR 261.3; or by other Federal, State, or local laws or regulations.

1.04 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 74 00-1, Waste production and disposal plan:

1. For each type of waste, list estimated quantity and planned disposal location.

C. RSN 01 74 00-2, Waste production and disposal records.

1. For each type of waste, list quantity and disposal location.
2. Include certifications that waste was properly disposed.
3. Hazardous waste manifest.

D. RSN 01 74 00-3, Environmental consultant resume:

1. Describe experience on similar project.

E. RSN 01 74 00-4, Environmental site assessment.

1.05 QUALIFICATIONS

A. Environmental consultant: Minimum 2 years experience in conducting environmental site assessments for similar construction.

1.06 REGULATORY REQUIREMENTS

A. Comply with Federal, State, and local laws and regulations.

B. Comply with RSHS.

C. Conform to most stringent requirement in cases of conflict between specifications, regulatory requirements, and RSHS.

1.07 PROJECT CONDITIONS

A. Report waste materials discovered at jobsite to COR.

1. Cease work in areas where waste may be hazardous until waste materials are investigated by the Government.
2. If waste is hazardous, the CO may order delays in time of performance or changes in work, or both.
3. If such delays or changes are ordered, an equitable adjustment will be made in the contract in accordance with applicable clauses of the contract.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 PROGRESS CLEANING

A. Keep work and storage areas free from accumulations of waste materials and rubbish.

3.02 FINAL CLEANUP

A. Remove temporary plant facilities, buildings, concrete footings and slabs, rubbish, unused materials, concrete forms, and other similar materials which are not part of permanent work.

3.03 DISPOSAL

A. Nonhazardous waste materials:

1. Reuse at jobsite or reuse or recycle waste materials removed from jobsite whenever possible.
2. Dispose of materials not reused at jobsite by removal from jobsite.
3. Dispose of nonhazardous waste materials that are not reused or recycled at appropriately permitted disposal facilities.

B. Hazardous Waste Disposal:

1. Dispose by removal from jobsite.
2. Recycle hazardous waste whenever possible.
3. Dispose of hazardous waste materials that are not recycled at appropriately permitted treatment or disposal facilities.
4. Transport hazardous waste in accordance with 49 CFR 171-179.

C. Certification: Certify that wastes are disposed of in accordance with Federal, State, and local regulations.

3.04 SITE ASSESSMENT

A. Upon completion of work, perform site assessment at following areas for work done under these specifications:

1. Hazardous waste accumulation areas.
2. Petroleum dispensing and storage areas where aggregate storage of petroleum at jobsite was over 110 gallons.
3. Hazardous material storage areas.

B. Employ qualified environmental consultant to perform assessments.

C. Demonstrate and document by appropriate analytical sampling that site contamination is less than State action cleanup levels.

3.05 RECORDS

A. Keep records of types and amounts of waste materials produced.

B. Keep records of waste material disposal.

END OF SECTION

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SECTION 01 78 30
PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include in prices offered in the Price Schedule for other items of work.

1.02 UPDATED RECORD DRAWINGS

A. Update record drawings to document work or services performed for progress payments in accordance with the clause at FAR 52.232-27 - Prompt Payment for Construction Contracts.

1. At a minimum, meet monthly with COR to review and approve progress made to full-sized record drawings prior to the submittal for progress payment. Meeting location to be approved by COR.
2. Verify with the COR that mark-ups to the drawings are current with the progress of the work prior to submitting invoice for progress payment.

1.03 DEFINITIONS

A. Progress As-built Drawings:

1. Copies of as-built drawings maintained on site.

B. Draft As-built Drawings:

1. Completed set of marked-up as-built drawings that have been certified by Contractor reflecting all changes to the work and any additional contractor/manufacturer drawings.

C. Final Drawings:

1. Complete set of project drawings incorporating all changes as shown in the as-built drawings and reflecting the final project condition as constructed.

1.04 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 01 78 30-1, Electronic Media Release Form, Upon Request.

1. Refer to Article 1.04 Electronic Drawings below.

C. RSN 01 78 30-2, Progress As-built Drawings:

1. Copies of As-built drawings maintained on site. Colored copies are not required.
2. Include as-built conditions of drawings submitted as required in Table 01 33 00A -List of submittals.

D. RSN 01 78 30-3, Draft As-built Drawings:

1. Certified marked sets: As-built drawings that have been certified by Contractor as up to date and accurate in the description of work.
2. Submit to COR for approval prior to commissioning, training, request for substantial completion, and/or Government possession.
3. For Information Only (FIO) Drawings: Revision date and details.

E. RSN 01 78 30-4, Final Drawings:

1. Drawings shall be provided in AutoCAD drawing (.dwg) format and Adobe Acrobat (.pdf) format.
2. Drawings or output data files produced on a Computer Aided Design and Drafting (CADD) system and furnished to Government shall be compatible with 2025 Autodesk products, .DWG file format, manufactured by Autodesk, Inc., Sausalito, CA. CO may require other versions of Autodesk.
3. Topographical drawings shall contain proper point files, point groups, and intelligent Civil 3D object entities such as surfaces, alignments, profiles and cross-sections as required.
4. ASCII point files must be included, with a point descriptor glossary.
5. Deliverables shall be “eTransmit” from with the Civil 3D application, to package .DWG files with all resource files and dependencies including fonts, external references and images.
6. Updated with all changes as marked on As-built drawings to reflect approval comments.
    a. Number of hard copies as indicated in Section 01 33 00 – Submittals.

1.05 ELECTRONIC DRAWINGS

A. CADD Files, will be distributed upon request, after:

1. Notice to Proceed.
2. Contractor signs form in Section 51 00 50 – Electronic Media Release.

1.06 PROGRESS AS-BUILT DRAWINGS

A. Maintain 2 sets of full-size prints of drawings listed in Division 52 and contractor drawings submitted and approved as required in Table 01 33 00A – List of Submittals marked to show accurate and complete records of as-built conditions:

1. Keep drawings at the jobsite and mark as work progresses.

2. If FIO drawings require changes, mark with revisions.

B. Use the following to represent changes.

1. Supplementary notes, legends, and details necessary to clearly portray as-built construction.
2. In lieu of referencing, incorporate clarifications from other documents such as RFI's, where as-built construction is identified.
3. Include pictures, sketches or other representations to further explain as-built construction. Do not provide in lieu of as-built drawings.
4. Mark and dimension to show variations between actual construction and that indicated or specified in contract documents.
   a. Include buried or concealed construction and utilities.
   b. Include existing items, topographic features, and utility lines revealed during construction which differ from those shown on contract drawings.
5. Mark to define construction actually provided where choice of materials or methods is permitted in specifications, or where variations in scope or character of work from that of the original contract are authorized.

C. Mark drawings in the following colors:

1. Red: Additions.
2. Green: Deletions.
3. Blue: Notations necessary for explanation of markings.

D. Allow the Government to review the drawings at all times.

E. Following successful commissioning of each unit or Government possession, submit As-builts with changes resulting from commissioning and training to COR for review and approval.

1.07 DRAFT AS-BUILT DRAWINGS

A. Convert information shown in progress as-builts into electronic format.

B. Upon completion of work, sign marked as-built drawings.

1. Sign and date each as-built drawing as certified correct. If no revisions were necessary to illustrate as-built conditions mark the drawing with "As-Built, No Changes."
2. Only certify FIO drawings which require changes.

1.08 FINAL DRAWINGS

A. Incorporate mark-ups from as-built drawings into complete drawings set showing as-built constructed condition.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

DIVISIONS 02 THROUGH 28 – NOT USED

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DIVISION 31 - EARTHWORK

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SECTION 31 23 02
COMPACTING EARTH MATERIALS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Cost:

1. Include cost of compacting earth materials in prices offered in the Price Schedule for items of work where earth materials are required to be compacted.
   a. Includes furnishing water and moistening materials.
   b. Includes Contractor Quality Testing.

1.02 DEFINITIONS

A. Use definitions from ASTM D653.

B. Control Fraction: The portion of a soil sample consisting of particles smaller than a designated sieve size. The fraction is used to compare in-place unit weight with standard laboratory unit weight. The control sieve size depends on the laboratory test used to determine laboratory maximum density.

C. C-Value: The ratio expressed as a percentage of (1) in-place unit weight at fill moisture content to (2) the wet unit weight of a laboratory-compacted specimen prepared at fill moisture content as determined by the rapid method of construction control in accordance with ASTM D5080. The C-Value is a comparison of compactive effort of field compaction equipment to standard laboratory compactive effort.

D. D-value: The ratio expressed as a percentage of (1) in-place wet unit weight at fill moisture content to (2) laboratory maximum wet unit weight as determined from a compaction curve constructed at fill moisture content as determined by the rapid method of construction control ASTM D5080. The D-value is the equivalent of percent compaction in accordance with ASTM D698.

E. Percent Compaction: The ratio expressed as a percentage of the in place unit dry unit weight to the laboratory maximum dry unit weight

F. Special compaction: Compaction close to structures or in spaces not accessible by standard width rollers.

1.03 REFERENCE STANDARDS

A. ASTM International (ASTM)

1. ASTM D653-14 — Terminology Relating to Soil, Rock, and Contained Fluids

2.	ASTM D698-12	Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3))
3.	ASTM D1140-14	Amount of Material in Soils Finer than the No. 200 (75-µm) Sieve
4.	ASTM D1556-15	Density and Unit Weight of Soil in Place by the Sand-Cone Method
5.	ASTM D2216-10	Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
6.	ASTM D2487-11	Classification of Soils for Engineering Purposes (Unified Soil Classification System)
7.	ASTM D2488-09a	Description and Identification of Soils (Visual-Manual Procedure)
8.	ASTM D4318-10	Liquid Limit, Plastic Limit, and Plasticity Index of Soils
9.	ASTM D4546-14	One-Dimensional Swell or Collapse of Cohesive Soils
10.	ASTM D4647/D4647M-13	Identification and Classification of Dispersive Clay Soils by the Pinhole Test
11.	ASTM D4718-15	Correction of Unit Weight and Water Content for Soils Containing Oversize Particles
12.	ASTM D4914-16	Density of Soil and Rock in Place by the Sand Replacement Method in a Test Pit
13.	ASTM D5030-13a	Density of Soil and Rock in Place by the Water Replacement Method in a Test Pit
14.	ASTM D5080-08	Rapid Determination of Percent Compaction
15.	ASTM D6572-13	Determining Dispersive Characteristics of Clayey Soils by the Crumb Test
16.	ASTM D6913-04(2009)	Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
17.	ASTM D6938-15	In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depths)
18.	ASTM D7382-08	Determination of Maximum Dry Unit Weight and Water Content Range for Effective Compaction of Granular Soils Using a Vibrating Hammer

B. Bureau of Reclamation (USBR)

1. *USBR Guidelines for Earthwork Construction Control Testing of Gravelly Soils*, Earth Sciences and Research Laboratory, Technical Service Center, Bureau of Reclamation, Denver, Colorado, September 2008.

1.04 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 31 23 02-1, Test Results:

1. Results of tests listed in Table 31 23 02A – Contractor Materials Testing Requirements and Frequency.
2. Include test date, time, location and person performing tests.
3. Notify COR within 2 hours if testing does not meet specified requirements.

1.05 AMBIENT CONDITIONS

A. Do not place and compact soil under following conditions:

1. Rain that creates puddles in clayey or silty materials.
2. Heat or wind or both that dries material below specified moisture conditions.
3. Ice, frost, or snow pockets are visible in soil being placed or in underlying materials.

B. Ambient air temperature below freezing may make placement and compaction operations difficult.

1. Minimize interruptions of operations.
2. Continuous operations may be required to eliminate freezing of materials.
3. Obtain COR approval, before performing operations when ambient air temperatures are below freezing.
4. Cease operations when placed materials are freezing or below freezing.

PART 2 PRODUCTS

2.01 CLASSIFICATION

A. When required, classify earth materials using the Unified Soil Classification System (USCS) according to ASTM D2487 or ASTM D2488.

1. Gradation tests for classification: ASTM D9913 or D1140.
2. Atterberg limits testing for classification: ASTM D4318.

2.02 SOIL TYPES

A. Clean Fill:

1. Any soil except soils with classifications Peat (PT), Organic Silts and Organic Clays (OL and OH), or Elastic Silt (MH) per ASTM D2487.
2. Do not use soils that exhibit expansive or dispersive characteristics in accordance with ASTM D4546, ASTM D4647, or ASTM D6572.
3. Free of roots, stumps, limbs, vegetation, organic matter, and ice.
4. Does not contain construction debris, scrap materials, refuse, man-made wastes, or chemical or hydro-carbon contamination.

B. Do not use frozen soils.

C. Special Gradations and Plasticity.

1. In some cases, such as embankment materials, embedment for buried pipe, special gradations and/or plasticity characteristics may be required. These requirements are in the applicable Section.

2.03 DESIGNATION OF SOILS FOR COMPACTION

A. Requirements for lift thickness, method of compaction, and method of determining degree of compaction depends on whether soil is considered to be silty or clayey, cohesionless, or cohesionless containing some silt and clay.

B. Silty or Clayey Soils:

1. Contains appreciable amounts of fines (more than 15 percent plastic fines or 30 percent non-plastic fines).

C. Cohesionless Soils:

1. Contains few fines (less than 5 percent fines).

D. Cohesionless Soils Containing Some Clay and Silt:

1. Contains some clay and silt (between 5 percent fines and 15 percent plastic fines or 30 percent non-plastic fines).

2.04 MAXIMUM PARTICLE SIZE

A. Soil for compacted backfill and embankment:

1. Maximum particle size limitations described in appropriate Sections for backfill against specific structures and zoned embankment materials.
2. Otherwise, no cobbles larger than 5 inches or boulders.

PART 3 EXECUTION

3.01 SURFACE PREPARATION

A. Excavation shall not be allowed without the approval and direction of on-site archeologist or Archeological Representative.

B. Prepare surface so that first compacted lift will be placed on firm, stable base. Compact surface to specified compaction, if necessary.

3.02 SOIL MOISTURE CONTENT

A. Moisten or aerate material, as necessary, to provide moisture content that will readily facilitate obtaining specified compaction. Add water to soil only in increments that will permit moisture content to be uniform and homogenous throughout each layer after mixing.

B. Silty and Clayey Soils and Cohesionless Soils Containing Some Silt and Clay:

1. Add no more than 2 percent water to fill by sprinkling just prior to compaction when fill is clayey and contains dry clods of clay.
    a. If clayey borrow soil is more than 2 percent below optimum moisture, pre-conditioning and curing may be required to obtain uniform and homogenous distribution of moisture in the clods.
    b. Use of disks, harrows, or rakes may be required to blend moisture in the borrow area.
2. Moisture content during compaction:
    a. Soils controlled by impact compaction.
        1) Not greater than 2 percentage points wet or not less than 4 percentage points dry of optimum moisture content.
    b. Soils controlled by the vibrating hammer.
        1) Within the water content range for effective compaction as determined by ASTM D7382.

C. Cohesionless Soils:

1. Add water during compaction, as necessary, since these soils are free-draining.

D. Determine moisture with one of the following:

1. ASTM D1556.
2. ASTM D4914.
3. ASTM D5030.
4. ASTM D5080.
5. ASTM D2216.

6. ASTM D6938.
    a. Correct moisture from the nuclear gage for gauge error for the specific soils tested and the moisture content of the total material may require adjustment for the control fraction (ASTM D4718).

3.03 PLACEMENT

A. Place soils to be compacted in horizontal layers.

B. If necessary, blend materials so that compacted fill is homogenous and free from lenses, pockets, streaks, voids, laminations, or other imperfections.

3.04 COMPACTION

A. Compact material with following methods and techniques appropriate to type of soil.

B. Silty or clayey material:
1. Compact with mechanical impact tampers, tamping rollers, vibrating pad foot rollers, rubber tire rollers, other suitable compaction equipment, or equipment travel.
    a. Uniformly distribute equipment passes.
    b. Compact in horizontal layers to compacted thickness of 6 inches or less.
2. Special compaction: Compact with hand held impact tampers, or small tamping equipment.
    a. Uniformly distribute effort.
    b. Compact in horizontal layers to compacted thickness of 4 inches.
3. Density:
    a. Percent Compaction, minimum 90 percent, or
    b. D-value:
        1) Minimum 90 percent with moisture content +/-2 percent of optimum content.

C. Cohesionless free-draining material:
1. Compact with crawler-type tractors, vibrating drum rollers, surface plate vibrator, or similar equipment
    a. Uniformly distribute equipment passes.
    b. Compact in horizontal layers to compacted thickness of 12 inches or less.
2. Special compaction: Compact with hand held impact tampers, vibrating plate tampers, or small tamping equipment.
    a. Uniformly distribute effort.

b. Compact in horizontal layers to compacted thickness of 6 inches.

3. Density:

a. Percent Compaction, minimum: 90 percent.

D. Cohesionless Soils Containing Some Silt and Clay:

1. Compact in accordance with either procedure above.

2. Density:

a. Percent Compaction, minimum: 90 percent, or

b. D-value:

1) Minimum 90 percent with moisture content +/- 2 percent of optimum content.

E. Demonstration:

1. Lift thicknesses may vary depending on equipment and methods. Before changing requirements in this Section, demonstrate that required density will be obtained.

3.05 MEASURE OF COMPACTION

A. Determine unit weight of soils in-place using one of the following methods:

1. Silty or Clayey and Cohesionless Soils:

a. ASTM D1556.

b. ASTM D4914.

c. ASTM D5030.

d. ASTM D6938.

B. Determine soil compaction by one of the following.

1. Silty or clayey soils:

a. Percent Compaction:

1) Rapid Method: ASTM D5080.

2) Laboratory Compaction Test: Comparison of in-place dry unit weight of minus no. 4 sieve size control fraction to laboratory maximum dry unit weight as determined by ASTM D698, Procedure A.

2. Cohesionless soils:

a. Percent Compaction: In-place dry unit weight compared to the maximum dry unit weight determined by ASTM D7382.

3. Cohesionless Soils Containing Some Silt and Clay:

a. Use whichever testing procedure result requires higher in-place dry density.

C. Adjustment:

1. For soils with 5 to 30 percent oversized particles: In-place unit weight of minus no. 4 size control fraction determined by screening gravel, washing, and determining mass and volume by assuming surface saturated dried moisture as outlined in ASTM D4718.

2. For soils containing greater than 30 percent oversized particles: Required D ratio or Percent Compaction may be adjusted in accordance with appropriate curve on Figure 3 in USBR Guidelines for Earthwork Construction Control Testing of Gravelly Soils.

3.06 CONTRACTOR FIELD QUALITY TESTING

A. Testing:

1. Independent testing laboratory shall perform sampling, testing, and reporting as required in Table 31 23 02A - Contractor Materials Testing Requirements and Frequency.

   a. Independent testing laboratory shall meet requirements specified in Section 01 46 20 - Testing Agency Services.

2. Notify the independent testing laboratory and Government 24 hours before compaction work begins and 24 hours before significant change in compaction operations (major change in equipment or procedure used).

3. Notify the independent testing laboratory and Government immediately of equipment change due to breakdown, or re-deployment.

4. Testing Frequency:

   a. At a minimum, perform test at frequencies specified in Table 31 23 02A - Contractor Materials Testing Requirements and Frequency.

   b. Greater frequency of testing is normally performed at beginning of new work, new work crew, or new equipment.

   c. After a successful work operation pattern is established, testing frequency may be performed at the minimum guidelines.

   d. Perform additional tests at sites considered questionable by the Government; such as suspected incomplete compaction, surfaces that may have become excessively wet or dry since compaction, compacted surfaces torn up by subsequent equipment travel, or other similar circumstances. Frequency of additional testing is at discretion of the Government.

Table 31 23 02A – Contractor Materials Testing and Frequency

PROCEDURE	TEST STANDARD	STANDARD TITLE	MINIMUM FREQUENCY OF TESTING
Soil Classification	ASTM D2487	Classification of Soils for Engineering Purposes	As necessary to classify material to meet specification requirements or to index material for determining density by nuclear method.
	ASTM D2488	Description and Identification of Soils	
Moisture Content	ASTM D2216	Laboratory Determination of Water (Moisture Content of Soil and Rock by Mass.	With in-place density or as required to index material for determining density by nuclear method.
Laboratory Compaction (Standard Effort)	ASTM D698, Procedure A.	Laboratory Compaction Characteristics of Soil Using Standard Effort	One test every 500 yd^3 Minimum 1 test per day per compacted backfill operation, regardless of amount of material placed.
Laboratory Compaction (Vibratory Hammer)	ASTM D7382	Standard Test Methods for Determination of Maximum Dry Unit Weight and Water Content Range for Effective Compaction of Granular Soils Using a Vibrating Hammer	One test every 500 yd^3 Minimum 1 test per day per compacted backfill operation, regardless of amount of material placed.
Oversized Correction	ASTM D4718	Correction of Unit Weight and Water Content for Soils Containing Oversize Particles	When oversize material is between 5 to 30 percent
Rock Factor		USBR Guidelines for Earthwork Construction Control Testing of Gravelly Soils	When oversize material is greater than 30 percent
Sand Cone	ASTM D1556	Density and Unit Weight of Soil in Place by the Sand-Cone Method	One test every 500 yd^3 Minimum 1 test per day per compacted backfill operation, regardless of amount of material placed

Table 31 23 02A – Contractor Materials Testing and Frequency

PROCEDURE	TEST STANDARD	STANDARD TITLE	MINIMUM FREQUENCY OF TESTING
Rapid Construction Control	ASTM D5080	Rapid Determination of Percent Compaction	One test every 500 yd^3 Minimum 1 test per day per compacted backfill operation, regardless of amount of material placed.
Nuclear Method	ASTM D6938	In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)	One test every 100 yd^3 Minimum 1 test per day per compacted backfill operation, regardless of amount of material placed. Minimum 1 test per foundation prior to concrete placement.

B. Contractor Support:

1. Provide timely access to areas for density testing and excavate and level an area in compacted material to provide a surface for testing.
   a. Test fills compacted by sheepsfoot rollers one or two lifts below surface.
2. Government may select location of testing.
3. When density is being measured by a sand-cone device (ASTM D1556), cease construction activity in immediate vicinity of testing.
4. Dig test pits as requested to examine compacted soil against structures or pipe.
5. Backfill test pits to original requirements.
6. Provide warning lights, flags, or other safety devices as needed by testing personnel.
7. Provide adequate lighting for performing test if required because of darkness.

3.07 GOVERNMENT CONTRACT FIELD QUALITY ASSURANCE

A. The Government may perform test as required to verify contractor quality testing. If the Government performs quality assurance testing, provide support as required for contactor quality testing.

END OF SECTION

SECTION 31 23 11
EARTHWORK

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Furnishing and Placing Compacted Fill:

1. Measurement: Made to depths and dimensions shown on the drawings.
2. Payment: Cubic yard price offered in the Price Schedule.
   a. Includes cost of furnishing water and moistening materials.
   b. Includes compaction as described in Section 31 23 02 – Compacting Earth Materials.

PART 2 PRODUCTS

2.01 MATERIAL FOR COMPACTED FILL

A. Selected material containing no stones larger than 3 inches in diameter, approved by the COR.

B. Type and amount of material used for fill, and manner of depositing material shall be subject to approval.

C. Compact fill as described in Section 31 23 02 – Compacting Earth Materials.

D. Do not place material in fill when either the material or the surfaces on which it is to be placed are frozen.

PART 3 EXECUTION

3.01 PLACING FILL

A. Place fill to the lines and grades shown on the drawings.

B. Place fill carefully and spread in uniform layers so that all spaces about rocks and clods will be filled.

3.02 COMPACTING FILL

A. Place, moisten, and compact materials in fill as provided in Section 31 23 02 - Compacting Earth Materials.

END OF SECTION

SECTION 31 25 14
ROLLED EROSION CONTROL MATS AND BLANKETS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Erosion Control Blanket:

1. Measurement: Area covered as measured on sloping surface, except no allowance will be made for seam overlap, repairs, or waste.
2. Payment: Square yard price offered in the Price Schedule.

1.02 ACRONYMS

A. ECB – Erosion control blanket

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals

1. RSN 31 25 14-1, ECB Approval Data:
   a. Manufacturer's standard cut sheets for ECB.

PART 2 PRODUCTS

2.01 EROSION CONTROL BLANKET

A. Natural coir or jute fiber material.

B. Functional longevity: 3 years, minimum.

C. Maximum aperture size such that blanket is capable of retaining sand-sized particles but allows for seeding and plant plugs without cutting material.

D. Weight: 700g/m^2, minimum.

PART 3 EXECUTION

3.01 PREPARATION

A. Excavation shall not be allowed without the approval and direction of on-site archeologist or Archeological Representative.

B. Prepare surface upon which ECB is to be placed to a firm surface, reasonably even and smooth, and free of offsets, abrupt indentations, and protruding materials greater than 1-1/2 inches.

3.02 INSTALLATION

A. Place ECB in the manner and at locations shown on drawings.

B. Lay ECB smoothly, free of tension, stress, folds, wrinkles, or creases so far as is practical and except where required in these specifications.

C. Use weight to hold ECB in position.

D. In the presence of wind, weight ECB with sandbags or equivalent until cover material placed.

E. Do not drive or operate equipment directly on ECB.

F. Drop height of cover material on to ECB, maximum: 2 feet.

G. Only place as much ECB as what can be covered with riprap within same day of placement.

3.03 SEAMING

A. Join adjacent sheets of ECB by overlapping.

B. Overlapped seams:

1. Overlap minimum: 12-inches.
2. Upstream/upslope roll placed over the downstream/downslope roll.
3. Weight on 3-foot centers to secure the overlap during placement of cover material.

3.04 RIPRAP INSTALLATION

A. Place riprap as described in Section 31 37 00 – Void Filled Riprap.

3.05 REPAIRS

A. Repair or replace torn, punctured, flawed, deteriorated, or otherwise damaged ECB.

B. Place and secure an undamaged patch of the same material, which overlaps the damaged area a minimum of 2 feet in all directions.

C. Any ECB piece that is torn within 3 feet of edge shall be replaced.

END OF SECTION

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SECTION 31 37 00
VOID FILLED RIPRAP

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Riprap:

1. Measurement:
   a. Weight of material placed.
   b. Weigh materials at state certified scale.
2. Payment: Ton price offered in Price schedule.

B. Cost:

1. Include cost of topsoil to fill voids in riprap in price offered in price schedule for topsoil.

1.02 REFERENCE STANDARDS

A. American Association of State Highway and Transportation Officials (AASHTO)

1.	AASHTO T 85	Standard Method of Test for Specific Gravity and Absorption of Coarse Aggregate
2.	AASHTO T 96	Standard Method of Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
3.	AASHTO T 210	Standard Method of Test for Aggregate Durability Index

B. Washington State Department of Transportation (WSDOT)

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 31 37 00-1, Test Results

1. Apparent Specific Gravity, AASHTO T 85
2. Absorption, AASHTO T 85
3. Coarse Durability Index, AASHTO T 210

PART 2 PRODUCTS

2.01 RIPRAP

A. Hard, dense, and durable.

1. Specific gravity, minimum: 2.50.
2. Absorption, maximum: 2 percent.
3. Loss, Sulfate Soundness, maximum: 10 percent.

B. Either quarried rock or boulders may be used for riprap.

C. Shape:

1. Predominantly angular.
2. Maximum dimension not greater than 3 times minimum dimension.

D. Riprap Gradation: Reasonably well graded within limits shown in Table 31 37 00A - Riprap Gradation.

Table 31 37 00A - Riprap Gradation

Diameter, in.	Percent Smaller than Given Size by Weight
Class A - D_{50} Size = 12 in.	
18	100
16	80-95
12	50-80
8	15-50
4	<15

2.02 TOPSOIL FOR INFILL

A. Meeting the requirements for topsoil stated in Section 32 91 19 - Topsoil.

PART 3 EXECUTION

3.01 MIXING RIPRAP WITH COMMON FILL

A. Mix thirty five percent (35%) topsoil by weight with stockpiled riprap.

3.02 AREAS TO RECEIVE VOID-FILLED RIPRAP

A. Place void-filled riprap to the outlines and thicknesses as shown on the drawings.

3.03 PLACING

A. Rock in riprap need not be hand placed or compacted.

B. Place rocks so that larger rocks are evenly distributed and small rock fragments fill the spaces.

1. Include topsoil in an amount to fill voids in riprap, but not in excess of an amount to be determined by the COR.

C. Dump and smooth by moving rocks into position so that material when in place is stable.

D. Drop height, maximum: 2-foot.

1. Before placing riprap, demonstrate that placing technique will not damage ECB.

a. If the demonstration does not show that riprap can be installed without damaging ECB, modify riprap placing technique.

b. Possible modifications to placing technique include reducing drop height, installing layer of sacrificial ECB, or installing topsoil cushion.

E. Begin riprap placement at toe and proceed up slope.

F. Leave no unreasonably large unfilled spaces within riprap.

G. Avoid segregation of materials and remix any section where the combined material consists primarily of the void-fill materials. The density and interlocking nature of riprap in the mixed material shall essentially be the same as if the riprap was placed without filling the voids.

H. Wash in topsoil to fill any voids left in riprap after placement is complete.

END OF SECTION

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DIVISION 32 – EXTERIOR IMPROVEMENTS

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SECTION 32 91 19
TOPSOIL

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Topsoil:

1. Measurement: Volume of material placed.
2. Payment: Cubic yard price offered in the Price Schedule.

1.02 REFERENCE STANDARDS

A. ASTM International (ASTM)

1.	ASTM D1125-23	Electrical Conductivity and Resistivity of Water
2.	ASTM D2487-17e01	Classification of Soils for Engineering Purposes (Unified Soil Classification System)
3.	ASTM D2974-25	Moisture, Ash, and Organic Matter of Peat and other Organic Soils
4.	ASTM D4972-19(2024)e1	pH of Soils

1.03 SUBMITTALS

A. RSN 32 91 19-1, Topsoil Test Results, for topsoil commercially sourced, including:

1. Electrical conductivity
2. pH
3. Soil texture class
4. Percent organic matter

PART 2 PRODUCTS

2.01 TOPSOIL

A. Soil texture class, ASTM D2487: loam, sandy loam, silt loam, clay loam.

B. Organic matter, ASTM D2974: greater than or equal to 2 percent.

C. pH Level, ASTM D4972: between 5.5 and 7.5.

D. Soluble salts, as measured by soil electrical conductivity, EC_e, ASTM D1125: less than 2 dS/m or mmho/cm.

E. Free of construction debris, invasive plant species, and toxic substances.

F. Maximum stone size: 1-1/2-inches.

PART 3 EXECUTION

3.01 PLACING TOPSOIL IN VOIDS OF RIPRAP

A. Place in accordance with Section 31 37 00 – Void Filled Riprap.

END OF SECTION

SECTION 32 92 15
REVEGETATION

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Plant Plugs:

1. Payment: Lump Sum price offered in the Price Schedule.

1.02 WORK INCLUDED

A. Care of nursery grown plants delivered to project site, furnish, and install plants, furnish and install organic granular fertilizer, and perform a regular watering schedule of new plants for a period of two weeks after planting.

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 – Submittals:

B. RSN 32 92 15-1, Nursery Cut Sheets:

1. The contractor shall provide to the COR a Supplier's cut sheet of containerized plants with species, grow heights, planting instructions, and long-term care requirements.

C. RSN 32 92 15-2, Watering Schedule:

1. The contractor shall provide to the COR a watering schedule that is conducive to the survival of the planted species. Watering of the plants will be for a duration of two weeks after the final planting.

PART 2 PRODUCTS

2.01 PLANT PLUGS

A. Woody Plant Species:

1. Container plant species are listed in Table 32 92 15 A below. Plants are to arrive and be stored onsite in removable plastic containers. Substitutions may be made as authorized by COR for species shortages.

Table 32 92 15 A

Species	Habit	Quantity (% of total)
Chokecherry (*Prunus virginiana*)	shrub	12.5
Black Hawthorn *(Crataegus douglasii)*	shrub	12.5
Blue Elderberry (*Sambucus cerulea*)	shrub	12.5
Serviceberry (*Amelanchier alnifolia*)	shrub	12.5
Woods' Rose (*Rosa woodsia*)	shrub	50

2. Containerized plants with plug volume of 10 cu. in. minimum or as approved by COR.

3. Plants shall include 2 stakes, and fertilizer, or as recommended by nursery specialist.

PART 3 EXECUTION

3.01 CARE OF NURSERY GROWN PLANTS

A. Isolate an area to store and water the plants. Coordinate with the nursery regarding the delivery of the plants and the subsequent storage of the plants in the isolated area. Plants are to be delivered at a time when the Contractor is on site to perform the initial watering if deemed needed by the COR.

B. The Contractor will manage the watering and care of the containerized plants and cuttings until they are installed at the project site.

3.02 CONTAINERIZED PLANTS – PLANTING TIMING, PLANTING INSTRUCTIONS, AND PLANTING LOCATION

A. The Contractor shall notify the COR a minimum of two (2) working days prior to any re-vegetating operations.

B. The Contractor shall seed per Section 32 92 20 - Seeding and Soil Supplements to all areas of applied topsoil after planting of containerized plants (see section 3.03 below).

C. Randomize plant distribution to mimic a natural riparian zone.

D. The Contractor shall determine the most effective method of planting in the field, However, since the planting area is within the void-filled riprap, the minimum planting requirements are as follows to allow for increased survival:

1. Dig a hole to a minimum of the root container depth and 1-inch larger than the diameter or width of the container. The planting hole through the void-filled

riprap shall be angled as needed to accommodate the entire plug planting depth required for the specified plant size.

2. Insert the root ball into the hole and firmly compact the soil under and around the root ball to the level of the surrounding soil surface.
3. Apply smaller rock around plant stem on top of topsoil to help lock topsoil in place.
4. For each plant, place granular fertilizer as recommended by nursery.
5. All plants must be watered immediately following individual planting to saturate the entire rooting column and shall be watered daily for the first two days, then every other day.
6. Contractor shall water new plantings for two weeks after planting as needed to keep soil moist.
    a. Contractor may use water from Banks Lake as necessary.
    b. Refer to Section 01 51 00 – Temporary Utilities for water use.

END OF SECTION

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SECTION 32 92 20
SEEDING AND SOIL SUPPLEMENTS

PART 1 GENERAL

1.01 MEASUREMENT AND PAYMENT

A. Seeding and Soil Supplements:

1. Measurement: Area along surface of areas seeded as shown on the drawings, or coordinated by the COR.
2. Payment: Lump sum offered in the Price Schedule.

1.02 DEFINITIONS

A. Pure live seed content: Weight of seed times percent purity times percent germination.

1.03 SUBMITTALS

A. Submit the following in accordance with Section 01 33 00 - Submittals.

B. RSN 32 92 20-1, Seeding Plan:

1. Method and equipment used for seeding.
2. Date for seeding.
3. fertilizer type and application equipment.
4. Qualifying experience for person responsible for supervision of seeding, for approval.
5. Names, addresses, and telephone numbers of references.
6. Name and address of seed suppliers.

C. RSN 32 92 20-2, Certifications:

1. Origin of seed.
2. Percent purity and germination.
3. Prohibited and restricted weed seed content.

1.04 DELIVERY STORAGE AND HANDLING

A. Seed containers:

1. Sealed.
2. Labeled:
   a. Identify seed origin on label.

1) Intrastate shipping: In accordance with Washington State Seed Laws and Regulations.

2) Interstate shipping: In accordance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act.

1.05 AMBIENT CONDITIONS

A. Do not seed or fertilize when ambient temperature is below 38 degrees F without approval of the COR.

B. Do not seed or fertilize when ground is snow covered.

C. Do not seed or fertilize when wind velocities prevent uniform application of materials or would drift materials.

PART 2 PRODUCTS

2.01 SEED

A. Weed seeds classified by State Seed Department:

1. Prohibited noxious weeds: None
2. Restricted noxious weeds: 0.5 percent maximum, by weight.

B. Seed mixture:

1. As recommended by the State of Washington Department of Ecology for the establishment of naturally occurring grasses and vegetation native to the Steamboat State Park work site.

2.02 FERTILIZER

A. Agricultural grade nitrogen fertilizer and phosphate fertilizer.

B. As directed by the Washington State authority for the establishment of naturally occurring grasses and vegetation native to the Steamboat State Park work site.

PART 3 EXECUTION

3.01 FERTILIZING

A. As directed by the Washington State authority for the establishment of naturally occurring grasses and vegetation native to the Steamboat State Park work site.

3.02 BROADCAST SEEDING

A. Apply seed and fertilizer separately.

B. Mechanical broadcasting:

1. Equipment:

a. Centrifugal type.

b. Pull type similar to fertilizer spreader.

2. Designed and regulated to apply seed uniformly at proper rate per acre.

C. Hand Broadcasting:

1. By hand broadcaster.

2. By hand.

3. Uniformly applied.

D. Cover seed with soil to depth of 1/4-inch to 1/2-inch immediately after broadcasting.

1. Use hand rake to help incorporate seed into the topsoil fill between riprap.

END OF SECTION

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DIVISIONS 33 THROUGH 48 – NOT USED

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DIVISION 51 – INFORMATION AVAILABLE TO OFFERORS

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SECTION 51 00 00

INFORMATION AVAILABLE TO OFFERORS

PART 1 GENERAL

1.01 ORDER OF PRECEDENCE

A. In case of differences between sections in Division 51 - Information Available to Offerors and sections in other divisions of the specifications, the requirements in the other divisions will govern.

B. The Government assumes no responsibility for deductions, interpretations, or conclusions made by the Contractor based on information made available by the Government, in accordance with the clause at FAR 52.236-3 "Site Investigations and Conditions Affecting the Work."

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

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SECTION 51 00 10
PHOTOGRAPHS

PART 1 GENERAL

1.01 PHOTOGRAPHS

Photo 1: On rock cliffs around Sta 0+00 looking Northeast at shoreline (A. Hatch/USBR, 10 Nov 2022)

Photo 2: Around Sta 0+15 looking Southwest at start of project (A. Hatch/USBR, 10 Nov 2022)

Photo 3: Around Sta 2+50 looking Northeast at shoreline (A. Hatch/USBR, 10 Nov 2022)

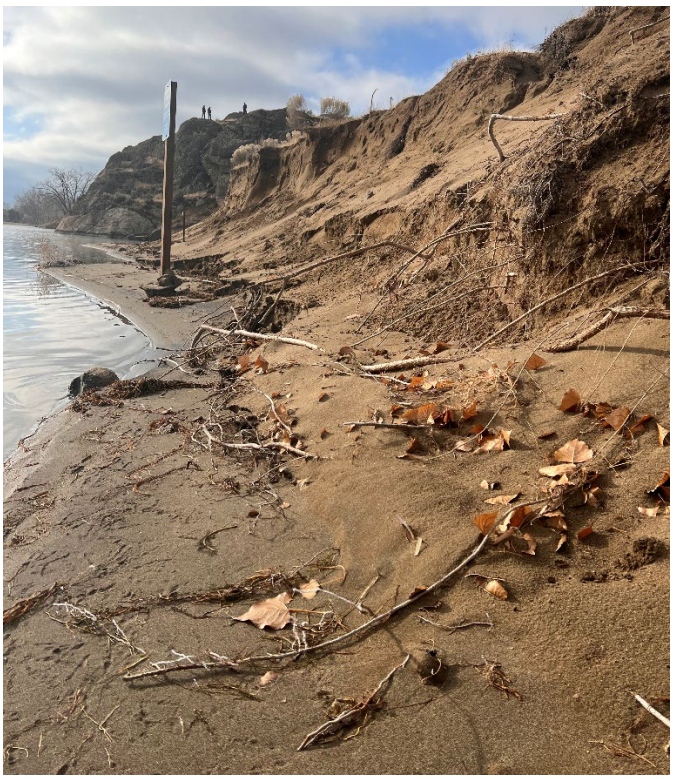

Photo 4: Around Sta 2+50 looking Southwest at shoreline (A. Hatch/USBR, 10 Nov 2022)

Photo 5: Around Sta 4+00 looking Northeast at shoreline (A. Hatch/USBR, 10 Nov 2022)

Photo 6: Around Sta 7+00 looking Northeast at shoreline towards end of project (A. Hatch/USBR, 10 Nov 2022)

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 51 00 50

ELECTRONIC MEDIA RELEASE

U. S. BUREAU OF RECLAMATION
ELECTRONIC MEDIA RELEASE

U.S. Bureau of Reclamation, Contract Number/Solicitation Number _____
This release for electronic media is dated the ___ day of _____ (month), ____ (year), between _____ (RECIPIENT) and U.S. Bureau of Reclamation, for the exchange of electronic media (CD ROMs, DVD, Flash Drives, External Hard Disk Drives, etc.) containing information on the _____ project (hereinafter referred to as the PROJECT) for use by the RECIPIENT.

Therefore, RECIPIENT and U.S Bureau of Reclamation (Reclamation), agree as follows:

1. All data and intellectual property contained on the electronic files remains the property of U.S. Bureau of Reclamation, and may not be copied or distributed to any other party without the written permission of U.S. Bureau of Reclamation.
2. The electronic files provided to RECIPIENT by U.S. Bureau of Reclamation, for the PROJECT may be used or adapted by RECIPIENT for their own use. If RECIPIENT chooses to alter in any way, in whole or in part, the electronic files provided for the PROJECT or any future project(s), RECIPIENT agrees that the use of the altered files shall be without liability or legal exposure to U.S. Bureau of Reclamation.
3. Because information and data provided electronically may be altered, whether inadvertently or otherwise, U.S. Bureau of Reclamation, reserves the right to retain copies of the electronic file(s) and to remove from the electronic files provided to RECIPIENT all identification (such as logo, surveyor's seal, etc.) reflecting the involvement of U.S. Bureau of Reclamation, in their preparation.
4. The electronic files are provided solely as a convenience to RECIPIENT by U.S. Bureau of Reclamation, and shall not be considered "Drawings of Record" or "Construction Documents." All documents considered "Drawings of Record" or "Construction Documents" will be hardcopy drawing sheets with signatures or scanned files of the hardcopy drawings with signatures.
5. RECIPIENT is advised to check all electronic media for viruses and malware before loading the files. RECIPIENT is solely responsible for intercepting and disabling viruses, if any, that may be transmitted with the electronic files and hereby agrees to indemnify and hold U.S. Bureau of Reclamation harmless from and against all claims of any type or nature asserted by RECIPIENT or any party as a result of viruses transmitted with the electronic files.
6. Files distributed electronically are subject to data erosion, erasure, and/or alteration, and computer systems and software become obsolete in time. By accepting these electronic files, RECIPIENT acknowledges these risks and agrees to waive all claims against U.S. Bureau of Reclamation, should data erosion, erasure, and/or alteration of these electronic files occur.
7. RECIPIENT agrees to defend, indemnify, and hold U.S. Bureau of Reclamation, harmless from all claims, injuries, damages, losses, expenses, and costs, including attorney's fees, arising out of breach of this agreement, or the modification or reuse of the electronic files.

ACCEPTED FOR RECIPIENT:	RELEASED BY U.S. BUREAU OF RECLAMATION:
_____	_____
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

END OF SECTION

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DIVISION 52 - DRAWINGS

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SECTION 52 00 00
DRAWINGS

PART 1 GENERAL

1.01 DISCREPANCIES, ERRORS, OR OMISSIONS

A. Inform the CO of discrepancies discovered on drawings in accordance with clause at FAR 52.236-21, Specifications and Drawings for Construction.

1.02 PROJECT CONDITIONS

A. Where there are differences as determined by the CO between details and dimensions shown on drawings and details and dimensions of existing features at jobsite, use details and dimensions of existing features at jobsite.

1.03 INFORMATION DRAWINGS

A. Drawings marked "For Information Only" in the drawing list are included to show existing features about which knowledge is required to perform work under this contract. These drawings do not show work to be performed under this contract.

B. If there are differences as determined by the CO between details and dimensions shown on these drawings and those of existing features at jobsite, use details and dimensions of existing features at jobsite.

1.04 STANDARD DRAWINGS

A. Standard drawings may show details which are not a part of work under this contract. Disregard details shown on these drawings which are not applicable to work under this contract.

1.05 COPIES OF DRAWINGS

A. Upon request, one set of full-size (22 inches by 34 inches) drawings, except standard drawings and for information only drawings, will be furnished to the Contractor for as-built purposes in accordance with Section 01 78 30 – Project Record Drawings.

1.06 LIST OF DRAWINGS

A. Drawings listed in Table 52 00 00A - List of Drawings, are made a part of Section C - Description/Specifications.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

Table 52 00 00A - List of Drawings

Sheet No.	Drawing No.	Title
General:		
1	222-100-61352	Vicinity Map, Project Map, and Sheet Index
2	222-100-61353	Site Map and Existing Features
3	222-100-61354	Contractor Use and Staging Area
4	222-100-61355	Compacted Fill Placement – Plan
5	222-100-61356	Void-Filled Riprap Placement – Plan
6	222-100-61357	Cross-Sections
7	222-100-61358	Cross-Sections
8	222-100-61359	Cross-Sections
9	222-100-61360	Typical Section – Section and Details
10	222-100-61361	Revegetation – Plan
11	222-100-61362	Revegetation Details – Section
Standard Drawings:		
	40-D-7102	Government Drawing Format - Drawing Border, Sample Title Block and Signature Lines

END OF SECTION

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