



**CITY OF SWEET HOME**

**CONTRACT DOCUMENTS**

**FOR**

**MAHLER WATER RECLAMATION FACILITY  
IMPROVEMENTS PROJECT  
PHASE 1**

**VOLUME 1 OF 3**

**BIDDING AND CONTRACTUAL REQUIREMENT AND GENERAL REQUIREMENTS  
DIVISION 00 AND 01**

**BID DOCUMENTS**

Department of Public Works, Engineering Division  
1400 24th Avenue  
Phone 541.367.6359

**AUGUST 2022**

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# MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS PROJECT PHASE 1

## DESIGN CERTIFICATION

The Specifications contained herein have been prepared by, or under the responsible charge of, the following registered person(s):

**Division 00, 01, 02, 31, 32, 33, 40, 43, 46,  
and 09 96 00**

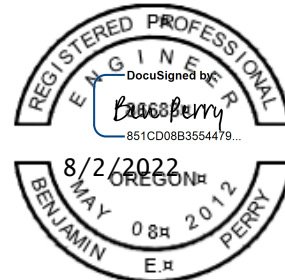
West Yost Associates  
5 Centerpoint Dr, Suite #130  
Lake Oswego, OR 97035  
Preston Van Meter  
License # 51615PE



EXPIRES : 6/30/2024

**Division 26 and 27**

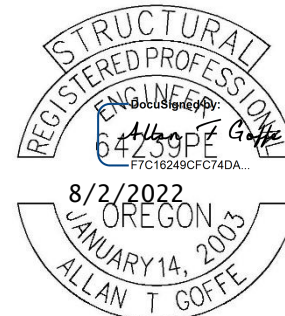
Landis Consulting  
5335 SW Meadows Rd, Suite 388  
Lake Oswego, Oregon 97035  
Benjamin E. Perry  
License # 86683PE



EXPIRES: → 12-31-2022

**Division 03 and 05**

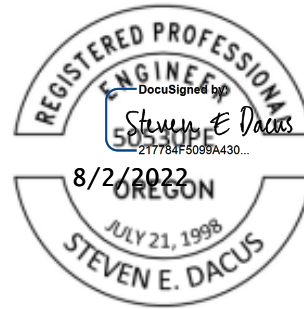
ACE Engineering  
PO Box 231  
Ashland, Oregon 97520  
Allan T. Goffe, PE, SE  
License # 64239PE



EXPIRES 6/30/2023

**Division 23**

Interface Engineering  
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Portland, OR 97204  
Steven E. Dacus  
License # 50530PE



EXPIRES: 12/31/23

**Division 06, 07, 08, 09, 10**

Strongwork Architecture, LLC  
3309 SE Sherrett Street, Unit A  
Portland, OR 97222  
Alan P. Armstrong  
License # ARI-5648



Expires 12/31/22

**CITY OF SWEET HOME  
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**SUPPLEMENTARY INFORMATION (Under Separate Cover)**

McMillen Jacobs Associates, *Geotechnical Data Report – City of Sweet Home, Mahler Water Reclamation Facility Improvements*, Final June 2022

**END OF SECTION**

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**ADVERTISEMENT FOR BIDS  
CITY OF SWEET HOME, OREGON  
MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS, PHASE 1**

**General Notice**

City of Sweet Home (Owner) is requesting Bids for the construction of the following Project:

**MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS, PHASE 1**

Bids for the construction of the Project will be received at Sweet Home City Hall located at 3225 Main Street, Sweet Home, OR 97386, until **September 14, 2022 at 2:00 pm** local time. At that time the Bids received will be publicly opened and read.

The Project includes the following Work:

Improvements and modifications to the City of Sweet Home Mahler Water Reclamation Facility (Mahler WRF) includes furnishing all labor, materials, and equipment necessary for the construction of new influent pump station (IPS), new IPS piping and appurtenances, new Main Electrical and Blower (MEB) Building, new standby engine generator with automatic transfer switch, new electrical service entrance, installation of owner-supplied electrical Motor Control Centers (MCCs) and plant control panels. Site work includes demolition of existing trees, structures and roadways, general excavation with onsite and offsite disposal, installation of upper plant area aggregate base rock. Site piping will include connection and re-routing existing influent sanitary sewers to the new IPS, force mains and gravity pipelines that will be completed during Phase 2 construction.

Owner anticipates that the Project's total bid price will be approximately \$7 Million. The Project has an expected duration of 365 calendar days.

**Bidder Pre-Qualification Is Required**

Prospective Bidders shall be pre-qualified through with the City through a separately-advertised public process. Bids from non-Pre-Qualified Bidders will be returned unopened. Pre-Qualified Bidders interested in submitting a Bid shall register and provide contact information for inclusion on the City's Plan Holders List. Official notifications, addenda and other information will be sent to Prospective Bidders using the City's Plan Holders List. It is the Bidders responsibility to confirm they are included on the City's Plan Holders List.

**Obtaining the Bidding Documents for Pre-Qualified Bidders**

For Pre-Qualified Bidders, the Contract Documents may be examined at Sweet Home City Hall. Electronic copies of the Contract Documents will be provided by the Owner. Hard copies of the Contract Documents will be provided to the successful Bidder following Bid Award.

**Mandatory Pre-bid Conference**

A mandatory pre-bid conference for the interested and Pre-Qualified Bidders will be held on **Thursday, August 25, 2022 at 10:00am** local time at the WWTP located at 1357 Pleasant Valley Road, Sweet Home, OR 97386. Bids will not be accepted from Pre-Qualified Bidders that do not attend the mandatory pre-bid conference.

### **Instructions to Bidders**

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders included in the Bidding Documents.

### **American Iron and Steel**

Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference applies an American Iron and Steel requirement to this project. All iron and steel products used in this project must be produced in the United States. The term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and Construction Materials.

The following waivers apply to this Contract:

1. De Minimis,
2. Minor Components, and
3. Pig iron and direct reduced iron.

### **This Advertisement is issued by:**

Owner: **City of Sweet Home, Oregon**

By: **Greg Springman**

Title: **Public Works Director**

Date: **August 18, 2022**

# INSTRUCTIONS TO PRE-QUALIFIED BIDDERS FOR CONSTRUCTION CONTRACT

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## ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Pre-Qualified Bidders have the meanings indicated in the General Conditions. Additional terms used in these Instructions to Pre-Qualified Bidders have the meanings indicated below:
- A. *Issuing Office*—The office from which the Bidding Documents are to be issued, and which registers plan holders.

## ARTICLE 2—BIDDING DOCUMENTS

- 2.01 Pre-Qualified Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Pre-Qualified Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Pre-Qualified Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Pre-Qualified Bidder itself or by its prospective Subcontractors and Suppliers.
- 2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.
- 2.03 Owner has established a Bidding Documents Website as indicated in the Advertisement or invitation to bid. Owner recommends that Pre-Qualified Bidder register as a plan holder with the Issuing Office at such website, and obtain a complete set of the Bidding Documents from such website. Pre-Qualified Bidders may rely that sets of Bidding Documents obtained from the Bidding Documents Website are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.04 Pre-Qualified Bidder may register as a plan holder and obtain complete sets of Bidding Documents, in the number and format stated in the Advertisement or invitation to bid, from the Issuing Office. Pre-Qualified Bidders may rely that sets of Bidding Documents obtained from the Issuing Office are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.05 Plan rooms (including construction information subscription services, and electronic and virtual plan rooms) may distribute the Bidding Documents, or make them available for examination. Those prospective Pre-Qualified Bidders that obtain an electronic (digital) copy of the Bidding Documents from a plan room are encouraged to register as plan holders from the Bidding Documents Website or Issuing Office. Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms, or for a Pre-Qualified Bidder's failure to obtain Addenda from a plan room.

## 2.06 *Electronic Documents*

- A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Pre-Qualified Bidders as Electronic Documents in the manner specified.
  - 1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader. It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.
- B. Unless otherwise stated in the Bidding Documents, the Pre-Qualified Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.06.A above. However, Pre-Qualified Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Pre-Qualified Bidder's reliance upon such derived information.
- C. After the Contract is awarded, the Owner will provide or direct the Engineer to provide for the use of the Contractor documents that were developed by Engineer as part of the Project design process, as Electronic Documents in native file formats.
  - 1. Electronic Documents that are available in native file format include:
    - a. Electronic Drawing files in Revit, AutoCAD MEP and AutoCAD Civil3D.
    - b. Digital Elevation Model (DEM) for the construction site
  - 2. Release of such documents will be solely for the convenience of the Contractor. No such document is a Contract Document.
  - 3. Unless the Contract Documents explicitly identify that such information will be available to the Successful Pre-Qualified Bidder (Contractor), nothing herein will create an obligation on the part of the Owner or Engineer to provide or create such information, and the Contractor is not entitled to rely on the availability of such information in the preparation of its Bid or pricing of the Work. In all cases, the Contractor shall take appropriate measures to verify that any electronic/digital information provided in Electronic Documents is appropriate and adequate for the Contractor's specific purposes.
  - 4. In no case will the Contractor be entitled to additional compensation or time for completion due to any differences between the actual Contract Documents and any related document in native file format.



### **ARTICLE 3—QUALIFICATIONS OF PRE-QUALIFIED BIDDERS**

3.01 Pre-Qualified Bidder shall be pre-qualified through a separate publicly-advertised process. Bids from non-Pre-Qualified Bidders will be returned unopened.

### **ARTICLE 4— MANDATORY PRE-BID CONFERENCE**

4.01 A Mandatory Pre-Bid Conference will be held at the time and location indicated in the Advertisement for Bids. Representatives of Owner and Engineer will be present to discuss the Project. Proposals will not be accepted from Pre-Qualified Bidders who do not attend the conference. It is each Pre-Qualified Bidder's responsibility to sign in at the pre-bid conference to verify its participation. Pre-Qualified Bidders must sign in using the name of the organization that will be submitting a Bid. A list of Pre-Qualified Bidders that attended the Mandatory Pre-Bid Conference and are eligible to submit a Bid for the Project will be issued in an Addendum.

4.02 Information presented at the Mandatory Pre-Bid Conference does not alter the Contract Documents. Owner will issue Addenda to make any changes to the Contract Documents that result from discussions at the Mandatory Pre-Bid Conference. Information presented, and statements made at the Mandatory Pre-Bid Conference will not be binding or legally effective unless incorporated in an Addendum.

### **ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE**

5.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

5.02 *Existing Site Conditions*

A. *Subsurface and Physical Conditions; Hazardous Environmental Conditions*

1. The General Conditions identify the following regarding existing conditions at or adjacent to the Site:
  - a. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.
  - b. Those drawings known to Owner of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data.
  - c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
  - d. Technical Data contained in such reports and drawings.
2. Owner will make electronic copies of reports and drawings referenced above available to any Pre-Qualified Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy

Pre-Qualified Bidder is entitled to rely, as provided in the General Conditions. Pre-Qualified Bidder is responsible for any interpretation or conclusion Pre-Qualified Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. *Geotechnical Report:* The Bidding Documents contain a Geotechnical Data Report (GDR) for use by Pre-Qualified Bidders (Supplemental Information – bound separately).
  - a. As set forth in the General Conditions, the GDR describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations (“Baseline Conditions”). The GDR is a Contract Document.
  - b. The Baseline Conditions in the GDR are intended to reduce uncertainty and the degree of contingency in submitted Bids. However, Pre-Qualified Bidders cannot rely solely on the Baseline Conditions. Bids should be based on a comprehensive approach that includes an independent review and analysis of the GDR, all other Contract Documents, Technical Data, other available information, and observable surface conditions. Not all potential subsurface conditions are baselined.
  - c. Nothing in the GDR is intended to relieve Pre-Qualified Bidders of the responsibility to make their own determinations regarding construction costs, bidding strategies, and Bid prices, nor of the responsibility to select and be responsible for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs incident thereto.
- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Pre-Qualified Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

#### 5.03 *Other Site-related Documents*

- A. Documents regarding existing Site conditions referred to in Paragraph 5.02.A are listed in the General Conditions 5.03(A). Owner will make copies of these other Site-related documents available to any Pre-Qualified Bidder on request.
- B. Pre-Qualified Bidder shall consider information contained on these other site-related documents to be un-verified and shall not rely on the accuracy of any data or information in such documents. Pre-Qualified Bidder is responsible for any interpretation or conclusion Pre-Qualified Bidder draws from the other Site-related documents.
- C. The other Site-related documents are not part of the Contract Documents.
- D. Pre-Qualified Bidders are encouraged to review the other Site-related documents, but Pre-Qualified Bidders will not be held accountable for any data or information in such documents. The requirement to review and take responsibility for documentary Site information is limited to information in (1) the Contract Documents and (2) the Technical Data.

5.04 *Site Visit and Testing by Pre-Qualified Bidders*

- A. Pre-Qualified Bidder is required to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit the Pre-Qualified Bidder must not disturb any ongoing operations at the Site.
- B. A Site visit is scheduled following the Mandatory Pre-Bid Conference.
- C. Pre-Qualified Bidders visiting the Site are required to arrange their own transportation to the Site.
- D. All access to the Site other than during a regularly scheduled Site visit must be coordinated through the following Owner or Engineer contact for visiting the Site: Mr. Steven Haney, Utilities Manager, (541) 818-8003.
- E. Pre-Qualified Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- F. On request and schedule permitting, the Owner will provide Pre-Qualified Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Pre-Qualified Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Pre-Qualified Bidder is responsible for establishing access needed to reach specific selected test sites.
- G. Pre-Qualified Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- H. Pre-Qualified Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

5.05 *Owner's Safety Program*

- A. Site visits and work at the Site is governed Oregon OSHA requirements.

5.06 *Other Work at the Site*

- A. Reference is made to Article 8 of the General Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Pre-Qualified Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

**ARTICLE 6—PRE-QUALIFIED BIDDER'S REPRESENTATIONS AND CERTIFICATIONS**

6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Pre-Qualified Bidder will submit contains express representations regarding the Pre-Qualified Bidder's examination of Project documentation, Site visit, and

preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Pre-Qualified Bidder should review these representations and certifications, and assure that Pre-Qualified Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.

- B. If Pre-Qualified Bidder is awarded the Contract, Pre-Qualified Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

#### **ARTICLE 7—INTERPRETATIONS AND ADDENDA**

- 7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 7.02 Pre-Qualified Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Owner and Engineer in writing.
- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all pre-qualified and registered plan holders. Questions received less than seven days prior to the date for opening of Bids may not be answered.
- 7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

#### **ARTICLE 8—BID SECURITY**

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5% percent of Pre-Qualified Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents. Bid security must be at least 5% of the Pre-Qualified Bidder's maximum price.
- 8.02 The Bid security of the apparent Successful Pre-Qualified Bidder will be retained until Owner awards the contract to such Pre-Qualified Bidder, and such Pre-Qualified Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Pre-Qualified Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Pre-Qualified Bidder to be in default, annul the Notice of Award, and the Bid security of that Pre-Qualified Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Pre-Qualified Bidder defaults.
- 8.03 The Bid security of other Pre-Qualified Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or 91 days after the Bid opening, whereupon Bid security furnished by such Pre-Qualified Bidders will be released.
- 8.04 Bid security of other Pre-Qualified Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

## **ARTICLE 9—CONTRACT TIMES**

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.
- 9.02 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

## **ARTICLE 10—SUBSTITUTE AND “OR EQUAL” ITEMS**

- 10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or “or-equal” items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or “or-equal” item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.
- 10.02 All prices that Pre-Qualified Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Pre-Qualified Bidder’s sole risk.
- 10.03 Substitutes and “or-equal” materials and equipment may be proposed by Contractor in accordance with Paragraphs 7.05 and 7.06 of the General Conditions after the Effective Date of the Contract. Each such request shall include Manufacturer’s Certification letter to document compliance with AIS requirements of Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference, if applicable. Refer to Manufacturer’s Certification Letter provided in these Contract Documents.

## **ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS**

- 11.01 The apparent Successful Pre-Qualified Bidder, and any other Pre-Qualified Bidder so requested, must submit to Owner the First-Tier Subcontractor Disclosure within 2 hours following the Bid Opening.
- 11.02 The Electrical Subcontractor included in the First-Tier Subcontractor Disclosure shall be a Pre-Qualified Electrical Contractor for the Project. Information on Pre-Qualified Electrical Subcontractors will be made available to Pre-Qualified Bidders is included in the Information Available for Pre-Qualified Bidders.
- 11.03 If apparent Successful Pre-Qualified Bidder declines to utilize a Pre-Qualified Electrical Subcontractor, Owner may award the Contract to the next lowest Pre-Qualified Bidder that proposes to use a Pre-Qualified Electrical Subcontractor.

## **ARTICLE 12—PREPARATION OF BID**

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
  - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Pre-Qualified Bidder elects to not furnish pricing for such optional alternate item, then Pre-Qualified Bidder may enter the words “No Bid” or “Not Applicable.”
  - C. Pre-Qualified Bidders shall provide pricing for all “A-listed” or first-named equipment suppliers in the Bid Form.
- 12.02 If Pre-Qualified Bidder has obtained the Bidding Documents as Electronic Documents, then Pre-Qualified Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.
- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Pre-Qualified Bidder’s name and official address.
- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.
- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.
- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of Pre-Qualified Bidder’s authority to do business in the state where the Project is located, or Pre-Qualified Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.

- 12.12 If Pre-Qualified Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Pre-Qualified Bidder's licensure, or Pre-Qualified Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Pre-Qualified Bidder's state contractor license number, if any, must also be shown on the Bid Form.

### **ARTICLE 13—BASIS OF BID**

#### **13.01 Lump Sum**

- A. Pre-Qualified Bidders must submit a Bid on a lump sum basis for each bid item as set forth in the Bid Form.

#### **13.02 Additive and Deductive Unit Price Work Bid Items**

- A. Pre-Qualified Bidders must submit unit prices for bid items with additional work beyond the quantities included in the Lump Sum Bid.
1. Additive and Deductive Unit Price Work Items shall include:
    - a. General Excavation – Unclassified with Offsite Disposal
    - b. Rock Excavation
    - c. Excavation Dewatering
    - d. Sewer Bypass Pumping
- B. Costs for Additive and Deductive Unit Price Work Bid Items will be considered by the Owner in the evaluation of bids based on the potential impact of increased or decreased quantities for these Bid items in the course of executing the Work.
- C. Bidders shall not unbalance bids for Additive and Deductive Unit Price Work Items.

#### **13.03 Allowances**

- A. For cash allowances the Bid price must include such amounts as the Pre-Qualified Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

### **ARTICLE 14—SUBMITTAL OF BID**

- 14.01 The Bidding Documents include one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form and the First-Tier Subcontractor Disclosure Form are to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 2 of the Bid Form.

- 14.02 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid and must be enclosed in a plainly marked package with the Project title, the name and address of Pre-Qualified Bidder, the date of opening, the applicable words "SEALED BID" or "FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM" and must be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid must be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED" or "FIRST-TIER SUBCONTRACTOR

DISCLOSURE FORM.” A mailed Bid must be addressed to the location designated in the Advertisement.

- 14.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Pre-Qualified Bidder unopened.

#### **ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID**

- 15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Pre-Qualified Bidder.
- 15.02 If a Pre-Qualified Bidder wishes to modify its Bid prior to Bid opening, Pre-Qualified Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 15.03 If within 24 hours after Bids are opened any Pre-Qualified Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Pre-Qualified Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Pre-Qualified Bidder will be disqualified from further bidding on the Work.

#### **ARTICLE 16—OPENING OF BIDS**

- 16.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Pre-Qualified Bidders after the opening of Bids.

#### **ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE**

- 17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

#### **ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT**

- 18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.
- 18.02 Owner will reject the Bid of any Pre-Qualified Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 18.03 If Pre-Qualified Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.
- 18.04 If Owner awards the contract for the Work, such award will be to the responsible Pre-Qualified Bidder submitting the lowest responsive Bid.



18.05 *Evaluation of Bids*

- A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- B. For determination of the apparent lowest responsive and responsible Pre-Qualified Bidder, Bids will be compared on the basis of the Lump Sum Price along with potential additional costs for Additive or Deductive Additional Work Bid Items determined at the Owner's discretion.

18.06 Owner will not consider qualifications in the evaluation of Bids from Pre-Qualified Bidders. Bids from Non-Pre-Qualified Bidders will be returned unopened.

**ARTICLE 19—BONDS AND INSURANCE**

19.01 Article 6 of the General Conditions sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Pre-Qualified Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.

19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

**ARTICLE 20—SIGNING OF AGREEMENT**

20.01 When Owner issues a Notice of Award to the Successful Pre-Qualified Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Pre-Qualified Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Pre-Qualified Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

**ARTICLE 21— PREVAILING WAGES**

21.01 The Contractor shall abide by ORS 279c.800 through 279c.870 which relate to the prevailing wage rates for the building and construction trades in the state of Oregon. These prevailing wage rates are shown in the published Oregon Bureau of Labor and Industries (BOLI) documentation, which is described in these Contract Documents. Federal Davis-Bacon act requirements also apply, as executed by the United States Department of Labor (DOL). The higher of the two wages shall be paid to all workers as applicable on this project. The Contractor shall be aware of the requirements described elsewhere in these Contract Documents. Both items are referenced and described in the Oregon DEQ form "Prevailing Wage Agreement" included in these Contract Documents, which is a form that is required to be completed by the Contractor and submitted at the time of bid placement.

21.02 Pre-Qualified Bidders are advised to examine and to be thoroughly familiar with such requirements. No claim for additional compensation will be allowed that is based upon a lack of

knowledge of these requirements or a failure to include adequate increases in such wages over the term of this Contract in the Pre-Qualified Bidder's bid price.

**ARTICLE 22— PREVAILING WAGE RATE FORMS**

- 22.01 Before payment is made by the Owner of any sums due under this Contract, the Owner must receive from the Contractor and each subcontractor or agent a copy of all required BOLI & DOL forms and Weekly Certified Payrolls from the Contractor and each subcontractor or agent.
- 22.02 Upon completion of this contract, the Owner must receive from the Contractor and each subcontractor a copy of all required BOLI and DOL forms for project closeout.
- 22.03 These forms and any required affidavits will be required before any funds retained are released to the Contractor. Forms may be obtained from BOLI and DOL. In some cases fees are required to accompany forms submitted. The Contractor is responsible for payment of these fees and shall make all applications directly to BOLI/DOL. These fees shall be incidental to all bid items of this Contract.

**ARTICLE 23—NONDISCRIMINATION**

- 23.01 During the performance of this contract, the Contractor shall comply with all federal and state nondiscrimination laws, including, but not limited to 42 U.S.C. 12101 et seq, the Americans with Disabilities Act (ADA).

**SECTION 00 40 00 - BID FORM**  
*(To be submitted with Bid)*

**MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS, PHASE 1**  
**CITY OF SWEET HOME, OREGON**

**THIS BID IS SUBMITTED TO:** City of Sweet Home  
Attn: Greg Springman, Public Works Director  
3225 Main Street  
Sweet Home, OR 97386

- 1.01** The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
- 2.01** Bidder accepts all of the terms and conditions of the Advertisement for Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 30 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.
- 2.02** Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the **dates or within the number of calendar days indicated in the Agreement.**
- 2.03** Bidder agrees to complete the Work required to complete Milestone 1 in accordance with Article 4 of the Agreement by June 1, 2023.
- 2.04** Bidder accepts the provisions of the Agreement as to liquidated damages as stipulated in Article 4.05 of the Agreement and in the General Conditions.
- 3.01** Refer to the Instructions to Bidders for forms and documents that must be executed in full and submitted with the bid.
- 3.02** The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, and the General Conditions.
- 3.03** In submitting this Bid, Bidder represents, as set forth in the Agreement, that:
  - A. Bidder has examined and carefully studied the Bidding Documents, the other related data and documents identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

<b>Addendum No.</b>	<b>Addendum Date</b>
_____	_____
_____	_____
_____	_____
_____	_____

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.
- D. Bidder has carefully studied all conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site.
- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by OWNER is acceptable to Bidder.
- J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

**4.01** Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

**5.01** Bidder will complete the Work in accordance with the Contract Documents for the price described in the following bid schedule within the time of completion specified in the Agreement.

**BID SCHEDULE**

Bidder shall submit a Bid as set forth in the Bid form. Submission of Bids on this schedule signifies Bidder's willingness to enter into a Contract for the price offered. Bidders offering a Bid on this schedule must be capable of completing the Work within the time period stated in the Agreement. OWNER may elect to delete any bid item from the work.

**1.01 LUMP SUM WORK**

- A. Bidder proposes and agrees to accept as full payment the following bid amount for the Mahler Reclamation Facility Improvements proposed within the Bidding Documents, and certifies that this amount is based upon the undersigned's own estimate of quantities and costs and includes sales, consumer, use, and other taxes, except as provided below, overhead and profit. Lump sum work includes the cost of all 'A'-listed Major Equipment.
- B. Lump Sum Bid Price: \$ \_\_\_\_\_

**1.02 MAJOR EQUIPMENT OPTIONS PRICE SCHEDULES ("A-LIST")**

Bidder further agrees to accept as full payment for furnishing the items listed below, and any Work necessary to install the items, for the prices included in the "Option Price" column for each item. Additional instructions for the Bidders are as follows:

- A. The Option Price shall include the quantity in the Bidding Documents and all associated requirements identified in the specification sections listed below as the responsibility of the contractor, equipment manufacturer and/or supplier.
- B. The Bidder shall provide a price for the 'A'-listed manufacturer.
- C. If the Owner selects an option other than an 'A'-listed manufacturer, the lump sum bid price will be modified by change order after Contract award.
- D. Include in the Option Price for each Bidder-proposed option, the cost of Work, redesign and construction changes, including, but not limited to, electrical, mechanical, structural, and any other modifications to the Work necessary to make the several parts fit together and perform as specified.
- E. Bidder may propose an "or equal" option for the 'A'-listed Major Equipment where indicated by including the Manufacturer's name for items where a blank has been provided. Approval of "or equal" options will not be considered during Bidding.
- F. Any schedule delays caused by Owner's selection of an option other than the option included in the Base Bid Price will not constitute grounds for an adjustment to the Agreement.
- G. Attach additional pages, if required to provide pricing for additional equipment options.

<b>Major Equipment Options Schedule (Fill in Option Price for all Named Manufacturers)</b>		
<b>Option</b>	<b>Manufacturer or Supplier</b>	<b>Option Price</b>
<b>Submersible Wastewater Pumps (Specification No. 43 25 02)</b>		
A	Flygt	\$ Write in Amount:
B	KSB	\$ Write in Amount:
C	ABS	\$ Write in Amount:
D	Other (write in):	\$ Write in Amount:
<b>Packaged Diesel Engine Generator Set (Specification No. 26 32 00)</b>		
A	Cummins	\$ Write in Amount:
B	Caterpillar	\$ Write in Amount:
C	Other (write in):	\$ Write in Amount:

**1.03 ADDITIVE AND DEDUCTIVE UNIT PRICE WORK BID ITEMS**

Provide unit prices for increased (additive) or reduced (deductive) quantities of the following Additive and Deductive (AD) Unit Price Work Bid Items, as detailed in Specification Section 01 29 02 Measurement and Payment. Lump Sum Bid Price shall include the Base Bid Quantity noted for each AD Bid Item. Additive (Add) Unit Prices shall be for actual construction quantities in excess of the Base Bid Quantity. Deductive (Deduct) Unit Prices shall be for quantities less than the Base Bid Quantity. Engineer shall confirm all quantities for Additive or Deductive Unit Price Work Bid Items.

<b>AD-1. General Excavation – Unclassified with Offsite Disposal</b>
Base Bid Quantity included with Lump Sum Bid: <b>6,100 Cubic Yards</b>
Add \$ _____ per Cubic Yard for additional General Excavation – Unclassified with Offsite Disposal Write in Amount:
Deduct \$ _____ per Cubic Yard for reduced General Excavation – Unclassified with Offsite Disposal Write in Amount:

<b>AD-2. Rock Excavation</b>
Base Bid Quantity included with Lump Sum Bid: <b>550 Cubic Yards</b>
Add \$_____ per Cubic Yard for additional Rock Excavation Write in Amount:
Deduct \$_____ per Cubic Yard for reduced Rock Excavation Write in Amount:

<b>AD-3. Excavation Dewatering</b>
Quantity included in Lump Sum Bid: <b>60 Days</b>
Add \$_____ per Day for additional Excavation Dewatering Write in Amount:
Deduct \$_____ per Day for reduced Excavation Dewatering Write in Amount:

<b>AD-4. Sewer Bypass Pumping</b>
Quantity included in Lump Sum Bid: <b>8 Days</b>
Add \$_____ per Day for additional Sewer Bypass Pumping Write in Amount:
Deduct \$_____ per Day for reduced Sewer Bypass Pumping Write in Amount:

SUBMITTED on \_\_\_\_\_, 20\_\_\_\_

**Bidder Identification and Signatures**

Name of Firm: \_\_\_\_\_

Federal Tax ID No: \_\_\_\_\_

State of Incorporation and Oregon CCB License No: \_\_\_\_\_

Bidder  IS /  IS NOT a "Resident Bidder" as defined by ORS 279.029.

Signature and Printed Name(s): *(If Bidder is a partnership or joint venture, all parties must sign below)*

\_\_\_\_\_  
\_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

**END OF SECTION**



**BID BOND (PENAL SUM FORM)**

<b>Bidder</b> Name: Address ( <i>principal place of business</i> ):	<b>Surety</b> Name: Address ( <i>principal place of business</i> ):
<b>Owner</b> Name: City of Sweet Home, Oregon Address ( <i>principal place of business</i> ): 3225 Main Street Sweet Home, OR 97386	<b>Bid</b> Project ( <i>name and location</i> ): Mahler Water Reclamation Improvements, Ph 1 1357 Pleasant Valley Road Sweet Home, OR 97386  Bid Due Date: September 14, 2022
<b>Bond</b> Penal Sum: Date of Bond:	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder	Surety
_____ <i>(Full formal name of Bidder)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <i>(Signature)</i>	By: _____ <i>(Signature) (Attach Power of Attorney)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____ <i>(Signature)</i>	Attest: _____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.	

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
  - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
  - 3.2. All Bids are rejected by Owner, or
  - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

**SECTION 00 43 33- PROPOSED PRODUCTS LIST***(To be submitted with Bid)***MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS, PHASE 1  
CITY OF SWEET HOME, OREGON**

The Bidder states that the manufacturer of each listed item of equipment or material proposed by the Contractor for use on this Project will be as listed below:

Material Item	Description	Equipment or Material Manufacturer (Do not show Dealer or Supplier)
1	Standby Engine Generator Set (26 32 00)	
2	Submersible Wastewater Pumps (43 25 02)	
3	Check Valves (40 05 60)	
4	Plug Valves (40 05 60)	
5	Actuator (40 05 57.23)	
6	Magnetic Flow Meters (40 71 00)	
7	Level Transducer (40 72 00)	

The Bidder must include in the space provided, the name of the equipment or material manufacturer he has used in determining his Base Bid which will be used by the Successful Bidder in constructing the project. If the Bidder does not fill in any of the spaces, it will be considered that the Bidder has selected the first-named manufacturer as his selection for those spaces not filled in.

After the opening of Bids, no changes or substitutions from those listed manufacturers will be allowed without the express written approval of the Engineer. If such change is permitted by the Engineer, it will be evaluated in accordance with provisions of the Contract Documents pertaining to Specified Items/Proposed Equivalents.

Circumstances which will justify changes to the above listing are limited to the following:

1. Manufacturer is unable to meet specifications.
2. Manufacturer fails to honor original quotation upon which the Contractor's bid was based.
3. Manufacturer goes out of business or ceases to make the specified product.

It is the responsibility of the Contractor to furnish materials and equipment meeting the requirements of the Specifications, and acceptance of the bid does not constitute nor imply favorable review or approval of items proposed. The Owner reserves the right to deny approval or acceptance of any equipment or materials which do not comply with Specifications even though listed herein.

---

(Signature)

---

(Type or Print Name)

---

(Title)

---

(Company)

**END OF SECTION**

**SECTION 00 43 37 - FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM**  
*(To Be Submitted After Bid)*

**FOR**

**CITY OF SWEET HOME**  
**MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS, PHASE 1**

Bid Closing: **September 14, 2022** at 2:00 p.m. \_\_\_\_\_

Disclosure Submittal Deadline: **September 14, 2022** at 4:00 p.m. \_\_\_\_\_

This form must be completed, signed and submitted at the location specified in the Invitation to Bid on the advertised bid closing date and within two working hours after the advertised bid closing time.

Bidders are required to disclose information about certain first-tier subcontractors (see ORS 279C.370). Specifically, when the contract amount of a first-tier subcontractor furnishing labor and material would be greater than or equal to: (i) 5% of the project Bid, but at least \$15,000; or (ii) \$350,000 regardless of the percentage, the Bidder must disclose the following information about that subcontractor either in its Bid submission, or within two hours after Bid Closing.

List below the names of each subcontractor that will be furnishing labor or furnishing labor and materials and that are required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract. Enter 'NONE' if there are no subcontractors that are required to be disclosed. (ATTACH ADDITIONAL SHEETS IF NEEDED).

Subcontractor Name	Dollar Value	Category of Work
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**Failure to submit this form by the disclosure deadline will result in a nonresponsive bid. Failure to list a Pre-Qualified Electrical Subcontractor will result in a nonresponsive bid. A nonresponsive bid will not be considered for award.**

Form Submitted by (Bidder Name): \_\_\_\_\_

Contact Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

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**SECTION 00 45 19 – NON-COLLUSION AFFIDAVIT**

*(To be submitted with Bid)*

**MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS, PHASE 1  
CITY OF SWEET HOME, OREGON**

**STATE OF OREGON  
COUNTY OF LINN**

I state that I am \_\_\_\_\_ (title) of \_\_\_\_\_ (name of firm) and that I am authorized to make this affidavit on behalf of my firm and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

- (1) The price(s) and amount of this bid have been arrived at independently and without consultation, communication, or agreement with any other contractor, bidder, or potential bidder, except as disclosed on the attached appendix.
- (2) Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.
- (3) No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
- (4) The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.
- (5) \_\_\_\_\_ (name of firm), its affiliates, subsidiaries, officers, directors and employees are not currently under investigation by any governmental agency for violating any non-collusion statutes and have not in the last four years been convicted of or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as described in the attached appendix.

I state that \_\_\_\_\_ (name of firm) understands and acknowledges that the above representations are material and important and will be relied on by the City of Sweet Home in awarding the contract(s) for which this bid is submitted. I understand, and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the City of Sweet Home of the true facts relating to the submission of bids for this contract.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Name of Company / Position

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public for the State of Oregon

\_\_\_\_\_  
My Commission Expires

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**NOTICE OF AWARD****[To Be Completed After Contract Award by Owner]**

Date of Issuance: \_\_\_\_\_

Owner: City of Sweet Home Owner's Project No.: \_\_\_\_\_

Engineer: West Yost Associates Engineer's Project No.: 936-50-21-09

Project: Mahler Water Reclamation Facility Improvements, Phase 1

Contract Name: \_\_\_\_\_

Bidder: \_\_\_\_\_

Bidder's Address: \_\_\_\_\_

You are notified that Owner has accepted your Bid dated **[Date]** for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Improvements and modifications to the City of Sweet Home Mahler Water Reclamation Facility (Mahler WRF) includes furnishing all labor, materials, and equipment necessary for the construction of new influent pump station (IPS), new IPS piping and appurtenances, new Main Electrical and Blower (MEB) Building, new standby engine generator with automatic transfer switch, new electrical service entrance, installation of owner-supplied electrical Motor Control Centers (MCCs) and plant control panels. Site work includes demolition of existing trees, structures and roadways, general excavation with onsite and offsite disposal, installation of upper plant area aggregate base rock. Site piping will include connection and re-routing existing influent sanitary sewers to the new IPS, force mains and gravity pipelines that will be completed during Phase 2 construction.

The Contract Price of the awarded Contract is \$**[Contract Price]**. Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.

Four (4) unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner four counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any): **None**

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: City of Sweet Home, Oregon

By (*signature*): \_\_\_\_\_

Name (*printed*): Greg Springman

Title: Public Works Director

Copy: Engineer

## **AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

This Agreement is by and between City of Sweet Home, Oregon ("Owner") and \_\_\_\_\_  
\_\_\_\_\_ ("Contractor").

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

### **ARTICLE 1—WORK**

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

#### **MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS, PHASE 1**

### **ARTICLE 2—THE PROJECT**

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

Improvements and modifications to the City of Sweet Home Mahler Water Reclamation Facility (Mahler WRF) includes furnishing all labor, materials, and equipment necessary for the construction of new influent pump station (IPS), new IPS piping and appurtenances, new Main Electrical and Blower (MEB) Building, new standby engine generator with automatic transfer switch, new electrical service entrance, installation of owner-supplied electrical Motor Control Centers (MCCs) and plant control panels. Site work includes demolition of existing trees, structures and roadways, general excavation with onsite and offsite disposal, installation of upper plant area aggregate base rock. Site piping will include connection and re-routing existing influent sanitary sewers to the new IPS, force mains and gravity pipelines that will be completed during Phase 2 construction.

### **ARTICLE 3—ENGINEER**

3.01 The Owner has retained West Yost Associates, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by "Engineer".

### **ARTICLE 4—CONTRACT TIMES**

4.01 *Time is of the Essence*

4.03 *Contract Times: Days*

A. The Work will be substantially complete within 300 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 365 days after the date when the Contract Times commence to run.

4.04 *Milestones*

- A. Parts of the Work must be substantially completed on or before the following Milestone(s):
1. **Milestone 1.** Contractor shall complete and submit Payment Estimates for a minimum of \$5 Million by June 1, 2023. If required, Owner may, at Owner's sole discretion, to increase the project scope to assure Milestone 1 is achieved.

4.05 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
1. *Milestone 1 Completion:* Contractor shall pay Owner **\$5000** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Milestone 1.
  2. *Substantial Completion:* Contractor shall pay Owner **\$1000** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
  3. *Completion of Remaining Work:* After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **\$500** for each day that expires after such time until the Work is completed and ready for final payment.
  4. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive, and will not be imposed concurrently.
- B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

**ARTICLE 5—CONTRACT PRICE**

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:
- A. For all Work other than Additive and Deductive Unit Price Work, a lump sum of **\$(PRICE)**.  
All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.
- B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item).

Item No.	Description	Units	Unit Price
AD-1A	Additive General Excavation-Unclassified with Offsite Disposal	Cubic Yards	\$
AD-1D	Deductive General Excavation-Unclassified with Offsite Disposal	Cubic Yards	\$
AD-2A	Additive Rock Excavation	Cubic Yards	\$
AD-2D	Deductive Rock Excavation	Cubic Yards	\$
AD-3A	Additive Excavation Dewatering	Days	\$
AD-3D	Deductive Excavation Dewatering	Days	\$
AD-4A	Additive Sewer Bypass Pumping	Days	\$
AD-4A	Deductive Sewer Bypass Pumping	Days	\$

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

- C. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

#### **ARTICLE 6—PAYMENT PROCEDURES**

##### *6.01 Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

##### *6.02 Progress Payments; Retainage*

- A. Owner shall make progress payments on the basis of Contractor's Applications for Payment on or about the 10<sup>th</sup> day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.
    - a. 95 percent of the value of the Work completed (with the balance being retainage).
    - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion of the entire construction to be provided under the construction Contract Documents, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of

Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.04 *Consent of Surety*

- A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

**ARTICLE 7—CONTRACT DOCUMENTS**

7.01 *Contents*

- A. The Contract Documents consist of all of the following:
1. This Agreement.
  2. Performance bond.
  3. Payment bond.
  4. General Conditions.
  5. Specifications as listed in the table of contents of the project manual.
  6. Drawings (not attached but incorporated by reference) consisting of 135 sheets with each sheet bearing the following general title: Mahler WRF Improvements Project, Phase 1
  7. Addenda (numbers \_\_\_ to \_\_\_, inclusive).
  8. Exhibits to this Agreement (enumerated as follows):
    - a. Contractor's Bid (pages \_\_\_ to \_\_\_, inclusive).
    - b. Geotechnical Data Report
  9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    - a. Notice to Proceed.
    - b. Work Change Directives.
    - c. Change Orders.
    - d. Field Orders.Warranty Bond, if any.
- B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.

- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

## **ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS**

### **8.01 Contractor's Representations**

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
  2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
  5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
  6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.
  7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
  8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
  9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
  1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

8.03 *General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700 (00 70 00), Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, modified specifically for the Project and to consolidate Supplementary Conditions.



IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Contract).

Owner:

City of Sweet Home, Oregon  
*(typed or printed name of organization)*

By: \_\_\_\_\_  
*(individual's signature)*

Date: \_\_\_\_\_  
*(date signed)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Attest: \_\_\_\_\_  
*(individual's signature)*

Title: \_\_\_\_\_  
*(typed or printed)*

Address for giving notices:  
3225 Main Street  
Sweet Home, OR 97386

Designated Representative:  
Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_  
*(If [Type of Entity] is a corporation, attach evidence of authority to sign. If [Type of Entity] is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

Contractor:

\_\_\_\_\_  
*(typed or printed name of organization)*

By: \_\_\_\_\_  
*(individual's signature)*

Date: \_\_\_\_\_  
*(date signed)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

*(If [Type of Entity] is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest: \_\_\_\_\_  
*(individual's signature)*

Title: \_\_\_\_\_  
*(typed or printed)*

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:  
Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

License No.: \_\_\_\_\_  
*(where applicable)*

State: \_\_\_\_\_

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## NOTICE TO PROCEED

Owner: City of Sweet Home, Oregon Owner's Project No.: \_\_\_\_\_

Engineer: West Yost Associates Engineer's Project No.: 936-50-21-09

Contractor: \_\_\_\_\_ Contractor's Project No.: \_\_\_\_\_

Project: Mahler Water Reclamation Facility Improvements, Phase 1

Contract Name: \_\_\_\_\_

Effective Date of Contract: \_\_\_\_\_

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on \_\_\_\_\_, 20\_\_ pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement:

The date by which Substantial Completion must be achieved is August 31, 2022, and the date by which readiness for final payment must be achieved is October 26, 2023.

Before starting any Work at the Site, Contractor must comply with the following:

Owner: City of Sweet Home, Oregon

By *(signature)*: \_\_\_\_\_

Name *(printed)*: \_\_\_\_\_

Title: \_\_\_\_\_

Date Issued: \_\_\_\_\_

Copy: Engineer

***(THIS PAGE LEFT BLANK INTENTIONALLY)***

## PERFORMANCE BOND

<p><b>Contractor</b></p> <p>Name:</p> <p>Address <i>(principal place of business)</i>:</p>	<p><b>Surety</b></p> <p>Name:</p> <p>Address <i>(principal place of business)</i>:</p>
<p><b>Owner</b></p> <p>Name: <b>City of Sweet Home, Oregon</b></p> <p>Mailing address <i>(principal place of business)</i>:</p> <p><b>3225 Main Street</b>  <b>Sweet Home, OR 97386</b></p>	<p><b>Contract</b></p> <p>Description <i>(name and location)</i>:</p> <p><b>Mahler WRF Improvements, Phase 1</b>  <b>1357 Pleasant Valley Road</b>  <b>Sweet Home, OR 97386</b></p> <p>Contract Price:</p> <p>Effective Date of Contract:</p>
<p><b>Bond</b></p> <p>Bond Amount:</p> <p>Date of Bond:</p> <p><i>(Date of Bond cannot be earlier than Effective Date of Contract)</i></p> <p>Modifications to this Bond form:</p> <p><input type="checkbox"/> None <input type="checkbox"/> See Paragraph 16</p>	
<p>Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.</p>	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____	By: _____
<i>(Signature)</i>	<i>(Signature)(Attach Power of Attorney)</i>
Name: _____	Name: _____
<i>(Printed or typed)</i>	<i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____	Attest: _____
<i>(Signature)</i>	<i>(Signature)</i>
Name: _____	Name: _____
<i>(Printed or typed)</i>	<i>(Printed or typed)</i>
Title: _____	Title: _____
<p><i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i></p>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
  - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
  - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
  - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
  - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
  - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
  - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
  - 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
  - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
  - 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
  - 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
  - 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

- 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
  - 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
  - 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
  - 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
  - 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows: **[Describe modification or enter "None"]**



## WARRANTY BOND

<b>Contractor</b> Name: Address <i>(principal place of business)</i> :	<b>Surety</b> Name: Address <i>(principal place of business)</i> :
<b>Owner</b> Name: <b>City of Sweet Home, Oregon</b> Address <i>(principal place of business)</i> : <b>3225 Main Street</b> <b>Sweet Home, OR 97386</b>	<b>Construction Contract</b> Description <i>(name and location)</i> : <b>Mahler WRF Improvements, Phase 1</b> <b>1357 Pleasant Valley Road</b> <b>Sweet Home, OR 97386</b>  Contract Price: Effective Date of Contract:  Contract's Date of Substantial Completion:
<b>Bond</b> Bond Amount: _____ Bond Period: Commencing 364 days after Date of Bond: _____ Substantial Completion of the Work under the Construction Contract, and continuing until 3 years after such Substantial Completion.  Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 9	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth herein, do each cause this Warranty Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
_____ <i>(Full formal name of Contractor)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <i>(Signature)</i>	By: _____ <i>(Signature) (Attach Power of Attorney)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____ <i>(Signature)</i>	Attest: _____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract's Correction Period Obligations. The Construction Contract is incorporated herein by reference.
2. If the Contractor performs the Correction Period Obligations, the Surety and the Contractor shall have no obligation under this Warranty Bond.
3. If Owner gives written notice to Contractor and Surety during the Bond Period of Contractor's obligation under the Correction Period Obligations, and Contractor does not fulfill such obligation, then Surety shall be responsible for fulfillment of such Correction Period Obligations. Surety shall either fulfill the Correction Period Obligations itself, through its agents or contractors, or, in the alternative, Surety may waive the right to fulfill the Correction Period Obligations itself, and reimburse the Owner for all resulting costs incurred by Owner in performing Contractor's Correction Period Obligations, including but not limited to correction, removal, replacement, and repair costs.
4. The Surety's liability is limited to the amount of this Warranty Bond. Renewal or continuation of the Warranty Bond will not modify such amount, unless expressly agreed to by Surety in writing.
5. The Surety shall have no liability under this Warranty Bond for obligations of the Contractor that are unrelated to the Construction Contract. No right of action will accrue on this Warranty Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
6. Any proceeding, legal or equitable, under this Warranty Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and must be instituted within two years after the Surety refuses or fails to perform its obligations under this Warranty Bond.
7. Written notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown in this Warranty Bond.
8. Definitions
  - 8.1. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page of this Warranty Bond, including all Contract Documents and changes made to the agreement and the Contract Documents.
  - 8.2. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
  - 8.3. *Correction Period Obligations*—The duties, responsibilities, commitments, and obligations of the Contractor with respect to correction or replacement of defective Work, as set forth in the Construction Contract's Correction Period clause, Section 00 70 00, Standard General Conditions of the Construction Contract (2018), Paragraph 15.08, as duly modified.
  - 8.4. *Substantial Completion*—As defined in the Construction Contract.
  - 8.5. *Work*—As defined in the Construction Contract.
9. Modifications to this Bond are as follows: **[Describe modification or enter "None"]**

**PAYMENT BOND**

<b>Contractor</b> Name: Address ( <i>principal place of business</i> ):	<b>Surety</b> Name: Address ( <i>principal place of business</i> ):
<b>Owner</b> Name: City of Sweet Home, Oregon Mailing address ( <i>principal place of business</i> ): 3225 Main Street Sweet Home, OR 97386	<b>Contract</b> Description ( <i>name and location</i> ): Mahler WRF Improvements, Phase 1 1357 Pleasant Valley Road Sweet Home, OR 97386 Contract Price: Effective Date of Contract:
<b>Bond</b> Bond Amount: Date of Bond: ( <i>Date of Bond cannot be earlier than Effective Date of Contract</i> ) Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
_____ ( <i>Full formal name of Contractor</i> )	_____ ( <i>Full formal name of Surety</i> ) ( <i>corporate seal</i> )
By: _____ ( <i>Signature</i> )	By: _____ ( <i>Signature</i> )( <i>Attach Power of Attorney</i> )
Name: _____ ( <i>Printed or typed</i> )	Name: _____ ( <i>Printed or typed</i> )
Title: _____	Title: _____
Attest: _____ ( <i>Signature</i> )	Attest: _____ ( <i>Signature</i> )
Name: _____ ( <i>Printed or typed</i> )	Name: _____ ( <i>Printed or typed</i> )
Title: _____	Title: _____
Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
  - 5.1. Claimants who do not have a direct contract with the Contractor
    - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
  - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
  - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - 7.2. Pay or arrange for payment of any undisputed amounts.
  - 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. Definitions
  - 16.1. *Claim*—A written statement by the Claimant including at a minimum:
    - 16.1.1. The name of the Claimant;
    - 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
    - 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
    - 16.1.4. A brief description of the labor, materials, or equipment furnished;

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
  - 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
  - 16.1.7. The total amount of previous payments received by the Claimant; and
  - 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic’s lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of “labor, materials, or equipment” that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor’s subcontractors, and all other items for which a mechanic’s lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
18. Modifications to this Bond are as follows: **[Describe modification or enter “None”]**

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## ARTICLE 1—DEFINITIONS AND TERMINOLOGY

### 1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
  3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  5. *Bid Bond* – The security to be furnished by the Bidder on the form furnished as a guarantee of good faith to enter into a contract for the Work contemplated if it be awarded to the Bidder.
  6. *Bidder*—An individual or entity that submits a Bid to Owner.
  7. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
  8. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
  9. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
  10. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

## 11. *Claim*

- a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
- c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
- d. A demand for money or services by a third party is not a Claim.

12. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

13. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.

14. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.

15. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.

16. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

17. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

18. *Cost of the Work*—See Paragraph 13.01 for definition.

19. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

20. *Drawings of Record* - Those drawings made or revised by the Contractor during progress of construction and approved by the owner or the Design Professional, illustrating how various elements of the work were actually installed.

21. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.

22. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
23. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
24. *Engineer*—The Engineer as specified in the Agreement is West Yost Associates Inc.
25. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
26. *Final Completion*—The completion of all of the Work called for under the Contract including but not limited to, if applicable, satisfactory operation of all equipment, by means of acceptance tests, correction of all punch list items to the satisfaction of the Owner and the Design Professional, settlement of all claims, if any, payment and release of records of all construction and like liens, delivery of all guarantees, equipment operation and maintenance manuals, as-built drawings, building certificate required prior to occupancy, electrical certificates, mechanical certificates, plumbing certificates, all other required approvals and acceptances by city, county and state governments, or other authority having jurisdiction, and removal of all rubbish, tools, scaffolding and surplus materials and equipment from the job site.
27. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
  - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
  - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
  - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
28. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
29. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

30. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
31. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
32. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
33. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract. The Owner shall be the City of Sweet Home, Oregon.
34. *Payment Bond* – The form of security approved by the OWNER and furnished by the CONTRACTOR and CONTRACTOR’S Surety guaranteeing payment for all labor, materials, services, and equipment furnished for use by the CONTRACTOR in performance of the Contract.
35. *Performance Bond* – The form of security approved by the OWNER and furnished by the CONTRACTOR and CONTRACTOR’S Surety guaranteeing the complete and faithful performance of all the obligations and conditions placed upon the CONTRACTOR by the Contract.
36. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor’s plan to accomplish the Work within the Contract Times.
37. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
38. *Punch List*—List of incomplete items of work and of items of work which are not in conformance with the contract. The list will be prepared by the ENGINEER when the CONTRACTOR:
  - a. Notifies the ENGINEER in writing that the work has been completed in accordance with the contract;
  - b. Requests in writing that the OWNER accept the work.
39. *Resident Project Representative (RPR)*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
40. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
41. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.

42. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
43. *Severability*—A contract provision stating that if any provision of the contract is deemed illegal, invalid or otherwise unenforceable, the remainder of the Contract shall remain valid.
44. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
45. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
46. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
47. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
48. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
49. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.
50. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
51. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

52. *Technical Data*

- a. Those items expressly identified as Technical Data in the General Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
- b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
- c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.

53. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.

54. *Unit Price Work*—Work to be paid for on the basis of unit prices.

55. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

56. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Defined Terms Related to American Iron and Steel

- A. American Iron and Steel (AIS) - Requirements mandated by Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference for “iron and steel products,” meaning the following products, if made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and Construction Materials. AIS requirements



apply in each of the several states, the District of Columbia, and each federally recognized Tribe, but not the U.S. Territories.

- B. Coating - A covering that is applied to the surface of an object. If a Coating is applied to the external surface of a domestic iron or Steel component, and the application takes place outside of the United States, said product would be considered a compliant product under the AIS requirements. Any Coating processes that are applied to the external surface of Iron and Steel components that would otherwise be AIS compliant would not disqualify the product from meeting the AIS requirements regardless of where the Coating processes occur, provided that final assembly of the product occurs in the United States. This exemption only applies to Coatings on the external surface of Iron and Steel components. It does not apply to Coatings or linings on internal surfaces of Iron and Steel products, such as the lining of lined pipes. All Manufacturing Processes for lined pipes, including the application of pipe lining, must occur in the United States for the product to be compliant with AIS requirements.
- C. Construction Materials - Those articles, materials, or supplies made primarily of iron and/or steel, that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered "structural steel". Note: Mechanical and electrical components, equipment and systems are not considered Construction Materials. See definitions of Mechanical Equipment and Electrical Equipment.
- D. Contractor's Certification - Documentation submitted by the Contractor upon Substantial Completion of the Contract that all Iron and Steel products installed were Produced in the United States.
- E. De Minimis - Various miscellaneous, incidental low-cost components that are essential for, but incidental to, the construction and are incorporated into the physical structure of the project. Examples of De Minimis components could include small washers, screws, fasteners (such as "off the shelf" nuts and bolts), miscellaneous wire, corner bead, ancillary tube, signage, trash bins, door hardware etc. Costs for such De Minimis components cumulatively may comprise no more than a total of five percent of the total cost of the materials used in and incorporated into a project; the cost of an individual item may not exceed one percent of the total cost of the materials used in and incorporated into a project.
- F. Electrical Equipment - Typically any machine powered by electricity and includes components that are part of the electrical distribution system. AIS does not apply to Electrical Equipment.
- G. Engineer's Certification - Documentation submitted by the Engineer that Drawings, Specifications, and Bidding Documents comply with AIS.
- H. Iron and Steel products - The following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and Construction Materials. Only items on the above list made primarily of iron or steel, permanently incorporated into the project must be Produced in the United States. For example, trench boxes, scaffolding or equipment, which are removed from the project site upon completion of the project, are not required to be made of U.S. iron or steel.
- I. Manufacturer - A Supplier, fabricator, distributor, materialman, or vendor is an entity with which the Owner, Contractor or any subcontractor has contracted to furnish materials or equipment to be incorporated in the project by the Owner, Contractor or a subcontractor.

- J. **Manufacturer's Certification** - Documentation provided by the Manufacturer stating that the Iron and Steel products to be used in the project are produced in the United States in accordance with American Iron and Steel (AIS) Requirements. If items are purchased via a Supplier, distributor, vendor, etc. from the Manufacturer directly, then the Supplier, distributor, vendor, etc. will be responsible for obtaining and providing these certifications to the parties purchasing the products.
- K. **Manufacturing Processes** - Processes such as melting, refining, pouring, forming, rolling, drawing, finishing, and fabricating. Further, if a domestic Iron and Steel product is taken out of the United States for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the material(s), if any, being applied as a Coating are similarly not covered. Non-iron or Steel components of an Iron and Steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-Iron and Steel components do not have to be of domestic origin. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-U.S. sources.
- L. **Mechanical Equipment** - Typically equipment which has motorized parts and/or is powered by a motor. AIS does not apply to Mechanical Equipment.
- M. **Minor Components** - Components within an iron and/or Steel product otherwise compliant with the American Iron and Steel requirements; this waiver is typically used by Manufacturers. It differs from the De Minimis definition in that De Minimis pertains to the entire project and the minor component definition pertains to a single product. This waiver allows use of non-domestically produced miscellaneous Minor Components comprising up to five percent of the total material cost of an otherwise domestically produced Iron and Steel product. However, unless a separate waiver for a product has been approved, all other Iron and Steel components in said product must still meet the AIS requirements. This waiver does not exempt the whole product from the AIS requirements only Minor Components within said product and the iron or Steel components of the product must be produced domestically. Valves and hydrants are also subject to the cost ceiling requirements described here. Examples of Minor Components could include items such as pins and springs in valves/hydrants, bands/straps in couplings, and other low-cost items such as small fasteners etc.
- N. **Municipal Castings** - Cast iron or Steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and solid waste infrastructure.
- O. **Primarily Iron or Steel** - A product is made of greater than 50 percent iron or Steel on a materials cost basis. An exception to this definition is reinforced precast concrete (see Definitions). All technical specifications and applicable industry standards (e.g. NIST, NSF, AWWA) must be met. If a product is determined to be less than 50 percent iron and/or steel, the AIS requirements do not apply. For example, the cost of a fire hydrant includes:
  - 1. The cost of materials used for the iron portion of a fire hydrant (e.g. bonnet, body and shoe); and
  - 2. The cost to pour and cast to create those components (e.g. labor and energy).
  - 3. Not included in the cost are:
    - a. The additional material costs for the non-iron or Steel internal workings of the hydrant (e.g. stem, coupling, valve, seals, etc.); and

- b. The cost to assemble the internal workings into the hydrant body.
- P. Produced in the United States - The production in the United States of the iron or Steel products used in the project requires that all Manufacturing Processes must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives.
- Q. Reinforced Precast Concrete – Reinforced Precast Concrete structures must comply with AIS, regardless of whether or not it consists of at least 50 percent iron or steel. The reinforcing bar and wire must be Produced in the United States and meet the same standards as for any other iron or Steel product. Additionally, the casting of the concrete product must take place in the United States. The cement and other raw materials used in concrete production are not required to be of domestic origin. If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered Construction Materials and must be Produced in the United States.
- R. Steel - An alloy that includes at least 50 percent iron, between 0.02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of Steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of Steel covers carbon steel, alloy steel, stainless steel, tool steel, and other specialty steels.
- S. Structural Steel - Rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees, and zees. Other shapes include but are not limited to, H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

### 1.03 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

- D. *Defective*: The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
1. does not conform to the Contract Documents;
  2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## **ARTICLE 2—PRELIMINARY MATTERS**

### **2.01 Delivery of Performance and Payment Bonds; Evidence of Insurance**

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor,

with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

## 2.02 Copies of Documents

- A. Owner shall furnish to Contractor four printed copies of the conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

## 2.03 Before Starting Construction

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
  - 1. Three (3) copies of an initial schedule or schedules which shall show the dates at which the CONTRACTOR will start and complete the various parts of the contract. The scheduled completion date must be the same as the contractual completion date. Should the CONTRACTOR show a completion date earlier than the Contractual completion date, the resulting "float" shall belong to both the OWNER and the CONTRACTOR. The ENGINEER will review schedules and if required, CONTRACTOR shall resubmit revised schedules within two (2) working days after return of review copy. The Notice to Proceed will not be issued until an acceptable schedule is submitted.
  - 2. a preliminary Schedule of Submittals; and
  - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.
- B. Within thirty (30) days following opening of Bids, unless the Owner decides to cancel the award as allowed by law, the apparent low Bidder will be furnished with a Notice of Award accompanied by three (3) copies each of the Contract Documents in form for signatures.

## 2.04 Preconstruction Conference; Designation of Authorized Representatives

- A. CONTRACTOR shall start to perform the Work within ten (10) calendar days after the date indicated upon the written Notice to Proceed issued by the ENGINEER. No Work shall be done at the Site prior to the date on which the Contract Times commence to run, all governmental permits, approvals or authorizations have been given, and all insurance certificates have been submitted to the Owner.
- B. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for

handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

- C. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

#### 2.05 Acceptance of Schedules

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
  - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
  - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
  - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

#### 2.06 Electronic Transmittals

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. *Electronic Documents Protocol*: The parties shall conform to the following provisions in Paragraphs 2.06.B and 2.06.C, together referred to as the Electronic Documents Protocol ("EDP" or "Protocol") for exchange of electronic transmittals.
  - 1. Basic Requirements
    - a. To the fullest extent practical, the parties agree to and will transmit and accept Electronic Documents in an electronic or digital format using the procedures described in this Protocol. Use of the Electronic Documents and any information contained therein is subject to the requirements of this Protocol and other provisions of the Contract.
    - b. The contents of the information in any Electronic Document will be the responsibility of the transmitting party.
    - c. Electronic Documents as exchanged by this Protocol may be used in the same manner as the printed versions of the same documents that are exchanged using non-electronic format and methods, subject to the same governing requirements, limitations, and restrictions, set forth in the Contract Documents.

- d. Except as otherwise explicitly stated herein, the terms of this Protocol will be incorporated into any other agreement or subcontract between a party and any third party for any portion of the Work on the Project, or any Project-related services, where that third party is, either directly or indirectly, required to exchange Electronic Documents with a party or with Engineer. Nothing herein will modify the requirements of the Contract regarding communications between and among the parties and their subcontractors and consultants.
  - e. When transmitting Electronic Documents, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the receiving party's use of software application packages, operating systems, or computer hardware differing from those established in this Protocol.
  - f. Nothing herein negates any obligation 1) in the Contract to create, provide, or maintain an original printed record version of Drawings and Specifications, signed and sealed according to applicable Laws and Regulations; 2) to comply with any applicable Law or Regulation governing the signing and sealing of design documents or the signing and electronic transmission of any other documents; or 3) to comply with the notice requirements of Paragraph 18.01 of the General Conditions.
2. System Infrastructure for Electronic Document Exchange
- a. Owner will provide hardware, operating system(s) software, internet, e-mail, and large file transfer functions ("System Infrastructure") at its own cost and sufficient for complying with the EDP requirements. With the exception of minimum standards set forth in this EDP, and any explicit system requirements specified by attachment to this EDP, it is the obligation of each party to determine, for itself, its own System Infrastructure.
    - 1) The maximum size of an email attachment for exchange of Electronic Documents under this EDP is 7 MB. Attachments larger than that may be exchanged using large file transfer functions or physical media.
    - 2) Each Party assumes full and complete responsibility for any and all of its own costs, delays, deficiencies, and errors associated with converting, translating, updating, verifying, licensing, or otherwise enabling its System Infrastructure, including operating systems and software, for use with respect to this EDP.
  - b. Each party is responsible for its own system operations, security, back-up, archiving, audits, printing resources, and other Information Technology ("IT") for maintaining operations of its System Infrastructure during the Project, including coordination with the party's individual(s) or entity responsible for managing its System Infrastructure and capable of addressing routine communications and other IT issues affecting the exchange of Electronic Documents.
  - c. Each party will operate and maintain industry-standard, industry-accepted, ISO-standard, commercial-grade security software and systems that are intended to protect the other party from: software viruses and other malicious software like worms, trojans, adware; data breaches; loss of confidentiality; and other threats in the transmission to or storage of information from the other parties, including transmission of Electronic Documents by physical media such as CD/DVD/flash drive/hard drive. To the extent that a party maintains and operates such security

software and systems, it shall not be liable to the other party for any breach of system security.

- d. In the case of disputes, conflicts, or modifications to the EDP required to address issues affecting System Infrastructure, the parties shall cooperatively resolve the issues; but, failing resolution, the Owner is authorized to make and require reasonable and necessary changes to the EDP to effectuate its original intent. If the changes cause additional cost or time to Contractor, not reasonably anticipated under the original EDP, Contractor may seek an adjustment in price or time under the appropriate process in the Contract.
- e. Each party is responsible for its own back-up and archive of documents sent and received during the term of the contract under this EDP, unless this EDP establishes a Project document archive, either as part of a mandatory Project website or other communications protocol, upon which the parties may rely for document archiving during the specified term of operation of such Project document archive. Further, each party remains solely responsible for its own post-Project back-up and archive of Project documents after the term of the Contract, or after termination of the Project document archive, if one is established, for as long as required by the Contract and as each party deems necessary for its own purposes.
- f. If a receiving party receives an obviously corrupted, damaged, or unreadable Electronic Document, the receiving party will advise the sending party of the incomplete transmission.
- g. The parties will bring any non-conforming Electronic Documents into compliance with the EDP. The parties will attempt to complete a successful transmission of the Electronic Document or use an alternative delivery method to complete the communication.
- h. The Owner will operate a Project information management system (also referred to in this EDP as "Project Website") for use of Owner, Engineer and Contractor during the Project for exchange and storage of Project-related communications and information. Except as otherwise provided in this EDP or the General Conditions, use of the Project Website by the parties as described in this Paragraph will be mandatory for exchange of Project documents, communications, submittals, and other Project-related information. The following conditions and standards will govern use of the Project Website:
  - 1) Describe the period of time during which the Project Website will be operated and be available for reliance by the parties;
  - 2) Provide any minimum system infrastructure, software licensing and security standards for access to and use of the Project Website;
  - 3) Describe the types and extent of services to be provided at the Project Website (such as large file transfer, email, communication and document archives, etc.); and
  - 4) Include any other Project Website attributes that may be pertinent to Contractor's use of the facility and pricing of such use.



C. Software Requirements for Electronic Document Exchange; Limitations

1. Each party will acquire the software and software licenses necessary to create and transmit Electronic Documents and to read and to use any Electronic Documents received from the other party (and if relevant from third parties), using the software formats required in this section of the EDP.
  - a. Prior to using any updated version of the software required in this section for sending Electronic Documents to the other party, the originating party will first notify and receive concurrence from the other party for use of the updated version or adjust its transmission to comply with this EDP.
2. The parties agree not to intentionally edit, reverse engineer, decrypt, remove security or encryption features, or convert to another format for modification purposes any Electronic Document or information contained therein that was transmitted in a software data format, including Portable Document Format (PDF), intended by sender not to be modified, unless the receiving party obtains the permission of the sending party or is citing or quoting excerpts of the Electronic Document for Project purposes.
3. Software and data formats for exchange of Electronic Documents will conform to the requirements set forth in Exhibit A to this EDP, including software versions, if listed.

D. Requests by Contractor for Electronic Documents in Other Formats

1. Release of any Electronic Document versions of the Project documents in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be at the sole discretion of the Owner.
2. To extent determined by Owner, in its sole discretion, to be prudent and necessary, release of Electronic Documents versions of Project documents and other Project information requested by Contractor ("Request") in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be subject to the provisions of the Owner's response to the Request, and to the following conditions to which Contractor agrees:
  - a. The content included in the Electronic Documents created by Engineer and covered by the Request was prepared by Engineer as an internal working document for Engineer's purposes solely, and is being provided to Contractor on an "AS IS" basis without any warranties of any kind, including, but not limited to any implied warranties of fitness for any purpose. As such, Contractor is advised and acknowledges that the content may not be suitable for Contractor's application, or may require substantial modification and independent verification by Contractor. The content may include limited resolution of models, not-to-scale schematic representations and symbols, use of notes to convey design concepts in lieu of accurate graphics, approximations, graphical simplifications, undocumented intermediate revisions, and other devices that may affect subsequent reuse.
  - b. Electronic Documents containing text, graphics, metadata, or other types of data that are provided by Engineer to Contractor under the request are only for convenience of Contractor. Any conclusion or information obtained or derived from such data will be at the Contractor's sole risk and the Contractor waives any claims against Engineer or Owner arising from use of data in Electronic Documents covered by the Request.

- c. Contractor shall indemnify and hold harmless Owner and Engineer and their subconsultants from all claims, damages, losses, and expenses, including attorneys' fees and defense costs arising out of or resulting from Contractor's use, adaptation, or distribution of any Electronic Documents provided under the Request.
  - d. Contractor agrees not to sell, copy, transfer, forward, give away or otherwise distribute this information (in source or modified file format) to any third party without the direct written authorization of Engineer, unless such distribution is specifically identified in the Request and is limited to Contractor's subcontractors. Contractor warrants that subsequent use by Contractor's subcontractors complies with all terms of the Contract Documents and Owner's response to Request.
3. In the event that Owner elects to provide or directs the Engineer to provide to Contractor any Contractor-requested Electronic Document versions of Project information that is not explicitly identified in the Contract Documents as being available to Contractor, the Owner shall be reimbursed by Contractor on an hourly basis at \$250 per hour for any engineering costs necessary to create or otherwise prepare the data in a manner deemed appropriate by Engineer.

### **ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE**

#### **3.01 Intent**

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
  1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or

2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

### 3.02 Reference Standards

#### A. *Standards Specifications, Codes, Laws and Regulations*

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
3. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

### 3.03 Reporting and Resolving Discrepancies

#### A. Reporting Discrepancies

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

#### B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in

resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

- a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
- b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 Requirements of the Contract Documents

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

### 3.05 Reuse of Documents

- A. Contractor and its Subcontractors and Suppliers shall not:
  1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
  2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

3.06 Order of Precedence of Contract Documents

- A. In resolving conflicts resulting from errors or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:
  - 1. Permits from other agencies as may be required by law;
  - 2. Addenda, Supplemental Agreements and Change Orders, the one dated later having the precedence over another dated earlier;
  - 3. Agreement;
  - 4. Owner's Special Provisions;
  - 5. General Conditions (Section 00700);
  - 6. General Requirements (Sections 01010 through 01999);
  - 7. Other Technical Specifications (Section 02000 and all other Sections following);
  - 8. Drawings;
  - 9. Instructions to Bidders;
  - 10. Bid Forms;
  - 11. Invitation to Bid.
- B. With reference to the Drawings, the order of precedence is as follows:
  - 1. Enumerated dimensions govern over scaled dimensions
  - 2. Detail drawings govern over general drawings
  - 3. Addenda/Change Order drawings govern over any other drawings
  - 4. Contract Drawings govern over standard drawings/plans
  - 5. Specific notes take precedence over schedules
  - 6. Notes, descriptions or schedules take precedence over graphic representations
- C. The provisions of the Contract Documents shall take precedence over any Laws or Regulations applicable to the performance of the work unless such an interpretation of the provisions of the Contract Documents would result in a violation of such Law or Regulation.

3.07 American Iron and Steel (AIS) Requirements

- A. The Contractor acknowledges to and for the benefit of the City of Sweet Home ("Purchaser") and the State of Oregon (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel," that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the

Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

#### **ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK**

##### **4.01 Commencement of Contract Times; Notice to Proceed**

A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

##### **4.02 Starting the Work**

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

##### **4.03 Reference Points**

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

##### **4.04 Progress Schedule**

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Once each month, prior to the processing of the monthly progress payment, the CONTRACTOR shall provide an updated schedule to the ENGINEER. Updates must accurately reflect as-built schedule.

2. In addition, a three-week rolling "look-ahead" schedule shall be updated and provided to the ENGINEER at the beginning of each work week. The two-week rolling schedule shall

include the CONTRACTOR's proposed daily activities and location(s) of work during the coming two-week period. No work shall commence at the beginning of each workweek until the updated two-week rolling schedule is submitted. During the contract period, the CONTRACTOR shall also coordinate his activities daily with the ENGINEER.

3. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

#### 4.05 Delays in Contractor's Progress

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
  1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
  2. Abnormal weather conditions;
  3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
  4. Acts of war or terrorism.
  5. Weather-Related Delays
    - a. If "abnormal weather conditions" as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled.

- b. The existence of abnormal weather conditions will be determined on a month-by-month basis in accordance with the following:
  - 1) Every workday on which one or more of the following conditions exist will be considered a “bad weather day”:
    - i) Total precipitation (as rain equivalent) occurring between 7:00 p.m. on the preceding day (regardless of whether such preceding day is a workday) through 7:00 p.m. on the workday in question equals or exceeds **1.0** inches of precipitation (as rain equivalent, based on the snow/rain conversion indicated in the table entitled Foreseeable Bad Weather Days; such table is hereby incorporated in this SC-4.05.C by reference.
    - ii) Ambient outdoor air temperature for 60 minutes between the hours of 10:00 a.m. and 3:00 p.m. is equal to or less than the following low temperature threshold: **15** degrees Fahrenheit; or, at 3:00 p.m. the ambient outdoor temperature is equal to or greater than the following high temperature threshold: **100** degrees Fahrenheit.
  - 2) Determination of actual bad weather days during performance of the Work will be based on the weather records measured and recorded by the City of Sweet Home Public Works Department.
  - 3) Contractor shall anticipate the number of foreseeable bad weather days per month indicated in the table below —Foreseeable Bad Weather Days.
  - 4) Contractor shall include the following Foreseeable Bad Weather Days in the Progress Schedule as follows:
    - i) January – 3 Days
    - ii) February – 2 Days
    - iii) March – 1 Day
    - iv) April – 1 Days
    - v) May – 0 Days
    - vi) June – 0 Days
    - vii) July – 1 Days
    - viii) August – 2 Days
    - iv) September – 1 Days
    - v) October – 1 Day
    - vi) November – 2 Days
    - vii) December – 3 Days
  - 5) In each month, every bad weather day exceeding the number of Foreseeable Bad Weather Days will be considered as “abnormal weather conditions.” The existence of abnormal weather conditions will not relieve Contractor of the obligation to demonstrate and document that delays caused by abnormal weather are specific to the planned work activities or that such activities thus



delayed were on Contractor's then-current Progress Schedule's critical path for the Project.

- 6) If mutually agreed upon by Owner and Contractor, working hours during days with anticipated abnormal weather periods can be adjusted to allow work earlier or later in the day depending on the type of abnormal weather expected.
- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
  2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
  3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
  2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
  3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
  4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
  5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
  6. Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

**ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

5.01 Availability of Lands

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 Use of Site and Other Areas

A. *Limitation on Use of Site and Other Areas*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment and operations of workers to the work and staging areas as shown on the drawings and shall not unreasonably encumber the site and other areas with construction equipment or other materials or equipment. Contractor shall be responsible for keeping driveways and other main access points to the site open. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work. Use of additional areas onsite or offsite may be allowed if authorized in writing by the Owner.
  - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.

- C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 Subsurface and Physical Conditions

- A. *Reports and Drawings*: The following drawings and reports are available for the Contractor
  1. Record Drawings for the Sweet Home Wastewater Treatment Plant.
    - a. Contract Documents dated June 1973 consisting of 2 volumes, prepared by CH2M Hill, entitled " Sweet Home Wastewater Treatment Plant".
    - b. Construction Documents dated October 1992, prepared by Kramer Chin and Mayo, entitled "City of Sweet Home Wastewater Facilities Improvements".
    - c. Contract Documents dated February 1997, prepared by HGE, Inc., entitled "City of Sweet Home Wastewater Treatment Plant Improvements".
  2. Site surveying completed by Udell Engineers located in Lebanon, Oregon.
  3. Geotechnical Data Report (GDR) prepared by McMillen Jacobs Associates, Final dated June 2022.
  4. No other information on existing subsurface or physical conditions is available for the Contractor.
- B. *Underground Facilities*: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.
- C. *Reliance by Contractor on Technical Data*: Contractor may rely upon the accuracy of the Technical Data with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.
- D. *Limitations of Other Data and Documents*: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
  1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
  2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;

3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 Differing Subsurface or Physical Conditions

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
  2. is of such a nature as to require a change in the Drawings or Specifications;
  3. differs materially from that shown or indicated in the Contract Documents; or
  4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.
- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
  - a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
  - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
  - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
  - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
  - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
  - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

F. *Underground Facilities; Hazardous Environmental Conditions*: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities*: Unless it is otherwise expressly provided in the General Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

2. complying with applicable state and local utility damage prevention Laws and Regulations;
  3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
  4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
  5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
  2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
  3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
  4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
  - a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
  - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
  - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 Hazardous Environmental Conditions at Site

A. *Reports and Drawings*: These General Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.
4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely:

Report Title	Date of Report	Technical Data
No reports	N/A	N/A

5. The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
No Drawings	N/A	N/A

- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
  2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work; or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the



Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 6—BONDS AND INSURANCE

### 6.01 Performance, Payment, and Other Bonds

- A. Bonds shall be furnished in accordance with the City of Sweet Home Contract requirements. These shall include, but not be limited to, performance bond and payment bond.
  - 1. *Required Performance Bond Form:* The performance bond that Contractor furnishes will be in the form of EJCDC® C-610, Performance Bond (2010, 2013, or 2018 edition).
  - 2. *Required Payment Bond Form:* The payment bond that Contractor furnishes will be in the form of EJCDC® C-615, Payment Bond (2010, 2013, or 2018 edition).
- B. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until three years after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, or other provisions of the Contract.
  - 1. After Substantial Completion, Contractor shall furnish a warranty bond issued in the form of EJCDC® C-612, Warranty Bond (2018). The warranty bond must be in a bond amount of 10 percent of the final Contract Price. The warranty bond period will extend to a date one year after Substantial Completion of the Work. Contractor shall deliver the fully executed warranty bond to Owner prior to or with the final application for payment, and in any event no later than 11 months after Substantial Completion.
  - 2. The warranty bond must be issued by the same surety that issues the performance bond required under Paragraph 6.01.A of the General Conditions.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.

- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 Insurance—General Provisions

- A. Owner and Contractor shall obtain and maintain insurance as required in these contract documents and City of Sweet Home Special Provisions.
- B. Contractor's insurance required by the Contract shall be primary over Owner's insurance and shall include a waiver of subrogation against Owner and Engineer.
- C. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. All companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- D. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract.
- E. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- F. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- G. Failure of Owner or Contractor to demand such certificates or other evidence of the Contractor's full compliance with these insurance requirements, or failure of Owner or

Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the Contractor's obligation to obtain and maintain such insurance.

- H. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- I. Contractor shall require:
  - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the General Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
  - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- J. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- K. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- L. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.
- M. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- N. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- O. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each additional insured.

### 6.03 Contractor's Insurance

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, Builders Risk and other insurance pursuant to the specific requirements set forth herein.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 must:
1. include at least the specific coverages required;
  2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
  3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
  4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
  5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
1. include and list as additional insureds the following:
    - a. OWNER: "City of Sweet Home, its officers, employees, agents, and consultants"; AND
    - b. ENGINEER: "West Yost Associates Inc., its officers, employees, agents, and consultants"; AND
    - c. any individuals or entities identified as additional insureds herein.
  2. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);
  3. not seek contribution from insurance maintained by the additional insured; and
  4. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.
- D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds the Owner and Engineer.
- E. *Workers' Compensation and Employer's Liability Insurance:* Contractor shall purchase and maintain Worker's Compensation and Employer's Liability Insurance. This insurance shall protect CONTRACTOR against all claims under applicable state workers' compensation laws,

including coverage as necessary for the benefits provided under the United States Longshoremen's and Harbor Workers' Act and the Jones Act. CONTRACTOR shall also be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a workers' compensation law. This policy shall include an "all states" or "other states" and waiver of subrogation endorsements. The liability limits, as required by state law shall be not less than:

1. Workers' Compensation: Statutory
  2. Employer's Liability: \$1,000,000 each occurrence
- F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
  2. damages insured by reasonably available personal injury liability coverage, and
  3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage.
    - a. Such insurance must be maintained for three years after final payment.
    - b. Contractor shall furnish Owner and each other additional insured (as identified in the General Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
  2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
  3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
  4. Underground, explosion, and collapse coverage.
  5. Personal injury coverage.
  6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
  7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- H. *Commercial General Liability Insurance Coverage:* This insurance shall be occurrence type written in comprehensive form and shall protect CONTRACTOR, OWNER, and ENGINEER as

additional insureds, against claims arising out of performance of the Work. The policy shall also include personal injury liability coverage, contractual liability coverage, completed operations and products liability coverage, and coverage for blasting, explosion, collapse of buildings, and damage to underground property. The liability limits for bodily injury and property damage shall be not less than:

1. Combined Single Limit for each occurrence: \$2,000,000
2. General aggregate: \$2,000,000

- I. *Automobile Liability*: Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

<b>Automobile Liability</b>	<b>Policy limits of not less than:</b>
<b>Bodily Injury</b>	
Each Person	\$1,000,000
Each Accident	\$1,000,000
<b>Property Damage</b>	
Each Accident	\$1,000,000
<b>[or]</b>	
<b>Combined Single Limit</b>	
Combined Single Limit (Bodily Injury and Property Damage)	\$2,000,000

- J. *Umbrella Liability Insurance*: Contractor shall purchase and maintain umbrella liability insurance. This insurance shall protect CONTRACTOR, OWNER, and ENGINEER as additional insureds, against claims in excess of the limits provided under workers' compensation and employer's liability, comprehensive automobile liability, and commercial general liability policies. The umbrella policy shall follow the form of the primary insurance, including the application of the primary limits. The liability limits for bodily injury and property damage shall be not less than:

1. Combined Single Limit for each occurrence: \$5,000,000
2. General aggregate: \$5,000,000

- K. *Pollution Liability Insurance*: If not otherwise included in the Contractor's Commercial General Liability Insurance coverage, Contractor shall purchase and maintain pollution liability insurance for claims arising from the discharge, dispersal, release, escape of any irritant or contaminant into or upon land, any structure, the atmosphere, watercourse, or body of water including groundwater. This shall include coverage for claims of: (a) clean up, either on-site or off site; (b) third party liability, including bodily injury, property damage, natural resource damage, third party property loss of use/revenue, and clean up; and/or (c) costs incurred for regulatory fines and/or the investigation, defense, or settlement of claims. The liability limits for pollution shall not be less than:

1. Combined Single Limit for each occurrence: \$5,000,000
2. General aggregate: \$5,000,000

- L. *Railroad Protective Liability Insurance*: Prior to commencing any Work within 50 feet of railroad-owned and controlled property, Contractor shall (1) endorse its commercial general liability policy with ISO CG 24 17, removing the contractual liability exclusion for work within

50 feet of a railroad, (2) purchase and maintain railroad protective liability insurance meeting the following requirements, (3) furnish a copy of the endorsement to Owner, and (4) submit a copy of the railroad protective policy and other railroad-required documentation to the railroad, and notify Owner of such submittal.

<b>Railroad Protective Liability Insurance</b>	<b>Policy limits of not less than:</b>
Each Claim	\$ 1,000,000
Aggregate	\$ 2,000,000

- M. *Unmanned Aerial Vehicle Liability Insurance*: If Contractor uses unmanned aerial vehicles (UAV—commonly referred to as drones) at the Site or in support of any aspect of the Work, Contractor shall obtain UAV liability insurance in the amounts stated; name Owner, Engineer, and all individuals and entities identified in the General Conditions as additional insureds; and provide a certificate to Owner confirming Contractor’s compliance with this requirement. Such insurance will provide coverage for property damage, bodily injury or death, and invasion of privacy.

<b>Unmanned Aerial Vehicle Liability Insurance</b>	<b>Policy limits of not less than:</b>
Each Claim	\$ 100,000
General Aggregate	\$ 250,000

#### 6.04 Builder’s Risk and Other Property Insurance

- A. *Builder’s Risk*: Contractor shall purchase and maintain builder’s risk insurance upon the Work on a completed value basis, in the amount of the Work’s full insurable replacement cost (subject to such deductible amounts as may be provided in the General Conditions or required by Laws and Regulations). The specific requirements applicable to the builder’s risk insurance are set forth in the General Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder’s risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder’s risk insurance. The builder’s risk insurance may terminate upon written confirmation of Owner’s procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder’s risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder’s risk insurer, and obtain an



endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.

- E. *Insurance of Other Property; Additional Insurance:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.
- F. *Builder's Risk Requirements:* The builder's risk insurance must:
1. be written on a builder's risk "all risk" policy form that at a minimum includes insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment stored and in transit, and must not exclude the coverage of the following risks: fire; windstorm; hail; flood; earthquake, volcanic activity, and other earth movement; lightning; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; and water damage (other than that caused by flood).
    - a. Such policy will include an exception that results in coverage for ensuing losses from physical damage or loss with respect to any defective workmanship, methods, design, or materials exclusions.
    - b. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake, volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance will be provided through other insurance policies acceptable to Owner and Contractor.
  2. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
  3. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of contractors, engineers, and architects).
  4. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier). If this coverage is subject to a sublimit, such sublimit will be a minimum of \$2,000,000.
  5. extend to cover damage or loss to insured property while in transit. If this coverage is subject to a sublimit, such sublimit will be a minimum of \$2,000,000.
  6. allow for the waiver of the insurer's subrogation rights, as set forth in this Contract.

7. allow for partial occupancy or use by Owner by endorsement, and without cancellation or lapse of coverage.
8. include performance/hot testing and start-up, if applicable.
9. be maintained in effect until the Work is complete, as set forth in Paragraph 15.06.D of the General Conditions, or until written confirmation of Owner's procurement of property insurance following Substantial Completion, whichever occurs first.
- 10 include as named insureds the Owner, Contractor, Subcontractors (of every tier), and any other individuals or entities required by this Contract to be insured under such builder's risk policy. Parties required to be insured will be referred to collectively as "insureds." In addition to Owner, Contractor, and Subcontractors of every tier, include as insureds the following:
  - a. West Yost Associates, Inc.  
Charles Duncan, President  
2020 Research Park Drive, Suite 100  
Davis, CA 95618  
503.756.5905; CDuncan@westyost.com
11. include, in addition to the Contract Price amount, the value of the following equipment and materials to be installed by the Contractor but furnished by the Owner or third parties:
  - a. Electrical motor control centers, control panels and other equipment to be supplied by Owner's Integrator-of-Record, such sublimit will be a minimum of \$3,000,000.
12. If debris removal in connection with repair or replacement of insured property is subject to a coverage sublimit, such sublimit will be a minimum of \$5,000,000.

6.05 Property Losses; Subrogation

- A. The builder's risk insurance policy purchased and maintained, at Contractor's expense, in accordance with Paragraph 6.04 (or an installation floater policy if authorized), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
  1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the General Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
  2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
  - 1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the General Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

#### 6.06 Receipt and Application of Property Insurance Proceeds

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the Contractor and Owner. Contractor and Owner shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer to the Contractor and Owner as the fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. Contractor and Owner receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

## ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

### 7.01 Contractor's Means and Methods of Construction

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

### 7.02 Supervision and Superintendence

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

### 7.03 Labor; Working Hours

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.
- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.
  - 1. Regular working hours will be 7:00 AM to 3:30 PM, local time. Contractor shall limit noise and equipment operation for all construction activities outside of the Regular working hours unless otherwise allowed in writing by the Owner.
  - 2. Owner's legal holidays are New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Day after Thanksgiving, and Christmas Day. When a holiday falls on Saturday it shall be observed on the preceding Friday. When a holiday falls on Sunday it shall be observed on the following Monday.

- D. Contractor shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

7.04 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.
- D. Contractor shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

7.05 "Or Equals"

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
  - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For

the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that the proposed item:
    - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
    - 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
    - 3) has a proven record of performance and availability of responsive service; and
    - 4) is not objectionable to Owner.
  - b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
    - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
    - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

#### 7.06 Substitutes

- A. *Contractor's Request; Governing Criteria:* Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for

review of proposed substitute items of equipment or material from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
  - a. will certify that the proposed substitute item will:
    - 1) perform adequately the functions and achieve the results called for by the general design;
    - 2) be similar in substance to the item specified; and
    - 3) be suited to the same use as the item specified.
  - b. will state:
    - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
    - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
    - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
  - c. will identify:
    - 1) all variations of the proposed substitute item from the item specified; and
    - 2) available engineering, sales, maintenance, repair, and replacement services.
  - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 Concerning Subcontractors and Suppliers

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall



initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.
- N. The Contractor shall include the following provisions in all its first-tier subcontracts and contracts with material suppliers:
  - 1. A clause that requires the subcontractor to pay its subcontractors or material suppliers within 10 days after the contractor receives payment from the public agency for satisfactory work performed as required by Oregon's Prompt Payment statutes.
  - 2. A clause that requires the subcontractor to provide a first-tier subcontractor with a standard form that the first-tier subcontractor may use as an application for payment or another method the subcontractor may use for requesting payment and to use that form and regular administrative procedures for processing payments for the entire term of the subcontract unless authorized to change the form and administrative payment procedures under Oregon's Prompt Payment statutes.
  - 3. A clause that requires the payment of an interest penalty in the amount of 9% per annum if the subcontractor does not make payment to its subcontractors or material suppliers within 10 days as required by Oregon's Prompt Payment statutes.
- M. The Contractor shall include a clause in each of its subcontracts and contracts with material suppliers requiring the first-tier subcontractor to include the payment and interest penalty provisions stated above in Section 6.06(H) in each subcontract and require those subcontractors of any tier to include such clauses in each subcontract of any tier.

7.08 Patent Fees and Royalties

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 Permits

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all initial permit fees and charges of utility owners for connections for providing permanent service to the Work.

7.10 Taxes

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.
- D. The CONTRACTOR shall pay at least the prevailing wage rates as required by the State of Oregon and shall so certify by submitting in duplicate with the first and last request for payment a completed Public Works Wage Certification Form. The OWNER may withhold or retain 25% of any amount earned if the CONTRACTOR does not file any certified payroll form as required.
- E. *Oregon Prevailing Wage Requirements*
1. Minimum wage rates shall be no less than the Oregon State Bureau of Labor and Industries wage rates.
  2. Wage rates that apply to this contract will be as published by the Oregon State Bureau of Labor and Industries, effective January 1, 2021, and available from:  
  
Bureau of Labor and Industries  
Wage and Hour Division  
800 NE Oregon Street, #1045  
Portland, Oregon 97232-2180  
Attention: Prevailing Wage Rate Specialist  
(971) 673-0761  
  
BOLI Website:  
[www.Oregon.gov/boli](http://www.Oregon.gov/boli)  
  
BOLI Wage Rates including amendments:  
<https://www.oregon.gov/boli/WHD/PWR/Pages/index.aspx>
  3. Before any payment is made by the Owner of any sums due under this contact, the Owner must receive from the Contractor and any subcontractor a copy of the "Statement of Intent to Pay Prevailing Wages" approved by the Oregon State Bureau of Labor and Industries. Also following the acceptance of the project, the Owner must receive from the

Contractor and each subcontractor a copy of the "Affidavit of Wages Paid" and in addition, from the prime Contractor, a copy of "Release for the Protection of Property Owners and General Contractor," all approved by the State Bureau of Labor and Industries. The Contractor and each subcontractor shall pay all fees associated with and make all applications directly to the Bureau of Labor and Industries. Forms may be obtained from the Bureau of Labor and Industries. These affidavits will be required before any funds retained, according to the provisions of ORS Chapter 279C, are released to the Contractor. Payment by the Contractor or subcontractor of any fees shall be considered incidental to the construction and all costs shall be included in other pay items of the project.

4. In accordance with the Oregon BOLI Prevailing Wage Rate Laws, the following conditions apply to and are hereby incorporated into this contract. However, this is not an exclusive listing of requirements and the Contractor is referred to BOLI for complete requirements.
  - a. If the contractor fails to pay for labor and services, the agency can pay for them and withhold these amounts from payments to the contractor. ( ORS 279C.515; OAR 839-025-0020(2)(a));
  - b. The contractor must pay daily, weekly, weekend and holiday overtime as required. ( ORS 279C.540; OAR 839-025-0020(2)(b));
  - c. The employer must give written notice to the workers of the number of hours per day and days per week they may be required to work. (OAR 839-025-0020(2)(c));
  - d. The contractor must make prompt payment for all medical services for which the contractor has agreed to pay, and for all amounts for which the contractor collects or deducts from the worker's wages. (ORS 279C.530; OAR 839-025-0020(2)(d));
  - e. The contractor shall file a public works bond with the Construction Contractors Board before starting work on the project. ( ORS 279C.830(3)(a) );
  - f. The contractor shall include in every subcontract a provision requiring the subcontractor to have a public works bond filed with the Construction Contractors Board before starting work on the project. (ORS 279C.830 (3) (b)).
- F. CONTRACTOR shall promptly, as due, make payments to all persons supplying labor or materials for the prosecution of the work provided for herein, and shall also pay all contributions or amounts due the State Industrial Accident Fund on account of the performance of this Contract. The CONTRACTOR shall not permit any lien or claim to be filed or prosecuted against the OWNER on account of any labor or material furnished or contributions due said State Industrial Accident Funds.
  1. In case CONTRACTOR shall fail, neglect, or refuse to make prompt payment of any claim for labor or services (including payments to the State Industrial Accident Fund), furnished by any person in connection with this Contract as said claim becomes due, whether said services and labor be performed for the CONTRACTOR or subcontractor, then the proper officer or officers representing the OWNER may pay such claim(s) and charge the amount thereof against funds which are or will become due to the CONTRACTOR, but the payment of any such claim in the manner herein authorized shall not relieve the CONTRACTOR or his surety from obligations which will result from such claims.
- G. CONTRACTOR and all his subcontractors engaged on the project shall have the right to provide Workmen's Compensation coverage by either of the methods permitted under the Oregon

Workers' Compensation Law. The CONTRACTOR shall pay all contributions or amounts due to the Industrial Accident Fund from CONTRACTOR or a subcontractor that are incurred in performance of the contract.

- H. Any and all other of the Laws of Oregon which are applicable to work of the nature herein contemplated shall be observed in all respects.
- I. The CONTRACTOR shall pay to the Department of Revenue all sums withheld from employees under ORS 316.167.
- J. The CONTRACTOR shall pay promptly any person furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the CONTRACTOR, of all sums that the CONTRACTOR agrees to pay for the services and all money and sums that the CONTRACTOR deducted from wages as required by ORS 279C.530.
- K. The CONTRACTOR shall, where allowed by the specifications, use goods produced or manufactured in the state of Oregon if price, fitness, availability and quality are otherwise equal. Notwithstanding this requirement, the CONTRACTOR shall not substitute goods unless the substitution has been approved in writing by the Project Engineer.
- L. The CONTRACTOR shall require every subcontractor, unless exempt, to file a public works bond relating to the subcontract work.
- M. The CONTRACTOR, where allowed by the specifications, shall use supplies or materials manufactured from recycled materials. Notwithstanding this requirement, the CONTRACTOR shall not substitute goods unless the substitution has been approved in writing by the Project Engineer.
- N. The CONTRACTOR shall comply with Section 202, Executive Order 11245 dated September 24, 1965, as it applies to this Contract. He shall not discriminate against any employee or applicant for employment because of race, color, creed or national origin.

#### 7.12 Record Documents

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

#### 7.13 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable U.S. Department of Labor Occupational Safety and Health Act (OSHA) and requirements and all other applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the General Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

- K. Safety and accident reports shall be submitted in accordance with the Contractors reporting procedure or by the OR-OSHA reporting form. Unless otherwise provided herein, Contractor shall inform Owner of any accidents and OR-OSHA reportable accidents on the same day or as soon as reasonably possible. Other incidents or accidents will be reported in writing within three (3) calendar days of occurrence.

7.14 Hazard Communication Programs

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 Emergencies

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 Submittals

A. *Shop Drawing and Sample Requirements*

1. Before submitting a Shop Drawing or Sample, Contractor shall:
  - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determine and verify:
    - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
    - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
    - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
  - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.
3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract

Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
    - a. Contractor shall submit the number of copies required in the Specifications.
    - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
  2. *Samples*
    - a. Contractor shall submit the number of Samples required in the Specifications.
    - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
  3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
  2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
  3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
  4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.



5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

*D. Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

*E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
  - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
  - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
  - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
  - d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.

- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
  - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
  - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
  - 1. Observations by Engineer;
  - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
  - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  - 4. Use or occupancy of the Work or any part thereof by Owner;
  - 5. Any review and approval of a Shop Drawing or Sample submittal;
  - 6. The issuance of a notice of acceptability by Engineer;
  - 7. The end of the correction period established in Paragraph 15.08;
  - 8. Any inspection, test, or approval by others; or
  - 9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the

assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

#### 7.18 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

#### 7.19 Delegation of Professional Design Services

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.
- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject

to the professional standard of care and the performance and design criteria stated in the Contract Documents.

- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
  - 1. Checking for conformance with the requirements of this Paragraph 7.19;
  - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
  - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

#### **ARTICLE 8—OTHER WORK AT THE SITE**

##### **8.01 Other Work**

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it

unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

#### 8.02 Coordination

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the General Conditions or provided to Contractor prior to the start of any such other work:
  - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
  - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
  - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided herein, Owner shall have sole authority and responsibility for such coordination.
- C. Owner intends to contract with others for the performance of other work at or adjacent to the Site.
  - 1. Owner shall have authority and responsibility for coordination of the various contractors and work forces at the Site;
  - 2. The following specific matters are to be covered by such authority and responsibility: Contractor coordination, staging and site access.
  - 3. The extent of such authority and responsibilities is: Construction of the Sweet Home Mahler Water Reclamation Facility Improvements Phase 2, to be completed on the same project site.

#### 8.03 Legal Relationships

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract

Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
  - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
  - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

## **ARTICLE 9—OWNER'S RESPONSIBILITIES**

### **9.01 Communications to Contractor**

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through the Engineer or the City's Resident Project Representative.

9.02 Replacement of Engineer

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 Furnish Data

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 Pay When Due

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 Lands and Easements; Reports, Tests, and Drawings

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 Insurance

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 Change Orders

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 Inspections, Tests, and Approvals

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 Limitations on Owner's Responsibilities

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 Undisclosed Hazardous Environmental Condition

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 Evidence of Financial Arrangements

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 Safety Programs

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

9.13 Owner's Site Representative

- A. Owner will furnish an "Owner's Site Representative" who will also serve as the "Resident Project Representative". The Owner's Site Representative and Resident Project Representative will be Patricia Rice.

**ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION**

10.01 Owner's Representative

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 Visits to Site

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 Resident Project Representative

- A. Owner and Engineer have agreed that the Owner will furnish a Resident Project Representative (RPR) to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work.
- B. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:



1. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
  2. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.
  3. *Liaison*
    - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
    - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
    - c. Assist in obtaining from Owner additional details or information, when required for Contractor's proper execution of the Work.
  4. *Review of Work; Defective Work*
    - a. Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
    - b. Observe whether any Work in place appears to be defective.
    - c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
  5. *Inspections and Tests*
    - a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
    - b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
  6. *Payment Requests:* Review Applications for Payment with Contractor.
  7. *Completion*
    - a. Participate in Engineer's visits regarding Substantial Completion.
    - b. Assist in the preparation of a punch list of items to be completed or corrected.
    - c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
    - d. Observe whether items on the final punch list have been completed or corrected.
- D. The RPR will not:
1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).

2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Authorize Owner to occupy the Project in whole or in part.

10.04 Engineer's Authority

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.
- E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 Determinations for Unit Price Work

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 Decisions on Requirements of Contract Documents and Acceptability of Work

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 Limitations on Engineer's Authority and Responsibilities

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be

responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

#### 10.08 Compliance with Safety Program

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

### **ARTICLE 11—CHANGES TO THE CONTRACT**

#### 11.01 Amending and Supplementing the Contract

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in writing in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

#### 11.02 Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
  - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a written Work Change Directive;
  - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
  - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work

involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and

4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

#### 11.03 Work Change Directives

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.
- B. If Owner has issued a Work Change Directive and:
1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
  2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

#### 11.04 Field Orders

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

#### 11.05 Owner-Authorized Changes in the Work

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly

proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.

- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

#### 11.06 Unauthorized Changes in the Work

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

#### 11.07 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
  - 1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
  - 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
  - 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:
  - 1. A mutually acceptable fixed fee; or
  - 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
    - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
    - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually

performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;

- d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
- e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
- f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

#### 11.08 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

#### 11.09 Change Proposals

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.
- B. *Change Proposal Procedures*
  - 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
  - 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.

- a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
- b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
  4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
  5. *Binding Decision:* Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion:* Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

#### 11.10 Notification to Surety

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

## ARTICLE 12—CLAIMS

### 12.01 Claims

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
  2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
  3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
  4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
  2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
  3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.



- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

### **ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

#### **13.01 Cost of the Work**

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
  2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
  2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in

connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
5. Other costs consisting of the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
    - 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.
  - c. *Construction Equipment Rental*
    - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
    - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment as published by Equipment Watch Cost Recovery (Blue Book) for Oregon. Follow procedures as specified in Section 00197.20 of the Oregon Standard Construction Specifications (current version).

- 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price (“changed Work”), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
  - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
  - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder’s risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor’s fee.
  - g. The cost of utilities, fuel, and sanitary facilities at the Site.
  - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
  - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded*: The term Cost of the Work does not include any of the following items:
1. Payroll costs and other compensation of Contractor’s officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor’s principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor’s fee.
  2. The cost of purchasing, renting, or furnishing small tools and hand tools. For purposes of this paragraph, “small tools and hand tools” means any tool or equipment whose current price if it were purchased new at retail would be less than \$500.
  3. Expenses of Contractor’s principal and branch offices other than Contractor’s office at the Site.
  4. Any part of Contractor’s capital expenses, including interest on Contractor’s capital employed for the Work and charges against Contractor for delinquent payments.

5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
6. Expenses incurred in preparing and advancing Claims.
7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
  - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
  - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
    - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
    - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
  1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in

the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.

- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

### 13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.
- E. *Adjustments in Unit Price*
  - 1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
    - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
    - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
  - 2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
  - 3. Adjusted unit prices will apply to all units of that item.

## **ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK**

### **14.01 Access to Work**

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

### **14.02 Tests, Inspections, and Approvals**

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
  - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
  - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
  - 3. by manufacturers of equipment furnished under the Contract Documents;
  - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
  - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense

unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

#### 14.03 Defective Work

- A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects*: Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

#### 14.04 Acceptance of Defective Work

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

#### 14.05 Uncovering Work

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
  - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
  - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

#### 14.06 Owner May Stop the Work

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 14.07 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include



but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

## **ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

### **15.01 Progress Payments**

A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

#### **B. Applications for Payments**

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
  - a. Owner anticipates the date of progress payments will be the 10<sup>th</sup> day of each calendar month.
2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

#### **C. Review of Applications**

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing

Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
  - a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work;
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
  - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
  - a. the Work is defective, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
  - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

*D. Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

*E. Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
  - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
  - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
  - c. Contractor has failed to provide and maintain required bonds or insurance;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
  - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
  - f. The Work is defective, requiring correction or replacement;
  - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - h. The Contract Price has been reduced by Change Orders;
  - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;

- j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
  - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
  - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
  3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.
- F. For contracts in which the Contract Price is based on the Cost of Work, if Owner determines that progress payments made to date substantially exceed the actual progress of the Work (as measured by reference to the Schedule of Values), or present a potential conflict with the Guaranteed Maximum Price, then Owner may require that Contractor prepare and submit a plan for the remaining anticipated Applications for Payment that will bring payments and progress into closer alignment and take into account the Guaranteed Maximum Price (if any), through reductions in billings, increases in retainage, or other equitable measures. Owner will review the plan, discuss any necessary modifications, and implement the plan as modified for all remaining Applications for Payment.

#### 15.02 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

#### 15.03 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-

inspection or re-testing, including the cost of time, travel and living expenses, will be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.

- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 Partial Use or Occupancy

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
  - 1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor,

Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.

2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

#### 15.05 Final Inspection

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 15.06 Final Payment

##### A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents;
  - b. consent of the surety, if any, to final payment;
  - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
  - d. a list of all duly pending Change Proposals and Claims; and
  - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor

that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

#### 15.07 Waiver of Claims

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim, appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.
- B. Upon receipt of final payment, the Contractor shall send Owner an "unconditional waiver and release upon final payment", which waives all claims and rights by the Contractor against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

- C. In the event of a dispute between the Owner and the Contractor, the Owner may withhold from the final payment an amount of 150 percent of the disputed amount.

15.08 Correction Period

- A. If within one year after the date of Substantial Completion, Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. correct the defective repairs to the Site or such adjacent areas;
  - 2. correct such defective Work;
  - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.



## ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

### 16.01 Owner May Suspend Work

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

### 16.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
  - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
  - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
  - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
  - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
  - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
  - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their

reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

#### 16.03 Owner May Terminate for Convenience

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
  - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
  - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

#### 16.04 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 60 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## **ARTICLE 17—FINAL RESOLUTION OF DISPUTES**

### **17.01 Methods and Procedures**

Except as otherwise provided in the Contract Documents and by law, in the event of a dispute between OWNER and CONTRACTOR regarding any part of the Contract Documents or the performance of the Work, the parties will use the following procedure to resolve the dispute. Either party may notify the other that for purposes of time limits herein, the dispute resolution process has been instituted. The existence of any such dispute does not excuse continued performance under the Contract Documents.

- A. CONTRACTOR and OWNER will first attempt to resolve the dispute through discussion and negotiation.
- B. If the project managers are unable to resolve the dispute within 20 days, the matter will be referred to the next managerial level of the respective parties.
- C. If the dispute is not resolved within 30 days of referral to management, the parties will attempt in good faith to resolve the dispute through mediation. Each party will bear its own costs of mediation and will share equally in common costs.
- D. If the dispute has not been resolved through mediation within 60 days of commencement of the mediation, either party may initiate litigation of the dispute or exercise such rights and remedies as either may have under the Contract Documents or the law.
- E. The parties may mutually agree to extend the time limits, or otherwise modify the procedure set forth above.
- F. Notwithstanding the above procedure, either party may seek injunctive relief to prevent irreparable harm.

## **ARTICLE 18—MISCELLANEOUS**

### **18.01 Giving Notice**

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
  1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
  2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
  3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

### **18.02 Computation of Times**

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 Cumulative Remedies

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 Limitation of Damages

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 No Waiver

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 Survival of Obligations

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 Controlling Law

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 Successors and Assigns

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 Headings

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

18.11 Severability

- A. Any provision of this Contract which shall prove to be invalid, void or illegal shall in no way affect, impair or invalidate any other provision hereof, and such remaining provisions shall remain in full force and effect.

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**SECTION 00 73 43 – OREGON PREVAILING WAGE RATES**  
**FOR**  
**MAHLER WATER RECLAMATION FACILITY IMPROVEMENTS, PHASE 1**

The applicable Oregon minimum prevailing wage rates are contained in the publication Prevailing Wage Rates for Public Works Contracts in Oregon July 1, 2022 and can be found at the following website: <http://www.oregon.gov/BOLI> , and are incorporated herein as though fully set forth as of the date the Bidding Documents are first advertised.

The following Amendments to the Prevailing Wage Rates for Public Works Contracts in Oregon also apply;

- A. July 1, 2022 Amendments

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**SECTION 01 10 00**  
**SUMMARY OF WORK**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. General description of the Project and the Work to be performed by the Contractor.

1.02 WORK COVERED BY CONTRACT

- A. The Work covered under this Contract will be performed at the site of the City of Sweet Home's Mahler Water Reclamation Facility (WRF). The project location is indicated on the Drawings.
- B. The Work to be performed by the Contractor generally includes:
  - 1. Furnishing all labor, superintendence, materials, power, water, tools, equipment, and services required by the Contract Documents or required to complete the Work.
  - 2. Coordinate work of all trades.
  - 3. Furnishing and installing miscellaneous items incidental to or necessary for completion of the Work, whether these items are specifically indicated in the Contract Documents or not.
- C. The Work consists of construction of the following items:
  - 1. Improvements and modifications to the City of Sweet Home Mahler WRF includes furnishing all labor, materials, and equipment necessary for the construction of new influent pump station (IPS), new IPS piping and appurtenances, new Main Electrical and Blower (MEB) Building, new standby engine generator with automatic transfer switch, new electrical service entrance, installation of owner-supplied electrical Motor Control Centers (MCCs) and plant control panels. Site work includes demolition of existing trees, structures and roadways, general excavation with onsite and offsite disposal, installation of upper plant area aggregate base rock. Site piping will include connection and re-routing existing influent sanitary sewers to the new IPS, force mains and gravity pipelines that will be completed during Phase 2 construction.

1.03 OTHER CONTRACTS

- A. The Owner may be undertaking other projects at the plant site simultaneously with the Work to be completed under this project. Coordination with the contractors undertaking related work or un-related work within the plant is the responsibility of the Contractor.
- B. Electrical and Control System Integration: The Automation Group (TAG) is the Owner's Integrator-of-Record. TAG shall furnish and install the following: (5) Influent Pump VFDs and (2) Harmonic filter feeder buckets, MCC-2, MCC-3, Network Interface Panel (NIP)-200, NIP-300, Main Network Panel (MNP)-100, Control Panel (CP)-300, PDP-110-1, PDP-110-2 and PDP-110-03. The Electrical contractor shall install the Owner-provided electrical and controls equipment listed and all wiring including Ethernet Cabling to the New PLC. The electrical contractor shall be present for and assist with the Process Control

Equipment Startup and Commissioning. See Section 01 12 16 and the Drawings for detailed Contractor installation requirements related to Owner-supplied equipment.

1.04 SPECIFICATION LANGUAGE

- A. Specifications may be written in the imperative mood in streamlined form in accordance with practices and principals of the Construction Specifications Institute.
- B. Imperative language is directed to the Contractor unless specifically noted otherwise.
- C. The words “shall be” are included by inference where a colon (:) is used within sentences or phrases.

1.05 REGULATORY REQUIREMENTS

- A. Comply with all Federal, State, and local laws, regulations, codes, and ordinance applicable to the work.
- B. References in the Contract Documents to local codes shall mean those of City of Sweet Home.
- C. Other standards and codes that apply to the work are designated in the Specifications.

1.06 ACCESS BY GOVERNMENT OFFICIALS

- A. Authorized representatives of governmental agencies shall have access to the work area at all times. Provide proper facilities for access and inspection.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

**SECTION 01 12 16**  
**WORK SEQUENCE AND CONSTRAINTS**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Schedule requirements, construction constraints, and a suggested Work sequence for specific elements of the Project.

1.02 REFERENCED SECTIONS

- A. The following Section is reference in this Section
  - 1. Section 01 99 00 – Reference Forms

1.03 GENERAL SEQUENCING REQUIREMENTS

- A. The sequencing requirements and construction constraints described are critical elements of the Work and are presented to underscore the importance of proper management, planning, scheduling, coordination, and execution of the Work.
- B. Sequencing requirements and construction constraints have been defined in this Section for only certain structures, facilities, and elements of the Work. All work, whether or not addressed in this Section, shall be governed by applicable specified requirements. If additional shutdown constraints are necessary to allow implementation of Contractor's construction procedures and schedule, the Engineer will establish such constraints.
- C. Contractor's Construction Schedule:
  - 1. Clearly illustrate the proposed sequence of construction.
  - 2. Conform to the sequencing requirements and limitations specified in this Section.
  - 3. Modify or adapt the suggested sequencing as necessary to complete the project provided all environmental and service continuity requirements are met.

1.04 OPERATIONAL CONTINUITY

- A. The City of Sweet Home owns and operates a wastewater treatment facility. The Work under this project will interface with this existing facility.
- B. The existing wastewater collection system and treatment plant continuously receives, conveys and treats wastewater. Do not interrupt functions necessary to maintain operation of these facilities except as approved by the Engineer through review of the Contractor's Facility Outage Plan and as specified herein.
- C. Coordinate the Work to minimize interference and interruption of the normal operation of the Owner's existing facilities through proper planning and by making temporary connections.

1.05 PERMIT VIOLATIONS

- A. The wastewater treatment facilities must continuously comply with the Owner's National Pollutant Discharge Elimination System (NPDES) permit requirements.

- B. Construction of the Work under this Contract must be undertaken in compliance with the terms and conditions of various permits that the Owner has obtained for this project.
- C. In the event NPDES permit violations or spills are caused or, in the Owner's opinion, will be caused by the Contractor's operations, the Owner shall be entitled to immediately employ others to stop the violations or potential spills without giving written notice to the Contractor. All costs incurred by the Owner to stop or prevent permit violations shall be paid by the Contractor.
- D. Under no circumstances shall wastewater be discharged, bypassed or spilled to creeks, drainage ditches, or other waterways; storm drain systems; or the ground surface. In the event accidental discharge or bypassing is caused by the Contractor's operations, the Owner shall immediately be entitled to employ others to stop the bypassing without giving written notice to the Contractor. All costs incurred by the Owner to stop or prevent the bypass shall be paid by the Contractor.
- E. Penalties imposed on and costs incurred by the Owner as a result of violations caused by the actions of the Contractor, his employees, or subcontractors, shall be borne in full by the Contractor, including legal fees and other expenses to the Owner resulting directly or indirectly from Contractor's actions.
  - 1. Under the terms of the NPDES permit issued to the Owner, the Owner is liable for the following penalties:
    - a. NPDES Permit No. 101697      \$10,000 per day for each violation

#### 1.06 ACCESS

- A. The existing facility where Contractor's work is to be done will be occupied by the Owner throughout the construction period. Access to the site by the Owner's personnel is required for daily operations, maintenance, and administration. Additionally, regular traffic into and out of the site is to be expected.
- B. Contractor shall provide all necessary access to the Owner's personnel as required to safely and efficiently operate/maintain the facilities. At all times during the Contract duration, the Contractor is to provide the Owner's personnel and representatives safe and immediate access to all process control equipment.
- C. Contractor shall provide for unimpeded access for all delivery vehicles transporting materials, chemicals and equipment to the facility for the Owner's operations. Contractor shall coordinate the work to avoid interference with vehicular access to the existing plant site and normal operation of plant equipment and processes.

#### 1.07 FACILITY OUTAGE PLAN

- A. Prepare and submit a detailed Facility Outage Plan when removal of an existing facility from service is necessary to complete the Work.
- B. Submit the Facility Outage Plan to the Engineer for review and approval at least 3 weeks prior to the scheduled outage. Develop the Facility Outage Plan to satisfy the Work Sequence restrictions and conditions specified in this Section. Do not proceed with any Work involving facility outages until the Outage Plan has been approved by the Engineer.
- C. The Facility Outage Plan shall describe, as applicable, a listing of existing facilities that will be taken out of service, methods for preventing bypassing of other treatment units, the

length of time required to complete the operation, and the necessary personnel and equipment which will be provided in order to successfully complete the operation.

- D. A System Outage Request (SOR) form shall accompany each outage or bypass plan (See Section 01 99 00). Coordinate the outage schedule with the overall construction schedule.

#### 1.08 REMOVING EXISTING FACILITIES FROM SERVICE

- A. Existing systems or individual equipment items shall be isolated, decommissioned, de-energized, or depressurized only by the Owner's operations personnel. This work will be done in accordance with the Facility Outage Plan and schedule prepared by the Contractor.
- B. The Contractor shall design and provide all necessary bulkheads and support structures to allow isolation of work areas from tanks, pipes, and/or channels that are in service. Bulkheads and support structures shall conform to applicable OSHA requirements.
- C. The Contractor shall provide all necessary temporary pumps, piping, power, electrical wiring, controls, and labor during and subsequent to all shutdown activities as required. Maintain adequate access to the plant facilities, utilities, and equipment during construction to allow continued operation and maintenance by Owner's personnel to take place.
- D. Prior to any shutdown or flow diversion, all materials, bypass pumps, fittings, supports, equipment and tools shall be on the site and all necessary skilled labor scheduled prior to starting any connection work.
- E. If valves or gates need to be opened or closed, or mechanical equipment turned off or turned on, or similar operations performed to allow construction to proceed, this is to be performed by the Owner's operations staff working in coordination with Contractor personnel. Valves and gates that may be used to isolate lines and facilities may not completely seal. Contractor shall allow for leakage in planning the Work. Contractor shall clean the work areas as required to perform the work.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION**

#### 3.01 WORK COORDINATION

- A. Schedule and coordinate the overall Work and construction operations, including the work of subcontractors and the timely provision of products and supplies.
- B. Perform Work in an orderly and logical sequence. Individual specification Sections may identify specific requirements that are related to Work sequence. These types of constraints are not repeated in this Section but shall be followed by the Contractor.

#### 3.02 WORK CONSTRAINTS

- A. Work Hours
  - 1. Except as otherwise required for the safety or protection of persons and except as otherwise stated in the Contract Documents, Work may only be performed Monday through Friday during the hours of 7:00 am and 3:30 pm. Contractor will

not perform Work on a Saturday, Sunday or any legal holiday defined by the City of Sweet Home without written consent from the Owner.

2. Legal holidays are defined as:
  - a. New Year's Day on January 1.
  - b. President's Day on the third Monday on February
  - c. Memorial Day on the last Monday in May.
  - d. Independence Day on July 4.
  - e. Labor Day on the first Monday in September.
  - f. Veteran's Day on November 11<sup>th</sup> (unless 11/11 is on a weekend)
  - g. Thanksgiving Day on the fourth Thursday in November.
  - h. Day after Thanksgiving
  - i. Christmas Day on December 25.
  - j. When a holiday falls on Sunday, the following Monday is recognized as the legal holiday. When a holiday falls on a Saturday, the preceding Friday is recognized as the legal holiday.

B. Contractor shall undertake the Work in compliance with the constraints defined in the following paragraphs:

1. Sewer Diversion from existing Influent Pump Station to New Influent Pump Station
  - a. The contractor shall provide Sewage Bypass Pumping Equipment Control equipment to pump flows from incoming sewers as required during the diversion of incoming sewers from the existing influent pump station to the new influent pump station.
2. Influent Pump Station Start-up
  - a. The influent wastewater to the plant shall be pumped to Aeration Basins 1 and 2 through the two (2) new force main pipes, 24" and 12". A temporary 16" HDPE force main will connect the new force mains at the connection point shown on the drawings.
  - b. The existing influent pump station and the new influent pump station shall be fully functional at the end of facility commissioning, except that sewer flows will be diverted to the new influent pump station.

### 3.03 POTENTIAL WORK SEQUENCE

A. The following work sequence is a potential means of constructing the project, and shall be followed in general unless another suitable method of completing the work is developed by the Contractor and approved by the Owner. This potential work sequence is general in nature and does not include all work activities required by this Contract for completion of the work. The potential work sequence shall be coordinated with the requirements of other specification Sections and the Drawings in order to complete the Work in a timely and satisfactory manner.

B. Maintenance of Access During Construction

1. Maintain access to the existing boat ramp north of the WRF site at all times during construction.
2. Maintain existing plant loops for chemical deliveries and dewatered cake solids dumpster removal at all times during construction.
3. Coordinate with Owner for installation of pipelines in the area of the existing plant gated accesses and driveways. At the end of each work day provide steel plating or backfill trenches with crushed rock to surface to maintain a minimum 12 ft. wide looped roadway around the Lower Plant site.
4. Coordinate with Owner for installation of temporary water meter for use of City water throughout construction.
5. New Influent Pump Station and Force Mains Special Constraints and Requirements
  - a. Complete IPS conversion in between July 1 and October 1 (summer flows).
  - b. Demolish existing backwash and storage basins as shown on the Drawings to facilitate construction of the new influent pump station wet well.
    - 1) Contractor shall follow structural drawings, sawcut and carefully remove existing structure east of the existing IPS wet well.

C. Potential Work Sequence for Phase 1 WRF Construction

1. Prior to beginning construction of the new influent pump station wet well, demolish existing backwash and storage basins in lower plant area, install temporary piping and abandon existing piping in accordance with the Contract Documents.
2. Complete construction of new reinforced concrete influent pump station wet well in accordance with the Contract Documents.
3. Construct new SSMH-1 and sewer pipe connecting it to the influent pump station wet well.
4. Excavate and expose existing 18", 21" and 24" gravity influent sewers conveying raw wastewater to the existing influent pump station.
5. Construct reinforced concrete bases and manhole sections for SSMH-2, SSMH-3, and SSMH-4 over existing gravity influent sewers, leaving the top of the new manhole sections open (e.g. do not add manhole cover with frame and grate). Install manhole channels in new manholes up to the centerline of the existing pipeline, or as indicated in the drawings.
6. Construct new gravity sewer pipelines for SSMH-2, SSMH-3, and SSMH-4 to connect existing influent sewers to the new influent pump station as shown on the Drawings. Influent will continue to flow to the existing influent pump station until connections to new influent pump station are completed in coordination with the Owner.

7. Complete mechanical, electrical and controls construction for the new influent pump station in accordance with the Contract Documents.
  8. Install new influent pump station force main as shown on the Drawings, including temporary diversion piping and valves for connection to the existing aeration basin.
    - a. Develop and submit a construction sequencing plan, as required in Piping Systems, for the force main and other pipes in the Critical Piping Area. The Critical Piping Area is shown on the Drawings.
  9. Complete new influent pump station functional testing and startup in accordance with the Contract Documents using plant potable water. Contractor shall be responsible for providing the temporary plant potable water connection to the new influent pump station for testing and startup. Alternatively, secondary effluent from the plant secondary clarifiers or Chlorine Contact Basin (CCB) may be pumped to the influent pump station, if approved by plant staff.
  10. Complete re-routing and diversion of existing influent sewers to the new influent pump station between July and September 2023 and during low flow hours from 10:00PM to 6:00AM. Submit a Maintenance of Plant Operations (MOPO) form for review and approval by Owner and Engineer a minimum of 3 weeks prior to influent diversion activities.
  11. Diversion and new influent pump station operation with raw wastewater will initially proceed with flows from SSMH-2 only. Remove the top to centerline of the existing 21" influent sewer in SSMH-2. Install temporary plugs MH inlet and outlet. Once isolated, install grout plug in SSMH-2 outlet to the existing influent pump station and complete additional concrete channel work with rapid-setting concrete or grout mix. Once the outlet plug has cured for the time required by the Engineer, remove temporary plugs and divert flows from MH-XXX to the new influent pump station.
  12. Operate the existing influent pump station and new influent pump station in parallel for a period of 7 days without any complications, mechanical or programming issues. If required for any reason, Contractor shall divert flows back to the existing IPS in order to facilitate any additional modifications needed for new IPS operation, including SCADA programming modifications.
  13. Once the new influent pump station has been cleared by the Engineer to accept the full influent wastewater flows, complete the diversion to new influent pipelines in SSMH-3 and SSMH-4 following the same procedure as used for SSMH-2 diversion.
- D. Existing Electrical Building
1. Install and connect temporary standby generator along with new automatic transfer switch.
  2. Complete startup and testing of the temporary standby generator.
  3. Remove existing standby generator from inside the building.
  4. Complete installation of MCC-300 and all associated work inside the Existing Electrical Building.



5. Install Main PLC supplied by Owner and Owner's Integrator-of-Record.
  6. Complete testing of all new electrical equipment in the Existing Electrical Building prior to functional testing of the new influent pump station.
- E. Main Electrical and Blower Building (MEB)
1. Relocate existing public restroom as indicated on Drawings and connect to new 8" SS. Connect new 8" SS to existing influent pump station on a temporary basis, if required.
  2. Relocate existing power pole in location serving public restroom. Coordinate with the electric utility as required and maintain power to existing main plant entrance gate. Coordinate manually opening and closing entrance gate with City staff if power is lost for electrical cut over to new electrical service.
  3. Complete MEB construction in accordance with the Contract Documents, including installation of new transformer, service entrance, switchgear, standby generator and ATS and MCC-100.
  4. Coordinate installation of new transformer and electric service with the Electric Utility, as required.
  5. Complete start-up and testing of all electrical equipment.
  6. Construct raceways and conductors between the MEB and South Electrical Building in accordance with the Drawings.
  7. Complete cut over of electrical service to the South Electrical Building within an 8-hour period.
  8. Demolish existing electrical service feeding the South Electrical Building in accordance with the Contract Documents.
  9. Remove the temporary standby generator and coordinate return of equipment to Sweet Home City Hall with Owner.
    - a. Test the generator within one week of moving the generator to the new location.
    - b. Prior to moving the temporary generator, disconnect and otherwise make ready for moving the generator according to the manufacturer and supplier's recommendations. If necessary, drain the integral fuel tank of fuel.
    - c. Construct a new concrete pad at the City Hall location prior to moving the generator to that location.

**END OF SECTION**

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**SECTION 01 29 02**  
**MEASUREMENT AND PAYMENT**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Methods of measurement and payment for specific items of Work under this Contract. Refer also to General Conditions for administrative aspects of payments by the Owner to the Contractor.

1.02 BID COMPONENTS AND PAYMENT

- A. The Bid Form is comprised of the following components:
  - 1. Lump Sum Work
  - 2. Unit Price Work
- B. Contractor's cost for "Lump Sum Work" shall cover all Work indicated by the Contract Documents with the exception of Additional Unit Price Work as indicated on the Bid Form. Lump Sum Work will be paid for on a progress payment basis in accordance with the provisions of the General Conditions.
  - 1. Lump Sum work shall include quantities as specified herein for the following Unit Price Items:
    - a. General Excavation with Off Site Disposal
    - b. Rock Excavation
    - c. Sewer Bypass Pumping
    - d. Excavation Dewatering
- C. Additive and Deductive Unit Price Work is Work indicated on the Drawings or specified that results in increased or reduced quantities from the Base Bid Quantity. The price of each unit of Work is to be defined by the Bidder in the Bid Form and shall include all materials, labor, equipment, and incidentals required to complete each Work Item. Work Items established for this Work have been identified on the Bid Form and are described as follows:
  - 1. General Excavation – Unclassified with Off Site Disposal
    - a. Contractor shall include 240 cubic yards of General Excavation – Unclassified with Off Site Disposal in Bid Price for Lump Sum Work.
    - b. Unsuitable fill material shall be considered in quantities for General Excavation – Unclassified with Off Site Disposal.
    - c. Payment for additional General Excavation – Unclassified with Off Site Disposal shall be in accordance with the Contractor's Bid for differences in actual construction quantities, either additive or deductive.
    - d. Truck measure shall be used for Off Site Disposal quantities assuming trucks are filled to 75% capacity.

2. Rock Excavation

- a. Rock Excavation is defined in Specification 31 23 16.26, Part 1.03.
- b. Contractor shall include Rock Excavation quantities in the Lump Sum Bid as follows:
  - 1) Influent Pump Station: 80 cubic yards
  - 2) Pipelines: 40 cubic yards
- c. Payment for additional Rock Excavation shall be in accordance with the Contractor's Bid for differences in actual construction quantities, either additive or deductive for those excavation quantities meeting the definition of Rock Excavation. 01 57
- d. Owner may elect to use excavated rock for onsite engineered fill.
- e. Boring locations, depth to bedrock and rock hardness testing data is included in the Geotechnical Data Report (GDR).

D. Excavation Dewatering

- 1. Provide Excavation Dewatering in accordance with Specification 31 23 19 and meeting all requirements.
- 2. Contractor shall include 80 Days for Excavation Dewatering Bid Price for Lump Sum Work.
- 3. Unit costs for additional Excavation Dewatering shall be for all associated Work, regardless of the system size.
- 4. Payment for additional Excavation Dewatering shall be in accordance with the Contractor's Bid for differences in actual construction quantities, either additive or deductive on a unit price basis measured in Days.

E. Sewer Bypass Pumping

- 1. Provide Sewer Bypass Pumping in accordance with Specification 01 57 29 Sewer Bypass Pumping and meeting all requirements.
- 2. Contractor shall include 15 Days for Sewer Bypass Pumping in the Bid Price for Lump Sum Work.
- 3. Unit costs for additional Sewer Bypass Pumping shall be for all associated Work, regardless of the system size.
- 4. Payment for additional Sewer Bypass Pumping shall be in accordance with the Contractor's Bid for differences in actual construction quantities, either additive or deductive on a unit price basis measured in Days.

F. Payment for mobilization/demobilization shall not exceed five percent (5%) of the total bid price. Payment for mobilization/demobilization in excess of this amount shall be paid after overall project substantial completion is achieved and demobilization begins. See Section 01 71 13 for additional information on mobilization/demobilization and as listed below.

- 1. Contractor may apply for payment of demobilization after the overall project substantial completion is achieved and the project begins to demobilize. Demobilization items shall include:

- a. Disconnecting all temporary construction utilities.
- b. Removal of all temporary construction facilities.
- c. Post-construction meeting.
- d. All other work as required for project closeout.

1.03 SCHEDULE OF VALUES

- A. Format: Identify each line item in the Schedule of Values with number and title of the major Specification sections. Submit typed schedule on 8½ x 11-inch paper; Contractor's standard form or media-driven printout will be considered on request.
- B. At the pre-construction meeting, submit a preliminary Schedule of Values to the Owner's Representative for review. The Contractor shall incorporate any review comments from the Owner's Representative, and submit a final Schedule of Values at least 21 days prior to submitting the first Application for Payment.
- C. The Schedule of Values shall assign a fair, reasonable and equitable dollar value for each activity on the Contractor's construction schedule. The Schedule of Values shall include anticipated progress payments for each item in the bid schedule through the final payment. In addition, a detailed breakdown of lump sum prices shall be included in the Schedule of Values.
- D. The Schedule of Values shall specifically indicate installed cost for materials and equipment for each bid and sub-bid item.
- E. Each activity's assigned value shall consist of labor, equipment and materials cost and a prorata contribution to overhead and profit. Breakdown shall be so organized as to facilitate assessment of work and payment of subcontractors.
- F. The Schedule of Values shall be broken down into sub-part line items of approximately \$10,000 with the sum of sub-parts equal to the lump sum price of the activity. The sum of all activities shall equal the lump sum contract price.
- G. If, in the opinion of the Owner or Engineer, the Schedule of Values is not balanced, the Contractor shall provide documentation substantiating the cost allocations of those activities believed to be unbalanced. Cost allocation will be considered unbalanced if an activity on the construction schedule has been assigned a disproportionate allocation of labor, direct, or overhead and profit costs which result in progress payment request(s) which would create a condition where insufficient funds are available to complete the unfinished work. Upon request by Owner, support values shall be given with data that will substantiate their accuracy. Upon Owner's request, the Contractor shall submit additional detailed cost information.
- H. Upon acceptance of the Schedule of Values, it shall be used as a basis for processing all progress payment requests.

1.04 PROGRESS PAYMENT REQUESTS

- A. Submit Progress Payment Requests during the course of the project in conformance with the General Condition.

1.05 PROGRESS RECORD DRAWINGS

- A. Submittal of progress record drawings of the project will be required at 25%, 50%, 75%, and substantial completion of the project. These submittals shall accompany the progress payment request and will be a condition of processing payment requests.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01 31 15

### PARTNERING

#### PART 1 - GENERAL

##### 1.01 GENERAL

- A. Owner intends to encourage the foundation of a cohesive partnership between the Owner, Contractor and Engineer. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals.
- B. Project partnering recognizes that Owner, Contractor, Engineer all hold in common the goal of successful completion of this project, including the following specific goals:
  - 1. Construction of a facility that meets the project performance standards as defined in the Specifications.
  - 2. Completion of the Project on schedule.
  - 3. Conformance to budgetary requirements and limitations.
- C. It is recognized that safety, liability limitations, avoidance of litigation, reputation, good will, and other factors are of significant importance to all parties involved.
- D. Through partnering, it is the Owner's intent that the parties will develop an open, communicative relationship such that agreement can be reached on the primary goals of the Project and the methods that will be used to accomplish them. The parties will mutually develop a communication framework and a conflict resolution system to be used throughout the Project.
- E. The establishment of a partnering relationship shall not change or modify the Terms and Conditions of the Contract and will not relieve the parties of the requirements of the Contract.

##### 1.02 SCHEDULING

- A. Initial Workshop:
  - 1. An initial 1/2-day workshop will be scheduled by the Owner within 14 days after the Notice to Proceed, but prior to beginning Work onsite.
  - 2. The workshop will be held at an agreed on location.
- B. Additional Sessions: Additional 2 hour partnering sessions shall be held every month throughout the Project in order to confirm the relationship and assure the partnering effort continues to be successful. These sessions may take the form of a formal evaluation measuring success towards meeting the established goals and objectives

##### 1.03 ATTENDEES

- A. The following persons will be expected to attend all partnering sessions, at a minimum:
  - 1. Contractor:
    - a. Project Sponsor (Principal-in-Charge)
    - b. Project Manager

- c. Project Superintendent.
- 2. Owner:
  - a. Public Works Director
  - b. Utilities Manager
  - c. Resident Project Representative
- 3. Engineer
  - a. Principal-in-Charge
  - b. Project Manager
  - c. Deputy Project Manager

1.04 FACILITATORS

- A. Facilitation will be performed by Owner to help establish and monitor the partnering relationship.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**



**SECTION 01 31 19**  
**PROJECT MEETINGS**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Requirements for calling for and conducting meetings for the Work.

1.02 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 32 16 – Construction Schedule

1.03 GENERAL

- A. Project meetings and conferences are an important administration and communication requirement of all project participants. Meetings will be conducted throughout the course of the construction to address issues related to the Work, review and coordinate progress of the Work, and to discuss other matters of common interest to project participants.
- B. Meeting and conference locations and qualified participants will be determined by the Owner and the Contractor based on the meeting agenda topics.

1.04 PRECONSTRUCTION CONFERENCE

- A. Prior to the start of construction, the Owner will schedule a meeting of the Contractor, Owner, and their respective representatives. The general purpose of the meeting will be to establish working relationships, begin coordination of construction matters, discuss the Work, and to review the pertinent features of the Contract. The duration of the preconstruction conference will take approximately 4 hours.
- B. The agenda for the meeting will cover at least the following items, a more detailed agenda will be distributed at the meeting:
  - 1. Organization of the Contractor's forces and personnel, including subcontractors and materials suppliers.
  - 2. Lines of authority and channels and procedures for communication.
  - 3. Contractor's construction schedule, including sequence of critical work.
  - 4. Processing of shop drawings and other data that will be submitted to Owner for review.
  - 5. Processing of change order requests and monthly applications for payment.
  - 6. Procedures for quality control, housekeeping and related matters.
- C. Contractor should be prepared to discuss the following topics:
  - 1. Preliminary construction schedule and critical path.
  - 2. Schedule of submittals and submittals needing short turn-around times.
  - 3. Schedule of Values for construction payments.
  - 4. Critical work sequencing.

5. Plans for mobilization, arrangement and use of staging and storage areas, use of site, location and arrangement of field offices, and site security.

D. Minutes of Meeting

1. The Owner will compile minutes of the meeting and distribute copies to all participants.

1.05 PROGRESS MEETINGS

A. Unless otherwise arranged, there will be a weekly progress meeting at a time and at an on-site location that is mutually agreed upon between the Contractor, Engineer and Owner.

1. Meetings are to enable orderly project review during the progress of work.
2. Engineer, Owner, Contractor's Superintendent, representatives of subcontractors, suppliers' representatives as may be needed, other Contractors working at the site, and other parties shall attend these meetings.
3. Owner will preside over the meeting and will compile and distribute minutes of the meeting.

B. The purpose of the weekly meetings is to coordinate the efforts of all concerned to result in smooth and coordinated progress towards completion of the overall project.

C. Contractor shall bring the updated 3-week "look ahead" schedule to each weekly meeting.

D. The Contractor will be required to address the following items at the weekly meeting:

1. Work completed last week.
2. Work anticipated next week.
3. Log of submittals and Requests for Information.
4. Contract document deficiencies or questions noted during prior week.
5. Schedule status and corrective measures and procedures that are planned to place the project back on schedule, if such action is necessary.
6. Report of any accidents, and any site safety issues that need to be addressed.

E. Other agenda items to be discussed include:

1. Review and revise as necessary and approve minutes of previous meetings.
2. Status of Requests for Information, Change Order Requests, submittals and shop drawings.
3. Identify problems that impede planned progress.
4. Other current business pertaining to the Work.

F. Revision of Minutes

1. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.

2. Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.
3. Challenge to minutes shall be settled as priority item of "old business" at the next regularly scheduled meeting.

1.06 PROGRESS SCHEDULE AND PROGRESS BILLING MEETINGS

- A. Once each month, a progress schedule and progress payment meeting will be conducted with the Owner. The purpose of this meeting is to review the Progress Payment Estimate and reach agreement on the extent of the Work completed during the pay period.
- B. The meeting date will be scheduled in accordance with the Owner's deadline for submittal of Progress Pay Estimate.
- C. The updated progress schedule will also be reviewed at this meeting as described in Section 01 32 16. Schedule impacts, time extension requests, actual and anticipated schedule activity sequence/duration changes, delays, and other schedule-related topics will be discussed.
- D. The Owner may require more frequent progress schedule meetings should there be schedule revisions that necessitate such a meeting.

1.07 SUBMITTAL MEETINGS

- A. When required in the individual technical specification, or if requested by the Contractor or the Owner, a meeting regarding a required submittal will be held to facilitate the timeliness of the submittal preparation and review process.

1.08 QUALITY ASSURANCE MEETINGS

- A. The Contractor or the Owner may request a meeting prior to the start of a particular phase of the project to discuss how the Work shall be accomplished in accordance with the quality requirements of the Contract Documents, Codes, permits and industry standards. Quality assurance inspections and tests that are applicable to the Work will be discussed.

1.09 PRE-INSTALLATION MEETINGS

- A. When required in the individual specification, or if requested by the Contractor or Owner, a pre-installation meeting will be held to review conditions of the installation, installation procedures, and coordination with related work. This meeting will be scheduled to take place in advance of installation of the equipment or as required in the technical specifications.

1.10 PRE-SUBSTANTIAL COMPLETION MEETING

- A. Thirty (30) days prior to the estimated substantial completion, the Owner, Engineer, Contractor, and appropriate subcontractors will meet to review maintenance manuals, guarantees, closeout submittals, bonds, and service contracts for materials and equipment.

1.11 SPECIAL MEETINGS

- A. Any time during progress of the Work, the Owner shall have the authority to require the Contractor and any subcontractor, suppliers, or service providers to attend job-site conferences on matters which require immediate or special attention. Any notice of such

conference shall be duly observed and complied with by the Contractor and subcontractors, suppliers, or service providers without extra cost to Owner.

**1.12 POST CONSTRUCTION GUARANTY PERIOD MEETING**

- A. Contractor shall meet with a representative of the Owner and the Engineer approximately eleven (11) months after the date of Substantial Completion to inspect the Work. Meeting will be arranged by the Owner at least seven (7) days before meeting. The Contractor will require attendance of its Project Manager/Superintendent, appropriate manufacturers, and appropriate subcontractors.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

**SECTION 01 31 26****ELECTRONIC CONSTRUCTION DOCUMENT CONTROL SYSTEM****PART 1 - GENERAL****1.01 DESCRIPTION**

- A. The Contractor shall utilize an Electronic Construction Document Control System (ECDCS) provided by the Owner. ECDCS will be a web-based electronic media site and will be made available to the contractors' project personnel, Owner and Engineer. The joint use of this system is to facilitate electronic exchange of information, automation of key processes, and overall management of the contract. The ECDCS shall be the primary means of project information submission and management. When required by the Owner, paper documents will also be provided. In the event of discrepancy between the electronic version and paper documents, the paper documents will govern.

**1.02 USER ACCESS LIMITATIONS**

- A. The Owner will control the Contractor's access to ECDCS by allowing access and assigning user profiles to accepted Contractor personnel. User profiles will define levels of access into the system; determine assigned function-based authorizations (determines what can be seen) and user privileges (determines what they can do). Sub-contractors and suppliers may be given access to the system through the Contractor. Entry of information exchanged and transferred between the Contractor and its sub-contractors and suppliers on the system shall be the responsibility of the Contractor.
- B. Joint Ownership of Data - Data entered in a collaborative mode (entered with the intent to share as determined by permissions and workflows within the ECDCS system) by the Owner and the Contractor will be jointly owned.
- C. Data access after project completion - All Project participants can request a copy of their project information from the system upon completion of the project. Participants are responsible for the \$500 cost for the archive. To request an archive complete a support request in the ECDCS application. The support request should include the address for shipping the archive too.

**1.03 AUTOMATED SYSTEM NOTIFICATION AND TRACKING**

- A. Review comments made (or lack thereof) by the Owner on Contractor submitted documentation shall not relieve the Contractor from compliance with requirements of the Contract Documents.
- B. The Contractor is responsible for managing, tracking, and documenting the Work to comply with the requirements of the Contract Documents.
- C. Owners acceptance via automated system notifications extends only to the face value of the submitted documentation and does not constitute validation of the Contractor's submitted information.

#### 1.04 SUBMITTALS

- A. See Section 01 33 00, Submittals
  - 1. List of Contractor's key personnel. Include descriptions of key personnel's roles and responsibilities for this project. Contractor should also identify their organizations' administrator on the list.

#### 1.05 COMPUTER REQUIREMENTS

- A. The Contractor shall use computer hardware and software that meets the requirements of the EDCS system as recommended by EDCS vendor to access and utilize EDCS. As recommendations are modified by EDCS, the Contractor will upgrade their system(s) to meet the recommendations or better. Upgrading of the Contractor's computer systems will not be justification for a cost or time modification to the Contract.
- B. The contractor shall ensure that connectivity to the EDCS system (whether at the home office or job site) is accomplished through DSL, cable, T-1 or wireless communications systems.

#### 1.06 CONTRACTOR RESPONSIBILITY

- A. The Contractor shall be responsible for the validity of their information placed in EDCS and for the abilities of their personnel. Accepted users shall be knowledgeable in the use of computers, including Internet Browsers, email programs, cad drawing applications, and Adobe Portable Document Format (PDF) document distribution program. The Contractor shall utilize the existing forms in EDCS to the maximum extent possible. If a form does not exist in EDCS the Contractor must include a form of their own or provided by the Owner representative as an attachment to a submittal. Adobe PDF documents will be created through electronic conversion rather than optically scanned whenever possible. The Contractor is responsible for the training of their personnel in the use of EDCS (outside what is provided by the owner) and the other programs indicated above as needed.
  - 1. User Access Administration - Provide a list of Contractor's key EDCS personnel for the Owner's acceptance. Contractor is responsible for adding and removing users from the system. The Owners Representative reserves the right to perform a security check on all potential users. The Contractor will be allowed to add additional personnel and subcontractors to EDCS.

#### 1.07 TRAINING

- A. The Owner has arranged for the following training to be provided to the Contractor.
  - 1. Flex Training class (2 hr per session, on line) 2 sessions.

### **PART 2 - PRODUCTS (OWNER-SUPPLIED)**

#### 2.01 DESCRIPTION

- A. Vendor: Procore, Bentley Systems, or equivalent.

**PART 3 - EXECUTION****3.01 EXECUTION**

- A. Design Document Submittals - All design drawings and specifications shall be submitted as cad .dwg files or PDF attachments to the ECDCS submittal work flow process and form.
- B. Shop Drawings - Shop drawing and design data documents shall be submitted as cad .dwg files or PDF attachments to the ECDCS submittal work flow process and form. Examples of shop drawings include, but are not limited to:
  - 1. Standard manufacturer installation drawings.
  - 2. Drawings prepared to illustrate portions of the work designed or developed by the Contractor.
  - 3. Steel fabrication, piece, and erection drawings.
- C. Product Data - Product catalog data and manufacturers' instructions shall be submitted as PDF attachments to the ECDCS submittal work flow process and form. Examples of product data include, but are not limited to:
  - 1. Manufacturer's printed literature.
  - 2. Preprinted product specification data and installation instructions.
- D. Samples - Sample submittals shall be physically submitted as specified in Section 01 33 00. Contractor shall enter submittal data information into ECDCS with a copy of the submittal form(s) attached to the sample. Examples of samples include, but are not limited to:
  - 1. Product finishes and color selection samples.
  - 2. Product finishes and color verification samples.
  - 3. Finish/color boards.
  - 4. Physical samples of materials.
- E. Administrative Submittals. All correspondence and pre-construction submittals shall be submitted using ECDCS. Examples of administrative submittals include, but are not limited to:
  - 1. Digging permits and notices for excavation.
  - 2. List of product substitutions
  - 3. List of contact personnel.
  - 4. Notices for roadway interruption, work outside regular hours, and utility cut overs.
  - 5. Requests for Information (RFI).
  - 6. Each schedule submittal specified in Section 01 32 16
  - 7. Construction Progress Schedule shall be submitted as a native backed-up file (.PRX or .STX) of the scheduling program being used.
  - 8. The schedule will also be posted as a PDF file.
  - 9. Plans for safety, demolition, environmental protection, and similar activities.

10. Quality Control Plan(s), Testing Plan and Log, Quality Control Reports, Production Reports, Quality Control Specialist Reports, Preparatory Phase Checklist, Initial Phase Checklist, Field Test reports, Summary reports, Rework Items List, etc.
  11. Meeting minutes for quality control meetings, progress meetings, pre-installation meetings, etc.
  12. Any general correspondence submitted.
- F. Compliance Submittals Test reports, certificates, and manufacture field report submittals shall be submitted on EDCS as PDF attachments. Examples of compliance submittals include, but are not limited to:
1. Field test reports.
  2. Quality Control certifications.
  3. Manufacturers documentation and certifications for quality of products and materials provided.
- G. Record and Closeout Submittals - Operation and maintenance data and closeout submittals shall be submitted on EDCS as PDF documents during the approval and review stage as specified, with actual set of documents submitted for final. Examples of record submittals include, but are not limited to:
1. Operation and Maintenance Manuals: Final documents shall be submitted as specified.
  2. As-built Drawings: Final documents shall be submitted as specified.
  3. Extra Materials, Spare Stock, etc.: Submittal forms shall indicate when actual materials are submitted.
- H. Financial Submittals - Schedule of Value, Pay Estimates and Change Request Proposals shall be submitted on EDCS. Supporting material for Pay Estimates, Change Requests, and allowance order proposals shall be submitted on EDCS as PDF attachments. Examples of compliance submittals include, but are not limited to:
1. Contractors Schedule of Values
  2. Contractors Monthly Progress Payment Requests
  3. Contract Change proposals requested by the project owner.
  4. Preliminary allowance order proposals requested by the project owner.

**END OF SECTION**



**SECTION 01 32 16**  
**CPM CONSTRUCTION SCHEDULE**

**PART 1 - GENERAL**

**1.01 GENERAL**

- A. See General Conditions Article 2.03: Submit to the Engineer a Temporary Construction Schedule and a CPM Schedule (along with updates) as described below:
- B. Temporary Construction Schedule:
  - 1. Submit to the Engineer, within ten (10) days after date of the Notice to Proceed, a Temporary Construction Schedule covering the Contractor's activities over the first sixty (60) days of the Contract Time. The Temporary Construction Schedule shall schedule the progress within the calendar days set forth above for completion of the work.
- C. CPM Schedule:
  - 1. Acceptable Critical Path Method (CPM) scheduling software includes SureTrak or Primavera. Provide a copy of the selected software to the Engineer. In accordance with General Conditions Article 2.03, submit an acceptable CPM Schedule to the Engineer within thirty (30) days after beginning Construction. Subsequent revisions to said schedule shall be submitted as set forth hereinafter. The requirement for the CPM schedule is included to assure adequate planning and execution of the work and to assist the Engineer in appraising the reasonableness of the proposed schedule and evaluating progress of the work. The CPM schedule submitted under this Specification shall utilize a critical path method (CPM) format, either the precedence or arrow diagramming method. Only one progress payment will be made prior to submission and acceptance of the CPM Schedule.
  - 2. The CPM schedule system shall be submitted on paper and submitted electronically through the construction document control system and consist of diagrams and accompanying mathematical analyses. The diagrams shall show elements of the project in detail and an entire project summary. Diagrams shall show the order and interdependence of activities and sequence in which the work is to be accomplished as planned by the Contractor. The basic concept of a network analysis diagram shall be followed to show how the start of a given activity is dependent on the completion of preceding activities and its completion restricts the start of following activities. Detailed network activities shall include, in addition to construction activities, the submittal and approval of samples of material and Shop Drawings, the procurement of critical materials and equipment, fabrication of special material and equipment and their installation and testing. All activities of the Owner and the Engineer that affect progress and required contract dates for completion of all or parts of the work shall be shown. The selection and number of activities shall be subject to favorable review by the Engineer. Summary networks shall be time scaled. Durations shall be in working days and shall not exceed five workdays, except for submittal and delivery items. Where the duration of continuous work exceeds five workdays, work items in the

Construction Schedule shall be subdivided by location, approximate stationing or other sub-element of the work.

3. The graphic network diagram shall include for each activity, the description, activity number, the estimated duration in work days, and all activity relationship lines. The network diagram shall be drawn for the early start of all activities. If the precedence technique is utilized, the schedule report shall include a calendar in work days, a network report sorted by early start and a logic table report sorted by preceding work item. If the arrow technique is utilized, the schedule report shall include a calendar in work days, a network report sorted by early start, a network report sorted by I-J numbers, and a network sorted by slack time and I-J numbers.
4. The critical path shall be shown on all reports and on the graphic network diagram. The activities which constitute the critical path shall be identified.
5. The mathematical analysis of the network diagram shall include a tabulation of each activity. The following information shall be furnished as a minimum for each activity:
  - a. preceding and following event numbers
  - b. activity description and number
  - c. estimated duration of activities
  - d. earliest start date (by calendar date)
  - e. earliest finish date (by calendar date)
  - f. actual start date (by calendar date)
  - g. actual finish date (by calendar date)
  - h. latest start date (by calendar date)
  - i. latest finish date (by calendar date)
  - j. slack or float
  - k. percentage of activity completed
6. The program shall be capable of accepting revised completion dates as modified by approved time adjustments and recomputation of all tabulation dates and float accordingly.
7. Submission and review of the system shall be as follows:
  - a. Submit the complete network analysis system, consisting of the detailed network mathematical analysis and network diagrams, within thirty (30) calendar days after receipt of Notice to Proceed.
  - b. Participate in a review and evaluation of the proposed network diagrams and analysis by the Engineer. Any revisions necessary as a result of this review shall be resubmitted for review by the Engineer within ten (10) calendar days. When completed, the favorably reviewed schedule shall then be the schedule to be used by the Contractor for planning, organizing and directing the work and for reporting progress. If the Contractor thereafter desires to make significant changes in his method

of operating and scheduling, he shall notify the Engineer in writing stating the reasons for the change.

- c. Submit on paper and on floppy disc or CD-ROM at monthly report shall cover a period of approximately thirty (30) days ending around the 20th of each month. The monthly reports shall be submitted within ten (10) calendar days of the end of the reporting period.
  - 1) If the project is proceeding on schedule, the monthly update report may consist of a marked-up copy of the graphical network diagram. This submittal shall clearly indicate the status of any minor shifts in sequence or schedule and the estimated completion date or percent complete of all activities currently in progress. The contract completion date shall also be indicated. Submit a narrative report relating to status of construction, the schedule, and factors which may affect the remainder of the schedule. The report shall show the activities or portions of activities completed during the reporting period. The report shall state the percentage of the work actually completed and scheduled as of the report date and the progress along the critical path in terms of days ahead or behind the allowable dates.
  - 2) If, in the opinion of the Engineer, the project is behind schedule, the monthly report shall include a revised network diagram and/or mathematical analysis showing the Contractor's proposed revised schedule. An analysis of the effect that the delay has on progress along other paths shall also be included in the report. Also submit a narrative report with each updated analysis which shall include but not be limited to a description of current and anticipated problem areas, delaying factors and their impact, and an explanation of corrective actions taken or proposed.
  - 3) Periodic reports shall be submitted in sufficient copies to cover Contractor needs plus three (3) copies to be retained by the Engineer.
8. Any omission of work from the detailed schedule, otherwise required for Contract compliance, will not excuse the Contractor from completing such work within any applicable completion date. The CPM schedule shall be generated by computer methods. If the submitted Construction Progress Schedule does not fully reflect the specified work, the CPM format requirements or time limitation for completion of the work as provided in these Specification, it shall be returned to the Contractor by the Engineer for modification as necessary.
- D. Schedule Review: Once each month on a date mutually agreed upon, but no later than seven (7) working days after the monthly schedule progress report date, a jobsite meeting will be held to review the Construction Schedule and job progress. Also attend weekly meetings scheduled by the Engineer to review the progress of the work in the preceding week and in the subsequent work, coordinate the work with public agencies or other contractors as required, and allow the Engineer to plan his activities for testing, inspection, etc.

- E. Schedule Revisions: The conditions under which the Engineer will require revisions of the Construction Schedule include the following:
1. When delay in completion of any work item or sequence of work items results in an estimated extension of project completion by either twenty (20) working days or by five percent (5%) of the remaining duration of time to complete the Contract, whichever is less.
  2. When delays in submittals or deliveries make replanning or rescheduling of the work necessary.
  3. When the schedule does not represent actual prosecution and progress of the work.
  4. When any change to the sequence of activities, the completion date for major portions of the work, or when changes occur which affect the critical path.
  5. When Contract modification necessitates schedule revision, the Contractor shall submit a schedule analysis of all change order work with his proposal.
- F. Proposed Change Orders: Proposed change orders submitted by the Contractor shall be accompanied by a statement of the time necessary for the work, together with a description of how this time will be incorporated into the current Construction Schedule. The Contractor shall not be entitled to a time extension for delays in activities on non-critical paths of the favorably reviewed schedule unless the duration of the excusable delay exceeds the total float of the activities being delayed. If the duration of an excusable delay does exceed the total float of the activities affected by the delay, the Contractor shall be entitled to an extension equal to the difference. Except as defined in the Contract Documents, the definitions of "non-critical activities" and "total float" shall be as provided in the Associated General Contractors of America book "CPM In Construction, A Manual For General Contractors."
- G. Accelerated Work if Required to Meet Schedule: If the Contractor's performance falls behind schedule, the Contractor shall accelerate the work as required to get back on schedule at no additional cost to the Owner. Accelerated work shall include air or express delivery of materials and equipment, increasing the number of workers, working overtime, working Saturdays, Sundays, and holidays, and working additional shifts.
- H. When, in the judgment of the Engineer, it is necessary to accelerate any part of the work ahead of schedule, the Contractor shall, when directed, concentrate his efforts on such part of the work, but maintain sufficient progress on all other areas of the Project required to maintain the schedule which meets the Contract Completion Date.
- I. The Engineer shall be advised in advance by the Contractor when construction work will take place. If the Contractor fails to notify the Engineer in advance of the day or days when no construction work will be done, the Contractor will be charged the cost of inspection for that day or days and such changes may be deducted from any payment due the Contractor.

**END OF SECTION**

## SECTION 01 33 00

### SUBMITTALS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Requirements for the submittal of information that will enable determination of whether the Contractor's proposed materials, equipment or methods of work are in general conformance to the design concept and in compliance with the Contract Documents.
- B. Furnish drawings, specifications, descriptive data, certificates, samples, test results, methods, schedules, manufacturer's installation instructions and other information as indicated.

##### 1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 99 00 – Reference Forms

##### 1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the materials and equipment incorporated into the Work, or the methods of performing the Work shall be as described in the accepted submittals.
- B. Verify that all features of all products conform to the specified requirements. Submittal documents shall be clearly edited to indicate only those items, models, or series of equipment that are being submitted for review. Extraneous materials shall be crossed out or otherwise obliterated.
- C. Coordinate submittals among subcontractors and suppliers. Ensure that there is no conflict with other submittals and notify the Engineer in each case where this submittal may affect the work of another contractor or the Owner, including those submittals complying with unit responsibility requirements specified in applicable technical sections.
- D. Coordinate submittals with the Work so that work will not be delayed. Coordinate and schedule different categories of submittals, so that one will not be delayed for lack of coordination with another. No extension of time will be allowed because of failure to properly schedule submittals.
- E. Do not proceed with work related to a submittal until the submittal process is complete and the submittal has received a response "No Exceptions Taken" or "Make Corrections Noted."
- F. Certify on each submittal document that the Contractor has reviewed the submittal, verified field conditions, and complied with the contract documents.
  - 1. Include a copy of the specification section with addendum updates, all referenced and applicable sections, and each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements.

- a. Use check marks (✓) to denote full compliance with a paragraph as a whole.
  - b. If deviations from the specifications are indicated and therefore requested by the Contractor, underline each deviation, and denote by a number in the margin to the right of the identified paragraph.
  - c. The remaining portions of the paragraph not underlined will signify compliance on the part of the Contractor with the specifications.
  - d. Include a detailed, written justification for each deviation.
2. Failure to comply with this paragraph is sufficient cause to reject the entire submittal.

#### 1.04 REVIEW COSTS

- A. The Owner's cost for review of submittals for the same proposed materials, equipment or work will be apportioned as follows:
  1. The cost of review of the initial submittal and the first revised submittal will be borne by the Owner.
  2. The cost to review all additional revised submittals after the first revised submittal will be charged to the Contractor. The cost of review shall include, without limitation, administrative, design and engineering activities directly related to review of submittals.

#### 1.05 SUBMITTAL INDEX

- A. Within 30 days of the Notice to proceed, submit a list, by specification section, of all submittals to be submitted.
- B. Update and resubmit the submittal index on a monthly basis where additional submittals are identified, or as necessary

#### 1.06 CATEGORIES OF SUBMITTALS

- A. General
  1. Submittals fall into two general categories;
    - a. Submittals for review and comment require action by the Engineer.
    - b. Submittals that are primarily for information only do not require Engineer's approval.
- B. Submittals for Review and Comment
  1. Transmit submittals for review and comment to the Engineer. The Engineer will review the submittal for compliance with the Contract requirements and will provide written comments regarding acceptability.
- C. Submittals for Information Only
  1. Where specified, furnish submittals to the Engineer for information only. The Engineer may, at the Engineer's option, review, and comment on any product data.

2. Incomplete or inadequate product data will be returned to the Contractor for resubmittal.

## 1.07 TRANSMITTAL PROCEDURES

### A. General

1. Transmit submittals regarding material and equipment under cover of a Shop Drawing/Transmittal Form See Section 01 99 00.
2. Use a separate form for each specific item, class of material, equipment, and items specified in separate, discrete sections, for which the submittal is required.
3. Identify submittal documents common to more than one piece of equipment with all the appropriate equipment numbers.
4. Make submittals for various items with a single form when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or review of the group or package as a whole.
5. Assign a unique sequential number on the transmittal form accompanying each item submitted.
  - a. Use the following format for original submittal numbers: "XXX"; where "XXX" is the sequential number assigned by the Contractor.
  - b. Use the following format for resubmittals: "XXX-Y"; where "XXX" is the originally assigned submittal number and "Y" is a sequential letter assigned for resubmittals, i.e., A, B, or C being the 1st, 2nd, and 3rd resubmittals, respectively. Submittal 25B, for example, is the second resubmittal of submittal 25.

### B. Electronic Submittals

1. Electronic submittals are preferred except as otherwise indicated.
2. Prepare electronic submittals and Shop Drawings in electronic (\*.pdf) format including half-sized and full-sized drawings, catalog information and other required submittal information.
3. Break down submittals that are larger than 10 megabytes into smaller sections, using logical division points to create sections.
4. Electronically bookmark electronic submittals greater than 30 pages in length by major submittal section to facilitate ease of navigation.

### C. Paper copy submittals are not an acceptable alternative to electronic submittals except for samples.

### D. Deviation from Contract

1. If the Contractor proposes to provide material, equipment, or method of work that deviates from the project manual, so indicate under "Proposed Deviations" on the transmittal form accompanying the submittal copies.

E. Submittal Completeness

1. Submittals that do not have all the information required to be submitted, including deviations, are not acceptable and will be returned without review.

1.08 SUBMITTAL CONTENT

A. Prepare submittals in compliance with individual Specification Sections and as indicated herein.

B. Shop Drawings:

1. Develop project-specific, scaled drawings to fully identify materials and products that will be provided and their relationship to other products that will be furnished and installed.
2. Do not utilize reproductions of the Contract Documents as the basis for the submittal.
3. Identify products, assemblies, equipment, and systems.
4. Provide equipment identification numbers or tag numbers, wiring diagrams, and setting diagrams.
5. Identify critical dimensions.

C. Product Data:

1. Provide information necessary to demonstrate conformance with the specified requirements. Include performance curves, specifications, and wiring diagrams.
2. Product data may consist of manufacturer's standard catalog information and data sheets, marked to indicate the specific products that will be provided.
3. Provide supplemental information as necessary to fully demonstrate how products will be modified from the manufacturer's standard products to meet the specification requirements.

D. Manufacturer's Instructions: Written or published information that establishes the manufacturer's recommendations, guidelines and procedures for handling and installation of products, equipment, and assemblies.

E. Samples: Mount, display or package samples in a manner that will facilitate review and establish workmanship and quality of materials.

1.09 SUBMITTAL REQUIREMENTS

A. When the Contract Documents require a submittal, submit the specified information as follows:

1. Submittals for Review and Comment:

- a. Electronic Submittal: Submit one electronic (\*.pdf) submittal.

2. Submittals for Information Only:

- a. Electronic Submittal: Submit one electronic (\*.pdf) submittal.



## 1.10 REVIEW PROCEDURE

### A. General

1. The Engineer will review submittals within the processing time identified in paragraph "Processing Time" and return:
  - a. Electronic Submittal – a signed submittal response document, in (\*.pdf) format.
  - b. Paper Copy Submittal – Two marked up copies of the submitted copies. The reproducible original will be retained by the Engineer.

### B. Submittals for Review and Comment

1. The returned submittal will indicate one of the following actions:
  - a. "NO EXCEPTIONS TAKEN" – The material, equipment or work method complies with the project manual.
  - b. "MAKE CORRECTIONS NOTED" – Limited corrections are required.
    - 1) Provide a corrected copy where:
      - a) The information is to be included in the O&M data.
      - b) If requested by the Engineer.
  - c. "AMEND AND RESUBMIT" – The submittal is insufficient or contains incorrect data.
  - d. "REJECTED – SEE REMARKS" – The material, equipment, or work method does not comply with the project manual. Submittals with deviations that have not been identified clearly may be rejected.
2. For submittals marked "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."
  - a. The Contractor may begin implementing the work method or incorporating the material and equipment covered by the submittal in accordance with any noted corrections.
3. For submittals marked "AMEND AND RESUBMIT" or "REJECTED – SEE REMARKS"
  - a. Contractor shall provide a typed letter responding to each of the Engineer's review comments with each resubmittal.
  - b. Except at its own risk, the Contractor shall not undertake the work covered by such submittals until a new submittal is submitted and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

### C. Submittals for Information Only

1. The returned submittal will indicate "ACCEPTED FOR RECORD" if the submittal is complete and adequate.
2. Engineer may return comments on information submittals to identify concerns with what was submitted, in such case, Contractor shall address concerns in writing and return a revised submittal.

1.11 PROCESSING TIME

- A. Prepare submittals and transmit to Engineer for review in sufficient time to allow Engineer's review; manufacture, fabrication or assembly of materials and systems; and shipping of material to the site in time for installation in accordance with the Contractor's schedule.
- B. Engineer's time for review will begin upon receipt of a complete and comprehensive submittal containing all required information.
- C. Engineer will review submitted information and transmit a response to Contractor within 21 days after receipt, subject to the following:
  - 1. In some instances, review times for specific submittals may be modified by the individual specification Section.
  - 2. Resubmittals will be subject to the same review time.
- D. No adjustment of Contract Time or Contract Price will be allowed due to delays in the progress of the Work that are caused by rejected submittals and subsequent resubmittals.

1.12 EFFECT OF REVIEW OF CONTRACTOR'S SUBMITTALS

- A. The purpose of submittals is to demonstrate how Contractor intends to conform to the Contract Documents and design concepts. Engineer is entitled to rely upon the accuracy and completeness of designs, calculations, or certifications made by licensed professionals whether or not a stamp or seal is required by the Contract Documents.
- B. The review procedure is based on the Contractor's guarantee that all features and characteristics not requiring submittals conform to the contract documents.
- C. Review of contract drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, does not relieve the Contractor of its responsibility for
  - 1. Fulfilling the requirements of the Contract,
  - 2. Proper operation of the equipment,
  - 3. Correction of defective work
- D. Reviews shall not be regarded as an assumption of risk or liability by the Engineer or the Owner.
- E. A mark of "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED" means that the Owner has no objection to the Contractor, upon its own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.
- F. The Engineer's review of shop drawings, samples, or test procedures will be only for conformance with design concepts and for compliance with information given in Contract Documents. The Engineer's review does not extend to:
  - 1. Accuracy of dimensions, quantities, or performance of equipment and systems designed by Contractor.
  - 2. Contractor's means, methods, techniques, sequences, or procedures except when specified, indicated on the Drawings, or required by Contract Documents.

3. Safety precautions or programs related to safety which shall remain the sole responsibility of the Contractor.
- G. Review of a separate item does not indicate approval of the assembly in which the item functions.

1.13 SUBSTITUTIONS OR "OR EQUAL" ITEMS

- A. Named or Sole Source Times
  1. Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the naming of the item is intended to establish the type, function, and quality required.
  2. Unless the name designated a "sole source" and/or is followed by words indicating that no substitution is permitted, materials, or equipment of other Suppliers may be accepted by Engineer. Follow the procedures in the General Conditions.
- B. Modification due to Substitutions
  1. All costs for redesign required by the implementation of the proposed substitute shall be borne by the Contractor.
  2. All costs associated with incorporating a substitution into the project shall be borne by the Contractor.

**PART 2 - NOT USED**

**PART 3 - NOT USED**

**END OF SECTION**

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**SECTION 01 34 00**  
**REQUESTS FOR INFORMATION AND CLARIFICATIONS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Procedures for submitting requests for information and clarifications when Contractor discovers apparent conflicts, omissions, or errors in the Contract Documents, or upon having any questions concerning interpretation of the Contract Documents.

**1.02 REFERENCED SECTIONS**

- A. The following Section is referenced in this Section
  - 1. Section 01 99 00 – Reference Forms

**1.03 PROCEDURES**

- A. Notification:
  - 1. Notify the Engineer in writing and request interpretation, clarification, or additional detailed instructions concerning the Work.
  - 2. Ask for clarification or request information immediately upon discovery, but no less than seven working days prior to the start date of the activities related to the clarification, based on the latest updated version of the official contract schedule.
- B. Form:
  - 1. Submit requests for clarification and/or additional information in writing to the Engineer using the Request for Information (RFI) form provided in Section 01 99 00.
  - 2. Provide a detailed statement indicating the nature of the information requested. Reference specific Drawings and Specifications as appropriate.
  - 3. Limit each written request to one topic.
  - 4. Electronic (\*.pdf) format RFIs are preferred. Prepare RFIs and any attachments in electronic format. Transmit electronic RFIs via email to the Construction Manager. Break down RFIs that are larger than 4 megabytes into smaller sections, using logical division points to create sections.
- C. Numbering:
  - 1. Use consecutive numbers for each new form submitted. When RFI's are re-submitted to request additional information on the same topic, add a letter A, B, C, etc. to the numbering system for each subsequent RFI until the subject is resolved.

**1.04 REASONS FOR SUBMITTAL**

- A. Submit an RFI if one of the following conditions occur:
  - 1. An unforeseen condition or other circumstance that is not described in the Contract Documents.

2. An apparent conflict or discrepancy between portions of the Contract Documents.
3. An apparent omission from the Contract Documents.
4. Information presented in the Contract Documents is unclear or additional details are needed to undertake the Work.

1.05 RESPONSE TIME

- A. The Engineer will resolve the RFI and issue instruction to the Contractor within 21 calendar days.
- B. Response time may need to be lengthened; or shortened for emergency situations as mutually agreed upon by all parties.
- C. Do not proceed with the affected work before receipt of a response from the Engineer. Should the Contractor elect to proceed with the Work affected by the RFI, any portion of the Work that is not done in accordance with the Engineer's interpretation, clarifications, instructions, or decisions will be subject to removal or replacement at the Contractor's expense.

1.06 REJECTIONS

- A. RFI's submitted by the Contractor may be rejected by the Engineer for the following reasons:
  1. The RFI is submitted as a substitute for a submittal.
  2. Under the pretense of a Contract Documents discrepancy or omission without thoroughly reviewing the documents.
  3. In a manner that suggests that specific portions of the Contract Documents are assumed to be excluded, or be taken as an isolated portion of the Contract Documents in part rather than whole.
  4. In an untimely manner without proper coordination and scheduling of work or related trades.

1.07 ADDITIONAL DETAILED INSTRUCTIONS (CLARIFICATIONS)

- A. The Owner may furnish additional detailed written instructions to further explain the Work and these instructions shall become part of the Contract Documents. Clarifications will be issued using the above RFI system.
- B. When, in the opinion of the Contractor, the Engineer's response in the RFI constitutes additional work beyond the scope of the Contract, the Contractor shall notify the Engineer in writing following receipt of the RFI and prior to initiating the Work affected by the RFI. The process for submitting claims of additional Work shall be followed as defined in the General Conditions. Lack of compliance with this notification requirement will cause Contractor to forfeit any claim for additional compensation or extension of the schedule.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

**SECTION 01 45 00**  
**CONTRACTOR QUALITY CONTROL**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Comply with the quality control provisions as herein specified and described in the General Conditions and specified in the Construction Documents. Perform quality control tests and inspection and quality surveillance of all Work required by this Contract unless specifically designated to be performed by Owner.
- B. Contractor Quality Control (CQC) shall consist of plans, procedures, and organization necessary to provide materials, equipment, workmanship, fabrication, construction, and operations that comply with the requirements of the Construction Documents. CQC shall cover construction operations and be keyed to the Progress Schedule including, but not limited to, fabrication both on-site and off-site and field and factory tested construction mock-ups.
- C. Owner's inspection and testing agency services are specified in Section 01 45 23 and may be required to ensure the Work complies with the Construction Documents, except where the Construction Documents specify tests to be performed by the Contractor.

**1.02 REFERENCED SECTIONS**

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 01 45 23 – Testing and Inspections
  - 3. Section 01 77 00 – Contract Closeout Procedures

**1.03 CONTRACTOR QUALITY CONTROL (CQC) PLAN**

- A. CQC PLAN: Submit the CQC Plan within 10 days after award of contract. CQC plan shall identify personnel, procedures, instructions, records, and forms to be used. Failure to submit an acceptable CQC Plan within the time described may result in the Notice to Proceed being delayed. At a minimum, each CQC Plan shall include:
  - 1. Identification of the CQC Representative
  - 2. A description of the quality control organization, including chart showing lines of authority and acknowledgment that the Contractor's QC staff shall report to the Project Manager or someone higher in the Contractor's organization.
  - 3. The name, qualifications, duties, responsibilities, and authorities of each person assigned a QC function.
  - 4. Procedures for scheduling and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents.
  - 5. Reporting procedures including proposed reporting forms.
  - 6. Testing, inspections, and approval records. Provide control testing procedures for each specific test.

- B. Plan Acceptance:
  - 1. Acceptance of the plan by the Owner is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction.
- C. Change Notification:
  - 1. After acceptance of the CQC Plan, notify the Owner in writing of any proposed change. Proposed changes are subject to Owner acceptance.

#### 1.04 CONTRACTOR QUALITY CONTROL REQUIREMENTS

- A. Organization:
  - 1. Identify a dedicated full time CQC Representative who shall be on the Project Site at all times during the Work, and as appropriate for all construction activities subsequent to the start of Owner's Final Inspection, with complete authority to take action necessary to ensure compliance with the Construction Documents. Staff the CQC organization, as required, to perform the activities outlined in this Section and elsewhere in the Construction Documents.
- B. CQC Representative Qualifications:
  - 1. The Contractor shall propose for Owner approval, in writing, the Project CQC Representative. The CQC Representative must have construction management experience and prior experience with projects of similar construction, size and complexity. The Owner will monitor and evaluate the performance of the CQC Representative based on: a) the conformance of the Work with the Construction Documents, and; b) an assessment of the accuracy, timeliness and completeness of the daily QC Report. If the CQC Representative fails to perform to the Owner's satisfaction, the Contractor shall replace him or her.
- C. Submittals:
  - 1. Identify persons responsible for review and approval of shop drawings, layout drawings, samples and mock-ups, and other submittals required by the Construction Documents. Owner's review action will indicate only that the general method of construction and detailing is satisfactory (see Section 01 33 00) and does not relieve the Contractor of the responsibility for proper installation, coordination of the Work, and compliance with the Construction Documents.
- D. Daily Quality Control Reports:
  - 1. CQC Representative shall maintain daily Quality Control (QC) Reports (that are not the Superintendent's Daily Report). QC Reports shall be factual records containing, at a minimum: Work performed by Contractor, Work performed by subcontractors, specific inspections and inspection results, type and location of tests performed and test results, verbal instruction received from Owner on deficiencies or re-testing required, examination of areas upon which new Work is to be placed to verify the substrate for the new Work, and observations and remarks. Submit QC Reports, on approved forms, the next workday following the day of the report.



2. CQC Representative shall verify and sign all reports. Verification shall contain the statement that all supplies, materials, products, and equipment incorporated in the Work are in compliance with the Construction Documents.
- E. Control of On-Site and Off-Site Construction
1. Contractor's Quality Control system shall include the following phases of control and management for all activities including:
    - a. Preinstallation Meetings.
    - b. In-Progress Inspection Phase: In-progress inspections shall be performed continuously to verify that quality standards are maintained throughout the Project. Adjustment to control procedures and CQC Plans may be required based upon the results of these inspections and control testing. Report the results of the inspection in the daily QC Report. Discuss quality control procedures at construction progress meetings and revise CQC Plans for Owner's records, if changes are required.
    - c. Above Ceiling Inspections: The Contractor shall identify and provide reasonable time: a) for the Owner to conduct above-ceiling final inspections; b) for the Contractor to perform corrective work, and; c) for the Owner's consultants to validate the work complete prior to covering from sight. Provide a two (2) week notice for final inspections.
    - d. Off-Site Construction: Requirements for inspections of off-site construction activities are specified in individual equipment specifications. The CQC plan shall include specified inspections of off-site construction activities.
    - e. Final Punch List Report: The CQC Representative shall thoroughly inspect all aspects of the construction, including the Subcontractor's work, and produce a Final Punch List Report of incomplete work and/or work requiring correction. Issue the list to all Subcontractors and complete all items prior to requesting Final Inspection. The Contractor's request for Final Inspection shall certify that all features of the work are installed and reviewed by the Contractor to determine compliance with the Construction Documents and shall include the Final Punch List Report listing any incidental incomplete work. The Final Punch List Report shall be in a format acceptable to the Owner, with a comprehensive room number list and additional entry listings for site work, building enclosure, roofs, etc. to document the entire Project. Owner's Final Inspections items will be added to the Final Punch List Report by the Contractor. Manage the consolidated list of comments daily until all comments are signed-off by the Owner.
    - f. Final Inspection: In accordance with Section 01 77 00
    - g. Re-inspection: In accordance with Section 01 77 00.
    - h. Substantial Completion: In accordance with Section 01 77 00.
    - i. Final Completion: In accordance with Section 01 77 00.

**END OF SECTION**

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**SECTION 01 45 23**  
**TESTING AND INSPECTIONS**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Tests and inspections and allocation of responsibilities associated with tests and inspections.
- B. Tests and inspections covered in this Section do not include Special Inspections required by the International Building Code. Refer to Section 01 45 26 for requirements pertaining to Special Inspections.
- C. The detailed tests and inspections required to be performed by the Contractor are specified in the individual Sections of Divisions 2 through 46.

1.02 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 45 26 – Special Tests and Structural Observations

1.03 OWNER'S TESTING AGENCY

- A. Owner will employ and pay for testing conducted to confirm compliance with the requirements of the Contract. Testing may be on-site or off-site.
- B. Owner's Testing Agency will perform tests, inspections, and sampling of the following work:
  - 1. Earthwork, including collection and testing of representative material samples and compaction testing.
  - 2. Concrete placement, reinforcement, ingredients and quality control.
  - 3. Masonry placement, reinforcement, ingredients and quality control.
  - 4. Structural steel.
  - 5. Fire Proofing, density sampling and thickness inspection.
  - 6. Painting and coating dry film thickness and holiday testing
- C. The Owner's employment of the Testing Agency does not relieve the Contractor of his obligations to perform the work in accordance with Contract requirements nor to retain their own testing firm for quality control.

1.04 CONTRACTOR'S RESPONSIBILITIES

- A. Initiate and coordinate tests and inspections required by Contract Documents and public authorities having jurisdiction of the work.
- B. Notify the Owner's Testing Agency through the Owner's Representative a sufficient time in advance (but no less than 48 hours) of the manufacture of materials to be supplied

which, by requirements of the Contract Documents, must be tested at the source of supply so that the Laboratory may arrange for testing.

- C. When changes of construction schedule are necessary during construction, coordinate all such changes with the Owner's Testing Agency as required.
- D. When the Owner's Testing Agency is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the work, all extra charges for testing attributable to the delay may be backcharged to the Contractor and shall not be borne by the Owner.
- E. Provide access, facilities, tools, and labor necessary for duties to be performed at the site by the Owner's Testing Agency and Inspector, including furnishing ladders, hoisting, lighting, water supply and like services.
- F. Provide and maintain, for the sole use of the Owner's Testing Agency, adequate facilities for the safe storage and proper curing of concrete test cylinders on the Project site as required by ASTM C31.
- G. Furnish and deliver samples of materials to be tested at no extra cost to Owner. Test samples will be selected by the Inspector or Owner's Testing Agency and not by the Contractor.
- H. Reports:
  - 1. Furnish copies of each test and inspection report, signed and certified by the Contractor's Testing Agency Supervising Engineer to the Contractor and to the Engineer.
  - 2. Within 48 hours, process and distribute the required copies of test reports and related instructions to assure necessary retesting and replacement of materials with the least possible delay in progress of the work.
- I. Records:
  - 1. Maintain correct records on an appropriate form for all inspections and tests performed, instructions received from the Owner or testing agency, and actions taken as a result of those instructions.
  - 2. These records shall include evidence that the required inspections or tests have been performed (including type and number of inspections or tests, nature of defects, causes for rejection, etc.), proposed or directed remedial action, and corrective action taken.
  - 3. Document inspections and tests as required by each Section of the Specifications.
- J. If laws, ordinances, rules, regulations, or orders of public agency having jurisdiction require work to be inspected, tested or approved by some authority other than the Owner, or Contractor, the Contractor shall give required notices and make arrangements, deliver to the Owner the certificates of inspection, test, or approval of such public agency, and pay costs therefore unless otherwise provided in the Contract Documents.
- K. Completed Work: Should the Owner require tests and inspections for work completed before final acceptance of entire work, furnish necessary facilities, labor, and materials to uncover or remove work in question to extent necessary.

1. If such work is found defective due to fault of the Contractor, the Contractor shall defray expense of removal, test, and inspections, and satisfactory reconstruction. Time extension may not be granted.
2. If such work is found to conform to requirements of the Contract, the Contractor shall be reimbursed by the Owner for facilities, labor and materials required for removal, and costs of satisfactory reconstruction in accordance with Contract amounts for extra work. Reasonable time extension shall be granted.

#### 1.05 TEST PROCEDURES

##### A. Testing:

1. Owner's Testing Agency will perform tests according to method(s) of test specified in these Specifications.
2. If no procedure or test method is specified, testing shall conform to material specification references unless otherwise directed by the Owner.
3. The Owner's Testing Agency will tag, seal, label, record, or otherwise suitably identify the materials for testing. No materials shall be used in the work until the test reports are submitted and approved, excepting only the materials specified to be placed or installed prior to testing.

##### B. Retesting:

1. Repeat applicable tests at specified intervals, when:
  - a. The source of supply is changed.
  - b. The characteristics of the materials change or vary.
  - c. Unsatisfactory test results are received.
2. Quantity and nature of additional testing, if required, will be determined by the Owner.
3. Additional tests shall be taken in the presence of the Engineer.
4. Proof of non-compliance will make the Contractor liable for any corrective action which the Owner feels is prudent, including complete removal and replacement of defective materials.
5. Nothing contained herein is intended to imply that the Contractor does not have the right to have tests performed on any material at any time for his own information and job control so long as the Owner does not assume responsibility for costs or for giving them consideration when appraising quality of materials.

#### 1.06 PAYMENT FOR TESTING

##### A. Initial Services:

1. The Owner will pay for initial testing services requested by the Owner.
2. When initial tests indicate non-compliance with the Contract Documents, the costs of initial tests associated with that non-compliance will be deducted by the Owner from the Contract Sum.

- B. When initial tests indicate non-compliance with the Contract Documents, subsequent retesting occasioned by the non-compliance shall be performed by the same testing agency, and costs thereof will be deducted by the Owner from the Contract Sum.
- C. Reimburse the Owner all or any part, as the Owner may deem just and proper, of the inspection costs incurred by the Owner due to:
  - 1. Failure of materials to pass initial tests.
  - 2. Contractor's failure to complete the work within the Contract time, and any previously authorized extensions thereof.
  - 3. Claims between separate contractors.
  - 4. Covering of work before the required inspections or tests are performed.
  - 5. Additional inspections required for Contractor's correction of defective work.
  - 6. Overtime costs for acceleration of work done for Contractor's convenience.

1.07 CONTRACTOR'S CONVENIENCE TESTING

- A. Inspection and testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

1.08 REQUEST FOR TESTING PROCEDURES

- A. Testing will be performed as ordered by the Owner's Representative. Contractor shall follow the Owner's Representative's procedures for requests for tests and inspections. Procedure are as follows:
  - 1. Fill out the Request for Testing form provided by the Owner's Representative.
  - 2. Describe the test and the date the test is required. The request will be given to the Owner's Representative for approval.
  - 3. Submit the Request for Test at least forty-eight (48) hours in advance of the needed date for the test.
  - 4. The Owner's Representative will request the services from the testing agency.
  - 5. The testing agency will be provided a copy of the testing request which will be completed by the testing firm indicating the services provided.
  - 6. Provide a testing schedule which will be reviewed each week for the following week's work.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

**SECTION 01 45 06**  
**SPECIAL TESTS AND STRUCTURAL OBSERVATIONS**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Requirements for providing special tests and structural observations required by the International Building Code.
- B. The Contractor shall cooperate with the Owner and Engineer in performing Special Inspections of the Work.
- C. Special Inspections shall be performed by an agent under contract or employment by the Owner.

1.02 SCHEDULE OF INSPECTIONS/OBSERVATIONS

- A. Special inspections and structural observations will be performed in accordance with Chapter 17 of the Building Code. The most recent version of the Code shall be utilized.
- B. Special inspections and tests are listed in Appendix A - Schedule of Special Inspections following this specification. Certain individual specification Sections may contain Special Inspections and tests specific to those sections.
- C. Structural Observations are described in Appendix B - Schedule of Structural Observations following this specification.

1.03 DEFINITIONS

- A. **Approved Agency:** An established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved by the Building Official.
- B. **Approved Fabricator:** An established and qualified person, firm, or corporation identified as such by AISC or the Building Official. Approval is based on written procedural and quality control manuals and periodic auditing of fabrication practices by an Approved Agency.
- C. **Building Official:** Owner's representative.
- D. **Continuous Special Inspection:** The full-time observation of Work by a Special Inspector who is present in the area where the Work is being performed as it is performed.
- E. **Fabricated Item:** Structural, load-bearing, or lateral load-resisting assemblies consisting of materials assembled prior to installation in a building or structure, or subjected to operations such as heat treatment, thermal cutting, cold working, or reforming after manufacture and prior to installation in the building or structure. Materials produced in accordance with standard specifications referenced in the Contract Documents or the Code, such as rolled structural steel shapes, steel-reinforcing bars, masonry units, and plywood sheets are not Fabricated Items.

- F. **Periodic Special Inspection:** The part-time or intermittent observation of Work by a Special Inspector who is present in the area where the Work has been or is being performed and at the completion of the Work.
- G. **Special Inspection:** Inspection as herein required of the materials, installation, fabrication, erection or placement of components and connections requiring special expertise to ensure compliance with the Contract Documents and referenced standards. Special Inspection does not include, waive, or otherwise affect the Contractor's responsibility for inspections required by the Contract Documents.
- H. **Special Inspector:** An individual employed by an Approved Agency who is regularly engaged in conducting tests and furnishing Special Inspection services. The Special Inspector will be approved by the Building Official.
- I. **Structural Observer:** Registered design professional and agent of the Engineer, who provides Structural Observation services during construction.
- J. **Structural Observation:** Visual observation by a Structural Observer of the structural system for general conformance to the Contract Documents at significant construction stages and at completion of the structural system. Structural observation does not include, waive, or otherwise affect the Contractor's responsibility for inspections required by the Contract Documents.

#### 1.04 SUBMITTALS

- A. When fabrication of assemblies that would otherwise require Special Inspection is done on an Approved Fabricator's premises, the following shall be submitted:
  - 1. At completion of fabrication, the Approved Fabricator shall submit to the Engineer and the Building Official a certificate of compliance stating that the Work was performed in accordance with the Contract Documents.

#### 1.05 CONTRACTOR RESPONSIBILITIES

- A. In performing the Work, the Contractor shall cooperate with the Special Inspector and the Structural Observer, so that the Special Inspections and Structural Observations may be performed without hindrance.
- B. The Contractor shall review the Schedule of Special Inspections in Appendix A, the Schedule of Structural Observations in Appendix B, and individual specification sections and shall be responsible for coordinating and scheduling inspections and observations. The Contractor shall notify the Engineer at least 48 hours in advance of a required Special Inspection or Structural Observation.
- C. If any Work that is to receive any Special Inspection or Structural Observation is covered without concurrence in writing from the Engineer, it shall be uncovered at the Contractor's expense unless the Contractor has given the notice required above and the Special Inspector or Structural Observer has not acted with reasonable promptness to such notice. Removal and replacement of any finished Work damaged by the uncovering process or as required for corrective action shall be at the Contractor's expense.
- D. The Contractor shall furnish incidental labor and facilities for access to the Work to be inspected or observed, and shall facilitate observations and inspections.



- E. The Contractor shall keep at the Site the latest set of Contract Drawings, field sketches, change orders, approved submittals, and specifications for use by the Special Inspector and Structural Observer.
- F. The Special Inspection and observation program shall in no way relieve the Contractor of this obligation to perform Work in accordance with the requirements of the Contract Documents or from implementing an effective Quality Control program.
- G. Contractor's quality control personnel shall first review all Work that is to be subjected to Special Inspection or Structural Observation.
- H. Prior to the beginning of construction, the Contractor shall have a pre-construction meeting with the Engineer, Owner, Special Inspector, and Structural Observer, to review the Special Inspection and Structural Observation requirements.
- I. Contractor shall be responsible for the Special Inspection cost of any replacement and re-testing or re-inspection of Work that is determined to be Defective Work.

1.06 INSPECTION OF FABRICATIONS

- A. When Work is performed on the premises of an Approved Fabricator, no Special Inspection is required.

1.07 PAYMENT FOR TESTING

- A. The owner will pay for initial testing services requested by the Owner.
- B. When initial tests indicate non-compliance with the Contract Documents, subsequent retesting occasioned by the non-compliance shall be performed by the same testing agency and costs thereof will be deducted by the Owner from the Contract Sum.

1.08 CONTRACTOR'S CONVENIENCE TESTING

- A. Inspection and testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

1.09 RECORDS AND REPORTS

- A. The Special Inspector will prepare detailed daily reports of each Special Inspection. Reports shall be submitted daily to the Owner and Engineer.
- B. The Structural Observer will prepare detailed reports of each structural observation. Reports shall be submitted daily to the Owner and Engineer.
- C. Any deviations from the Contract Documents found during a Special Inspection or Structural Observation will be immediately reported to the Contractor. If the discrepancies are not corrected promptly, the Special Inspector or Structural Observer will notify the Engineer and Building Official. Daily reports will identify all discrepancies and the corrective actions taken.

1.10 FINAL REPORTS OF SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS

- A. The Final Report of Special Inspections, completed by the Special Inspector, will be submitted to the Engineer and Building Official prior to issuance of a Certificate of Use and Occupancy.

- B. The Final Report of Special Inspections will certify that required inspections have been performed and will itemize any deviations that were not corrected or resolved.
- C. The Final Structural Observation Report will certify that Site visits have been made and identify any deviations, which, to the best of the Structural Observer's knowledge, have not been corrected or resolved.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

## APPENDIX A

### SCHEDULE OF SPECIAL INSPECTIONS

Required inspections and tests are described in the following "Schedule of Special Inspections" and in the individual Specification Sections for the items to be inspected or tested.

#### 1.01 FABRICATORS

- A. Where fabrication of structural load-bearing members and assemblies is performed at a fabricator's shop, no Special Inspection is required if the fabricator is an Approved Fabricator. If the fabricator is not, then Special Inspection will be required.

#### 1.02 STEEL CONSTRUCTION

- A. Welding inspection will be in compliance with AWS D1.1.
- B. The Special Inspector will inspect the steel to verify compliance with the details on the Contract Drawings, such as bracing, stiffening, member locations and proper application of joint details at each connection.
- C. Installation of high strength bolts will be inspected periodically in accordance with American Institute of Steel Construction specifications and Oregon Structural Specialty Code.
- D. While the Work is in progress, the Special Inspector will determine that the requirements for bolts, nuts, washers, bolted parts, painting, and installation and tightening in such standards are met.
- E. For bolts requiring pretensioning, the Special Inspector will observe the pre-installation testing and calibration procedures when such procedures are required by the installation method or by the Contract Documents; determine that all plies of connected materials have been drawn together and properly snugged; and monitor the installation of bolts to verify that the procedure for tightening is proper. For joints required only to the snug tight condition, the Special Inspector will only verify that the connected materials have been drawn together and properly snugged.
- F. Monitoring of bolt installation for pretensioning will be performed on a periodic basis when the Contractor uses the turn-of-nut method with matchmarking techniques, the direct tension indicator method, or the alternate design fastener (twist-off bolt) method. Joints designed as snug tight will be inspected only on a periodic basis.
- G. Monitoring of bolt installation for pretensioning using the calibrated wrench method or the turn-of-nut method without matchmarking will be performed on a continuous basis.

### REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

Verification And Inspection	Inspection		Referenced Standards
	Continuous	Periodic	
Material verification of high-strength bolts, nuts, and washers:			Applicable ASTM material Specifications; AISC ASD, Section A3.4; AISC LRFD, Section A3.3
<ul style="list-style-type: none"> <li>• Identification markings conforming to ASTM standards indicated in the Contract Documents.</li> </ul>		X	
<ul style="list-style-type: none"> <li>• Manufacturer's certificate of compliance required.</li> </ul>		X	
Inspection of high-strength bolting:			AISC LRFD Section M 2.5
<ul style="list-style-type: none"> <li>• Bearing-type constructions</li> </ul>		X	
<ul style="list-style-type: none"> <li>• Slip-critical connections</li> </ul>	X		
Material verification of structural steel:			ASTM A6 or ASTM A568
<ul style="list-style-type: none"> <li>• Identification markings conforming to ASTM standards indicated in the Contract Documents.</li> </ul>		X	
<ul style="list-style-type: none"> <li>• Manufacturer's certified mill test reports required.</li> </ul>		X	
<ul style="list-style-type: none"> <li>• Material verification of weld filler materials:</li> </ul>		X	AISC, ASD, Section A3.6; AISC LRFD, Section A3.5
<ul style="list-style-type: none"> <li>• Identification markings conforming to AWS specification indicated in the Contract Documents.</li> </ul>		X	
<ul style="list-style-type: none"> <li>• Manufacturer's certificate of compliance required.</li> </ul>		X	
Inspection of welding – Structural steel:			AWS D1.1 AISC Seismic AWS D1.3
<ul style="list-style-type: none"> <li>• Complete and partial penetration groove welds.</li> </ul>	X		
<ul style="list-style-type: none"> <li>• Multi-pass fillet welds.</li> </ul>	X		
<ul style="list-style-type: none"> <li>• Single-pass fillet welds &gt; 5/16-in (7.9 mm).</li> </ul>	X		
<ul style="list-style-type: none"> <li>• Single-pass fillet welds ≤ 5/16-in (7.9 mm).</li> </ul>		X	
<ul style="list-style-type: none"> <li>• Welded studs when used for structural diaphragms or composite systems.</li> </ul>		X	
Inspection of welding – Reinforcing steel:			AWS D1.4 ACI 318 - 3.5.2 OSSC 1903.2
<ul style="list-style-type: none"> <li>• Verification of weldability of reinforcing steel other than ASTM A706</li> </ul>		X	
<ul style="list-style-type: none"> <li>• Reinforcing steel resisting flexural and axial forces and boundary elements of special structural walls of concrete and shear reinforcement</li> </ul>	X		
<ul style="list-style-type: none"> <li>• Shear reinforcement.</li> </ul>	X		
<ul style="list-style-type: none"> <li>• Other reinforcing steel.</li> </ul>		X	
Inspection of steel frame joint details for compliance with the Contract Documents			OSSC 1705.2
<ul style="list-style-type: none"> <li>• Details such as bracing and stiffening.</li> </ul>		X	

Verification And Inspection	Inspection		Referenced Standards
	Continuous	Periodic	
• Member locations.		X	
• Application of joint details at each connection.		X	
• Welded sheet steel for cold- formed steel framing members such as studs and joists.		X	
• Welding of stairs and railing systems.		X	
• Floor and deck welds.		X	Floor and deck welds.

### 1.03 CONCRETE CONSTRUCTION

- A. No Special Inspection will be required for minor sitework concrete and non-structural slabs on grade as approved by the Engineer.

#### REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

Verification And Inspection	Inspection		Referenced Standards
	Continuous	Periodic	
Inspection of reinforcing steel, including prestressing tendons, and placement.		X	ACI 318: Ch. 20, 25.2, 25.3, 26.6.4-26.6.3 OSSC 1908.4
Inspection of reinforcing steel welding in accordance with inspection of steel table above.	X		AWS D1.4 ACI 318: 26.6.4
Inspect bolts to be installed in concrete prior to and during placement of concrete.	X		
Verifying use of required design mix.		X	ACI 318: Ch. 19, 26.4.3, 26.4.4 OSSC 1904.1, 1904.2, 1908.2, 1908.3
Sampling fresh concrete and performing slump, air content and determining the temperature of fresh concrete at the time of making specimens for strength tests.	X		ASTM C172 ASTM C31 ACI 318: 26.5, 26.12 OSSC 1908.10
Inspection of concrete placement for proper application techniques.	X		ACI 318: 26.5.3-26.5.5 OSSC 1908.9
Inspection for maintenance of specified curing temperature and techniques.		X	ACI 318 - 5.11-5.13
Post installed anchor installation.	X		Per ICC-ES Reports
Inspect formwork for shape, location and dimensions of the concrete member being formed.		X	ACI 318: 26.11.1.2(b)

## APPENDIX B - SCHEDULE OF STRUCTURAL OBSERVATIONS

Required observations are described in the following "Schedule of Structural Observations".

WHEN TO OBSERVE	WHAT TO OBSERVE
<b>FOUNDATIONS – GENERAL</b>	
Prior to the first concrete pour, but after placement of reinforcing is well under way.	Review areas of particular concern such as highly congested areas or any mechanically-coupled splices and check that approved placing plans are being used.
	Review anchor bolt placement and placement of hold-down bolts or steel embeds.
<b>CONCRETE CONSTRUCTION</b>	
Prior to close-up of the column or wall forms. During placement of slab/beam/joist reinforcement.	Reinforcement placement and placement of embedded items. The Engineer may elect to personally observe concrete placement for critical structural elements.

**END OF SECTION**

**SECTION 01 52 00**  
**CONSTRUCTION FACILITIES AND UTILITIES**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Requirements for Contractor's temporary facilities at the job site and for the prosecution of the Work.

1.02 CONTRACTOR'S CONSTRUCTION OFFICE

- A. Maintain a suitable office at the site.
- B. Temporary office will be considered as the headquarters of the Contractor's representative who is authorized to receive drawings, instructions, or other communication or articles. Any communication given to the representative or delivered at Contractor's temporary office at the site in his absence is deemed to have been delivered to the Contractor.
- C. Maintain copies of the Drawings, Specifications, and other Contract documents at Contractor's temporary office at the site and make these available for use at all times.

1.03 OWNER'S FIELD OFFICE

- A. The Contractor shall provide, maintain, and subsequently remove as its property, field offices as specified below, for the free and exclusive use of the Owner throughout the duration of the work of this contract.
- B. The field office, equipped as specified, shall be available at the site within three (3) weeks of Notice to Proceed for the Owner's use. The field office shall be located where directed in close proximity to the Contractor's field office, and relocated, when necessary, at no additional cost to the Owner.
- C. The Contractor shall maintain the field offices in good repair and acceptable appearance and shall provide daily cleaning service and constant maintenance and replenishment, as applicable, of paper towels, paper cups, soap, toilet paper, and bottled water service.
- D. Sanitary facilities shall be provided complying with state and local governing authorities.
- E. The Owner's temporary field office shall remain in service until work is complete and a Notice of Completion is provided by the Owner.

1.04 CONTRACTOR'S FACILITIES

- A. The Contractor shall maintain the Contractor's facilities during construction in a manner that will not obstruct roads or access to existing WRF facilities. The Contractor shall proceed with its work in an orderly manner, maintaining the site free of debris and unnecessary equipment or materials. The Contractor shall perform the construction in a manner and schedule such that access to the treatment plant facilities are available at all times.
- B. Within the WRF site, the Contractor shall use only the designated road(s) for regular access to work sites. The Contractor shall maintain, keep clean, and repair the designated

access road during the contract period, and restore the road to original or better condition at the end of the work. The Contractor shall enter and exit the site as indicated on the Drawings, unless otherwise authorized by the Owner.

- C. Contractor's employees shall not use any of the Owner's facilities or supplies, including telephones, sanitary facilities, trash receptacles, or vehicles.
- D. Contractor's Field Office:
  - 1. Contractor shall maintain a suitable temporary office at the site.
  - 2. As a minimum, the Contractor's office shall have telephone services with an answering machine, power, and sanitary facilities.
  - 3. Temporary office will be considered as the headquarters of the Contractor's representative who is authorized to receive drawings, instructions, or other communication or articles. Any communication given to the representative or delivered at Contractor's temporary office at the site in his absence is deemed to have been delivered to the Contractor.
  - 4. Maintain copies of the Drawings, Specifications, and other Contract documents at Contractor's temporary office at the site and make these available for use at all times.
  - 5. Contractor shall not occupy its field office until the Owner's field office is on site and ready for use in accordance with these Specifications.
  - 6. The Contractor's temporary field offices shall remain in service until work is complete.

#### 1.05 STAGING AREA

- A. Before starting the work, submit a proposed plan and layout for all temporary offices, sanitary facilities, storage areas, temporary water service and distribution, and temporary power service and distribution.
- B. Erect temporary security fence as appropriate. Contractor is responsible for the security of the staging area. Owner and Engineer do not take any responsibility for missing or damaged equipment, tools, or personal belongings.
- C. Store only those materials and equipment that are related to the construction within the staging area.

#### 1.06 FENCES

- A. Erect temporary fences at the boundary of construction easements and in locations indicated on the Drawings to protect existing wetlands and other environmentally sensitive areas.
- B. When existing fences require temporary removal, and these fences are required to restrain animals and stock, erect fences to prevent animals from escaping. Contractor shall be responsible for loss, injury or damage that results from failure to restrain animals and stock.
- C. When working in open areas where animals and stock are maintained, provide adequate temporary fencing around open excavations to prevent injury to animals and stock.



## PART 2 - PRODUCTS

### 2.01 OWNER'S FIELD OFFICE

- A. Field offices for the Owner's exclusive use shall be as follows:
1. Main field office structure: Approximately 12 feet by 56 feet, including a toilet room. Williams Scotsman or equivalent.
  2. Construction: Weathertight building constructed at the site, pre-manufactured building, or trailer, with a toilet room containing a water closet and lavatory, partitioned off from the working area. The water closet may be of the chemical type provided that it is a flush type with an approved holding tank.
- B. Trailer type mobile structure(s) shall have the following features:
1. All metal frame.
  2. All metal exterior, sides, and roof.
  3. Openings: At least 6 windows and 2 entrance doors, each with cylinder lock and 4 keys.
  4. Exterior lighting over entrance door.
  5. Twenty 110 VAC duplex receptacles with at least 2 in each office.
  6. Security guard screens on all windows.
  7. Horizontal sliders with blinds on all windows.
  8. Floor: resilient flooring
  9. Insulated double walls, floor, and roof.
  10. Walls and ceiling: Insulated with finished interior surfaces.
  11. Self-contained, built-in electric heater with central air conditioning unit.
  12. Fluorescent ceiling lights. Adequate lighting to provide 100 foot-candles at desk height.
  13. Minimum interior height shall be 8'.
  14. Railed stairway to entrances.
  15. Smoke detectors and outside alarm.
  16. The Contractor shall provide and install a 2-A-10-BC fire extinguisher. Fire extinguisher shall be mounted so as to be plainly visible at all times. The Contractor shall service the fire extinguisher on an annual basis.
  17. Signs
    - a. Main field office reading "Owner's Field Office" on first line and "Name of Owner" with logo on the second line, with letter height 4" minimum
    - b. Security Office reading "No Unauthorized Personnel" on the first line and "Access Badge Required - Please Sign In" on the second line with letter height 4" minimum.
  18. Boot brush.

19. Security alarm and security contract with Bay Alarm Company, Sonitrol, or equal.
- C. Contractor Shall Arrange and Pay For:
1. Janitorial service, including daily dusting, floor cleaning, and trash removal, and weekly comprehensive cleaning, including windows.
  2. A continuous supply of toilet paper, paper hand towels and hand soap for each restroom.
  3. Bottled drinking water service with chilled and hot water dispenser. Provide minimum four 5-gallon bottles of water per month.
  4. Suitable restroom facilities with sinks with hot and cold water.

## 2.02 OWNER'S FIELD OFFICE EQUIPMENT

- A. The Contractor shall furnish and install four external voice land lines. These phone lines shall be independent of the Contractor's phone lines. One phone line shall be installed in the conference room trailer. Regular (local and long distance) phone service charges for the Owner's field office will be paid by the Owner. The Contractor shall be responsible for coordination, installation charges, and monthly billing with the telephone company (coordinate with Owner).
- B. Contractor shall furnish high speed internet service as specified herein. The Contractor shall be responsible for coordination, installation charges, and monthly billing with the local power company (coordinate with Owner).
- C. Contractor shall install temporary power lines and facilities for power to the trailer.
- D. The Contractor shall submit all office plans to the Owner for approval.
- E. Provide the following furnishings and equipment:
1. Office desks: Two, with 6 drawers (2 with locks) and two padded, upholstered swivel chairs.
  2. Drafting table: one, not less than 36 inches by 60 inches.
  3. Metal drafting stools with backs: One.
  4. Eight stackable chairs.
  5. Metal filing cabinets:
    - a. Two 4-drawer vertical cabinets, 18"W x 30"D x 52"H
    - b. Two 4-drawer lateral cabinets, 36"W x 19-1/4"D x 53-1/4"H
  6. Supply cabinet: 1, with not less than 15 square feet of shelves.
  7. Steel bookcases: two, five-shelf (four adjustable), 34-1/2"W x 12-5/8"D x 72"H.
  8. Plan hold rolling stand of 12 binders: one, with binders.
  9. Wastebaskets: six.
  10. Dry erase board 96 by 48 inches, magnetic.
  11. Refrigerator, 6.0 cubic feet capacity.
  12. Conference table: one, at least 10 feet long by 3 feet wide.

13. Secretary desk with return section for open area
14. One Swivel chair for secretary
15. Field Office Data Service and Equipment:
  - a. Provide one of the following data services (listed in order of preference) for unlimited use by the Owner and the Owner for the duration of the project. Contractor is responsible for all maintenance of service and hardware. Data service will be dedicated to the Owner and not shared with any other party. The Contractor shall provide a durable and weathertight system for connecting the Owner's trailer to the service provider's facilities at the jobsite boundary: Contractor is responsible for all maintenance of service and hardware:
  - b. Provide high-speed Internet access (DSL or cable modem)
    - 1) Requirements: Minimum 6 Gb per second download. This access must have a minimum of 8 (5 usable) IP address. In addition, it must provide an average round-trip delay of less than 150 ms to the Owner's Internet gateway.
    - 2) Equipment: Provide appropriate DSL or cable modem device. In addition, provide the following:
      - a) Cisco ASA 5505 firewall with 3DES software, part number ASA5505-SEC-BUN-K9 and Cisco 4-hour response onsite Smartnet Maintenance for duration of project.
      - b) Cisco Aironet 3500 Series Wireless Access Point Model No. AIR-CAP3502I-A-K9.]
  - c. Provide private line or frame-relay Internet access.
    - 1) Requirements: T1 speed. This access must have a minimum of 8 (5 usable) IP address. In addition, it must provide an average round-trip delay of less than 150 ms to the Owner's Internet gateway.
    - 2) Equipment:
      - a) Visual Networks IP Enterprise central office T1 drop-and-insert CSU/DSU.
      - b) Cisco 2911 router bundle, Cisco part number 2911/K9 and Cisco 4-hour response onsite Smartnet Maintenance for duration of project.
      - c) Serial interface card, Cisco part number HWIC-1T.
      - d) Serial cable, Cisco part number CAB-SS-V35MT.
      - e) Security license, Cisco part number SL29-SEC-K9.
      - f) Cisco Aironet 3500 Series Wireless Access Point Model No. AIR-CAP3502I-A-K9.]
  - d. Service shall be in place and ready for use no later than fifteen (15) calendar days after the Contractor's receipt of Notice to Proceed.

16. Field office local area network: Provide the following to create a local area network for the Owner:
  - a. Install Category 5e cabling to support all specified computers, printers, and other network device. This cabling should be home-run to a patch panel and meet all applicable installation standards for CAT5e. Patch panel and jack locations to be coordinated with Owner.
  - b. Provide 10/100/1000 Ethernet Switch sized to support all specified network devices for Owner with an allowance for 50 percent growth/spare ports. Each office must have a network connection port.
  - c. Provide APC SmartUPS RT 1500 uninterruptible power supply, model SURTA1500XL.
  - d. Provide Category 5e patch cables for all networking equipment; both for patch panel to switch connection and for wall jack to network device connection.
  
17. Field office computer systems: Furnish and install two (2) new complete computer systems. Contractor is responsible for all maintenance of hardware and software. Each system shall consist of, as a minimum:
  - a. Intel® Core i7 processor.
  - b. Minimum 500 GB hard disk.
  - c. Minimum 8 GB RAM.
  - d. Minimum 4 USB ports.
  - e. Two LCD Monitors per computer, 22-inch widescreen 1680 by 1050 with VGA interface. Brand should be LG or Owner-approved equivalent.
  - f. Minimum 128 MB video card.
  - g. Keyboard: 101 key, USB.
  - h. Mouse: USB with mouse pad
  - i. Sony DRU-840A (20x max, dual format, DVD +/-R) drive, or equivalent
  - j. Sound card and speakers.
  - k. Intel Etherexpress 10/100/1000 RJ-45 PCI network card. Gigabit Network card adapter.
  - l. Docking stations, cables, connectors, and controller cards, as necessary, to provide a functioning system, including computer accessories.
  - m. A/C surge suppressor sized for computer system.
  - n. USB flash media storage device: 64 GB.
  - o. Media: 100 DVD-R.
  - p. Microsoft Windows 10 Professional operating system.
  - q. Microsoft Office Professional plus, current version
  - r. Adobe Acrobat Standard, latest version (full package, not just the free reader).
  - s. Microsoft Security Essentials or equivalent anti-virus/malware protection, latest version.

- t. Current version of Business and Legal Reports Safety Training Presentations, Product Code 11006100.
- 18. Additional computer-related items:
  - a. Printers:
    - 1) Dedicated to Owner allowing configuration behind Owner's firewall.
    - 2) Full size color multifunction printer/copier capable of copying, printing, and scanning 11 by 17 paper size and send and receive Fax.
      - a) Toshiba Studio 2050C or equal.
      - b) Onsite Toshiba maintenance for duration of project.
      - c) Paper, toner, and other supplies for duration of project.
- F. Locate field office where directed.
- G. Have field office ready for occupancy within 2 weeks after start of site work.

**PART 3 - EXECUTION**

**3.01 TEMPORARY ELECTRIC POWER**

- A. Contractor shall make provisions to obtain temporary electric power for use during construction. The Contractor shall be responsible for obtaining a source of electric power for construction.
- B. Cost of electric power shall be borne by the Contractor.
- C. The temporary electric power installation shall meet the construction safety requirements of OSHA, state, and other governing agencies.

**3.02 TEMPORARY TELEPHONE SERVICE**

- A. Provide telephone service at the construction site office. Cellular telephone service is acceptable.
- B. The Contractor is not permitted to use the Owner's telephone service.

**3.03 TEMPORARY SANITARY FACILITIES**

- A. Provide toilet and wash-up facilities for the construction work force at the site of work.
- B. Facilities shall comply with applicable laws, ordinances, and regulations pertaining to the public health and sanitation of construction field offices, dwellings, and camps.

**3.04 TEMPORARY WATER SUPPLY**

- A. Use potable water for soil moisture conditioning, pipeline pressure testing, and other construction uses.
- B. Obtain approvals and authorizations from the owner of the public water distribution system for use of water and pay all fees associated with consumption of the potable water.

1. Make the necessary connections to the public water supply and install all conveyance piping and truck filling facilities that are required to transport water for the work.
2. Temporarily install valves, flow meters, air gaps, backflow preventers and other appurtenances required by the owner of the public water distribution system to maintain the integrity of the existing water systems.
3. Remove temporary water facilities when no longer needed.

**END OF SECTION**

**SECTION 01 57 19**  
**ENVIRONMENTAL CONTROLS**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Environmental controls to be maintained during construction.

1.02 APPLICABLE LAWS AND REGULATIONS

- A. Comply with applicable Federal, State and local environmental, health and safety laws and regulations.

1.03 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 31 23 19 – Dewatering

1.04 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Copies of permits and approvals for construction as required by Laws and Regulations and governing agencies.
- C. Plan for disposal of waste materials and intended haul routes.
- D. Updated Erosion and Sediment Control Plan meeting the requirements shown on the Drawings and the permit.

1.05 SITE CLEANLINESS

- A. Maintain work sites, staging areas, public roadways and private property clean and free of rubbish and debris. Remove materials and equipment from the site when they are no longer necessary for the Work.
- B. Keep buildings that are occupied by the Contractor clear of refuse and debris and in a reasonably neat condition.
- C. Upon completion of the work and before final acceptance, clear work areas of equipment, unused materials, and rubbish to present a clean and neat appearance.

1.06 HAZARDOUS MATERIALS

- A. Handle paints, solvents, and other construction materials with care to prevent contaminants from entering into sewers, storm drains, surface waters, or soils.
- B. Develop an emergency response plan for spills of sewage, paint, oil, and other hazardous materials.
- C. In the event of a spill, immediately notify the ENGINEER, OWNER and jurisdictional agencies. Take proper measures to clean up spills of hazardous materials in accordance with the emergency response plan, State, Federal, and local regulations and manufacturer's recommendations.

1.07 AIR POLLUTION CONTROL

- A. Contractor shall not discharge smoke, dust, and other contaminants into the atmosphere that violate the air pollution regulations for the area.
- B. Do not idle internal combustion engines for prolonged periods of time.
- C. Minimize dust nuisance by cleaning, sweeping and sprinkling work areas, exposed soil, and haul roads with water or by powered brushing.

1.08 NOISE CONTROL

- A. Comply with local controls and noise level rules, regulations, and ordinances which apply to any work performed pursuant to the Contract. If the requirements of this Section are more restrictive than those of the local regulations, the requirements of this Section shall govern.
- B. Minimize noise from construction equipment.
  - 1. Whenever possible, utilize construction equipment powered by electric motors rather than diesel or gas driven engines.
  - 2. Locate construction equipment such as compressors and generators as far from sensitive receptors as feasibly possible. Erect temporary sound blankets around noisy equipment to mitigate noise propagation.
  - 3. Equip internal combustion engines with a muffler and provide a noise enclosure around stationary equipment such as engine-driven generators, welders, compressors, and pumps. Use “quiet package” and “hush” equipment.
  - 4. Do not start-up machines or equipment prior to or after the specified construction work hours.
- C. Noise Complaints: Should a specific noise impact complaint occur, Engineer has the prerogative to direct Contractor to implement one of the following noise mitigation measures at Contractor’s expense:
  - 1. Relocate stationary construction equipment away from the affected property.
  - 2. Shut off idling equipment.
  - 3. Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.
  - 4. Install temporary or portable acoustic barriers around stationary construction noise sources.
  - 5. Operate electric powered equipment using utility power.
- D. Amplified sounds such as telephone, loudspeakers, and other forms of loud communication that constitute a nuisance and potential disturbance shall not be used.

1.09 DIRT AND MUD CONTROL

- A. Contractor is responsible for preventing dirt, mud, and debris from accumulating on streets, sidewalks, parking areas, or other paved surfaces and for maintaining the cleanliness of these areas.
  - 1. Track Out: Clean vehicle tires of mud and dirt before exiting the site.



2. Cover all dump truck loads and other loads that may result in debris falling from the vehicle.
3. Sweeping Paved Areas:
  - a. Maintain cleanliness of paved areas used by the Contractor for the duration of the project.
  - b. Sweep paved areas that have been used since the previous cleaning on at least a weekly basis, or more frequently when directed by the Engineer. Utilize regenerative air or vacuum pickup sweepers together with proper dust control methods to remove sediment, dust, dirt, and other matter from paved areas. Do not use excessive water resulting in mud on public streets.

1.10 TREE AND PLANT PROTECTION

A. Temporary tree protection

1. Carefully protect existing trees from damage by construction activities. Additional requirements for specific trees may be shown on the Plans or designated in the Contract Documents.
2. Every reasonable effort shall be made to avoid creating conditions adverse to the tree's health.
  - a. The natural ground within the dripline of protected trees shall remain undisturbed.
  - b. The dripline area of protected trees shall be identified on the ground by a circle with a radius measurement from the trunk of the tree to the tip of its longest limb.
  - c. No limb shall be cut back in order to change the dripline measurement.
  - d. The area within the dripline is a critical area of the tree's root zone and defines the minimum protected area of each tree.
  - e. No vehicles, construction equipment, temporary buildings, supplies, materials or facilities shall be driven, parked, stockpiled or located within the dripline of protected trees.
  - f. No trees outside the construction limits shall be removed or damaged, unless authorized by the Construction Manager.
3. If a tree is damaged or destroyed by construction (other than those designated for removal), the Contractor shall replace it in species, size and grade with a healthy tree as directed by the Construction Manager. Where it is necessary to replace a tree damaged by construction, the Contractor shall bear all expenses required to establish the replacement tree and pay any tree removal fees.

B. Cultivated areas and other surface improvements:

1. Landscaped areas and other surface improvements which are damaged by actions of the Contractor shall be restored.
2. Minimize vegetation removal.
3. Areas shall not be cleared until construction activities require the work.

4. Erosion controls shall be in place prior to clearing and grading activities.

1.11 OIL SPILL PROTECTION AND CONTROL

- A. Store fuel and oil in accordance with requirements of the Uniform Fire Code and applicable National Fire Protection Association standards.
- B. Assume responsibility for the prevention, containment, and cleanup of spilled oil, fuel, and other petroleum products used in the Contractor's operations. Prevention, containment and cleanup costs shall be borne by the Contractor.
- C. Periodically inspect fuel hoses, lubricating equipment, hydraulically operated equipment, oil drums, and other devices for drips, leaks or signs of damage. Maintain and properly store to prevent spills and vandalism.
- D. Construct dikes around storage tanks, or locate tanks to prevent spills from escaping to surface waters or drainage ditches.
- E. Remove oils on land using sand, clay, sawdust or other absorbent material and dispose in an acceptable manner. Store waste materials in drums or other leak proof containers after cleanup and during transport to disposal.

1.12 WATER POLLUTION CONTROL

- A. Divert sanitary sewage and non-storm waste flow interfering with construction and requiring diversion to sanitary sewers. Do not cause or permit action to occur which would cause an overflow to existing waterway.
- B. Prior to commencing excavation and construction, obtain Owner's agreement with detailed plans showing procedures intended to handle and dispose of sewage, groundwater, and stormwater flow, including dewatering pump discharges.
- C. Do not dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited. Provide acceptable containers for collection and disposal of waste materials, debris, and rubbish.

1.13 EROSION, SEDIMENT, AND FLOOD CONTROL

- A. Provide, maintain, and operate temporary facilities to control erosion and sediment releases, and to protect the Work and existing facilities from flooding during construction period.
- B. Comply with state and local requirements.
- C. Comply with Section 31 23 19 Dewatering.

**END OF SECTION**

## SECTION 01 57 29

### SEWER BYPASS PUMPING

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Requirements for establishing and operating temporary bypass pumping systems for the purpose of diverting flow around work areas.
- B. Furnish labor, materials, equipment, utilities, power, fuel and consumable items and incidentals to design, install and maintain operation of temporary pumping systems.

##### 1.02 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 12 16 – Work Sequence and Constraints
  - 2. Section 01 33 00 – Submittals

##### 1.03 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Prepare a temporary pumping plan and submit for review and approval. Include, at a minimum, the following:
  - 1. Drawings illustrating the proposed intake/suction locations, pump staging areas, pipeline routes, pipeline sizes, and discharge locations. Provide an elevation schematic showing elevation, on/off levels for each temporary pump, and static head.
  - 2. A site plan of each bypass pump system, including proper protection of both existing operations and temporary systems. Include submittals on fuel containment systems.
  - 3. Provide information on generator backup power and automatic transfer switch. Include a site plan showing the proposed location of the generator.
  - 4. Provide system analysis information, including required static lift, frictional and minor headlosses, pipe velocities, and a system curve based on the actual suction and discharge pipeline configuration. Include pipe sizing, material, and quantity information for the temporary piping. Provide pump cut sheets and pump curves showing pump capacity and TDH of the proposed system. Detail the number of pumps used for regular operation and the pumps provided for redundancy.
  - 5. Submit electrical plans (or equivalent for engine driven unit), including panel location, temporary conduit runs, connection to back-up power, etc. Include in the submittal, manufacturer's information for all electrical equipment.
  - 6. Submit manufacturer's information on the pump Variable Frequency Drive (VFD).

7. Provide information on the temporary alarm systems for bypass pumping systems. Include with this information a list of names and telephone numbers of the Contractor’s personnel that will be notified by the alarm.
8. Provide a plan detailing the provisions for maintaining operation of the temporary pumping system in the event of mechanical or electrical failure.
9. Submit information on the instrumentation systems that will control the water surface elevation.
10. Provide manufacturer’s information for appurtenances used in the bypass pumping system that are necessary for proper operation of the temporary system. Include with this information, cut sheets for additional equipment, as required in this specification.
11. Submit a System Outage Request Form for each bypass/outage plan. Unless otherwise specified, the plan shall be submitted to the Construction Manager for review and approval at least two weeks prior to the scheduled outage. Bypass/outage plan shall comply with construction constraints defined in Section 01 12 16.
12. Submit product information for sound attenuating materials required to meet the local noise requirements.
13. Where applicable, provide information on thrust restraint, temporary pipe supports, and anchorage. Include structural calculations, and thrust block sizing and location.

**PART 2 - PRODUCTS**

**2.01 FLOW REQUIREMENTS**

- A. Provide, install, operate, and maintain temporary bypass pumping systems necessary to divert the indicated flows below:

Flow (GPM)	Head (FT)
4,200	15

- B. Operate the bypass pumping system continuously until the work that requires flow to be re-routed is complete, appropriate testing has been completed, and the completed work is accepted by the Engineer.

**2.02 BYPASS PUMPS**

- A. Basis of Design
  1. Type of Pump: Non-clog type design and intended for pumping wastewater.
  2. Number of Pumps: Design each temporary pumping system with at least two duty pumps and one redundant standby pump.
  3. System Capacity: Capable of providing the maximum specified flow rate with the largest pump out of service.

- B. Install pumps in parallel and run on a variable frequency drive to match pump system output flows to flows in the plant. Provide and install level controls as part of the temporary pumping system and design level control system to interface with VFD controls.
- C. Either submersible or self-priming pumps are acceptable. Pump priming systems that require foot valves or vacuum pumps will not be allowed.
- D. Pumps may be electric or diesel powered. If electric powered, Contractor shall provide a source of electrical power. The existing electric power distribution system at the treatment plant is insufficient to power the temporary pumps. The existing electric power distribution system shall not be utilized by the Contractor.
- E. Pumping system control shall be fully automatic and have high level alarms. If one pump fails to start, a second standby pump shall automatically start. Provide necessary start/stop controls and electrical panel with telemetry to notify Contractor of alarms.

**2.03 STAND-BY ELECTRIC POWER**

- A. Provide a back-up electric power supply to ensure that the pumping system is continually operational.
- B. Supply an automatic transfer switch with the back-up generator.
- C. Equip generator with a sound attenuating enclosure capable of meeting the local noise ordinances.
- D. Size stand-by electric power system with adequate capacity to operate the required pumps to meet the peak pumping rates. The emergency power system controls must allow the operation of the lead and the lag pumps, but not allow the operation of multiple pumps beyond the emergency power generator's output rating.

**2.04 TEMPORARY PIPING**

- A. Piping shall be sized for a maximum velocity of 10 feet per second.
- B. Acceptable pipe materials are steel, ductile iron, PVC, EPDM rubber hose, and polyethylene.
- C. Piping and joints shall not leak or show signs of deterioration or rust.
- D. Provide isolation valving on the discharge side of each bypass pump.

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

- A. Furnish, install, operate, and maintain the temporary bypass pumping system, piping and appurtenances necessary to pump the bypassed sewage flows around the area of work.

**3.02 TESTING**

- A. Test the bypass pumping system for 4 hours before the system is put into operation. Test for proper operation of the overall system and test all controls and alarms. Notify Engineer 24 hours prior to testing.

### 3.03 INSPECTION/MAINTENANCE

- A. Inspect and monitor the bypass pumping system to ensure the system is operating properly. Maintain qualified personnel on-site at all times during the operation of bypass pumping systems, including nights, weekends, and holidays. Resolve problems that may occur with the bypass pumping system.
- B. If fuel is required, provide the Engineer with a fueling schedule. It is the Contractor's responsibility to provide fuel necessary to maintain continuous operation of the temporary bypass pumping system.
- C. Contractor is fully responsible and liable for damages which may result from failure of the bypass pumping system

### 3.04 SCHEDULE

- A. Bypass Pumping will only take place between July 1 and October 1.

**END OF SECTION**

**SECTION 01 61 10**  
**SEISMIC DESIGN REQUIREMENTS**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. The following primary and secondary structural system elements, non-structural components, and/or equipment supported by structures.
  - 1. Mechanical, electrical, and plumbing equipment and appurtenances.
  - 2. Un-buried Conduit, piping, cable trays, raceways, ducts and similar systems.
  - 3. Un-buried tanks and vessels (include contents), including support systems.
  - 4. Storage racks, suspended ceilings, light fixtures, raised floors, partitions, store-fronts, windows, louvers, architectural features and other non-structural components.

1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 05 50 01 – Anchor Bolts and Anchoring Devices

1.03 REFERENCES

- A. 2019 Oregon Structural Specialty Code (OSSC)

1.04 DEFINITIONS

- A. Engineer of Record: The Engineer responsible for the preparation of Contract Documents.
- B. Specialty Engineer: Structural or Civil Engineer provided by the Contractor licensed in the State where the project is being built responsible for specific elements of the primary structural system, the secondary structural system, non-structural elements and/or equipment supported by structures.

1.05 GENERAL DESIGN REQUIREMENTS

- A. The Contractor is responsible for producing designs that resist the total seismic forces in accordance with the seismic design criteria.
- B. The Contractor is responsible for coordinating between the Engineer of Record and the Specialty Engineer.
- C. The seismic design for non-structural components and equipment shall be in accordance with the OSSC Chapter 16, and the required coefficients and factors for determining the total design seismic forces are provided in the Seismic Design Criteria in Paragraph E below.
- D. Coordinate the layout so that adequate space is provided between items for relative motion. Provide additional supports and restraints between items of different systems when necessary to prevent seismic impacts or interaction.

- E. Seismic forces shall be determined in accordance with the following seismic design criteria:
1. Site-Specific Spectral Response Coefficients
    - a. Short Period Mapped Maximum Considered Earthquake, 5 Percent Damped:  $S_5=0.63g$
    - b. Short Period Mapped Maximum Considered Earthquake, 5 Percent Damped:  $S_1=0.34g$
    - c. Short Period Design Spectral Response Acceleration, 5 percent Damped:  $S_{DS} = 0.42$
    - d. 1 Second Period Design Spectral Response Acceleration, 5 percent Damped:  $S_{D1} = 0.23$
  2. Site Class: B
  3. Seismic Design Category: D, unless noted otherwise
  4. Risk Category: III, unless noted otherwise
  5. Component Importance Factor,  $I_p$ :
    - a. Mechanical and Electrical Equipment: Use 1.0.
    - b. Tanks and Tank Anchorage: Use 1.0.
    - c. Components that contain hazardous materials: Use 1.5.
    - d. Components that are required for life safety: Use 1.5.
    - e. Components that must remain functional after an earthquake, such as fire protection sprinkler systems and egress stairways: Use 1.5.
  6. Do not use more than 60 percent of the weight of tanks and mechanical and electrical equipment for designing anchors for resisting overturning due to seismic forces.
  7. Consider both conditions of tanks being either empty or full for designing anchors for seismic forces.
  8. Do not use friction to resist sliding due to seismic forces.

#### 1.06 DESIGN REQUIREMENTS FOR PIPING, CONDUIT, AND DUCTS

- A. The Contractor is responsible for producing designs for support of piping, conduit, duct or other systems to resist total seismic forces based on the seismic design criteria coefficients specified above, unless shown on the Contract Documents. Except where the technical specifications give specific exemption from resistance of seismic forces, all supports shall be designed to meet seismic criteria.
- B. Where possible, pipes, conduit, and their connections shall be constructed of ductile materials (e.g., copper, ductile iron, steel or aluminum and brazed, welded or screwed connections). Pipes, conduits and their connections, constructed of nonductile materials (e.g., cast iron, no-hub pipe and plastic), shall have the brace spacing reduced to one-half of the spacing allowed for ductile material.



- C. Seismic restraints may be omitted for the following conditions, where flexible connections are provided between components and the associated ductwork, piping and conduit:
1. Where the nominal pipe size is 1 in. or less.
  2. Piping, conduit or ducts suspended by individual hangers 12 inches or less in length from the top of the component to the bottom of the structural support. Where rod hangers are used, they shall be equipped with swivels.
  3. Air-handling ducts less than 6 square feet in cross-sectional area.
  4. See the CBC for additional requirements related to the omitting of seismic bracing.
- D. All trapeze assemblies supporting pipes, ducts and conduit shall be braced to resist the total seismic forces considering the weight of the elements on the trapeze. Pipes, ducts and conduit supported by a trapeze where none of those elements would individually be braced need not be braced if connections to the pipe/conduit/ductwork or directional changes do not restrict the movement of the trapeze. If this flexibility is not provided, bracing will be required when the aggregate weight of the pipes and conduit exceed 10 pounds/foot. The weight shall be determined assuming all pipes and conduit are filled with water.
- E. As an alternative to designing the supports and anchorage, where an approved national standard provides a basis for the earthquake-resistant design, submit standard, data, and details for piping, conduit, duct or other systems:
1. For ductwork, mechanical piping, process piping and electrical conduits, follow Guidelines for Seismic Restraints of Mechanical Systems by SMACNA modified as follows:
    - a. Seismically brace piping regardless of size or location. Provide transverse braces at all changes in direction and at the end of all pipe runs. Space transverse braces not more than 20 feet apart. Provide longitudinal braces at 40-foot centers.
    - b. Seismically brace all ductwork regardless of size or location. Provide transverse braces at all changes in direction and at each end of run. Space braces not over 20 feet apart. Provide longitudinal braces at 40-foot centers.
  2. For fire protection systems, follow NFPA 13 modified as in Paragraph 1.b above. Ensure that no seismic interaction occurs with items of other systems.

#### 1.07 DESIGN REQUIREMENTS FOR UNDERWATER ITEMS

- A. To allow for water sloshing, design rigid items such as piping or equipment supports for twice the lateral force, computed as if the item were above water. Alternatively, include seismic forces due to hydrodynamic forces in the analysis.
- B. Design flexible items to accommodate sloshing motions without damage to rigid machinery.
- C. Provide retainers to hold items from falling and damaging rotating equipment below, if bolted connections will fail because of ground motion displacing the supports.

## 1.08 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Shop Drawings: Submit structural calculations and detailed drawings signed and sealed by a structural engineer for the following listed elements and where required in Divisions 2 through 16 of the primary structural system and their attachments, the secondary structural system and their attachments, permanent non-structural components and their attachments, and the attachments and anchorage for all permanent equipment supported by the structures.
  - 1. Electrical and Information Technology Equipment
  - 2. Submersible Solids Handling Pumps and Piping Systems
  - 3. Standby Generators
  - 4. Suspended Ceilings
- C. Structural calculations and detailed drawings shall be prepared by a Specialty Engineer licensed in the State where the project is being built.
- D. Structural calculations and detailed drawings shall clearly show the total design seismic forces which will be transferred from the elements of the structural system, non-structural components, and/or equipment and their attachments to the primary structure.
- E. The Engineer's review of items within a Specification Section cannot be completed until all related items have been coordinated and submitted for review.
- F. Quality Assurance Submittals
  - 1. Test Reports: Submit test reports for tension testing of anchors.
  - 2. Where required in the equipment specifications in Divisions 2 through 16 submit certification that the equipment itself is designed to resist all internal seismic forces based on the seismic design criteria for the project.
  - 3. Where required in the equipment specifications in Divisions 2 through 16, submit signed and sealed structural calculations and detailed drawings from a specialty Structural or Civil Engineer licensed in the State where the project is being built for the attachments and anchorage to the primary structure.
  - 4. Where required in the equipment specifications in Divisions 2 through 16, submit certification that the attachments and anchorage are designed to resist all seismic forces based on the seismic design criteria for the project.

## 1.09 QUALITY ASSURANCE

- A. Qualifications: The Contractor is responsible for submitting signed and sealed structural calculations and detailed drawings from a Specialty Structural or Civil Engineer licensed in the State where the project is being built.
- B. Regulatory Requirements: Comply with the State of Oregon adopted and amended versions of 2019 Oregon Structural Specialty Code (OSSC) Chapter 16 - Earthquake Design plus clarifications and additions specified in this Section.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 FIELD QUALITY CONTROL**

**A. Site Tests:**

1. Tension testing of expansion or adhesive anchors utilized for anchorage shall be done in the presence of the special inspector and a report of the test results shall be submitted.
2. See Section 05 50 01 for additional requirements.

**B. Inspection:**

1. Provide special inspection for high strength bolting or bolts installed in concrete.
2. See Section 05 50 01 for additional requirements.

**END OF SECTION**

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**SECTION 01 61 11**  
**SEISMIC ANCHORAGE AND BRACING**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Requirements for seismic anchorage and bracing for equipment, tanks and nonstructural components.

1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  1. Section 01 33 00 – Submittals
  2. Section 01 61 10– Seismic Design Requirements
  3. Section 05 50 01– Anchor Bolts and Anchoring Devices
  4. Section 23 31 00 – HVAC Ducts and Casings
  5. Section 40 05 96 – Seismic Restraints for Piping
  6. Section 46 05 13 – General Requirements for Equipment
  7. Section 46 05 14 – Equipment Mounting

1.03 AREAS OF DESIGN RESPONSIBILITY

- A. The Contractor shall be responsible for designing all seismic attachments, braces, and anchors to the structure for tanks, mechanical equipment and electrical equipment included in the Work that weigh more than 20 pounds.
- B. Equipment manufacturers may provide standard design calculations and details for their specific pieces of equipment as part of the submittal for that equipment. Project-specific design calculations and details need not be produced unless the manufacture does not already have standard designs already prepared.
- C. Design of seismic anchorage and bracing for piping systems and ventilation ducting is also included in the Contractor’s responsibility for seismic design. Refer to Section 23 31 00 and Section 40 05 96 or additional requirements pertaining to seismic anchorage and bracing of piping and HVAC systems.

1.04 REFERENCES

- A. The following is a list of standards which may be referenced in this section.
  1. International Code Council (ICC)
    - a. International Building Code (IBC)
    - b. Evaluation Service (ICC-ES) Reports and Legacy Reports
  2. American Society of Civil Engineers (ASCE)
    - a. ASCE 7, Minimum Design Loads for Building and Other Structures.
  3. Oregon Structural Specialty Code (OSSC)

## 1.05 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Seismic Anchorage and Bracing Calculations
  - 1. Submit manufacturer's engineered seismic hardware data and installation requirements.
  - 2. Provide calculations for seismic attachments, braces and anchorages clearly showing the criteria used for the design. Calculations for anchorage of components shall be signed and sealed by a registered Professional Engineer.
- C. Shop Drawings: Show details of seismic attachment assemblies including connection hardware, bracing, and anchor bolts.

## 1.06 DESIGN AND PERFORMANCE REQUIREMENTS

- A. In accordance with IBC, tanks, mechanical and electrical components, and other elements of the Work that are permanently attached to structures shall be designed and constructed to transfer the component seismic forces specified in ASCE 7, Chapter 13 to the structure.
- B. Seismic attachments, braces, and anchorages shall be designed in accordance with the provisions of the IBC and the site-specific seismic criteria in Section 01 61 10.
- C. Comply with Sections 46 05 13 and 46 05 14.
  - 1. Do not use more than 60 percent of the weight of tanks and mechanical and electrical equipment for designing anchors for resisting overturning due to seismic forces.
  - 2. Do not use friction to resist sliding due to seismic forces.
- D. In accordance with ASCE 7, the following are exempt from the requirements of this Section:
  - 1. Mechanical and electrical components with a Component Importance Factor of = 1.0 that weigh 400 pounds or less, are mounted 4 feet or less above the adjacent finished floor elevation, and are provided with flexible connections between the components and any associated ductwork, piping, or conduit.
  - 2. Mechanical and electrical components with a Component Importance Factor of = 1.0 that weigh 20 pounds or less, are mounted at any height, and are provided with flexible connections to attached ductwork, piping, and conduit.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Attachments and supports transferring seismic loads to the structure shall be constructed of materials and products suitable for the application and designed and constructed in accordance with the design criteria shown on the Drawings and nationally recognized standards.
- B. Do not use powder driven fasteners and sleeve anchors for seismic attachments and anchorages where resistance to tension loads is required.

- C. Anchor Bolts: In accordance with Section 05 50 01.

**PART 3 - EXECUTION**

**3.01 GENERAL**

- A. Design seismic anchorage systems to provide restraint in all directions, for each component or system so anchored.
- B. Anchor tall and narrow equipment such as motor control centers and electrical control panels at the base and within 12 inches from the top of the equipment.
- C. Mechanical and electrical components shall not be attached to more than one element of a building structure at a single restraint location where such elements may respond differently during a seismic event. Such attachments shall also not be made across building expansion and contraction joints.
- D. Provide and install seismic attachments and braces in accordance with the size and number of braces determined by the design calculations prepared by the Contractor.
- E. Provide and install anchor bolts and concrete and masonry anchors for the anchorage of equipment in accordance with the bolt sizing, minimum embedment, and spacing requirements determined by the calculations prepared by the Contractor.

**END OF SECTION**

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**SECTION 01 61 50**  
**WIND DESIGN CRITERIA**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Wind design criteria.

1.02 REFERENCES

- A. 2019 Oregon Structural Specialty Code (OSSC).
- B. ASCE/SEI 7-16 Minimum Design Loads for Buildings and Other Structures

1.03 DESIGN CRITERIA

- A. Design in accordance with the requirements of the following:
  - 1. Risk Category: III
  - 2. Basic Wind Speed:  $V = 104$  mph.
  - 3. Wind Exposure Category: B
  - 4. Wind Importance Factor:  $I = 1.0$

1.04 SUBMITTALS

- A. Shop Drawings and Calculations: Complete shop drawings and wind calculations.
- B. Calculations shall be signed and stamped by a civil or structural Professional Engineer licensed to practice in the state where the Project is located.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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**SECTION 01 66 00**  
**MATERIALS AND EQUIPMENT**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Materials, equipment and products incorporated into the work.

1.02 MATERIAL AND EQUIPMENT REQUIREMENTS

- A. Specified in individual specification Sections in Divisions 02 through 46.
- B. Specifications are minimum requirements and manufacturers' standard products may require modifications to meet the specified requirements.
- C. Provide products and equipment with all accessories, trim, finish, safety guards and other devices needed for a complete and operational installation.
- D. Products to be supplied in quantity shall be the same product from a single source to provide standardization and interchangeability.

1.03 DEFINITIONS

- A. Named Products: Items identified by manufacturer's product name and model number as indicated in the manufacturer's published product data.
- B. Materials: Products that are shaped, cut, worked, finished or otherwise fabricated or installed to form a part of the Work.
- C. Equipment: A product with working parts, whether motorized or manually operated, that requires connections such as wiring or piping.

1.04 PACKAGING AND MARKING

- A. Equipment shall be protected against damage from moisture, dust, handling, or other cause during transport from manufacturer's premises to site. Each item or package shall be marked with the number unique to the specification reference covering the item.
- B. Stiffeners shall be used where necessary to maintain shapes and to give rigidity. Parts of equipment shall be delivered in assembled or subassembled units where possible.
- C. Bearing housings, vents and other types of openings shall be wrapped or otherwise sealed to prevent contamination by dust and dirt.

1.05 SHIPPING AND DELIVERY

- A. Plan, order, coordinate and deliver materials and equipment in accordance with the construction schedule to avoid delays and conflicts with the Work.
- B. Deliver anchor bolts and bolt templates sufficiently early to permit setting and placement in structural concrete.
- C. Unload products in accordance with the manufacturer's handling instructions. Promptly inspect for completeness and evidence of damage during shipment.

## 1.06 HANDLING AND STORAGE

- A. During the interval between the delivery of equipment to the site and installation, all equipment, unless otherwise specified, shall be stored in an enclosed space affording protection from weather, dust and mechanical damage and providing favorable temperature, humidity and ventilation conditions to ensure against equipment deterioration. Manufacturer's recommendations shall be adhered to in addition to these requirements.
- B. Equipment and materials to be located outdoors may be stored outdoors if protected against moisture condensation. Equipment shall be stored at least 6 inches above ground. Temporary power shall be provided to energize space heaters or other heat sources for control of moisture condensation. Space heaters or other heat sources shall be energized without disturbing the sealed enclosure.
- C. Fabricated products, pipe and pipe appurtenances shall be handled, stored off the ground on blocking or skids. Pipes with paint, tape coatings, linings or the like shall be stored to protect the coating or lining from physical damage or other deterioration. Pipes shipped with interior bracing shall have the bracing removed only when recommended by the pipe manufacturer.
- D. Store loose granular products in well-drained area on a solid surface to prevent mixing with foreign matter. Cover products that are subject to erosion or deterioration with plastic sheeting.
- E. Store electrical, instrumentation and control products in a water-tight enclosure to protect against damage from moisture, dust and corrosion.

## 1.07 PROTECTION OF EQUIPMENT AFTER INSTALLATION

- A. After installation, protect equipment from damage from, including but not limited to, dust, abrasive particles, debris and dirt generated by the placement, chipping, sandblasting, cutting, finishing and grinding of new or existing concrete, terrazzo and metal; and from the fumes, particulate matter, and splatter from welding, brazing and painting of new or existing piping and equipment.
- B. As a minimum, vacuum cleaning, blowers with filters, protective shielding, and other dust suppression methods will be required at all times to adequately protect all equipment.
- C. When sandblasting or when finishing concrete, all equipment that may be affected by cement dust shall be completely covered. Electrical switchgear, substations and motor load centers shall not be installed until after all concrete work and sandblasting in those areas have been completed and accepted and the ventilation systems installed.
- D. During painting operations, all grease fittings and similar openings shall be covered to prevent the entry of paint.

## **PART 2 - PRODUCTS (NOT USED)**

## **PART 3 - EXECUTION**

### 3.01 INSPECTION

- A. Prior to installation, inspect materials and equipment for signs of corrosion and other effects of storage. Do not install material or equipment showing such effects.

- B. Remove damaged material from the site and expedite delivery of replacement material or equipment. Delays to the Work resulting from material or equipment damage that necessitates procurement of new products will be considered delays that are within the Contractor's control.

### 3.02 INSTALLATION

- A. Handle, install, connect, clean and adjust products in accordance with the manufacturer's instructions.
- B. Fill lubricant reservoirs and grease bearings prior to starting equipment. Use lubricants recommended by the manufacturer of the equipment.
- C. Recoat painted surfaces that are damaged prior to final acceptance of the Work.

**END OF SECTION**

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**SECTION 01 66 05**

**AMERICAN IRON AND STEEL PROGRAM COMPLIANCE**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. The requirements for conformance with the American Iron and Steel (AIS) act.

1.02 AIS REQUIREMENTS

- A. The Contractor is required to demonstrate products and items covered under the AIS regulations are in conformance. Contractors can demonstrate conformance using with Step Certification or Final Manufacture Certification methods
- B. Step Certification: Requires each handler (supplier, fabricator, manufacturer, processor, etc.) of the iron performed. Each time a step in the manufacturer process takes place, the manufacture performed its work along with a certification of its origin.
- C. Final manufacturer Certification: Requires the final manufacturer that delivers the iron of steel products in certifiers that their step in the process was domestically performed Each team a step in the manufacture process takes place, the manufacture deliver its work along with a certification of its origin.
- D. AIS Certification Minimum Requirements:
  - 1. Name of Manufacturer (Note: Should appear in the text of the letter and be on the company letter head.)
  - 2. The location of the manufacturing facility where the project or process took place (not its headquarters.)
  - 3. A description of the product or item being delivered.
  - 4. A signature by a manufacturer's responsibility party.
- E. Submit an AIS Certification Letter with each required item. Two Example Certification Letter are appended to this section.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## SAMPLE AIS CERTIFICATION LETTERS

The following information is provided as a sample letter of step certification for AIS compliance. Documentation must be provided on company letterhead.

<<Date>>

<<Company Name>>

<<Address>>

<<City State Zip>>

### **SUBJECT:**

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxx
2. Xxx
3. Xxx

Such process took place at the following location:

\_\_\_\_\_

If any of the above compliance statements change while providing material to this project, we will immediately notify the prime contractor and the engineer.

Sincerely,

<<Company Name>>

Name - *Signed by company representative*

Title



The following information is provided as a sample letter of certification for AIS compliance.  
Documentation must be provided on company letterhead.

<<Date>>

<<Company Name>>

<<Address>>

<<City State Zip>>

**SUBJECT:**

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxx
2. Xxx
3. Xxx

Such process took place at the following location:

---

If any of the above compliance statements change while providing material to this project, we will immediately notify the prime contractor and the engineer.

Sincerely,

<<Company Name>>

Name - *Signed by company representative*

Title

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**SECTION 01 71 13**  
**MOBILIZATION AND DEMOBILIZATION**

**PART 1 - GENERAL**

1.01 MOBILIZATION

- A. Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the site; for the establishment of all facilities necessary for work on the project; and for all other work and operations which must be performed, or costs incurred prior to beginning work, on the various items on the project site.
- B. Mobilization shall also include the construction of temporary access ways; temporary fencing; and the necessary preparatory work required to allow for the safe and stable movement of all vehicles that are required to construct the improvements as shown.

1.02 DEMOBILIZATION

- A. Demobilization shall consist of work and operations necessary to disband all mobilized items and clean up the site. The removal of all temporary access ways, signs, temporary fencing, and temporary facilities or works and the restoration of surfaces to an equal or better than existing condition shall also be included as part of demobilization.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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**SECTION 01 72 50**  
**PROTECTION OF EXISTING FACILITIES**

**PART 1 - GENERAL**

1.01 GENERAL

- A. Protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than prior to such damage or temporary relocation, all in accordance with the Contract Documents.

1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 00 70 00 -General Conditions
  - 2. Section 01 57 19 – Environmental Controls
  - 3. Section 01 12 16 – Work Sequence and Constraints

1.03 CONNECTIONS

- A. Connections to existing facilities, and all associated Work, shall be in accordance with the requirements of Section 00 70 00, 5.05, Underground Facilities, and this Section, except that in the case of conflict, Section 00 70 00, 5.05, Underground Facilities, shall take precedence.
- B. Unless otherwise specified or indicated, Contractor shall make all necessary connections to existing facilities, including structures, drain lines, and utilities such as water, sewer, gas, telephone, and electric. In each case, Contractor shall receive permission from Owner or the owning utility prior to undertaking connections. Contractor shall protect facilities against deleterious substances and damage.
- C. Connections to existing facilities that are in service shall be thoroughly planned in advance, and all required equipment, materials, and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously (around the clock) if necessary to complete connections in the minimum time. Operation of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the owning utility.
- D. Any work which requires a system outage shall be coordinated and a request made, including contingency plans, to the owning utility at least two (2) weeks in advance.

1.04 RESTORATION OF PAVEMENT

- A. General
  - 1. All paved areas including asphaltic concrete berms cut or damaged during construction shall be replaced with similar materials of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit.

2. The pavement restoration requirement to match existing sections shall apply to all components of existing sections, including sub-base, base, and pavement.
3. Temporary and permanent pavement shall conform to the requirements of the affected pavement owner. Pavements which are subject to partial removal shall be neatly saw cut in straight lines.

B. Temporary Resurfacing

1. Wherever required by the public authorities having jurisdiction, the Contractor shall place temporary surfacing promptly after backfilling and shall maintain such surfacing for the period of time fixed by said authorities before proceeding with the final restoration of improvements.

C. Permanent Resurfacing

1. In order to obtain a satisfactory junction with adjacent surfaces, the Contractor shall saw cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement.
2. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines.
3. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement.

1.05 EXISTING UTILITIES

A. General:

1. Perform the Work in accordance with the requirements of Section 00 70 00, Article-5.05, Underground Facilities.

B. Protect existing utilities and other improvements which may be impaired during construction operations, regardless of whether or not the Utilities are indicated on the Drawings. Take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

C. Except where the Drawings indicate utilities have been field located during design or certain Utility locations shall be exposed as part of the Work, the Contractor shall be responsible for exploratory excavations as it deems necessary to determine the exact locations and depths of Utilities which may interfere with its work. Perform all exploratory excavations as soon as practicable after Notice to Proceed and, in any event, sufficient time in advance of fabrication and/or construction to avoid potential delays to the construction progress. When such exploratory excavations show the utility location as shown on the Drawings to be in error, notify the Engineer.

D. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the Utility.

E. Utilities to be Removed

1. Where the proper completion of the Work requires the temporary or permanent removal and/or relocation of an existing Utility or other improvement which is

indicated, remove and, without unnecessary delay, temporarily replace or relocate such Utility or improvement in a manner satisfactory to the Engineer and the owner of the facility.

2. In all cases of temporary removal or relocation, restoration to the former location shall be accomplished in a manner that will restore or replace the Utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.

F. Approval of Repairs

1. All repairs to a damaged Utility or improvement are subject to inspection and approval by an authorized representative of the Utility or improvement owner before being concealed by backfill or other work.

1.06 TREES OR SHRUBS WITHIN PROJECT LIMITS

A. General: Protection of existing trees and shrubs shall be in accordance with the requirements of this Section.

B. Except where trees or shrubs are indicated to be removed, exercise all necessary precautions so as not to damage or destroy any trees or shrubs, including those lying within project limits, and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the jurisdictional agency or Owner. Existing trees and shrubs which are damaged during construction shall be trimmed or replaced by the Contractor or a certified tree company under permit from the jurisdictional agency and/or the Owner. Tree trimming and replacement shall be accomplished in accordance with the following paragraphs.

C. Trimming

1. Symmetry of the tree shall be preserved; no stubs or splits or torn branches left; clean cuts shall be made close to the trunk or large branch.
2. Spikes shall not be used for climbing live trees.
3. Cuts over 1-1/2 inches in diameter shall be coated with a tree paint product that is waterproof, adhesive, and elastic, and free from kerosenes, coal tar, creosote, or other material injurious to the life of the tree.

D. Replacement

1. Immediately notify the jurisdictional agency and/or the Owner if any tree or shrub is damaged by the Contractor's operations.
2. If, in the opinion of said agency or the Owner, the damage is such that replacement is necessary, replace the tree or shrub at no additional cost to Owner.
3. The tree or shrub shall be of a like size and variety as the one damaged, or, if of a smaller size, the Contractor shall pay to the owner of said tree a compensatory payment acceptable to the tree or shrub owner, subject to the approval of the jurisdictional agency or Owner.
4. The size of the tree or shrub shall be not less than 1-inch diameter nor less than six (6) feet in height.

1.07 NOTIFICATION BY THE CONTRACTOR

- A. Prior to excavation in the vicinity of any existing underground facilities, including water, sewer, storm drain, gas, petroleum products, or other pipelines; buried electric power, communications, or television cables; notify the respective authorities representing the owners or agencies responsible for such facilities not less than three (3) days nor more than seven (7) days prior to excavation so that a representative of said owners or agencies can be present during such work if they so desire.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**



**SECTION 01 73 50**  
**CUTTING AND PATCHING**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Cutting and patching existing and new construction.

1.02 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals

1.03 GENERAL REQUIREMENTS

- A. Perform Work in compliance with OSHA Standards and other standards as applicable.
- B. Cutting and patching shall be completed to the satisfaction of the Engineer.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Cutting and Patching Plan
  - 1. Submit details of proposed construction before cutting and patching construction commences affecting:
    - a. Work of Owner or of others.
    - b. Structural integrity of element of Project.
  - 2. Cutting and Patching Plan shall include the following for Engineer's approval:
    - a. Identification of Work.
    - b. Description of affected construction.
    - c. Necessity for cutting, patching, alteration, or excavation.
    - d. Description of proposed construction.
    - e. Scope of cutting, patching, alteration, or excavation.

**PART 2 - PRODUCTS**

2.01 MATERIALS

- A. Comply with specifications and standards for products involved.

**PART 3 - EXECUTION**

3.01 PREPARATION

- A. Provide adequate temporary support as necessary to ensure structural integrity of affected portion of Work.
- B. Provide devices and methods to protect other portions of Project from damage and persons from injury.

- C. Provide protection from elements for that portion of Project which may be exposed by cutting and patching, and maintain excavations free from water.

### 3.02 CUTTING AND PATCHING

- A. Cut, Fit, and Patch when required to
  - 1. Make its several parts fit together properly.
  - 2. Remove and replace construction not conforming to Contract Documents.
  - 3. Remove samples of installed construction as specified for testing.
  - 4. Provide routine penetrations of nonstructural surfaces for installation of piping and electrical conduit.
- B. Execute cutting and demolition by methods which will prevent damage and will provide proper surfaces to receive installation of repairs.
- C. Openings in Existing Concrete and Masonry
  - 1. Create openings by:
    - a. Saw cutting completely through concrete or masonry, or
    - b. Scoring edges of opening with saw to at least 1 inch depth on both surfaces (when accessible) and removing concrete or masonry by chipping.
  - 2. Do not allow saw cuts to extend beyond limits of opening.
  - 3. Make corners square and true by combination of core drilling and grinding or chipping.
  - 4. Prevent debris from falling into adjacent tanks or channels in service or from damaging existing equipment and other facilities.
- D. Sizing of Openings in Existing Concrete or Masonry
  - 1. Make openings sufficiently large to permit final alignment of pipe and fittings without deflections.
  - 2. Allow adequate space for packing around pipes and conduit to ensure watertightness.
- E. Grouting Pipes in Place
  - 1. Sandblast concrete surfaces and thoroughly clean sand and other foreign material from surfaces prior to placing grout.
  - 2. Grout pipes, sleeves, castings, and conduits in place by pouring grout under a head of at least 4 inches. Vibrate grout into place. Completely fill the spaces occupied by pipes, sleeves, castings, and conduits.
  - 3. Water cure the grout.
- F. Connections to Existing Pipes
  - 1. Cut existing pipe square.
  - 2. Properly prepare the ends for the connection indicated on the Drawings.

3. Repair any damage to existing lining and coating.
- G. Rehabilitate all areas affected by removal of existing equipment, equipment pads and bases, piping, supports, electrical panels, electric devices, and conduits such that little or no evidence of the previous installation remains.
1. Fill areas in existing floors, walls, and ceilings from removed piping, conduit and fasteners with non-shrink grout and finish smooth.
  2. Remove concrete bases for equipment and supports by:
    - a. Saw cutting clean, straight lines with a depth equal to the concrete cover over reinforcement minus 1/2 inch below finished surface. Do not cut existing reinforcement on floors.
    - b. Chip concrete within scored lines and cut exposed reinforcing steel and anchor bolts.
    - c. Patch with non-shrink grout to match adjacent grade and finish.
      - 1) Terminate abandoned piping and conduits with blind flanges, caps, or plugs.
- H. Treat Existing Concrete Reinforcement as follows:
1. Where existing reinforcement is to remain, protect, clean, and extend into new concrete.
  2. Where existing reinforcement is not to be retained, cut off as follows:
    - a. Where new concrete joins existing concrete at the removal line, cut reinforcement flush with concrete surface at the removal line.
    - b. Where concrete surface at the removal line is the finished surface, cut reinforcement 2 inches below the surface, paint ends with epoxy, and patch holes with dry pack mortar.

**END OF SECTION**

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**SECTION 01 77 00**  
**CONTRACT CLOSEOUT PROCEDURES**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Administrative and procedural requirements for contract closeout.

1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 00 70 00 – Standard General Conditions of the Construction Contract
  - 2. Section 01 78 23 – Operation and Maintenance Information
  - 3. Section 01 78 39 – Project Record Documents

1.03 FINAL CLEANING

- A. Immediately prior to submittal of a request for inspection for Substantial Completion, clean the project site and make ready for Owner’s use and occupancy.
- B. Employ experienced workers or professional cleaners for final cleaning.
- C. Complete the following cleaning operations:
  - 1. Clean the project site, yard and grounds which were disturbed by construction activities. Remove rubbish, waste material, litter, and other foreign material.
  - 2. Sweep paved areas, remove oil stains, grease, dust, and dirt.
  - 3. Remove tools, construction equipment, machinery, storage sheds, temporary fences, and surplus material.
  - 4. Broom clean sidewalks and concrete floors.
  - 5. Vacuum carpets, spot clean or if necessary, shampoo to remove visible soil or stains.
  - 6. Clean glass in doors and windows, remove glazing compounds, replace chipped and broken glass, clean door and window frames.
  - 7. Patch, touch up and repair marred surfaces and finishes. Replace finishes and surfaces that cannot be satisfactorily repaired or restored.
  - 8. Wipe surfaces of mechanical and electrical equipment, remove excess lubrication, paint splatter and mortar droppings.
  - 9. Clean plumbing fixtures and mirrors.
  - 10. Clean light fixtures, lamps and bulbs. Replace burned-out bulbs and defective or noisy starters in fluorescent and mercury vapor fixtures.

#### 1.04 SUBSTANTIAL COMPLETION

- A. General:
  - 1. Comply with procedural requirements for Substantial Completion as specified in Section 00 70 00.
- B. Complete final cleaning operations before requesting inspection for Substantial Completion.
- C. Prior to requesting inspection for Substantial Completion, complete and submit the following:
  - 1. List of items to be completed or corrected (punch list). Organize list by facility, space, system and piece of equipment.
  - 2. Specific warranties, bonds, maintenance service agreements, final certifications, and similar documents.
  - 3. Delivery of spare parts, special tools, extra materials, and similar items to designated locations.
  - 4. Make final changeover of permanent locks and deliver keys to Owner.
- D. Inspection for Substantial Completion:
  - 1. Engineer, Owner and Contractor shall jointly walk through and inspect the project site to determine whether the Work is satisfactory and Substantially Complete.
  - 2. The Contractor's punch list will be reviewed, and additional items identified during the inspection requiring corrective actions will be added to the list as determined by the inspection.
  - 3. Once Substantial Completion has been achieved, Engineer will prepare a Certificate of Substantial Completion.

#### 1.05 FINAL COMPLETION

- A. Final Completion Submittals:
  - 1. Prior to submitting final Application for Payment, complete and submit the following:
    - a. Project Record Documents. Refer to Section 01 78 39.
    - b. Guaranty and Warranties.
    - c. Operation and Maintenance Information. Refer to Section 01 78 23.
    - d. Punch List with all corrective actions completed and ready for Final Inspection.
    - e. Releases from Agreements with property owners or public agencies.
    - f. Releases or Waivers of Liens and Claims.
    - g. Evidence of final, continuing insurance coverage complying with insurance requirements.
    - h. Consent of Surety to Final Payment.

B. Final Inspection:

1. Submit written request for final inspection for Project Acceptance.
2. Engineer will either proceed with the inspection or advise Contractor of unfulfilled requirements.

1.06 FINAL APPLICATION FOR PAYMENT

- A. Following a satisfactory Final Inspection , submit the final Application for Payment in accordance with the procedures and requirements specified in Section 00 70 00

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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**SECTION 01 78 23**  
**OPERATION AND MAINTENANCE DATA**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Requirements for Operation and Maintenance (O&M) manuals and related equipment data for incorporation into the Owner’s asset management system.

1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 01 99 00 – Reference Forms
  - 3. Section 01 81 00 – Equipment and System Testing

1.03 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Provide the following completed forms with each submittal (See Section 01 99 00)
  - 1. Operational and Maintenance Information Transmittal Form
  - 2. Equipment Record Form A and B
  - 3. Asset Management Data Field Form
  - 4. Spare Parts Record Form
  - 5. Spare Parts Release Form
- C. The Equipment Records Form and Asset Management Field Data Form shall be the initial pages of the manual.
- D. Sixty days prior to the testing and startup of any equipment, as specified in Section 01 81 00, Equipment and System Testing, submit one electronic copy of the Preliminary Operation and Maintenance manuals. Identify copies as “Preliminary.”
- E. Owner will complete review of preliminary O&M manuals and deliver review comments within 30 days of receipt.
- F. Provide four hard copies and two electronic copies of the final O&M Manual.

1.04 OPERATION AND MAINTENANCE MANUAL

- A. Operation and Maintenance Manuals shall contain all the information needed to operate, maintain and repair all systems and equipment and material provided in the Project. Group equipment and components by system, organized around unit processes shown in the process and instrumentation diagrams (P&IDs) and the control strategies. Match testing, training and commissioning systems as much as possible. The information provided shall include, but not be limited to, the following:
  - 1. General: The names, addresses, and telephone numbers of the manufacturer, the nearest manufacturer’s representative, and the manufacturer’s nearest supplier

of equipment and parts. Include the manufacturer's web site information. Provide performance curves for all pumps.

2. Operating Instructions:

- a. Safety Precautions: List personnel hazards for equipment and list safety precautions for all operating conditions.
- b. Operator Prestart: Provide requirements to set up and prepare each system for use.
- c. Start-up, Shutdown, and Post-Shutdown Procedures: Provide a control sequence for each of these operations.
- d. Normal Operations: Provide control diagrams; explain operation and control of systems and specific equipment. As applicable, provide baseline vibration, temperature, pressure, etc. readings.
- e. Emergency Operations: Provide emergency procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage. Include shutdown instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance on emergency operations of all utility systems including valve locations and portions of systems controlled.
- f. Service Requirements: Provide instructions for services to be performed by the operator such as lubrication, adjustments, and inspection.
- g. Environmental Conditions: Provide a list of environmental conditions (temperature, humidity, and other relevant data) which are best suited for each product and describe conditions under which products should not be allowed to run.

3. Preventive Maintenance:

- a. Lubrication Data: Provide a table showing recommended lubricants for specific temperature ranges and applications; provide charts with a schematic diagram showing lubrication points, recommended lubricants, and capacities; provide a lubrication schedule showing service interval frequency.
- b. Provide manufacturer's preventative maintenance schedule for routine inspections, tests, and adjustments required to ensure proper and economical operation and minimize repairs. Provide manufacturer's projection of preventive maintenance man-hours, by type of craft, on a daily, weekly, monthly, and annual basis.
- c. In addition, provide a customized maintenance schedule to be input into the Owner's asset management system using Maintenance Schedule (Section 01.99.00). The customized maintenance schedule shall include all preventive maintenance tasks identified in the preventive maintenance schedule specified above, listing tasks to be performed at specific calendar and usage intervals.

4. Corrective Maintenance:

- a. Troubleshooting Guides and Diagnostic Techniques: Provide step-by-step procedures to promptly isolate the cause of typical malfunctions.

Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

- b. Wiring and Control Diagrams: Provide point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job-specific wiring and control work. On diagrams, number electrical and electronic wiring terminals identically to actual installation.
  - c. Maintenance and Repair Procedures: Provide instructions and list tools required to restore equipment to proper operational condition.
  - d. Removal and Replacement Instructions: Provide step-by-step procedures and list required tools and supplies for removal, replacement, disassembly, and assembly of components, subcomponents, and accessories. Provide tolerances, dimensions, settings, and adjustments required. Include a combination of text and illustrations.
  - e. Spare Parts and Supply Lists: Provide lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonably delays using Spare Parts Release Form (Section 01.99.00). Identify spare parts and supplies that require a long lead time. Provide list prices.
  - f. Corrective Maintenance: Provide manufacturer's projection of corrective maintenance man-hours by type of craft. Separately identify and tabulate corrective maintenance requiring equipment manufacturer's participation.
5. Appendices:
- a. Parts Identification: Identify each component, subcomponent, and accessory subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification. When illustrations omit the part numbers and description, cross reference the illustrated part to the listed part. Group parts by components, subcomponents, and accessories.
  - b. Training Requirements: Provide manufacturer's information for use in Owner training.
  - c. Testing Equipment and Special Tool Information: Provide information on required test equipment; provide information on special tools needed for the operation, maintenance, and repair.
- B. Deliver electronic copies on CD, USB flash drive or upload into the electronic construction document control system.
- 1. Electronic O&M manuals shall be in searchable Adobe Acrobat pdf format.
  - 2. Where scanned pages are used, each scanned page shall be provided with a bookmark and identified in the index. In addition, annotate each scanned page

identifying the content. For example, for a scan of a Special Warranty, insert an annotation in the file stating “Special Warranty Documentation, Page 1.”

3. Index each manual with hyperlinks and bookmarks to each section.
4. Consistently orient all diagrams, drawings, pictures and illustrations.
5. Where Revit 3D drawing equipment blocks have been provided by equipment manufacturers, include equipment blocks as part of the electronic O&M manuals.

**PART 2 - NOT USED**

**PART 3 - NOT USED**

**END OF SECTION**

**SECTION 01 78 36****WARRANTIES AND BONDS****PART 1 - GENERAL****1.01 GUARANTEE OF WORK**

- A. The Contractor hereby agrees to make, at its own expense, all repairs or replacements necessitated by defects in materials or workmanship, supplied under terms of this Contract, and pay for any damage to other works resulting from such defects, which becomes evident within one (1) year after the date of Project Acceptance or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents. The Contractor further assumes responsibility for a similar guarantee for all work and materials provided by subcontractors or manufacturers of packaged equipment components. The Contractor also agrees to indemnify, defend, and hold the City of Sweet Home harmless from liability of any kind arising from damage due to said defects.
- B. The Contractor shall execute and submit a completed Warranty Form in the format as located in Section 01 99 00, and any portion of the Work possessed in accordance with the General Provisions. The Warranty Form shall be submitted prior to the Substantial Completion date or the final acceptance of the project or within five (5) days of the occupancy or use of a portion of the Work, whichever is applicable.
- C. The Contractor shall, upon the receipt of notice in writing from the Owner, promptly make all repairs arising out of defective materials, workmanship, or equipment. The Owner is hereby authorized to make such repairs, and the Contractor and its Surety shall be liable for the cost thereof, if ten (10) days after giving of such notice to the Contractor, the Contractor has failed to make or undertake the repairs with due diligence. In case of emergency, where in the opinion of the Owner delay could cause serious loss or damage, repairs may be made without notice being sent to the Contractor, and the expense in connection therewith shall be charged to the Contractor, and its Surety shall be liable for the cost thereof.
- D. Prior to the expiration of the Warranty period, the Owner reserves the right to hold a meeting and require the attendance of the Contractor. The purpose of the meeting is to review warranties, bonds and maintenance requirements and determine required repair or replacement of defective items.
- E. For the purpose of this paragraph, acceptance of the Work or a portion of the Work by the Owner, shall not extinguish any covenant or agreement on the part of the Contractor to be performed or fulfilled under this Contract which has not, in fact, been performed or fulfilled at the time of such acceptance. All covenants and agreements shall continue to be binding on the Contractor until they have been fulfilled.
- F. The Owner and the Contractor agree that warranty on the parts of the work possessed and used by the Owner in accordance with these Specifications, shall commence on the date that the Owner takes possession of such work and so notifies the Contractor in writing. The Owner and the Contractor further agree that such possession, and use of the

work shall not be deemed as Substantial Completion or acceptance of any other part of the Work.

- G. If, after installation, the operation or use of the materials or equipment furnished under this Contract proves to be unsatisfactory to the Engineer or Owner, the Owner shall have the right to operate and use such materials or equipment until it can, without damage to the Owner, be taken out of service for correction or replacement. Such period of use of the defective materials or equipment pending correction or replacement shall in no way decrease the guarantee period required for the acceptable corrected or replaced items of materials or equipment.
- H. Nothing in this Section shall be construed to limit, relieve or release the Contractor's, subcontractor's and equipment supplier's liability to the Owner for damages sustained as the result of latent defects in the equipment furnished caused by the negligence of the supplier's agents, employees or subcontractors. Stated in another manner, the warranty contained in this Section shall not amount to nor shall it be deemed to be a waiver by the Owner of any rights or remedies (or time limits in which to enforce such rights or remedies) it may have against the supplier of the equipment to be furnished under these Specifications for defective workmanship or defective materials under the laws of this State pertaining to acts of negligence.

**END OF SECTION**

**SECTION 01 78 39**  
**PROJECT RECORD DOCUMENTS**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. This Section details the Project Record requirements specified Section 00 70 00, which consists of C-700, Standard General Conditions of the Construction Contract.
- B. This project will utilize 3D models and other electronic documentation at all stages of design and construction. To that end, this Section outlines the requirements for maintaining the 3D models and other electronic documentation.
- C. The Project Record to be maintained by the Contractor and delivered to the Owner prior to Final Completion includes the following:
  - 1. Project Record Drawings
  - 2. CAD Drawings, where specified in the Construction Documents
  - 3. Project Record 3D Models
- D. Prior to the start of construction, the Contractor will be provided with electronic copies of the Construction Documents and supporting information. These electronic copies will include 3D models, the electronic drawing files used to develop the 3D models, 2D drawings, and text files. The models, drawings, and text files will be in a file format acceptable to all parties. The file formats may include Navisworks .nwd files, AutoCAD .dwg files, AutoCad P&ID .dwg files, Autodesk Revit .rvt files, Microsoft Word.docx files, Microsoft Access .accdb files, Microsoft Excel. xlsx files, and Adobe .pdf files. The 3D files may also be referred to as BIM files.
- E. Electronic versions of the Construction Documents and other information are made available to the Contractor for informational purposes only. Neither the Owner nor any other party makes any warranties whatsoever with respect to the electronic copies (and hereby disclaim any implied warranties, including any implied warranty of accuracy). Contractor's use of this information shall be at the Contractor's sole risk. The Contractor shall check the electronic information provided for consistency with the Construction Documents.
- F. The Drawings were prepared from a combination of 2D representations of the 3D models (extracted directly from the 3D models) and information that exists only in 2D. In the case of discrepancies between the Construction Documents and the 3D model, the Construction Documents govern.

**1.02 REFERENCED SECTIONS**

- A. The following Sections are referenced in this Section
  - 1. Section 00 70 00 – Standard General Conditions of the Construction Contract
  - 2. Section 01 31 26 – Electronic Construction Document Control System

### 1.03 PROJECT RECORD

#### A. General:

1. Protect and backup record documents from deterioration and loss in a secure fire-resistant location. Record documents will be reviewed by the Owner on a monthly basis during construction.

#### B. Electronic Project Record Drawings:

1. Maintain an electronic version of the Contract Drawings and Shop Drawings in Adobe .pdf format. Use the electronic record drawings to show the actual installation where the installation varies substantively from the Work, as originally shown. Record changes on whichever drawing can show conditions fully and accurately. Where shop drawings are used, insert a hyperlink to the shop drawing at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
2. Maintain electronic record drawings to distinguish separate categories of the Work. Good basic drafting practice must be applied.
3. Record new information that was not shown on Contract Documents or Shop Drawings. Record information concurrently with construction progress. No work shall be concealed until the required information is recorded. Be cautioned against ordering concrete until items concealed by the concrete are recorded on the Project Record Drawings. Should concrete be placed without recording the concealed items, payment may be delayed or withheld.
4. Show addenda items, Change Orders, and Request for Information (RFI) responses by their number and date the revisions with a "cloud" around the revision, with hyperlinks to the documents inserted into the corresponding location on the Contract Drawings.
5. Keep accurate measurements of underground services and utilities, referenced to the building, or if approved by Owner, the building or other permanent construction. Note changes of directions and locations, by dimensions and elevations, as utilities are actually installed.
6. Show mechanical dampers, valves, reheat boxes, cleanouts, and other items that require maintenance.
7. Show location of construction-concealed internal utilities and appurtenances referenced to visible and accessible features of the structure.
8. Record accurate locations of piping, valves, traps, dampers, duct work, equipment, and the like.
9. The following actual new construction and exposed existing items shall be recorded on the Project Record Drawings:
  - a. Depth of foundation elements in relation to ground elevation.
  - b. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements. Minimum accuracy requirements are specified in the following table.



Description	Horizontal Location	Vertical Location (elevation)	Notes
Pressurized piping	CL +/- 1 ft	CL +/- 0.01 ft	Includes water and process lines except irrigation systems
Gravity pipes: floor, process, sewer, and storm.	CL +/- 1 ft	I.E. +/- 0.01 ft	Recalculate slope if shown
Conduits, cable and duct banks at beginning and end of straight runs	CL +/- 3 inches	Nominal depth of cover to final grade or T.O.C. elevations +/-0.5 ft	Show conduit cross-sections, encasement width and height for encased duct banks
CL = centerline      I.E. = invert elevation      T.O.C. = top of concrete			

- c. The actual arrangement and routing of embedded conduit and piping relative to visible structural items. Conduit and piping shall be dimensioned off of walls, columns, or other similar features.
- d. Precise Survey Measurements:
  - 1) Taken on all final locations of buried or concealed items.
  - 2) Coordinates and elevations of starting and ending points and at directional changes.
  - 3) List survey coordinates on the Project Record Drawings.
  - 4) Complete survey and recording before any burial by soil, concrete, or other materials.
- 10. Locate all covered structures including thrust blocks, valves, piping junction, and duct banks.
- 11. Indicate field changes of dimension and detail.
- 12. "X-out" conditions not constructed and appropriately annotate "not constructed" to convey the actual "as constructed" condition.
- 13. Organize electronic record drawings in manageable sets, with cover sheets showing suitable titles, dates and other appropriate identification.
- 14. Include links to signed off permits including: plumbing, electrical, and building.
- C. CAD (Computer Aided Drafting) Drawings: The Contractor shall comply with the following drawing standards when preparing CAD Drawings specified in the Construction Documents
  - 1. All drawings shall be full size documents on standard sheet sizes (22x34), or as otherwise indicated in the Construction Documents.
  - 2. Cover sheet shall contain complete index of sheets.
  - 3. Symbols shown must be symbols used in the construction documents.

4. Standard drafting practice shall be:
  - a. Title block
    - 1) All sheets shall have a title block.
    - 2) Title block information is to be on the bottom of the sheet.
    - 3) Title blocks shall include the following information:
      - a) Date
      - b) Owner's Project Name
      - c) Owner's Project Number
      - d) Sheet name
      - e) Sheet number
      - f) Contractor company name
      - g) Architect or Engineer's Seal
      - h) A Key Plan
  - b. Layering Format:
    - 1) Use layering conventions used for the Construction Documents. The CAD Standards Design Guidelines used for preparation of the Construction Documents will be provided to the Contractor for reference.
  - c. Scale and Units:
    - 1) All objects are to be drawn at full scale for the assigned unit of measure.
    - 2) All drawings are to have a unit of measure assigned and not set to "unitless."
  - d. External references and image file usage in CAD Documents:
    - 1) External references are not allowed.
    - 2) All external references are to be bound using the Bind option (instead of the insert option).
  - e. Area of Work:
    - 1) CAD drawings shall include a boundary to define the Area of Work encompassing all areas, and only those areas where work is performed.
5. Submittal: Provide a CDROM Disk for all CAD Drawing submittals required by the Contract Documents in AutoCAD 2011 .DWG format and Adobe .pdf format. Also provide two hard copies on 11x17 bond paper.
  - a. No menus, custom user interface (cui) files or arx applications are allowed.
  - b. Each CAD drawing shall represent a single printed sheet where the file naming convention follows that used for the Construction Documents. All CAD drawings for all disciplines in a submittal are to be in a single folder. All supporting files (font file, line types, plot configurations, plot style tables, etc.) are to be in a sub folder. If files are attached, include them in the same folder as the CAD files.

D. Three Dimensional (3D) Construction Models:

1. Prior to closeout of a design package, provide 3D models developed during construction reflecting as-constructed conditions to the Owner in a format compatible with .dwg, .rvt, and nwd. formats, or other agreed upon formats. The models shall be created in 1:1 scale utilizing standard architectural US units of measure (feet and inches). Interoperability shall be defined as allowing the exchange and management of electronic data with the Owner's asset management system without loss of geometric information, such that individuals and systems are able to identify, access, and integrate information across multiple systems.
2. Maintain 3D construction models over the course of construction to show the actual installation information.
  - a. Make changes to the 3D models (BIM files) incorporating notes and comments as necessary to communicate changes to the Work.
  - b. Do not change the origin point or general extent of the 3D models.
  - c. Make changes to 3D models to show actual installed equipment with dimensions and data provided in submittals or Shop Drawings.
3. Run regular clash detection reports to verify that models accurately reflect as-constructed conditions.
4. The level of detail provided in the Project Record 3D Models shall be at least that provided in the design models. When additional detail beyond what is included in the design models is developed the Contractor as part of construction models, that detail shall be included in the 3D construction models.

E. Interim Project Record Availability and Reviews:

1. Project Record Drawings shall be reviewed and approved by the Owner monthly as a condition of approval of the draft Application for Payment, as specified in Section 00 70 00.
2. Facilitate monthly model coordination meetings during which the electronic Project Record Documents can be reviewed and checked against the Project Record Drawings.
3. Make the current version of the 3D construction models available via electronic communication and the electronic construction document control system specified in Section 01 31 26.
4. Conduct a final model review meeting with the Owner to demonstrate the construction models accurately reflect the conditions shown on the Project Record Drawings. At the meeting, run a clash-detection report in real-time to identify any remaining conflicts.

F. Final Deliverable:

1. Provide the Project Record on CDs, DVDs, or USB memory devices along with the hard copies specified above. Provide electronic copies of 3D models and underlying files used to generate models. Provide the number of copies specified in Section 00 70 00.

**END OF SECTION**

## SECTION 01 78 43

### SPARE PARTS

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Spare parts inspection, storage, and acceptance requirements. Spare part types and quantities are specified in the individual equipment specifications.

##### 1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 66 00 – Materials and equipment
  - 2. Section 01 99 00 – Reference Forms

#### PART 2 - NOT USED

#### PART 3 - EXECUTION

##### 3.01 INITIAL INSPECTION AND STORAGE

- A. Provide an on-site, Contractor controlled, spare parts storage facility.
- B. Provide 7 days written notification prior to spare parts arrival on-site.
- C. Include a completed Spare Parts Record Form (Section 01 99 00) with the notification. Price information required for individual spare parts. Listing one price for several spare parts is not acceptable. A single price may be provided for assemblies consisting of multiple parts/components, rebuild kits, or other groupings if they are listed as individual spare parts in the equipment specification.
- D. Jointly inspect with Owner to verify spare part condition and quantity. If Owner agrees condition and quantity comply with the individual equipment specification, jointly sign initial inspection portion of Spare Parts Release Form.
- E. Place spare parts into the on-site, Contractor controlled, spare parts storage facility.
- F. Store and protect spare parts in accordance with Section 01 66 00.
- G. Protect spare parts subject to deterioration, such as ferrous metal items or electrical components, with lubricants and desiccants; hermetically seal in plastic wrap.
- H. Place smaller parts in hinged wooden boxes or similar containers. Paint and identify boxes with stenciled lettering indicating "Spare Parts." Place an inventory sheet in a heavy-duty plastic protective sleeve and tape to the underside of the cover.
- I. Store on pallets or skids and identify as follows:
  - 1. Alphanumerically order and tag Items/containers on each pallet/skid with the information shown on the following sample tag. Equipment, pallets, or parts with inaccurate, incomplete, or missing tags will not be accepted.
  - 2. Alphanumerically sequence pallets or skids with a unique designation. Begin sequence of items/containers on each pallet/skid with an "A."

- a. (Example: If Pallet 007 contains five items, items would be individually tagged and identified as 007-A, 007-B, 007-C, 007-D, and 007-E.)

**SPARE PARTS RECORD FORM**

PROJECT	Sweet Home Mahler Water Reclamation Facility Improvements Phase 1		
DESIGN PACKAGE			
SPECIFICATION SECTION	43 25 02		
SPECIFICATION TITLE	Submersible Wastewater Pumps Solids Handling		
MFGR		MFGR CONTACT	
MFGR ADDRESS		MFGR PHONE	
VENDOR		VENDOR CONTACT	
VENDOR ADDRESS		VENDOR PHONE	

EQUIPMENT NUMBER(S):	EQUIPMENT NAME(S):
PMP-110-1	
PMP-110-2	
PMP-110-3	
PMP-110-4	

SPARE PARTS						
PART NO.	PART NAME	MFG	COST	LONG LEAD TIME*	QUANTITY	
					SPECIFIED	REC. BY MFG

\*Long lead time = parts requiring more than 4 weeks from time of order to delivery.

**3.02 DELIVERY AND ACCEPTANCE**

- A. Provide 14 days written notification prior to spare parts delivery to Owner; notification shall include a copy of the same Spare Parts Release Form signed during the initial inspection.
- B. Deliver spare parts to a location determined by the Owner.
- C. Deliver spare parts during Commissioning of the associated equipment.
- D. Jointly inspect spare parts with the Owner and verify condition and quantities. Mutual signoff on Spare Parts Release Form constitutes spare parts acceptance by Owner.

**END OF SECTION**

## SECTION 01 79 00

### TRAINING

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Requirements for training the Owner's personnel, by persons retained by the Contractor specifically for the purpose, in the proper operation and maintenance of the equipment and systems installed under this Contract.
- B. Coordinate with the equipment suppliers for all training activities and provide additional labor, services, and materials as required to complete training.

##### 1.02 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 01 99 00 – Reference Forms

##### 1.03 TRAINING SESSIONS

- A. Where required by the detailed specifications, provide on-the-job training of the Owner's personnel, which will include plant operations personnel, mechanics, electricians, and electronics technicians.
- B. The training sessions shall be conducted by qualified, experienced (2 years minimum), manufacturer's factory-trained representatives (not sales representatives) of the various equipment manufacturers.
- C. Include instruction in both equipment operation and preventive maintenance.
- D. Field training sessions shall take place at the project site. Classroom training facility will be provided at the site by the Owner.

##### 1.04 TIMING OF TRAINING SESSIONS

- A. Conduct training sessions in conjunction with the operational testing and commissioning periods.
- B. Operation and maintenance manuals shall be approved and ready for distribution to the Owner's personnel at least 30 days prior to the date scheduled for the individual training session.

##### 1.05 SUBMITTALS

- A. The following information shall constitute the Contractor's training plan and be submitted to the Engineer in accordance with the provisions of Section 01 33 00.
  - 1. Lesson plans for each training session to be conducted by the Contractor's representatives. In addition, training manuals, handouts, visual aids, and other reference materials shall be included.
  - 2. Date, time, and subject of each training session and identity and qualifications of individuals to be conducting the training.

3. Training schedule. Concurrent classes will not be allowed.
- B. Due to phased testing and start-up activities, Contractor may prepare separate submittals for individual equipment items and systems. The materials shall be reviewed and accepted by the Engineer no later than 3 weeks prior to delivery of the training.

## **PART 2 - PRODUCTS**

### **2.01 LESSON PLANS**

- A. Formal written lesson plans shall be prepared for each training session. Lesson plans shall contain an outline of the material to be presented along with a description of visual aids to be utilized during the session.
- B. Each lesson plan shall contain a time allocation for each subject.
- C. Furnish ten copies of the training manuals, handouts, and reference materials and one copy of necessary visual aids at least 1 week prior to each training session. These materials shall remain the property of the Owner and shall be suitably bound for proper organization and easy reproduction.

### **2.02 FORMAT AND CONTENT**

- A. Each training session shall be comprised of time spent both in the classroom and at the specific location of the subject equipment or system.
- B. Content is as described in PART 3.

### **2.03 VIDEO RECORDING**

- A. Record or retain the services of a commercial videotaping service to record, each training session. After taping, the material may be edited and supplemented with professionally produced graphics to provide a permanent record. Submit final digital training record to the City in electronic format.

## **PART 3 - EXECUTION**

### **3.01 SCHEDULING TRAINING SESSIONS**

- A. Classes shall be scheduled such that classroom sessions are interspersed with field instruction in logical sequence. Consolidate short training sessions into combined sessions so that staff time is more efficiently used. The minimum combined session length should be 1.5 to 2 hours. The maximum single or combined session length shall be 4 hours. The Contractor shall arrange to have the training conducted on consecutive days, with no more than 4 hours of classes scheduled for any one day. Contractor shall provide two training sessions on each system, piece of equipment, or "topic".
- B. No training sessions shall be scheduled for Mondays or Fridays. The Contractor shall coordinate the scheduling of training sessions with the operations superintendent.

### **3.02 TRAINING CONTENT**

- A. The following services shall be provided for each item of equipment or system. Additional services shall be provided, where specifically required in individual specification sections.
  - a. At a minimum, classroom equipment training for operations personnel will include:



- b. Using slides and drawings, discuss the equipment's specific location in the plant and an operational overview.
  - c. Purpose and plant function of the equipment.
  - d. A working knowledge of the operating theory of the equipment.
  - e. Start-up, shutdown, normal operation, and emergency operating procedures, including a discussion on system integration and electrical interlocks, if any.
  - f. Identify and discuss safety items and procedures.
  - g. Routine preventative maintenance, including specific details on lubrication and maintenance of corrosion protection of the equipment and ancillary components.
  - h. Operator detection, without test instruments, of specific equipment trouble symptoms.
  - i. Required equipment exercise procedures and intervals.
  - j. Routine disassembly and assembly of equipment if applicable (as judged by the City on a case-by-case basis) for purposes such as operator inspection of equipment.
2. At a minimum, hands-on equipment training for operations personnel will include:
- a. Identify location of equipment and review the purpose.
  - b. Identifying piping and flow options.
  - c. Identifying valves and their purpose.
  - d. Identifying instrumentation:
    - 1) Location of primary element.
    - 2) Location of instrument readout.
    - 3) Discuss purpose, basic operation, and information interpretation.
  - e. Discuss, demonstrate, and perform standard operating procedures and round checks.
  - f. Discuss and perform the preventative maintenance activities.
  - g. Discuss and perform start-up and shutdown procedures.
  - h. Perform the required equipment exercise procedures.
  - i. Perform routine disassembly and assembly of equipment if applicable.
  - j. Identify and review safety items and perform safety procedures, if feasible.
3. Classroom equipment training for the maintenance and repair personnel will include:
- a. Theory of operation.
  - b. Description and function of equipment.
  - c. Start-up and shutdown procedures.
  - d. Normal and major repair procedures.

- e. Equipment inspection and troubleshooting procedures including the use of applicable test instruments and the “pass” and “no pass” test instrument readings.
  - f. Routine and long-term calibration procedures.
  - g. Safety procedures.
  - h. Preventive maintenance such as lubrication; normal maintenance such as belt, seal, and bearing replacement; and up to major repairs such as replacement of major equipment part(s) with the use of special tools, bridge cranes, welding jigs, etc.
4. Hands-on equipment training for maintenance and repair personnel shall include:
- a. Locate and identify equipment components.
  - b. Review the equipment function and theory of operation.
  - c. Review normal repair procedures.
  - d. Perform start-up and shutdown procedures.
  - e. Review and perform the safety procedures.
  - f. Perform City approved practice maintenance and repair job(s), including mechanical and electrical adjustments and calibration, and troubleshooting equipment problems.
  - g. Review and use equipment manufacturers’ manuals in the hands-on training.
5. Manufacturer’s Instruction Certification Form
- a. Provide a Manufacturer’s Instruction Certification using the Form from Division 01 99 00.
  - b. Circulate an attendance list at the end of the training for signature by the Owner’s staff in attendance. Append the attendance list to the Certification Form for submittal per Section 01 33 00.

**END OF SECTION**

**SECTION 01 81 00**  
**EQUIPMENT AND SYSTEM TESTING**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Requirements for the Contractor's testing of mechanical, electrical, and instrumentation equipment and systems provided under this Contract.
- B. The requirements contained in this Section supplement, but do not supersede, specific testing requirements found elsewhere in the Contract Documents.

1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 01 99 00 – Reference Forms

1.03 COORDINATION

- A. Coordinate with the equipment suppliers for functional and performance testing and facility startup. Minimum levels of on-site installation and testing assistance required of the equipment suppliers is described in separate Sections.
- B. Coordinate the activities of subcontractors and equipment suppliers to implement the requirements of this Section.

1.04 SUBMITTALS

- A. Prepare and submit in accordance with Section 01 33 00.
- B. Independent Testing Labs: When testing by an independent laboratory is specified, provide credentials and certifications to demonstrate capabilities.
- C. Test Instruments Calibration: Certification that test instruments used in the testing procedure have been calibrated to an acceptable and recognized standard.
- D. Testing Schedule: For each piece of equipment or system, provide a testing schedule and updates as appropriate. Submit at least 20 working days prior to the scheduled start of testing. Confirm the test schedule, or provide an updated schedule 4 days prior to the start of testing.
- E. Testing Plan: Describe step by step procedure that will be utilized to systematically test equipment and systems.
- F. Test Results:
  - 1. Factory Test Results: Results of equipment tests performed by the equipment supplier at the point of manufacture and prior to shipping the equipment to the site.
  - 2. Results of the Pre-Operational Test.
  - 3. Results of the Functional Test.

4. Results of the Operational and Performance Tests.

G. Testing Form

1. Section 01 99 00 contains a sample Instrumentation Data and Calibration Test Form showing the format and level of detail required for the documentation forms.

H. Manufacturer's Field Certification

1. Submit a Manufacturer's Installation Certification Form (Section 01 99 00) after the manufacturer's Field Representative has completed the specified field services and testing. Submit the certification prior to Manufacturer's Representative leaving the plant site.

1.05 DOCUMENTATION REQUIREMENTS

- A. Develop and implement a records keeping system to document compliance with the requirements of this Section.
- B. Document date of test, equipment number or system name, nature of test (performance or operational), test objectives, test results and test instruments used during the test. Provide signature spaces for the Engineer and the Contractor.

1.06 TEST PLANS

- A. Develop test plans in cooperation with the equipment suppliers detailing the coordinated, systematic testing of each item of equipment and system provided under this Contract.
- B. Make test plans specific to the item of equipment or system to be tested. Identify by specific equipment or tag number each device or control station to be manipulated, observed or tested during the test procedure and the specific results to be observed or obtained.
- C. Identify the responsibility of subcontractors and suppliers who will participate in the tests and list the names of manufacturers' representatives to be present during the duration of the test.
- D. Provide step-by-step procedures for testing control and electrical circuits to affirm that the circuit is properly identified and connected to the proper device.
- E. Undertake performance tests in a manner that will duplicate the actual operating conditions that will be encountered.

1.07 TESTING SCHEDULE

- A. Prepare a testing schedule setting forth the sequence contemplated for performing the test work. Identify the contemplated start date, duration of the test and completion of each test.

1.08 TEST RESULTS

- A. Test results shall be within the tolerances set forth in the detailed specification sections of the Contract Documents. If no tolerances have been specified, test results shall conform to tolerances established by recognized industry practice.
- B. Retesting: If any portion of the work should fail to fulfill the Contract requirements and is adjusted, altered, renewed, or replaced, tests on that portion, together with all other

portions of the work as are affected thereby, shall be repeated within reasonable time and in accordance with the specified conditions.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 GENERAL**

- A. The objective of the testing program is to demonstrate, to the Engineer's complete satisfaction, that the systems and equipment provided under this Contract meet the specified performance requirements.
- B. Testing program also provides a base-line operating condition for the Owner to use in a preventative maintenance program.
- C. Testing sequence consists of Pre-Operational Checkout, Functional Tests, Performance Testing and Operational Testing. These tests are required regardless of whether Factory Tests were conducted on the same piece of equipment or system.
- D. Each item of mechanical, electrical, and instrumentation equipment installed under this Contract shall be tested by the Contractor to demonstrate compliance with the performance requirements of this project.
- E. Provide labor, outside services, materials, test equipment and other items required to complete the specified testing and startup requirements. Furnish power, water chemicals, fuel, oil, grease and other materials needed to conduct the specified tests.
- F. Install temporary valves, gauges, piping and other materials required to conduct the specified tests.

**3.02 PRE-OPERATIONAL CHECKOUT**

- A. Pre-Operational Checkout shall be undertaken by the manufacturer's field representative.
- B. Pre-Operational Checkout includes basic checks of the equipment installation prior to starting the equipment to determine if the equipment and related components have been correctly installed and is ready for starting.
- C. Pre-Operational Checkout includes the following:
  - 1. Alignment of equipment, shafts and shaft couplings, drives, belts and pulleys.
  - 2. Filling and checking lubrication reservoirs.
  - 3. Checking shaft seals, packing and seal lubrication system.
  - 4. Manufacturer's recommendations for pre-start preparation.
  - 5. Proper motor rotation
  - 6. Circuit continuity testing, electrical testing, and instrumentation and control system testing in accordance with the requirements of Division 16.
  - 7. Demonstrate operational controls function as intended.
  - 8. Calibration and adjustment of electrical and instrumentation devices.

- D. Verify tanks, pipes, conduits, vessels and equipment are clean and free of debris that may interfere with the testing or operation of the equipment. Remove debris prior to start of testing.
- E. Following completion of the Pre-Operational Checkout, the manufacturer's field representative shall complete and sign a field certification form and submit to the Engineer.

### 3.03 FUNCTIONAL TESTS

- A. After successful completion of the Pre-Operational Checkout, start individual items of equipment and systems and operate under simulated operating conditions to determine as nearly as possible whether the equipment and systems meet the requirements of these specifications.
- B. Operate the equipment for a sufficient period of time to determine machine operating and characteristics, including noise, temperatures and vibration; to observe and document performance characteristics; and to permit initial adjustment of operating controls.
- C. Obtain baseline operating data on all equipment with motors greater than 10 horsepower to include amperage draw, bearing temperatures, and vibration as required. This baseline data will be collected for the Owner to enter in their preventive maintenance system.
- D. Post-Test Inspection: When Functional Tests have been completed, recheck equipment for proper alignment, unacceptably loose connections, unusual movement, or other indications of improper operating characteristics. Correct any deficiencies to the satisfaction of the Engineer.
- E. Machines or devices which exhibit unusual or unacceptable operating characteristics shall be disassembled and inspected. Repair any defects found during the course of the inspection and identify and correct the cause of such defect. Replace specific parts, or the entire equipment item, to the complete satisfaction of the Engineer at no cost to the Owner.

### 3.04 OPERATIONAL AND PERFORMANCE TESTS

- A. After successfully completing functional tests, conduct an operational test of each system to verify correct operation. During the operational test, conduct performance testing to verify that the system complies with the performance requirements contained in the individual equipment specifications.
- B. Owner's operating personnel will fill process units and process systems with water and other process fluids to allow the Contractor to conduct the operational tests.
- C. Upon completion of the filling operations, operate all parts of each system for a continuous, uninterrupted period of not less than 8 hours. During this period, the Contractor shall undertake performance testing and shall monitor the characteristics of each machine according to manufacturer information and specifications and report any unusual conditions to the Engineer.
- D. Undertake performance tests of mechanical, electrical, HVAC, and instrumentation equipment and systems to demonstrate and confirm compliance with the performance requirements specified in the individual equipment specifications.

- E. Should the operational testing be halted for any reason related to the facilities constructed or the equipment furnished under this Contract, the operational testing program shall be repeated until the specified continuous period has been accomplished without interruption.
- F. Following successful completion of the Operational Test, commissioning of the system may begin.

**END OF SECTION**

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**SECTION 01 82 50**  
**FACILITY STARTUP AND COMMISSIONING**

**PART 1 - GENERAL**

1.01 SECTION INCLUDES

- A. Requirements for Startup and Commissioning . Make sure Equipment and System testing is complete.

1.02 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 66 00 – Materials and Equipment
  - 2. Section 01 79 00 – Training
  - 3. Section 01 99 00 - Reference Forms

1.03 DEFINITIONS

- A. Startup: The initial operation of the facility and/or plant, utilizing wastewater and related substances (sludge, scum), or other media which the facility has been designed to process.
- B. Commissioning: A confirmation that equipment, systems and facilities operate in accordance with the design intent and satisfy the detailed requirements of the technical specifications. The duration of the commissioning period shall be not less than 7 consecutive calendar days.

1.04 SERVICES OF MANUFACTURER

- A. Manufacturer's services for inspection, physical checkout, field adjustment, field testing, and startup shall comply with the requirements of this Section, the requirements of the particular equipment or product technical specifications contained and the requirements of Section 01 66 00.
- B. Manufacturer's services for training and instruction of the Owner's personnel shall comply with the requirements of the particular equipment or product technical specifications contained in Divisions 2 through 46 and Section 01 79 00.

1.05 ROLES AND RESPONSIBILITIES

- A. Contractor's Responsibilities
  - 1. Prepare a Startup and Testing Plan for review by the Owner and Engineer in order to:
    - a. Schedule and coordinate with the Engineer for startup of equipment and systems.
    - b. Review procedures for facility startup.
    - c. Include the Facility Startup and Commissioning Evaluation Form in Section 01 99 00 for completion at the successful end of commissioning.
  - 2. Review preliminary punch list items with the Engineer 15 days prior to the scheduled startup; and complete, correct, or resolve at the option of the Engineer, any items which impact or interfere with the facility startup.

3. Attend meetings related to the review of startup plan(s).
  4. Clarify submittals, testing requirements, schedules, or other items related to the startup of the equipment and facilities specified and indicated in the Contract Documents.
  5. Provide all startup materials and operating supplies for 30 operating days. Supplies include lubricants, chemicals, gases, and specialized fluids to maintain operation for 30 days.
  6. Provide Manufacturer's authorized representatives as required to supervise placing equipment or systems in operation and to provide guidance during the startup period.
  7. Provide the Engineer a list of 24 hour, "on call" representative supervisory persons who will monitor the facility startup, and serve as a liaison for the Engineer.
  8. Provide the necessary craft or labor assistance full time during the day shift and as required at other times in the event of an emergency requiring immediate attention. An emergency is defined as a failure which precludes the further operation of a critical segment of the Work. The response time shall be not less than four hours from the time of notification.
  9. Correct all failures or equipment problems identified during startup. Repairs deemed the responsibility of the Contractor shall be made at no additional cost to the Owner.
  10. Complete the Facility Startup and Commissioning Evaluation Form (Section 01 99 00) at the end of successful commissioning.
- B. The responsibilities of the Owner's O&M staff during the 7-day facility startup period include the following:
1. Provide staff to operate equipment, systems, and facilities requiring startup.
  2. Provide all utilities including power, natural gas, and water.
- C. The Engineer's responsibilities for the facility startup period include the following:
1. Coordinate the Contractor's startup activities with plant operations staff.
  2. Verify the results of performance tests and any retesting.
  3. Direct the Contractor to repair defective workmanship, materials, and equipment.

#### 1.06 COMMISSIONING

- A. The Owner's Operations and Maintenance staff will initiate the commissioning period and will operate the facility throughout the duration of the commissioning period. All equipment must operate properly and continuously for the test period of seven (7) calendar days. If any item malfunctions during the test, the item shall be repaired and the test restarted at day zero with no credit given for the operating time before the malfunction.
- B. The purpose of this 7-day operational demonstration is to:
1. Provide the environment by which the Owner's O&M staff can place equipment and systems into service.

2. Expose flaws or defects in workmanship, equipment, or materials, not previously discovered that are the responsibility of the Contractor to repair, correct, modify, or replace prior to Final Acceptance.

**END OF SECTION**

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**SECTION 01 99 00**  
**REFERENCE FORMS**

The forms listed below and included in this Section are referenced from other Sections of the project manual. Contractor may submit equivalent forms for Owner's approval prior to use. If Owner does not approve substitute form, Contractor must use forms found in this Section. Owner will provide electronic files of prescribed forms to Contractor upon request.

Referenced In Section	Title of Form
01.78.23	Asset Management Data Field Form
00.70.00-Article 15	Certificate of Substantial Completion
00.70.00-Article 11	Contract Change Order
01.78.23	Equipment Record Form - A
01.78.23	Equipment Record Form - B
43.25.02	Extended Warranty
01.82.50	Facility Startup and Commissioning Evaluation
00.70.00-Article 11	Field Order Force Account Work
01.81.00	Instrumentation Data and Calibration Record Test Form
01.78.23	Maintenance Schedule Form
01.81.00, 40.05.57.23, 43.25.02, 46.05.13	Manufacturer's Installation Certification
01.79.00, 40.05.57.23, 43.25.02	Manufacturer's Instruction Certification
, 43.25.02,	Motor Data Form
01.78.23	Operation and Maintenance Transmittal Form
40.80.02	Pipe Test Record Form
01.34.00	Request for Information (RFI)
01.78.23, 01.78.43	Spare Parts Record
01.78.23	Spare Parts Release
01.33.00	Submittal Transmittal
01.12.16	System Outage Request (SOR)
43.25.02,	Unit Responsibility Certificate
01.78.36	Warranty Form
00.70.00-Article 11	Work Change Directive

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**ASSET MANAGEMENT DATA FIELD FORM:**

Equipment Data Field	By Contractor	Required*	Input	Example
Equipment ID	X	1		P23DSLPCN403
Area	X	1		P23
System	X	1		DSL
Equip Type	X	1		PCN
Description	X	1		Digester #4 Recirculation Pump
Location	X	1		Digester Pump Room
Service Status	X	1		ACTV/ABDN/DLTD
Project Name	X	1		2015 Plant Expansion
Design Package	X	1		3
Size	X	1		30
Unit of Measure	X	1		HP
Manufacturer	X	1		Wemco Pumps
Model Number	X	1		Wem-omatic 30
Serial Number	X	1		234569
Subunit of		1		P23DIGTNK004
P&ID #	X	1		25.08
Elect. Drawing #	X	2		23E01
Instr. Drawing #	X	2		I-403
Other Drawing #'s		2		23P04
Normal Position		2		running
Operation Notes		2		run to recirculate Digester 4
Purchase Cost	X	1		\$15634.00
Warranty Expires	X	1		11/30/2016
Manufactured Date	X	2		05/24/2014
Purchase Date	X	2		08/18/2015
Installed Date	X	1		11/30/2015
PLC Cabinet	X	2		CCR233
Motor Control Center	X	2		MCC235
MCC Bucket	X	2		4C
Power/Lighting Panel	X	2		L-239

Equipment Data Field	By Contractor	Required*	Input	Example
Panel Circuit Breaker	X	2		17
Motor/Oper: Make/Model	X	2		Baldor / Ecotech432
Specification Number	X	1		23 40 13
Submittal Number	X	1		43A
Former Equipment ID		2		P09DSLPCN003
In Criticality Model		1		Y/N
*1 – REQUIRED for ALL Equip. *2 – REQUIRED as Applicable				



### CERTIFICATE OF SUBSTANTIAL COMPLETION

OWNER: \_\_\_\_\_

Project Name: \_\_\_\_\_

Owner's Contract Number \_\_\_\_\_

CONTRACTOR \_\_\_\_\_

Contract for Construction of \_\_\_\_\_

Project or Specified Part Shall Include \_\_\_\_\_

Contract Date \_\_\_\_\_

The Work performed under this Contract has been inspected by authorized representatives of the OWNER, CONTRACTOR, and ENGINEER, and the Project (or specified part of the Project, as indicated above) is hereby accepted by the OWNER and declared to be substantially completed on the above date.

- 1) Final completion of the Work shall be the date of such acceptance of the Work by the OWNER.
- 2) Final completion shall mean full performance of the Contract requirements.

A list of all items remaining to be completed or corrected has been sent to the CONTRACTOR in the OWNER's letter dated \_\_\_\_\_. All such work shall be completed or corrected to the satisfaction of the OWNER prior to the release of the CONTRACTOR's retention and within 30 calendar days following the date of the Notice of Substantial Completion.

**ENGINEER**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

The CONTRACTOR hereby accepts the above Notice of Substantial Completion and agrees to complete and correct all of the items as outlined in the OWNER's letter to the CONTRACTOR dated \_\_\_\_\_.

**CONTRACTOR**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

The OWNER accepts the project or specified area of the project as substantially completed and will assume full possession of the Project or specified area of the Project at (time and date). The responsibility for heat, utilities, security, and insurance under the Contract Documents will be assumed by the OWNER after that date.

**OWNER**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

## CONTRACT CHANGE ORDER

CHANGE ORDER NO: \_\_\_\_\_

DATE: \_\_\_\_\_

CONTRACT FOR: \_\_\_\_\_

OWNER: \_\_\_\_\_

TO: \_\_\_\_\_  
(Contractor)

You are hereby requested to comply with the following changes from the contract plans and specifications:

Description of Changes (Supplemental Plans and Specifications Attached)	DECREASE in Contract Price	INCREASE in Contract Price
	\$	\$
	\$	\$
	\$	\$
TOTALS	\$	\$
NET CHANGE IN CONTRACT PRICE	\$	\$

JUSTIFICATION:

### CHANGE TO CONTRACT PRICE

Original Contract Price:	\$
Current Contract Price, as adjusted by previous change orders:	\$
The Contract Price due to this Change Order will be increased or (decreased) by	\$
The new Contract Price due to this Change Order will be:	\$

The Contract Period Provided for Completion will be  Increased  Decreased)  Unchanged: \_\_\_\_\_ Days.

**APPROVALS REQUIRED:** *To be effective this order must be approved by Owner's Name if it changes the scope or objective of the project, or as may otherwise be required by the Contract Documents.*

ACCEPTED BY:

Owner:  
By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Contractor:  
By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

RECOMMENDED BY:

CM/Engineer:  
By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**EQUIPMENT RECORD FORM A (Electrical or Motorized Mechanical Equipment):**

Equip. Description:		Equip. Loc.:	
Equip. No.	Shop Dwg. No.	Date Inst.:	Cost:
Mfgr.:		Mfgr Contact	
Mfgr. Address:			Phone:
Vendor :		Vendor Contact:	
Vendor Address:			Phone:

MAINTENANCE REQUIREMENTS	D	W	M	Q	S	A	Hours
Lubricants: Recommended							
Alternative:							
Misc. Notes:							

Recommended Spare Parts				Electrical Nameplate Data			
Part No.	Qty	Part Name	Cost	Equip			
				Make			
				Serial No.		Id. No.	
				Model No.		Frame No.	
				HP	V	Amp	Hz
				pH	RPM	SF	Duty
				Code	Ins. Cl.	DES	Type
				NEMA DES	C Amb.	Temp Rise	Rating
				Misc.			

Recommended Spare Parts				Mechanical Nameplate Data			
Part No.	Qty	Part Name	Cost	Equip			
				Make			
				Serial No.		Id. No.	
				Model No.		Frame No.	
				HP	V	Amp	Hz
				pH	RPM	SF	Duty
				Code	Ins. Cl.	DES	Type
				NEMA DES	C Amb.	Temp Rise	Rating
				Misc.			



**EXTENDED WARRANTY FORM**  
(For Equipment, Material, Process)

Extended Warranty For: Product Name  
Specification Section No. \_\_\_\_\_  
Product Manufacturer \_\_\_\_\_  
Project: \_\_\_\_\_  
Location: \_\_\_\_\_

We hereby guarantee the Product Name that we have constructed for a period of # of Years (#) year(s), as specified in the Section noted above, from Date, the date of acceptance of the work/substantial completion and the assumption of occupancy and beneficial use by the Name of Owner.

The following are excluded from the provisions of this warranty:

We agree that if any of the equipment, material, or process designated for Product Name should fail due to any reason other than improper maintenance or improper operation, or should any portion of the work fail to fulfill any of the requirements of the Specifications, we will, within ten days after written notice of such defects, commence to repair or replace the same together with any other work which may be damaged or displaced in so doing.

In the event of our failure to comply with the above mentioned conditions within a reasonable time after being notified, or should exigent circumstances require repairs or replacements to be made before we can be notified or respond to notification, we do hereby authorize the Name of Owner to proceed to have the defect repaired and made good at our expense, and we will pay the cost therefor upon demand.

The warranty provided herein shall not be in lieu of, but shall be in addition to any warranties or other obligations otherwise imposed by the Contract Documents and by law.

Manufacturer: \_\_\_\_\_ Contractor: \_\_\_\_\_  
Signed: \_\_\_\_\_ Signed: \_\_\_\_\_  
Title: \_\_\_\_\_ Title: \_\_\_\_\_  
Date: \_\_\_\_\_ Date: \_\_\_\_\_  
Phone: \_\_\_\_\_ Phone: \_\_\_\_\_  
E-mail: \_\_\_\_\_ E-mail: \_\_\_\_\_

## FACILITY STARTUP AND COMMISSIONING EVALUATION FORM

**Owner:** \_\_\_\_\_

**Project:** \_\_\_\_\_

**Plant Facilities Description:** (Include description and equipment number of all equipment and devices):

**Startup Procedure:** (Describe procedure for sequential startup and evaluation, including valves to be opened/closed, order of equipment startup, etc.):

**Performance Evaluation Comments:**

**Contractor:** \_\_\_\_\_  
Signature of Contractor's Representative Date

**Owner:** \_\_\_\_\_  
Signature of Owner's Representative Date

### FIELD ORDER

Field Order No: \_\_\_\_\_

Date: \_\_\_\_\_

To Contractor: \_\_\_\_\_

Project No.: \_\_\_\_\_

Contract Days Changed  Yes

Project Name: \_\_\_\_\_

No

Location: \_\_\_\_\_

To be determined

You are authorized to proceed with the following work:

Justification:

Cost Basis: \$ \_\_\_\_\_

Time and Material  
Not to Exceed Estimate

Contractor to submit.

Recommended by: \_\_\_\_\_  
*Construction Manager*

DATE: \_\_\_\_\_

Approval By: \_\_\_\_\_  
*Owner*

DATE: \_\_\_\_\_

Accepted By: \_\_\_\_\_  
*Contractor*

DATE: \_\_\_\_\_

Field Work Orders will be converted to a Change Order within thirty (30) days of the Owner's approval. Maximum amount for any one Field Work Order shall conform to the Owner's policy guidelines. All costs incurred by Contractor resulting from this Field Order will be determined in accordance with the General Conditions.

**Contractor must submit Daily Extra Work Reports to the Construction Manager no later than the working day following the performance of said work.**



# INSTRUMENTATION DATA AND CALIBRATION RECORD TEST FORM

Component Description \_\_\_\_\_

Component Tag Name \_\_\_\_\_

<u>Manufacturer</u>	<u>Location</u>
Name _____	Site _____
Model _____	_____
Serial # _____	Equip _____

	Range	Unit	General Notes		
Indicator Range			1) Attach Calibration Curves for dp Flowmeters 2) Include mounting elevations for level Instruments 3) All entries within solid box to be typed in prior to start of test		
Input Range					
Output Range					
Designed Calibration			Measured Calibration		
Input Signal	Output	Eng. Value	Input	Output	Comments

Notes:

Tested by \_\_\_\_\_ (print name)      Witnessed by \_\_\_\_\_ (print name)

Signature \_\_\_\_\_      Signature \_\_\_\_\_  
 Date \_\_\_\_\_      Date \_\_\_\_\_

### Maintenance Schedule Form

Equipment Numbers: \_\_\_\_\_

Equipment Names \_\_\_\_\_

Type of Work	Schedule Type	Calendar Interval	Calendar Type	Usage Interval	Usage of Unit Measure	Cycle From	Cycle To	Task Short Description	Task

Type of Work	ELEC = Electrical Type of Work, MECH = Mechanic Performing Work, INSTR = Instrumentation Type Work
Schedule Type	USAGE = Usage-based Maintenance, CALENDAR = Calendar-based Maintenance
Calendar Interval	The number of time units between scheduled work orders, e.g. '4' months
Calendar Type	Units of time between scheduled work orders, e.g. DAYS, WEEKS, MONTHS
Usage Interval	The number of units between scheduled work orders, e.g. '10,000' hours
Usage Unit of Measure	Units of measure between scheduled work orders, e.g. hours, revolutions, cycles, etc.
Cycle From	For seasonal schedules, indicates the first month/day of the year this schedule is valid for work orders to be created
Cycle To	For seasonal schedules, indicates the last month/day of the year this schedule is valid for work orders to be created; cycle date ranges crossing over the December - January boundary are valid
Task Short Description	Short description describing tasks
Task	Work to be performed

## MANUFACTURER'S INSTALLATION CERTIFICATION FORM

Contract No: \_\_\_\_\_ Specification Section: \_\_\_\_\_

Equipment Name \_\_\_\_\_

Contractor: \_\_\_\_\_

Manufacturer of Equipment Item: \_\_\_\_\_

*The undersigned manufacturer of the equipment item described above hereby certifies that he has checked the installation of the equipment and that the equipment, as specified in the project manual, has been provided in accordance with the manufacturer's recommendations and that the trial operation of the equipment item has been satisfactory.*

**Comments:**

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\_\_\_\_\_  
Date

\_\_\_\_\_  
Manufacturer

\_\_\_\_\_  
Signature of  
Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Signature of  
Authorized Representative

## MANUFACTURER'S INSTRUCTION CERTIFICATION FORM

Contract No: \_\_\_\_\_ Specification Section: \_\_\_\_\_

Equipment Name: \_\_\_\_\_

Contractor: \_\_\_\_\_

Manufacturer of Equipment Item: \_\_\_\_\_

*The undersigned manufacturer certifies that a service engineer has instructed the owner's staff in the proper maintenance and operation of the equipment designated herein.*

**Operations Check List** (check appropriate spaces)

Start-up procedure reviewed

Shutdown procedure reviewed

Normal operation procedure reviewed

Others: \_\_\_\_\_

\_\_\_\_\_

**Maintenance Check List** (check appropriate spaces)

Described normal oil changes (frequency)

Described special tools required

Described normal items to be reviewed for wear

Described preventive maintenance instructions

Described greasing frequency

Others \_\_\_\_\_

\_\_\_\_\_

Manufacturer: \_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Owner's Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Contractor's Representative

### MOTOR DATA FORM

Equipment Name: \_\_\_\_\_ Equipment Number: \_\_\_\_\_

Site Location: \_\_\_\_\_

#### Nameplate Markings

Mfr \_\_\_\_\_ Mfr Model \_\_\_\_\_ Frame \_\_\_\_\_ HP \_\_\_\_\_

Volts \_\_\_\_\_ Phase \_\_\_\_\_ RPM \_\_\_\_\_ Service Factor \_\_\_\_\_

FLA \_\_\_\_\_ LRA \_\_\_\_\_ Freq \_\_\_\_\_ Amb temp rating \_\_\_\_\_ degrees C

Time rating \_\_\_\_\_ Design letter \_\_\_\_\_

(NEMA MG1-10.35) (NEMA MG-1.16)

KVA code letter \_\_\_\_\_ Insulation class \_\_\_\_\_

The following information is required for explosionproof motors only:

A. Approved by UL for installation in Class \_\_\_\_\_, Div \_\_\_\_\_

B. UL frame temperature code \_\_\_\_\_, Group \_\_\_\_\_ Atmosphere

(NEC Tables 500-2 and 500-2(b))

The following information is required for high efficiency motors only:

A. Guaranteed minimum efficiency at full load or NEMA efficiency index

(NEMA MG1-12.53b)

B. Nameplate or nominal efficiency \_\_\_\_\_

#### Data Not Necessarily Marked on Nameplate

Type of enclosure \_\_\_\_\_ Enclosure material \_\_\_\_\_

Temp rise \_\_\_\_\_ degrees C (NEMA MG1-12.41,42)

Space heater included? \_\_\_\_\_ Yes \_\_\_\_\_ No, if Yes \_\_\_\_\_ watts \_\_\_\_\_ volts

Type of motor winding overtemperature protection, if specified:

Use the space below to provide additional information on other motor modifications, if specified:

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## OPERATING AND MAINTENANCE INFORMATION TRANSMITTAL

**Submittal Description:** \_\_\_\_\_

<b>Submittal No.</b>	<b># Copies:</b>
<input type="checkbox"/> 1st Submission	<input type="checkbox"/> Re-Submittal
Spec Section	

Owner:	<b>Routing</b>	<b>Date Sent</b>	<b>Date Received</b>
	Contractor/CM		
Project:	CM/Design Consultant		
	Design Consultant/CM		
Contractor:	CM/Contractor		

Supplier Name:	Supplier Review		Design Consultant Review	
Checklist	Satisfactory	N/A	Accept	Deficient
1. Table of Contents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Equipment Record Forms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Supplier/Vendor Contact Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Safety Precautions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Operator Pre-Start	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Start-up, Shutdown/Post-Shutdown Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Normal Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Emergency Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Operator Service Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Environmental Conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Lubrication Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Preventative Maintenance Plan/Schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Troubleshooting Guide/Diagnostic Techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Wiring Diagrams and Control Diagrams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Maintenance and Repair Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Removal and Replacement Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Spare Parts and Supply List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Corrective Maintenance Man-hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Parts Identification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Warranty Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Personnel Training Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Testing Equipment and Special Tool Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Remarks:</b>	
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\_\_\_\_\_ (Contractor's Signature)

\_\_\_\_\_ (Supplier's Signature)

## PIPE TEST RECORD

Date: \_\_\_\_\_

**Project Name:** \_\_\_\_\_ **Project No.:** \_\_\_\_\_

**Contractor:** \_\_\_\_\_

Pipeline Size & Name	Pipe Type	Pipe Location/Description
(SL, SN, IA, etc.)	(DI, PVC, Steel, Copper, etc.)	(Attach sketch if needed)
<b>Section Tested:</b> From: _____ To: _____	<b>First Test</b> <input type="checkbox"/> <b>Or</b> <b>Re-Test</b> <input type="checkbox"/>	<b>Length of Pipe Tested:</b> _____ Ft.

Test Specifications	Actual Test Results
Type of Test: _____	Start pressure: _____
Type of Test: _____	End Pressure: _____
Duration: _____	Start time _____ Stop time _____ Duration _____
Allowable loss: _____	Actual loss: _____

**Comments:**

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<b>Test Passes</b>	<input type="checkbox"/>
<b>Test Fails</b>	<input type="checkbox"/>

**Tested By:** \_\_\_\_\_  
Contractor

**Test Witnessed By:** \_\_\_\_\_  
Construction Inspector

## REQUEST FOR INFORMATION

RFI No.: XXX

Owner: \_\_\_\_\_

Project: \_\_\_\_\_

Contractor: \_\_\_\_\_ Engineer \_\_\_\_\_

RFI Generated by:  Contractor  CM  Other

Priority Level:  Low  High  On Critical Path

Is there a Cost Impact associated with this RFI?  Yes  No  Possibly

Is there a Time Impact associated with this RFI?  Yes  No  Possibly

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**RFI Title:**

Reference: Spec: \_\_\_\_\_ Sheet: \_\_\_\_\_

**Requested Information:**

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

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**Response:**

Signed: \_\_\_\_\_

Date: \_\_\_\_\_



**SPARE PARTS RECORD FORM**

PROJECT			
DESIGN PACKAGE			
SPECIFICATION SECTION			
SPECIFICATION TITLE			
MFGR		MFGR CONTACT	
MFGR ADDRESS		MFGR PHONE	
VENDOR		VENDOR CONTACT	
VENDOR ADDRESS		VENDOR PHONE	

EQUIPMENT NUMBER(S):	EQUIPMENT NAME(S):

SPARE PARTS						
PART NO.	PART NAME	MFG	COST	LONG LEAD TIME*	QUANTITY	
					SPECIFIED	REC. BY MFG

\*Long lead time = parts requiring more than 4 weeks from time of order to delivery.

### SPARE PARTS RELEASE FORM

Design Package: \_\_\_\_\_

Project No: \_\_\_\_\_

Place of Delivery: \_\_\_\_\_

Date: \_\_\_\_\_

Pallet Number	Container Number	Spec Section	Equipment Number	Spare Part Description	Price

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Owner

\_\_\_\_\_  
Date

cc: Maintenance Supervisor  
Operations Supervisor

## SUBMITTAL TRANSMITTAL

**Submittal Description** \_\_\_\_\_

Priority Level:  Low     Medium     High     **On Critical Path**

<b>Submittal No.</b>	
<input type="checkbox"/> 1st Submission	<input type="checkbox"/> Re-Submittal
Spec Section	
Dwg/Detail No.	

Owner:	Routing	Date Sent	Date Received
Project Name:	Contractor/CM		
	CM/Design Consultant		
Contractor:	Design Consultant/CM		
	CM/Contractor		

We are sending you:     Attached                       Under separate cover via \_\_\_\_\_  
 Submittals for review and comment  
 Product Data for information only \_\_\_\_\_

No. Copies	Description	Manufacturer	Reviewer Action	Reviewer Initials

<p>The Action Designated Above is in Accordance with the Following Legend:</p> <p>A – No Exceptions Taken                  B – Make Corrections Noted                  C – Amend and Resubmit                  D – Rejected                  E – Review not Required</p>	<p><b>CONTRACTOR:</b> Must certify one of the following statements pertaining to the transmittal or submittal sent for review:</p> <p><input type="checkbox"/> As the General Contractor for this project we certify that the material or equipment contained in this submittal meets all the requirements, including coordination with all related work specified (no exceptions)</p> <p><input type="checkbox"/> As the General Contractor for this project we certify that the material or equipment contained in this submittal meets all the requirements specified except for the attached deviations.</p>
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Comments:

Certified by: \_\_\_\_\_  
 (Contractor's Signature)

**SYSTEM OUTAGE REQUEST FORM****System to be Shutdown:** \_\_\_\_\_**SOR No.:** \_\_\_\_\_

Date of Shutdown: \_\_\_\_\_ Beginning at: \_\_\_\_\_ am/pm

Duration of Shutdown: \_\_\_\_\_ Critical Path Activity?  yes  no

Owner:		<b>Routing</b>	<b>Date Sent</b>	<b>Date Received</b>
Project:		Contractor/CM		
Contractor:		CM/Owner-Operations		
Regulatory Agency Notification Required? <input type="checkbox"/> yes <input type="checkbox"/> no		Is a Dry Run Required? <input type="checkbox"/> yes <input type="checkbox"/> no		
Combustible/Hazardous Gases Present? <input type="checkbox"/> yes <input type="checkbox"/> no		Confined Space Entry? <input type="checkbox"/> yes <input type="checkbox"/> no		
Describe work to be performed including detailed sequence of events, safety plan, protection of existing facilities, equipment to be used and contingency plan. Use additional sheets as necessary.				
Will you require assistance from Owner Operations? <input type="checkbox"/> yes <input type="checkbox"/> no Note: <i>Existing valves and controls shall be operated by Owner staff only</i>				
<b>Outage Contact Information</b>	<b>Name of Person on Call/Duty</b>	<b>Home Phone</b>	<b>Cell Phone</b>	
Contractor				
Construction Manager				
Owner Operations				
Design Consultant				
Additional Contractor Comments:		<b>CM / Owner / Design Consultant Review Action</b>		
		<input type="checkbox"/> SOR Acceptable with comments noted on attached. <input type="checkbox"/> SOR Not Acceptable with reasons noted on attached. Re-Submittal is required.		
Certified by: _____ (Contractor's Signature)		_____ (Construction Manager's Signature)		_____ Date

Name of Owner

**CERTIFICATE OF UNIT RESPONSIBILITY  
For Specification Section**

Section Number and Title

***In accordance with the contract documents, the undersigned manufacturer accepts unit responsibility for all components of equipment furnished under specification Section Section #. We hereby certify that these components are compatible and comprise a functional unit suitable for the specified performance and design requirements.***

\_\_\_\_\_  
Name of Corporation

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City, State and Zip Code

\_\_\_\_\_  
Notary Public

By: \_\_\_\_\_  
Duly Authorized Official

\_\_\_\_\_  
Commission Expiration Date

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

Seal:

Date: \_\_\_\_\_

**WARRANTY FORM**  
(For Milestones)

Warranty For: Milestone: \_\_\_\_\_  
Project: \_\_\_\_\_  
Location: \_\_\_\_\_

We hereby guarantee the Match Milestone from Above that we have constructed for a period of one (1) year from Date, the date of acceptance of the work/substantial completion and the assumption of occupancy and beneficial use by the Name of Owner, or within such longer period of time as may be prescribed by law or by terms of any special extended warranty required by the Contract Documents.

The following are excluded from the provisions of this warranty:

We agree that if any of the portion of the project for Milestone: Match Milestone from Above should fail due to any reason other than improper maintenance or improper operation, if any pipe or appurtenances should develop leakage, or if any settlement of fill or backfill occurs, or should any portion of the work fail to fulfill any of the requirements of the Specifications, we will, within ten days after written notice of such defects, commence to repair or replace the same together with any other work which may be damaged or displaced in so doing.

In the event of our failure to comply with the above mentioned conditions within a reasonable time after being notified, or should exigent circumstances require repairs or replacements to be made before we can be notified or respond to notification, we do hereby authorize the Name of Owner to proceed to have the defect repaired and made good at our expense, and we will pay the cost therefor upon demand.

The warranty provided herein shall not be in lieu of, but shall be in addition to any warranties or other obligations otherwise imposed by the Contract Documents and by law.

Contractor: \_\_\_\_\_

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

# WORK CHANGE DIRECTIVE

No. \_\_\_\_\_

Date of Issuance: \_\_\_\_\_ Effective Date: \_\_\_\_\_

Project: \_\_\_\_\_

Owner: \_\_\_\_\_ Owner's Contract No.: \_\_\_\_\_

Contractor: \_\_\_\_\_

**Attention:**

You are hereby directed to promptly execute this Work Change Directive issued in accordance with General Conditions, Article 11.03, Work Change Directive, for changes in the Work without changes in Contract Price or Contract Times. If you consider that a change in Contract Price or Contract Times is required, please notify the Construction Manager immediately and before proceeding with this Work. Any modifications, including a change to the contract price or contract requirements shall be covered by a formal Change Order executed by Owner and Contractor.

Reference: \_\_\_\_\_  
Specification Section(s)/RFI # \_\_\_\_\_ Drawing(s) / Detail(s) \_\_\_\_\_

Description:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Refer to Drawing Sheets: \_\_\_\_\_ Section or Detail: \_\_\_\_\_

Refer to Specification Paragraphs: \_\_\_\_\_

Will additional drawings be necessary?  Yes  No

Attachments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Receipt Acknowledged by (Contractor):**

Issued by: \_\_\_\_\_  
Construction Manager

\_\_\_\_\_  
Signature

Date: \_\_\_\_\_

Copy to Owner

**END OF SECTION**