
Port of Toledo

Lincoln County, Oregon

Contract Documents

VOLUME 1 – Bid Form, Contract, General Conditions, Etc.

FOR THE CONSTRUCTION OF
SEWER EXPANSION CONNECTION PROJECT
INDUSTRIAL YARD SEWER IMPROVEMENTS

December 2025
Project No. 2513-002



Prepared By:

Civil West Engineering Services, Inc.

486 E Street • Coos Bay, Oregon 97420 • Ph. 541.266.8601, Fax 541.266.8681 • www.civilwest.com

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Port of Toledo

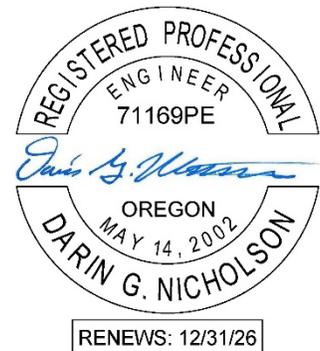
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REQUEST FOR QUOTES

Port of Toledo Sewer Connection Expansion Project Industrial Yard Sewer Improvements

General Notice

The **Port of Toledo** (Owner) is requesting Quotes for the construction of the following project:

Port of Toledo Sewer Connection Expansion Project – Industrial Yard Sewer Improvements

Quotes for the construction of the Project will be received by the **Port of Toledo** located at **496 NE Hwy 20, Unit 1, Toledo, OR 97391** until **Tuesday, February 3, 2026**, at **2:00 PM** local time. Quotes may also be mailed or emailed to the following address:

Debbie Scacco, Port Manager
Port of Toledo
496 NE Hwy 20, Unit 1
PO BOX 428
Toledo, OR, 97391

If Emailed, please send to **both** of the following:
debbie.scacco@portoftoledo.org
dnicholson@civilwest.net

The envelope shall plainly identify (1) the Project name, (2) the Bidder name, and (3) the Bidders CCB license number. Bidders shall be responsible for calling the Port of Toledo at (541) 336-5207 before the proposal deadline to confirm the quote was received.

Quotes and all associated documents must be received by the Port of Toledo by **2:00 PM**. At that time the quotes will be **publicly** opened and read.

The Port of Toledo is requesting quotes to complete sanitary sewer system improvements at its Industrial Yard at 625 N Bay Blvd, Toledo, OR 97391 including the following work:

- Install submersible pumps and guide rails in existing pump station (PS03).
- Install pump station control panel.
- Furnish and install electrical disconnect, convenience outlet, and mounting frame for pump station electrical controls.
- Extend conduit and connect to existing distribution panel in shop to provide power for pump station.
- Install and configure High Tide pump station SCADA panel.
- Connect existing gravity sewer laterals to new main.
- Pump out and abandon existing septic holding tank.

Questions regarding this solicitation can be addressed to:

Darin Nicholson, PE
Civil West Engineering Services, Inc.
dnicholson@civilwest.net
541-982-2756

Instructions to Bidders.

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

The Port of Toledo encourages disadvantaged, minority, and women-owned consultant firms to respond.

INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

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ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

Issuing Office—The office from which the Bidding Documents are to be issued, and which registers plan holders. **Civil West Engineering Services, Inc. located at 409 SW 10th St., Newport, OR 97365.**

- A. *Owner* — **Port of Toledo, Lincoln County**
B. *Engineer* — **Civil West Engineering Services, Inc.**

ARTICLE 2—BIDDING DOCUMENTS

- 2.01 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 Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by 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 *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 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 Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.06.A above. However, 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 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. C620 Application for payment
 - 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 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 BIDDERS

- 3.01 Bidder is to submit the following information with its Bid to demonstrate Bidder's qualifications to perform the Work:
 - A. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
 - B. Bidder's state or other contractor license number, if applicable.
 - C. First Tier Subcontractor and Supplier qualification information.
 - D. Other required information regarding qualifications.
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

ARTICLE 4—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

- 4.01 *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.

4.02 *Existing Site Conditions*

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

1. The Supplementary 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 copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion 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. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

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 Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

C. *Adequacy of Data:* Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraph 5.03, 5.04 and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in Contract Documents due to any Hazardous Environmental conditions uncovered or revealed at the Site which was not shown or indicated on the Drawings or Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Other Site-related Documents*

A. No other Site-related documents are available.

4.04 *Site Visit and Testing by Bidders*

- A. Bidder is encouraged to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit the Bidder must not disturb any ongoing operations at the Site.
- B. Bidders visiting the Site are required to arrange their own transportation to the Site.
- C. Bidder must conduct the required Site visit during normal working hours.
- D. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- E. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as 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. Bidder is responsible for establishing access needed to reach specific selected test sites.
- F. 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.
- G. 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.

4.05 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.06 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary 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 Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

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

- A. The Bid Form that each Bidder will submit contains express representations regarding the 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. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.

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

ARTICLE 6—INTERPRETATIONS AND ADDENDA

- 6.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 6.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer via Owner's Site Representative in writing. Contact information and submittal procedures for such questions are as follows:
 - A. **Darin Nicholson, PE, 541-982-2756, dnicholson@civilwest.net.**
- 6.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than seven days prior to the date for opening of Bids may not be answered.
- 6.04 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 7—CONTRACT TIMES

- 7.01 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.
- 7.02 Bidder must set forth in the Bid the time by which Bidder must achieve Substantial Completion, subject to the restrictions established in Paragraph 15.03 of General Conditions. The Owner will take Bidder's time commitment regarding Substantial Completion into consideration during the evaluation of Bids, and it will be necessary for the apparent Successful Bidder to satisfy Owner that it will be able to achieve Substantial Completion within the time such Bidder has designated in the Bid. The Successful Bidder's time commitments will be entered into the Agreement or incorporated in the Agreement by reference to the specific terms of the Bid.
- 7.03 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 8—SUBSTITUTE AND "OR EQUAL" ITEMS

- 8.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or-equal" or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an "or-equal" or substitute unless written request for approval has been submitted by Bidder and has been received by the Engineer via the Owner's Agent no less than fourteen (14) days prior to Bid Opening. Each such request must comply with the requirements of Paragraphs 7.05 and 7.06 of the General Conditions, and the review of the request will be governed by the principles in those paragraphs. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's

decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all registered Bidders. Bidders cannot rely upon approvals made in any other manner.

- 8.02 All prices that 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 Bidder’s sole risk.

ARTICLE 9—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 9.01 In accordance with ORS 279C.370 the bidder must disclose first-tier subcontractors. Proposed First-Tier Subcontractors shall be listed on the form contained in these Contract Documents (C-440)
- A. Form must be submitted to the location specified in the Invitation to Bid, on the advertised bid closing date, and within two (2) working hours after the bid closing time.
 - B. Bidder shall list on the Form; subcontractors that will be furnishing labor or will be furnishing labor or materials in connection with the public improvement contract; and will have a contract value equal to or greater than 5% of the total project bid or \$15,000, whichever is greater, or \$350,000 regardless of the percentage of the total project bid.
 - C. Failure to provide the First-Tier Subcontractor Disclosure Form will result in the bid being deemed nonresponsive and a contract will not be awarded to that bidder.
 - D. Contractor shall disclose electrical and integration subcontractors.
- 9.02 The apparent Successful Bidder, and any other Bidder so requested, must complete and submit to Owner’s Agent Form C-441 Equipment Basis of Bid Disclosure Form.
- 9.03 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor or Supplier. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute, Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 9.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors and Suppliers. Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.
- 9.05 Contractor shall not be required to employ any Subcontractor, Supplier, Individual, or Entity against whom Contractor has reasonable objection.
- 9.06 The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in SC 7.07 of the General Conditions.

ARTICLE 10—PREPARATION OF QUOTE

- 10.01 The Quote Form is included with the Bidding Documents. All blanks on the Quote Form must be completed in ink and the Quote Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Quote Form. A Quote price must be indicated for each section, item, alternate, adjustment unit price item, and unit price item listed therein.
- 10.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Quote on a paper copy of the Quote Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Quote 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 Quote Form as may be practical. The Owner reserves the right to accept Quote Forms which nominally vary in appearance from the original paper version of the Quote Form, providing that all required information and submittals are included with the Quote.
- 10.03 A Quote 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.
- 10.04 A Quote 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.
- 10.05 A Quote 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.
- 10.06 A Quote by an individual must show the Bidder's name and official address.
- 10.07 A Quote by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Quote Form. The joint venture must have been formally established prior to submittal of a Quote, and the official address of the joint venture must be shown.
- 10.08 All names must be printed in ink below the signatures.
- 10.09 The Quote must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Quote Form.
- 10.10 Postal and e-mail addresses and telephone number for communications regarding the Quote must be shown.
- 10.11 The Quote must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Quotes and attach such certification to the Quote.
- 10.12 All Bidders must complete the Residency Statement (Section 00461) and submit that along with their Quotes on or before the time scheduled for the opening of Quotes. Failure to do so will result in the Quote being non-responsive.
- 10.13 Pursuant to ORS 279C.505 (2) all Bidders must certify with their Quotes that they have an employee drug testing program in place. All bidders must complete the Employee Drug

Certification (Section 00462) included in the Bid Documents and submit with their Quotes on or before the time scheduled for the opening Quotes.

- 10.14 Pursuant to ORS 279A.110 (4) all bidders must certify with their Quotes that they have not discriminated against any minority, women or emerging small business enterprises. All bidders must complete the Non-Discrimination Certification (Section 00463) included in the Bid Documents and submit that along with their Quotes on or before the time scheduled for the opening of Quotes. Failure to do so will result in the Quote being non-responsive.
- 10.15 All Bidders must complete the Certification of Compliance with Oregon Tax Laws included in the Bid Documents (Section 00464) and submit with their Quotes on or before the time scheduled for the opening of Quotes. Failure to do so will result in the Quote being non-responsive.
- 10.16 Pursuant to ORS 279C.365 (1)(K) Owner may not receive or consider a Quote unless the bidder is licensed by the Construction Contractors Board of the State of Oregon. All bidders must complete the certificate of licensing by the Construction Contractors Board included in the Bid Documents (Section 00465) and submit with their Quotes on or before the time scheduled for the opening of Quotes. Failure to do so will result in the Quote being non-responsive.

ARTICLE 11—BASIS OF QUOTE

11.01 *Unit Price*

- A. Bidders must submit a Quote on a unit price basis for each item of Work listed in the unit price section of the Quote Form.
- B. The “Quote Price” (sometimes referred to as the extended price) for each unit price item will be the product of the “Estimated Quantity”, which Owner or its representative has set forth in the Quote Form, for the item and the corresponding “Unit Price” offered by the Bidder. The total of all unit price items will be the sum of these “Bid Prices”; such total will be used by Owner for Quote comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

ARTICLE 12—SUBMITTAL OF QUOTE

- 12.01 A Quote must be received no later than the date and time prescribed and at the place indicated in the Request for Quotes and must be enclosed in a plainly marked package with the Project title, and, if applicable, the designated portion of the Project for which the Quote is submitted, the name and address of Bidder, and must be accompanied by all required documents. If a Quote is sent by mail or other delivery system, the sealed envelope containing the Quote must be enclosed in a separate package plainly marked on the outside with the notation “QUOTE ENCLOSED.” A mailed Quote must be addressed to the location designated in the Request for Quotes (RFQ).
- 12.02 Quotes received after the date and time prescribed for the opening of Quotes, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 13—MODIFICATION AND WITHDRAWAL OF QUOTE

- 13.01 An unopened Quote may be withdrawn by an appropriate document duly executed in the same manner that a Quote must be executed and delivered to the place where Quotes are to be submitted prior to the date and time for the opening of Quotes. Upon receipt of such notice, the unopened Quote will be returned to the Bidder.
- 13.02 If a Bidder wishes to modify its Quote prior to Quote opening, Bidder must withdraw its initial Quote in the manner specified in Paragraph 15.01 and submit a new Quote prior to the date and time for the opening of Quotes.
- 13.03 If within 24 hours after Quotes are opened any 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 Quote, the Bidder may withdraw its Quote. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

ARTICLE 14—OPENING OF QUOTES

- 14.01 Quotes will be opened at the time and place indicated in the RFQ and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Quotes and major alternates, if any, will be made available to Bidders after the opening of Quotes.

ARTICLE 15—QUOTES TO REMAIN SUBJECT TO ACCEPTANCE

- 15.01 All Quotes will remain subject to acceptance for the period of time stated in the Quote Form, but Owner may, in its sole discretion, release any Quote prior to the end of this period.

ARTICLE 16—EVALUATION OF QUOTES AND AWARD OF CONTRACT

- 16.01 Owner reserves the right to reject any or all Quotes, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Quotes. Owner also reserves the right to waive all minor Quote informalities not involving price, time, or changes in the Work.
- 16.02 Owner will reject the Quote of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 16.03 If Bidder purports to add terms or conditions to its Quote, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Quote, whether in the Quote itself or in a separate communication to Owner or Engineer, then Owner will reject the Quote as nonresponsive.
- 16.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Quote.
- 16.05 *Evaluation of Quotes*
 - A. In evaluating Quotes, Owner will consider whether the Quotes comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Quote Form or prior to the Notice of Award.
- 16.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for

those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

- 16.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 17—BONDS AND INSURANCE

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

ARTICLE 18—SIGNING OF AGREEMENT

- 18.01 When Owner issues a Notice of Award to the Successful 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 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 Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 19—SALES AND USE TAXES

- 19.01 The Owner is a tax exempt agency under the laws of Oregon.

ARTICLE 20—CONTRACTS TO BE ASSIGNED

Article Not Used.

ARTICLE 21—WAGE RATE REQUIREMENTS

- 23.01 The Prevailing Wage Rates of the State of Oregon (ORS279C.800 to 279C.870) apply to this contract as do any requirements of the State of Oregon associated with the use of the State Prevailing Wages.

QUOTE FORM FOR CONSTRUCTION CONTRACT

The terms used in this Quote with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Quote is submitted to:

Port of Toledo, 496 NE Hwy 20, Unit 1, Toledo, OR 97391

If submitting by email, please submit to both of the following:

debbie.scacco@portoftoledo.org

dnicholson@civilwest.net

1.02 The undersigned Bidder proposes and agrees, if this Quote 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 Quote and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS QUOTE

2.01 The following documents are submitted with and made a condition of this Quote:

- A. List of Proposed First-Tier Subcontractors (C-440, First-Tier Subcontractors Disclosure Form) *(within two hours of bid closing)*
- B. Bidder Responsibility Certification (Section 00460, Contractors Responsibility Certification)
- C. Residency Statement (Section 00461, Residency Statement)
- D. Employee Drug Certification (Section 00462, Employee Drug Certification)
- E. Non-Discrimination Certification (Section 00463, Non-Discrimination Certification)
- F. Certificate of Compliance with Oregon Tax laws (Section 00464, State Tax Law Compliance Certification)
- G. Certificate of Licensing by the Construction Contractors Board (Section 00465, CCB License Certification)

ARTICLE 3— BASIS OF QUOTE—UNIT PRICES

3.01 *Unit Price Quotes*

A. Bidder will perform the following Work at the indicated unit prices:

Item No.	Description	Unit	Estimated Quantity	Unit Price	Item Total
1	Mobilization - Bonds & Insurance	LS	100%		
2	Construction Facilities & Temporary Controls	LS	100%		
3	Demolition & Site Preparation	LS	100%		
4	PS03 Mechanical (Install Pumps and Guide Rails, Furnish & Install 2" Sch 80 PVC Column Piping, Furnish & Install 4" Sch 80 PVC Passive Vent Piping, Turn-Up and Test Pumps)	LS	100%		
5	PS03 Electrical (Install Control Panel, Furnish & Install Disconnect, Convenience Outlet, and Additional Conduit, Connect to Distribution Panel in Shop)	LS	100%		
6	Install & Configure High Tide Master Station	LS	100%		
7	Connect Existing Gravity Sewer Laterals & Construct Cleanout	LS	100%		
8	Pump Out Existing Septic Holding Tank for Abandonment	LS	100%		
9	Pit Run Gravel to Fill Existing Septic Holding Tank	CUYD	7.5		
10	3/4"-0 Crushed Rock	CUYD	10		
11	Concrete Trench Patch – 6" Thick	SQFT	56		
12	Site Cleanup & Restoration	LS	100%		
Total Quote Price (Total of Lump Sum and Unit Price Items)					\$

- B. Bidder acknowledges that:
1. Each Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
 2. Estimated quantities are not guaranteed and are solely for the purpose of comparison of Quotes. Final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 4—FUNDING AGENCY REQUIREMENTS

- 4.01 The project will be funded from two sources of federal funding, ARPA/SLFRF and EPA R10 Community Grant defined further in Section SC-1.01A.40 of the Supplementary Conditions. The funding has certain restrictions.
- 4.02 Quotes shall be evaluated based on the lowest total quote amount.

ARTICLE 5—TIME OF COMPLETION

- 5.01 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.
- 5.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 6—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

- 6.01 *Quote Acceptance Period*
- A. This Quote will remain subject to acceptance for 60 days after the Quote opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 6.02 *Instructions to Bidders*
- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders.
- 6.03 *Receipt of Addenda*
- A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 7—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

- 7.01 *Bidder's Representations*
- A. In submitting this Quote, Bidder represents the following:
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.

2. Bidder 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. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Bidder 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. Bidder 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. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding 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 Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder 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. 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.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.
12. Bidder will submit written evidence of its authority to do business in the State or other jurisdiction where the project is located not later than the date of execution of the Agreement.

7.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. 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 collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. 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.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 - c. 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.
 - d. 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.
5. Bidder certifies that Bidder will comply with ORS 279C.838 or 279C.840 regarding prevailing wage rates.
6. Bidder is not a resident bidder as defined in ORS 279A.120.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

Address for giving notices:

Bidder's Contact:

Name:

(typed or printed)

Title:

(typed or printed)

Phone:

Email:

Address:

Bidder's CCB License No.: (if applicable)

SECTION 00440 – FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM

Project Name: **Port of Toledo Sewer Connection Expansion Project – Industrial Yard Sewer Improvements**

Bid Closing Date: _____

A. Subcontractor List

1. Bidder shall list below the name, address, Construction Contractor’s Board (CCB) number, description of work and dollar value of the subcontract for each subcontractor performing work in excess of the amount specified in the Instructions to Bidders, Section 00200, Article 12. If no subcontractor will be performing work on this project in excess of the amount specified in the Instructions to Bidders, Section 00200, Article 12, Bidders shall enter “NONE” in the first line below.

<u>Name</u>	<u>Address</u>	<u>CCB #</u>	<u>Description of Work</u>	<u>\$ Value of Subcontract</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

2. Total value of work provided by all subcontractors including those listed above is \$ _____.

Signature of Bidder Printed Name of Bidder Title Company Submitting

*This form must be submitted at the location specified in the Advertisement for Bids or Invitation to Bid on the bid closing date and within **Two (2)** working hours after bid closing time.*

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SECTION 00460 – Bidder Responsibility Certification

BIDDER RESPONSIBILITY CERTIFICATION

**This page must be completed, signed, and returned with the Bid Schedule.
Failure to do so will result in bid rejection.**

This certifies that the below named Bidder meets the standards of responsibility as provided by ORS 279C.375. The below named Bidder certifies that:

1. It has the appropriate financial, material, equipment, facility and personnel resources and expertise necessary to meet all contractual responsibilities as required by this contract.
2. It has a satisfactory record of performance for other public contracts.
3. It has a satisfactory record of integrity for other public contracts.
4. It is qualified legally to contract with the Port of Toledo for this project.
5. It will supply all required information requested by the City in connection with its bid for this Project, including, but not limited to, satisfactory responses to all information and certifications requested by the Port of Toledo in Section 00400 of the Contract concerning the Bidder's responsibility.

CERTIFICATION:

Contractor certifies that it meets the Standards of Responsibility as provided by ORS 279C.375.

Signature: _____ Title: _____

Name: _____ (Print or Type)

Firm: _____

Telephone: _____ Date: _____

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SECTION 00462 – Drug Testing Program Certification

BIDDER DRUG TESTING PROGRAM CERTIFICATION

**This page must be completed, signed, and returned with the Bid.
Failure to do so will result in bid rejection.**

This certifies that the below named Bidder has an employee drug testing program in place as required by ORS 279C.505 (2).

CERTIFICATION:

Bidder certifies that it has an employee drug testing program in place as required by ORS 279C.505 (2).

Signature: _____ Title: _____

Name: _____ (Print or Type)

Firm: _____

Telephone: _____ Date: _____

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SECTION 00463 – Non-Discrimination Certification

NON-DISCRIMINATION CERTIFICATION

**This page must be completed, signed, and returned with the Bid Schedule.
Failure to do so will result in bid rejection.**

279A.110 Discrimination in subcontracting prohibited; remedies.

- (1) A bidder or proposer who competes for or is awarded a public contract may not discriminate against a subcontractor in the awarding of a subcontract because the subcontractor is a minority, women or emerging small business enterprise certified under ORS 200.055.*
- (2) A contracting agency may debar or disqualify, under ORS 279B.130 or 279C.440, as appropriate, a bidder or proposer if the contracting agency finds that the bidder or proposer has violated subsection (1) of this section in the awarding of a subcontract in connection with a contract advertised by the contracting agency or a contract between the contracting agency and the bidder or proposer. A debarred or disqualified bidder or proposer may appeal the debarment or disqualification under ORS 279B.425 or ORS 279C.445 and 279C.450, as appropriate.*
- (3) A contracting agency may not allege an occurrence of discrimination in subcontracting as a basis for debarring or disqualifying a bidder or proposer under subsection (2) of this section more than three years after the alleged discriminatory conduct occurred or more than three years after the contracting agency, in the exercise of reasonable diligence, should have discovered the conduct, whichever is later.*
- (4) A bidder or proposer shall certify in the documents accompanying the bidder's or proposer's offer to enter into a public contract that the bidder or proposer has not discriminated and will not discriminate, in violation of subsection (1) of this section, against any minority, women or emerging small business enterprise in obtaining any required subcontract.*
- (5) After a contractor is awarded a public contract, if the contractor violates the certification made under subsection (4) of this section, the contracting agency may regard the violation as a breach of contract that permits:
 - (a) Termination of the contract; or*
 - (b) The contracting agency to exercise any remedies for breach of contract that are reserved in the contract.**

CERTIFICATION:

Contractor certifies that it has not discriminated and will not discriminate, in violation of ORS 279A.110 (1), against any minority, women or emerging small business enterprise in obtaining any required subcontract

Signature: _____ Title: _____

Name: _____ (Print or Type)

Firm: _____

Telephone: _____ Date: _____

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SECTION 00464 – State Tax Law Compliance Certification

CERTIFICATE OF COMPLIANCE WITH OREGON TAX LAWS

**This page must be completed, signed, and returned with the Bid.
Failure to do so will result in bid rejection.**

I, the undersigned, hereby swear or affirm under penalty of perjury that:

I am authorized to act in behalf of bidder, that I have authority and knowledge regarding the payment of taxes, and that bidder is, to the best of my knowledge, not in violation of any Oregon tax laws.

For purposes of this certificate, 'Oregon tax laws' means those programs listed in ORS305.380 (4). Examples include the state inheritance tax, personal income tax, withholding tax, corporation income and excise taxes, amusement device tax, timber taxes, cigarette tax, other tobacco tax, 9-1-1 emergency communications tax, the elderly rental assistance program and local taxes administered by the Department of Revenue.

Signature: _____ Title: _____

Name: _____ (Print or Type)

Firm: _____

Telephone: _____ Date: _____

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SECTION 00465 – CCB License Certification

**CERTIFICATION OF LICENSING BY OREGON CONSTRUCTION
CONTRACTORS BOARD**

**This page must be completed, signed, and returned with the Bid.
Failure to do so will result in bid rejection.**

This certifies that the below named Bidder is licensed by the State of Oregon Construction Contractor's Board required by ORS 279C.365 (1) (k).

CERTIFICATION:

Bidder hereby certifies that it is licensed by the State of Oregon Construction Contractor's Board and is not disqualified by the Board from performing a public improvement contract, as required by ORS 279C.365 (1) (k).

Signature: _____ Title: _____

Name: _____ (Print or Type)

Firm: _____

Telephone: _____ Date: _____

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SECTION 00466 – Acknowledgement of AIS Requirement

ACKNOWLEDGEMENT OF AMERICAN IRON AND STEEL (AIS) REQUIREMENT

**This page must be completed, signed, and returned with the Bid.
Failure to do so will result in bid rejection.**

The Contractor acknowledges to and for the benefit of the Port of Toledo (“Owner”) and the US Environmental Protection Agency (the “Funding Authority”) that it understands the goods and services under this Agreement are being funded with federal monies and 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 Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and the Funding Authority 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 Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority 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 Funding Authority.

Signature: _____ Title: _____

Name: _____ (Print or Type)

Firm: _____

Telephone: _____ Date: _____

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NOTICE OF AWARD

Date of Issuance:

Owner: Port of Toledo Owner’s Project No.: _____

Engineer: Civil West Engineering Services, Inc. Engineer’s Project No.: 2513-002

Project: Sewer Connection Expansion Project – Industrial Yard Sewer Improvements

Contract Name:

Bidder:

Bidder’s Address:

You are notified that Owner has accepted your Quote dated _____ for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Port of Toledo Sewer Connection Expansion Project – Industrial Yard Sewer Improvements

The Contract Price of the awarded Contract is \$_____. 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.

One (1) unexecuted counterpart 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 **one (1)** 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: **Port of Toledo, Oregon**

By (signature): _____

Name (printed): _____

Title: _____

Copy: Engineer

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

This Agreement is by and between **Port of Toledo** (“Owner”) and **[name of contracting entity]** (“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:

- Install submersible pumps and guide rails in existing pump station (PS03).
- Install pump station control panel.
- Furnish and install electrical disconnect, convenience outlet, and mounting frame for pump station electrical controls.
- Extend conduit and connect to existing distribution panel in shop to provide power for pump station.
- Install and configure High Tide pump station SCADA panel.
- Connect existing gravity sewer laterals to new main.
- Pump out and abandon existing septic holding tank.

ARTICLE 2—THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: **Port of Toledo Sewer Connection Expansion Project – Industrial Yard Sewer Improvements.**

ARTICLE 3—ENGINEER

3.01 The Owner has retained **Civil West Engineering Services, 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*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

- A. The Work will be substantially complete within **60** 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 **90** days after the date when the Contract Times commence to run.

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. *Substantial Completion:* Contractor shall pay Owner **\$250** 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.
 2. *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 **\$250** 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 Milestones, 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.

4.06 *Special Damages*

- A. Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

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:
- 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).

ATTACHMENT A: QUOTE FORM, INCORPORATED AS PART OF THIS AGREEMENT

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. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) **[\$[number].**
- D. 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 **15th** 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 (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
 - 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, Owner shall pay an amount sufficient to increase total payments to Contractor to **95** 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.

6.05 *Interest*

- A. All amounts not paid when due will bear interest at the rate of six percent (6%) per annum.

ARTICLE 7—CONTRACT DOCUMENTS

7.01 *Contents*

- A. The Contract Documents consist of all of the following:
 - 1. This Agreement (C-520).
 - 2. Bonds:
 - a. Performance bond (together with power of attorney) (C-610).
 - b. Payment bond (together with power of attorney) (C-615).
 - 3. General Conditions (C-700).
 - 4. Supplementary Conditions (C-800).
 - 5. Specifications as listed in the table of contents of the project manual (copy of list attached).
 - 6. Drawings (not attached but incorporated by reference) with with each sheet bearing the following general title: **Port of Toledo Sewer Connection Expansion Project**.
 - 8. Addenda (numbers [number] to [number], inclusive).
 - 10. 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.
 - e. Certificate of Substantial Completion
- 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 *Standard General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

8.04 *Other Provisions*

- A. Pursuant to ORS 279C.505(1) – Contractor shall make payment promptly, as due, to all persons supplying the Contractor with labor or materials for the performance of the work provided for in the contract. Contractor shall pay all contributions or amounts due the Industrial Accident Fund from the contractor or subcontractor incurred in the performance of the contract. Contractor shall not permit any lien or claim to be filed or prosecuted against the Owner on account of any labor or material furnished.
- B. Pursuant to ORS 279C.505 (2) – Contractor certifies that it has an employee drug testing program in place.
- C. If the Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the contractor or a subcontractor by any person in connection with the public improvement contract as the claim becomes due, the proper officer or officers representing the Owner may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due the contractor

- by reason of the contract. Other provisions of ORS 279C.515 and ORS 279C.580 concerning payments also apply.
- D. Contractor shall comply with hours of labor rules Pursuant to ORS 279C.520, 279C.540, and 279C.545.
 - E. Per ORS 279C.530, Contractor shall promptly, as due, make payment to any person, copartnership, association or corporation 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 moneys and sums that the contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services. All subject employers working under the contract are either employers that will comply with ORS 656.017 (Employer required to pay compensation and perform other duties) or employers that are exempt under ORS 656.126 (Coverage while temporarily in or out of state).
 - F. Contractor certifies, and it shall be a condition of the Contractor's bond as provided by ORS 279C.800 to 279C.870, that in performing the Agreement Contractor will pay and cause to be paid not less than the prevailing wages as of the date of the bid, per hour, per day and per week, for each and every person who may be employed in the performance of this Agreement.
 - G. Public Works Bond – Contractor shall have a public works bond filed with the Oregon Construction Contractors Board before starting Work on the Project unless exempt under ORS 279C.836. Contractor shall include in every subcontract a provision requiring every subcontractor to have a public works bond filed with the Oregon CCB before starting Work on the project unless exempt under ORS 279C.836.
 - H. Contractor shall defend, hold harmless and indemnify Owner, its officers, agents, engineers, attorneys and employees from any and all losses, liability, damages, costs, expenses (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), claims, suits or actions whatsoever in nature, including intentional acts, resulting from or arising out of the activities of the Contractor or its subcontractors, agents, or employees under this Agreement.
 - I. The terms of this Agreement shall not be waived, altered, modified, supplemented, or amended, in any manner whatsoever, except by written instrument. Such waiver, alteration, modification, supplementation, or amendment, if made, shall be effective only in the specific instance and for the purpose given, and shall be valid and binding only if it is signed by all parties to this Agreement. The failure of Owner to enforce any provision of this Agreement shall not constitute a waiver by the Owner of that or any other provision.
 - K. This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon. Any litigation between the Owner and the Contractor arising out of or related to this Agreement which is not resolved pursuant to SGC 16.01 shall be brought and maintained solely and exclusively in the Circuit Court of the State of Oregon for Lincoln County. Provided, if any litigation arising under the Agreement must be brought in a federal forum, it shall be brought and maintained solely and exclusively in the United States District Court for the District of Oregon in Eugene, Oregon. Contractor hereby consents to the personal jurisdiction of all courts within the State of Oregon.

L. Merger. This Agreement, which includes all Contract Documents as identified herein, constitutes the entire agreement between the parties. There are no understandings, agreements, or representations, oral or written, regarding this Agreement, except as specified or referenced herein. Contractor, by the signature below of its authorized representative, hereby acknowledges that it has read this Agreement, understands it, and agrees to be bound by its terms and conditions.

M. This Agreement may be executed in counterparts, each of which shall be an original, and all of which shall constitute but one and the same instrument.

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

This Agreement will be effective on the date which all signatures have been added (which is the Effective Date of the Contract).

SAMPLE

Owner:

Port of Toledo

(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:

Designated Representative:

Name:

(typed or printed)

Title:

(typed or printed)

Address:

Phone:

Email:

(If **Owner** is a corporation, attach evidence of authority to sign. If **Owner** 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:

NOTICE TO PROCEED

Owner: Port of Toledo Owner's Project No.: _____
Engineer: Civil West Engineering Services, Inc. Engineer's Project No.: 2513-002
Contractor: _____ Contractor's Project No.: _____
Project: Sewer Connection Expansion Project – Industrial Yard Sewer Improvements
Contract Name: _____
Effective Date of Contract: _____

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on **[date Contract Times are to start]** 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 number of days to achieve Substantial Completion is **330** from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of **[date, calculated from commencement date above]**; and the number of days to achieve readiness for final payment is **360** from the commencement date of the Contract Times, resulting in a date for readiness for final payment of **[date, calculated from commencement date above]**.

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

[Note any access limitations, security procedures, or other restrictions]

Owner: Port of Toledo
By (signature): _____
Name (printed): _____
Title: _____
Date Issued: _____
Copy: Engineer

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SAMPLE

PERFORMANCE BOND

<p>Contractor</p> <p>Name: _____</p> <p>Address <i>(principal place of business)</i>: _____</p>	<p>Surety</p> <p>Name: _____</p> <p>Address <i>(principal place of business)</i>: _____</p>
<p>Owner</p> <p>Name: Port of Toledo</p> <p>Mailing address <i>(principal place of business)</i>: 496 NE Hwy 20, Unit 1 P.O. Box 428 Toledo, OR 97391</p>	<p>Contract</p> <p>Description <i>(name and location)</i>: Port of Toledo Sewer Connection Expansion Project – Industrial Yard Sewer Improvements</p> <p>Lincoln County, Oregon</p> <p>Contract Price: _____</p> <p>Effective Date of Contract: _____</p>
<p>Bond</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: <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: _____ <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: _____
<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: **None**

PAYMENT BOND

Contractor Name: Address <i>(principal place of business)</i> :	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Port of Toledo Mailing address <i>(principal place of business)</i> : 496 NE Hwy 20, Unit 1 P.O. Box 428 Toledo, OR 97391	Contract Description <i>(name and location)</i> : Port of Toledo Sewer Connection Expansion Project – Industrial Yard Sewer Improvements Lincoln County, Oregon Contract Price: Effective Date of Contract:
Bond 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) (corporate seal)</i>
By: _____ <div style="text-align: center;"><i>(Signature)</i></div>	By: _____ <div style="text-align: center;"><i>(Signature)(Attach Power of Attorney)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>	Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
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 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: **None**

Contractor's Application for Payment

Owner: <u>Port of Toledo</u>	Owner's Project No.: _____
Engineer: <u>Civil West Engineering Services</u>	Engineer's Project No.: <u>2513-002</u>
Contractor: _____	Contractor's Project No.: _____
Project: <u>Sewer Connection Expansion Project</u>	
Contract: <u>Industrial Yard Sewer Improvements</u>	

Application No.: _____ **Application Date:** _____

Application Period: From _____ to _____

1. Original Contract Price	\$	-
2. Net change by Change Orders	\$	-
3. Current Contract Price (Line 1 + Line 2)	\$	-
4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	\$	-
5. Retainage		
a. _____ X \$ _____ Work Completed	\$	-
b. _____ X \$ _____ Stored Materials	\$	-
c. Total Retainage (Line 5.a + Line 5.b)	\$	-
6. Amount eligible to date (Line 4 - Line 5.c)	\$	-
7. Less previous payments (Line 6 from prior application)		
8. Amount due this application	\$	-
9. Balance to finish, including retainage (Line 3 - Line 4)	\$	-

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor: _____

Signature: _____ **Date:** _____

Recommended by Engineer	Approved by Owner
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____
Approved by Funding Agency	
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: Port of Toledo
 Engineer: Civil West Engineering Services
 Contractor:
 Project: Sewer Connection Expansion Project
 Contract: Industrial Yard Sewer Improvements

Owner's Project No.:
 Engineer's Project No.: 2513-002
 Contractor's Project No.:

Application No.: Application Period: From to Application Date:

A	B	C	D	E	F	G	H	I	J	K	L
Bid Item No.	Description	Contract Information				Work Completed		Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)
		Item Quantity	Units	Unit Price (\$)	Value of Bid Item (C X E) (\$)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) (\$)				
Original Contract											
1	Mobilization, Bonds & Insurance				-		-		-		-
2	Construction Facilities & Temporary Controls				-		-		-		-
3	Demolition & Site Preparation				-		-		-		-
4	Install PS03 Pumps & Guide Rails				-		-		-		-
5	PS03 Electrical (Mount Control Panel, Furnish & Install Disconnect, Convenience Outlet, and Additional Conduit, Connect to Distribution Panel in Shop)				-		-		-		-
6	Pump Station Turn-up & Testing				-		-		-		-
7	Install & Configure High Tide Master Station				-		-		-		-
8	Connect Existing Gravity Sewer Laterals to New Main				-		-		-		-
9	Pump Out & Abandon Existing Septic Holding Tank				-		-		-		-
10	Site Cleanup & Restoration				-		-		-		-
					-		-		-		-
					-		-		-		-
					-		-		-		-
Original Contract Totals					\$	-	\$	-	\$	-	\$

Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: Port of Toledo
 Engineer: Civil West Engineering Services
 Contractor: _____
 Project: Sewer Connection Expansion Project
 Contract: Industrial Yard Sewer Improvements

Owner's Project No.: _____
 Engineer's Project No.: 2513-002
 Contractor's Project No.: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

A	B	C	D	E	F	G	H	I	J	K	L
Bid Item No.	Description	Contract Information				Work Completed		Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)
		Item Quantity	Units	Unit Price (\$)	Value of Bid Item (C X E) (\$)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) (\$)				
Change Orders											
					-		-		-		-
					-		-		-		-
					-		-		-		-
					-		-		-		-
					-		-		-		-
					-		-		-		-
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					-		-		-		-
					-		-		-		-
					-		-		-		-
					-		-		-		-
Change Order Totals					\$ -		\$ -	\$ -	\$ -		\$ -
Original Contract and Change Orders											
Project Totals					\$ -		\$ -	\$ -	\$ -		\$ -

CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: Port of Toledo Owner's Project No.:
Engineer: Civil West Engineering Services, Inc. Engineer's Project No.: 2513-002
Contractor: Contractor's Project No.:
Project: Sewer Connection Expansion Project
Contract Name: Industrial Yard Sewer Improvements

This Preliminary Final Certificate of Substantial Completion applies to:

All Work The following specified portions of the Work:

[Describe the portion of the work for which Certificate of Substantial Completion is issued]

Date of Substantial Completion: **[Enter date, as determined by Engineer]**

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities: None As follows:

[List amendments to Owner's Responsibilities]

Amendments to Contractor's Responsibilities: None As follows:

[List amendments to Contractor's Responsibilities]

The following documents are attached to and made a part of this Certificate:

[List attachments such as punch list; other documents]

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By (signature): _____

Name (printed): _____

Title: _____

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Section 00700

General Conditions & Supplementary Conditions (by reference)

Work under this Contract is governed by the Standard General Conditions of the Construction Contract (EJCDC® C-700, 2018 Edition), incorporated herein by reference. The General Conditions can be found here:

[C700 General Conditions 2018.pdf](#)

Modifications to the standard text of the General Conditions are stated in the Supplementary Conditions (EJCDC® C-800, 2018 Edition). The Supplementary Conditions can be found here:

[C-800 SUPPLEMENTARY CONDITIONS \(EJCDC 2018\) - 2513.002.pdf](#)

Section 00850
Prevailing Wage Rates

The Prevailing Wage Rates of the State of Oregon (ORS279C.800 to 279C.870) apply to this contract as do any requirements of the State of Oregon associated with the use of the State Prevailing Wages.

The applicable Prevailing Wage Rates can be accessed using the following links:

[BOLI January 5, 2026 Prevailing Wage Rate Book.pdf](#)

[BOLI PWR Apprentice Rates Effective January 5, 2026.pdf](#)

WORK CHANGE DIRECTIVE NO.: [Number of Work Change Directive]

Owner: Port of Toledo
Engineer: Civil West Engineering Services, Inc
Contractor:
Project: Sewer Connection Expansion Project
Contract Name: Industrial Yard Sewer Improvements
Date Issued: Effective Date of Work Change Directive:
Owner's Project No.:
Engineer's Project No.: 2513-002
Contractor's Project No.:

Contractor is directed to proceed promptly with the following change(s):

Description:

[Description of the change to the Work]

Attachments:

[List documents related to the change to the Work]

Purpose for the Work Change Directive:

[Describe the purpose for the change to the Work]

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

Non-agreement on pricing of proposed change. Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: \$ _____ **[increase] [decrease] [not yet estimated].**

Contract Time: _____ days **[increase] [decrease] [not yet estimated].**

Basis of estimated change in Contract Price:

Lump Sum Unit Price Cost of the Work Other

Recommended by Engineer

Authorized by Owner

By:

Title:

Date:

CHANGE ORDER NO.: [Number of Change Order]

Owner:	Port of Toledo	Owner's Project No.:	
Engineer:	Civil West Engineering Services, Inc.	Engineer's Project No.:	2513-002
Contractor:		Contractor's Project No.:	
Project:	Sewer Connection Expansion Project		
Contract Name:	Industrial Yard Sewer Improvements		
Date Issued:		Effective Date of Change Order:	

The Contract is modified as follows upon execution of this Change Order:

Description:

[Description of the change]

Attachments:

[List documents related to the change]

Change in Contract Price	Change in Contract Times [State Contract Times as either a specific date or a number of days]
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. [Number of previous Change Order] : \$ _____	[Increase] [Decrease] from previously approved Change Orders No.1 to No. [Number of previous Change Order] : Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] this Change Order: \$ _____	[Increase] [Decrease] this Change Order: Substantial Completion: _____ Ready for final payment: _____
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____

Recommended by Engineer (if required)

Accepted by Contractor

By: _____

Title: _____

Date: _____

Authorized by Owner

Approved by Funding Agency (if applicable)

By: _____

Title: _____

Date: _____

FIELD ORDER NO.: [Number of Field Order]

Owner: Port of Toledo
Engineer: Civil West Engineering Services, Inc.
Contractor:
Project: Sewer Connection Expansion Project
Contract Name: Industrial Yard Sewer Improvements
Date Issued: Effective Date of Field Order:

Owner's Project No.:
Engineer's Project No.: 2513-002
Contractor's Project No.:

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph 11.04 of the General Conditions, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification Section(s):

Drawing(s) / Details (s):

Description:

[Description of the change to the Work]

Attachments:

[List documents supporting change]

Issued by Engineer

By: _____

Title: _____

Date: _____

Port of Toledo

Lincoln County, Oregon

Contract Documents

VOLUME 2 – Technical Specifications

FOR THE CONSTRUCTION OF
SEWER CONNECTION EXPANSION PROJECT
INDUSTRIAL YARD SEWER IMPROVEMENTS

December 2025
Project No. 2513-002



Prepared By:

Civil West Engineering Services, Inc.

486 E Street • Coos Bay, Oregon 97420 • Ph. 541.266.8601, Fax 541.266.8681 • www.civilwest.com

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Port of Toledo

Lincoln County, Oregon

Contract Documents

VOLUME 2 – Technical Specifications

FOR THE CONSTRUCTION OF
SEWER CONNECTION EXPANSION PROJECT
INDUSTRIAL YARD SEWER IMPROVEMENTS

December 2025
Project No.2513-002



Civil West

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DIVISION 1 – GENERAL REQUIREMENTS

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SECTION 01 11 00 – SUMMARY OF THE WORK

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall furnish all labor, equipment, and materials necessary to complete all work in accordance with the Contract Documents.
- B. The work shall be performed for the Port of Toledo, Lincoln County, Oregon.
- C. Project Scope – The project consists of sanitary sewer system improvements at the Port of Toledo Industrial Yard located at 625 N Bay Blvd, Toledo, OR 97391, including the following specific tasks:
 - 1. PS03 Mechanical & Piping Improvements – Install submersible pumps (2), PVC pressure piping (columns), pump guide rails, and passive vent piping in existing pump station (PS03). Pumps consist of 3.8 Hp, 230V, 3-phase powered heavy duty grinder pumps. Guide rails consist of 3/4" schedule 40, 316 stainless steel pipe which must be cut to length and fitted in the pump station wetwell. Pump column piping shall consist of 2" Sch 80 PVC pipe. Passive vent piping shall consist of 4" Sch 80 PVC pipe. The following are excerpts from the technical specification for the prefabricated Onelift pump station:

Guide Rails

- a. The guide rail system will include lower guide brackets incorporated in the pump base elbow, 316-stainless upper guide brackets, 316-stainless intermediate guide brackets as may be required per the pump manufacture, and 304 stainless steel Sch 40 guide rails of size and quantity as dictated by the select pump manufacturer and model.
- b. Guide rail components shall be assembled and installed plumb to the pump station structure and shall allow for pump removal and re-installation without interfering with the access hatch or frame. All assembly hardware shall be 316-stainless steel.

PVC Pipe and Fittings

- c. All PVC pressure pipe and fittings for wastewater shall be Sch 80. Corrosion resistant pressure pipe, IPS sizes, for use at temperatures up to and including 140° F. Pressure rating (120 psi to 1230 psi) varies with schedule, pipe size, and temperature.
- d. The material used in the manufacture of the pipe and fittings shall be domestically produced rigid polyvinyl chloride (PVC) compound, Type 1 Grade 1, with a Cell Classification of 12454 as defined in ASTM D1784, trade name designation H707 PVC. This compound shall be gray in color, and shall be approved by NSF International for use with potable and non-potable water (NSF Std 61). All sizes of PVC Schedule 80 pipe & fittings shall be manufactured in strict accordance with the requirements of ASTM D1785 for physical dimensions and tolerances, and all performance test requirements of ASTM D1785.

Pipe Supports

- e. Piping shall be supported in the pump station by means of a common 304-stainless fabricated angle brace spanning the width of the station and mounted with wall brackets and 316-stainless hardware. Both vertical discharge pipes shall be supported from the brace by means of individual 316-stainless U-bolts and bolting hardware.
 - 1) One (1) common pipe support assembly at mid length shall be required when the vertical discharge pipe lengths exceed 10'-0".
2. PS03 Electrical – The following electrical and related work is required to achieve operational status of PS03:
- a. Install pump station control panel. Pump station control panel consists of a pre-assembled panel in a 30" wide by 36" tall stainless steel NEMA 4X enclosure. Control panel should be mounted on a slotted strut channel support frame secured to two concrete blocks embedded in the ground next to the pump station. Conduit for the power supply and for control wiring has been stubbed up at the control panel location. Furnish and install strut channel and related components for support frame as needed. Per the Onelift pump station specification:

Hazardous Location Compliance

- 1) The wet well and the area within 2 feet of the wet well has been classified as a Class 1, Division 1, A Hazardous Location as defined by the National Electrical Code. All electric wiring and motors located within the subject area shall be in strict compliance with these standards. The shop drawings carry the manufacturer's certification that all equipment located in the subject area meets the requirements of NEC Class 1, Division 1 Criteria and the Underwriter's Laboratory (UL).
 - b. Furnish and install electrical disconnect and convenience outlet (if required by electrical code). Electrical disconnect should consist of heavy duty 3-pole safety switch rated for 240V, 100 Amp service, in a stainless steel NEMA 4X enclosure. Convenience outlet (if required by code) should consist of a 20 Amp commercial rated GFCI outlet in a NEMA 4X weather-proof enclosure which can be mounted on the strut channel frame used for the pump control panel. If a step-down transformer is needed, it should be a dry type in a minimum NEMA 3R enclosure.
 - c. Extend conduit and connect to existing distribution panel in shop to provide power for pump station. 2" PVC electrical conduit to pump station is currently terminated outside Port of Toledo Industrial Yard Shop Building. A wall penetration and extension of the conduit will be necessary to access power from the existing breaker panel inside the building. Power wires shall be as specified on Sheet E1 included in this RFQ packet.
 - d. Pump Startup shall be conducted by Manufacturer's Representative from Whitney Equipment Co. Contact Janette Dahl at 425-540-0450 to schedule startup.
3. Install and Configure High Tide Master Station – Alarm output wires from pump control panel should be connected to High Tide inputs. Alarms should include, at

minimum High Wetwell, Low Wetwell, Pump Failure, and Loss of Power. More detail on pump station alarms is provided in Section 46 50 00. Activate and test High Tide alarm functions. Input callout list as directed by Port of Toledo staff.

4. Connect Existing Gravity Sewer Laterals to New Main – A new gravity sewer lateral has been extended from the new main to the location where the existing sewer lateral exits the Industrial Yard Shop. A new service lateral stub-out has also been installed at the point where the building sewer from the house on the property crosses the new sewer main. Once the pump station has been started up and tested, the building sewers should be tied in to the new gravity sewer system which connects to the pump station. Refer to Section 33 31 11 PVC Pipe for Sanitary Sewer.
 5. Pump Out & Abandon Existing Septic Holding Tank – The existing septic holding tank should be pumped out by a licensed sewage disposal service and the contents disposed of in accordance with applicable regulations. The tank should then have the top removed and the tank filled with compacted bar-run gravel in accordance with County tank abandonment procedures. The upper 6 inches should be restored to grade with compacted ¾"-0 crushed rock.
- D. Work shall not begin on any part of this project until Engineer has issued the *Notice to Proceed* to the Contractor. Excavation will not be allowed until the EPA approval process has been completed. Contract forms and equipment purchases may proceed.

1.02 SUBMITTALS

- A. Contractor shall submit Sequence of Work Plan to Engineer which ensures continuation of sanitary sewer service throughout project. If it is determined that bypass pumping is necessary, provide bypass pumping plan including estimated duration.

1.03 PROJECT INSPECTION

- A. Project inspection will be provided by Civil West Engineering Services, Inc.
- B. The Project Inspector will perform inspection services as the Project Engineer's authorized representative. However, all engineering decisions will be made by the Project Engineer or Project Manager.
- C. At completion of the project, the Project Inspector will certify in writing to the Owner and the Department of Environmental Quality (Department) that construction was inspected by him/her and found to be in accordance with the Plans and Specifications, including any changes therein approved by the Engineer and Department.
- D. Record Drawings will be prepared at the conclusion of all construction activities.

1.04 WORK PROGRESS

- A. It is the intent of these Contract Documents that the Work precedes in a systematic manner so that a minimum of inconvenience to the public and city personnel results in the progression of the work. Suitable equipment will be required to properly execute the work with the least amount of disruption to services and access through the work area. Contractor shall contain operations to within the designated public properties, rights-of-way and within any construction easements obtained for this project.
- B. Order and schedule delivery of materials in ample time to avoid delays in construction. If any item is found to be unavailable, notify the Engineer immediately to permit the

Engineer's selection of suitable substitute. Timely delivery of all materials and equipment is Contractor's responsibility. No extensions in Contract Time will be allowed due to delays caused by late delivery of items. Availability of items should be determined during bidding.

- C. The Contractor shall protect the work and materials from damage due to the nature of the work, the elements, carelessness of others, or from any other cause until the completion and final acceptance of the work. All loss or damage arising out of the nature of the work to be done under these Contract Documents, or from any unseen obstruction or defects which may be encountered in the execution of the work, or from the action of the elements, shall be sustained by the Contractor.
- D. The Contractor shall remove completely all materials designated for removal, to the extent specified and/or indicated in the drawings. For such materials, removal, hauling, disposal (including providing disposal location), and applicable precautions are entirely the Contractor's responsibility. Allow no excess accumulation of non-reusable material at job site(s).
- E. Contractor is responsible for the protection of all existing improvements that are to remain in place. This includes, but is not necessarily limited to: existing utilities (water, sewer, gas, electric, phone, etc.), roads, driveways, drainage ditches, culverts, fencing, shrubbery, and all landscaping structures and vegetation. Temporary enclosures, walls, covers, or other protection shall be provided and maintained by the Contractor as required. Contractor shall cooperate with the owners of such improvements and shall restore and/or replace all damaged items as directed, without any additional expense to the Owner or payments to the Contractor.
- F. The location and depth shown on the drawings for the existing underground facilities are approximate only and are not guaranteed to be accurate or complete. As-builts are not available for existing improvements.

END OF SECTION

SECTION 01 25 00 – PRODUCT SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. This Section describes procedures for securing approval of proposed product substitutions.

1.02 PRODUCT OPTIONS

- A. The Contract is based on standards of quality established in the Contract Documents.
- B. See Section 01 33 00 Submittals, General Conditions (Section 7.04 & 7.05) and Supplementary General Conditions (Section SC-7.04 & SC-7.05) for additional information on submittals and substitutions.
- C. In agreeing to the terms and conditions of the Contract, the Contractor has accepted the responsibility to verify that the specified products will be available and to place orders for all required materials in such a timely manner as is needed to meet the Contractor's agreed construction schedule.
- D. The Owner has not agreed to the substitution of materials or methods called for in the Contract Documents, except as they may specifically otherwise state in writing.
- E. Where materials and methods are specified by naming one single manufacturer or model number, without stating that equal products will be considered, only the material and method named is approved for incorporation into the Work.
- F. Where materials and methods are specified by name or product number, followed by the words "or equal approved in advance", materials and methods proposed by the Contractor to be used in lieu of the named materials and methods shall in all ways be equal or exceed the qualities of the named materials and methods. For consideration as an "equal approved in advance", complete detailed submittals (4 copies) must be received by the Engineer at least fourteen (14) days prior to the bid opening date. Approved substitute items will be listed by addendum prior to bid opening.
- G. Where the phrase "or equal," or "or approved equal," occurs in the Contract Documents, do not assume that the materials, equipment or methods will be approved as equal unless the item has been specifically so approved for this Work. Prepare detailed submittal and submit to Engineer. Substitutes will not be incorporated into the work unless submittal is approved by the Owner via the Engineer.
- H. Submittals shall include all technical information and diagrams as necessary to allow Engineer to evaluate the proposed substitution. Any/all differences between the specifications or specified equipment and the proposed substitution shall be clearly noted in the submittal. Submittals shall clearly indicate the specific model numbers, part numbers, and options of the proposed substitution.

1.03 DELAYS

- A. Delays in construction arising because of the time required for approval of substitution requests will not be considered by the Owner as justifying an extension of the agreed Time of Completion.

END OF SECTION

SECTION 01 26 00 – CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Make such changes in the Work, in the Contract Sum, in the Contract Time of Completion, or any combination thereof, as described by Change Orders signed by the Owner, Engineer, and the Contractor.
- B. See also applicable sections of the General Conditions and applicable portions of the Supplementary General Conditions.
- C. Work outside the scope of the original Contract Document intent will not be paid for by Owner or Engineer unless an approved Change Order precedes such work.

1.02 PROCESSING CHANGE ORDERS

- A. Change Orders will be numbered in sequence and dated. The Change Order will describe the changes and will be signed by the Owner, Engineer and the Contractor. Request for estimates for possible changes are not to be considered Change Orders or direction to proceed with the proposed changes.
- B. Change Orders will be prepared by the Engineer.
- C. Contractor may request that the Owner consider a Change Order by sending a written Change Order Request to both Owner and Engineer to initiate the Change Order process. Any increase in cost or time requested by Contractor shall be reasonable and based on the provisions in the Contract Documents.
- D. When requested, Contractor shall provide written evidence substantiating cost changes including receipts, cost proposals from suppliers, and wage forms showing labor used for a particular change.
- E. Change Orders will be processed using the form shown in these Contract Documents.
- F. Change Order may include changes for costs, time, material selections, or other changes to the Contract Documents as necessary.

END OF SECTION

SECTION 01 29 00 – PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Wherever in these Specifications an article, device or piece of equipment is referred to in the singular, such reference shall include as many such items as are shown on the Plans or are required to complete the installation.

- B. Miscellaneous items required in the project that do not have a corresponding Section in the Bid Form are to be considered incidental costs to the project. Compensation for such items and/or work shall be incorporated into other related bid items or total costs. No separate measurement and payment will occur for such incidental costs.

END OF SECTION

SECTION 01 31 00 – PROJECT MANAGEMENT & COORDINATION

PART 1 GENERAL

1.01 SUMMARY

- A. Restrict work to within public rights-of-way and easements obtained for this project.
- B. The Contractor shall coordinate his/her work with the following:
 - 1. Port of Toledo
 - 2. Central Lincoln PUD
 - 3. City of Toledo
 - 4. Other affected utilities and agencies
- C. Permit and maintain access for the Owner and/or residents to any adjacent facilities that are not part of work included within the project.
- D. The Contractor shall be responsible for paying the electrical service install costs to Pacific Power as part of the bid. An allocation has been included on the Bid Form for this purpose.
- E. Coordinate with Owner to determine the locations of underground piping, vaults, valves and other items that could be damaged during construction.
- F. Restoration and cleanup work shall be completed with each phase of the construction project. Parking lots and properties shall be maintained and kept clean and clear of excess excavation, debris, dirt and other materials.

END OF SECTION

SECTION 01 32 16 – CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.01 SUMMARY

- A. This section specifies detailed scheduling requirements and procedures including interim and overall schedules.

1.02 SUBMITTALS

- A. Provide a progress schedule indicating the times for starting and completing the various stages of work, including any Milestones.
- B. As work progresses, Contractor shall prepare and submit updated progress schedules, as necessary.
- C. Schedule duration of each activity shall be based on the work being performed during the normal 40-hour work week with allowances made for legal holidays and normal weather conditions.
- D. Updates – Schedule shall be updated at least once per month as required to maintain accuracy.

1.03 PROGRESS OF WORK

- A. The Contractor shall execute work with such progress as necessary to prevent delay to the overall completion of the project and with such forces, materials and equipment to assure completion in the time established by the Contract.

1.04 INTERIM SCHEDULE

- A. Contractor shall submit within 10 days after award of Contract, but before any scheduled pre-construction conference, an Interim Schedule setting forth all activities for the first two (2) months of construction.
- B. Review comments by the Engineer concerning the Interim Schedule shall be considered in developing the Overall Schedule.
- C. The Contractor shall submit three (3) copies of the Interim Schedule.

1.05 OVERALL SCHEDULE

- A. For Contract Periods exceeding 60 days, the General Contractor shall prepare and submit, within 30 days after the award of Contract, an Overall Schedule composed of all construction operations in connection with the Contract.
- B. Overall Schedule, if it is sufficiently developed to equal or exceed the Interim Schedule requirements, may be submitted in lieu of a separately prepared Interim Schedule. In any event, the Interim Schedule shall form the basis for the Overall Schedule and will be considered an integral part of the Overall Schedule.
- C. Contractor shall submit three (3) copies to the Engineer for his/her review. Within seven (7) days after receipt of the submittal, the Engineer shall review the submitted schedule and return one copy of the marked-up original to the Contractor. If the Engineer finds that the submitted schedule does not comply with specified requirements, the corrective

revisions will be noted on the submittal copy returned to the Contractor for corrections and resubmitted.

1.06 SCHEDULE CONTENT

- A. Schedules shall indicate the sequence of work and the time of starting and completion of each activity. Activities shall include, but not be limited to, the following items as they pertain to the Contract:
1. Each subcontractor's items of work
 2. Temporary provisions for continued service
 3. Installation of specific major items
 4. Submittals from Contractor to Engineer for review and return to the Contractor. Material and equipment order, manufacture and delivery
 5. Dates for performance of all testing procedures
 6. Dates for tie-ins to existing systems
 7. Final cleanup and Start-Up
 8. Allowance for inclement weather
 9. The schedule duration of each activity shall be based on the work being performed during the normal 40-hour work week with allowances made for legal holidays and normal weather conditions.
 10. Schedule shall be updated each month as required, and more often if changes in scheduling are required or if the original schedule is no longer valid.
 11. After each revision, the Contractor shall submit the revised schedule to the Engineer.
 12. The Contractor shall consider all critical systems and coordinate existing, temporary, and new construction to ensure that there is no interruption to sewage pumping.

END OF SECTION

SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. This section outlines in general the items the Contractor must prepare or assemble during the progress of the work, including technical submittals, O&M data, record drawings, and substitution requests. Submittals are required for each piece of equipment or material even when the item being proposed for use is the same as specified.

1.02 RELATED SECTIONS

- A. General Conditions – Article 7.04, “*Or Equals*”, as modified in Supplementary Condition SC-7.04
- B. General Conditions – Article 7.05, *Substitutes*, as modified in Supplementary Condition SC-7.05
- C. General Conditions – Article 7.16, *Shop Drawings, Samples and Other Submittals*, as modified in Supplementary Condition SC-7.16
- D. Section 01 25 00 – Product Substitution Procedures
- E. Section 01 77 00 – Closeout Procedures
- F. Section 01 78 39 – Project Record Documents
- G. Section 01 92 13 – Facility Operation and Maintenance
- H. Various sections requiring submittals for equipment and materials

1.03 BASIS OF DESIGN

- A. In some cases, elements of the improvements are based around a specific supplier of equipment. This should not be construed as an effort to sole-source or exclude other equipment suppliers from being considered in the bid process.
- B. However, it should be understood, that individual equipment items may vary slightly from one manufacturer to another. If a proposed piece of equipment varies enough from the equipment utilized in the basis of design, changes to other aspects of the system may be required. This could include, but not be limited to:
 - 1. Head loss calculations and hydraulic grade adjustments.
 - 2. Structural changes.
 - 3. Electrical changes.
 - 4. Mechanical Changes.
 - 5. Grading changes.
 - 6. Etc.

- C. When submitting equipment that is appreciably different from the basis of design, the Contractor must take care to consider the impacts to the project and what changes to the design, if any, will be required to utilize a proposed piece of equipment.
- D. If required as a result of utilizing equipment that varies appreciably from the basis of design, Contractor shall include in the submittal the following:
 - 1. Updated drawings showing the layout, plan, elevations, and other views to illustrate the alternative equipment choice and how it fits into the project.
 - 2. Updated engineering information on the hydraulic grade calculations, treatment performance, or other design considerations for review to confirm the proposed equipment meets the intent of the specifications.
 - 3. Updated mechanical, structural, electrical, and other plans, as required, for changes brought on by an equipment selection that varies from the basis of design.
 - 4. Any other information, required by the Engineer, to review the impact of the proposed equipment on the overall process and design and to confirm that the Contractor has adequately vetted the equipment and is prepared to construct the improvements with the selected equipment.
- E. The costs of the submittal process described above shall be included in the Contractor's bid price for the improvements. No separate payment will be made to prepare drawings or update the design.
- F. The Engineer will provide the Contractor with AutoCAD files to assist them in the submittal process upon request.

1.04 SUBSTITUTION REQUESTS

- A. Refer to the General Conditions, 7.05 regarding substitutions, the costs of review, and the responsibility of the Contractor relating to substitution requests.
- B. Where the specifications state "or-equal", "or approved equal", or similar statement, the Engineer alone will determine if the proposed substitute item is allowed.
- C. Requests for substitution for items specified by manufacturer or manufacturer's model number as specified throughout the Contract Documents shall be in writing and be accompanied with sufficient information to allow the Engineer to identify the nature and scope of the request. Information to be provided shall include:
 - 1. Reason the substitution request is being made.
 - 2. All submittal information required for the specified item or equipment, including all deviations from the specified requirements necessitated by the proposed substitution.
 - 3. Reproducible contract drawings, marked up to illustrate the alterations to all structural, architectural, mechanical and electrical systems required to accommodate the proposed substitution.
- D. If the substitution requires any mechanical, electrical or structural changes, the Contractor will be responsible for costs in evaluating a requested substitution. The cost for such an evaluation will be determined on a case-by-case basis, after receipt of written request. The Engineer will notify the Contractor in writing of said cost. If the Contractor wishes to

proceed, the contractor shall advise the Engineer in writing and submit additional information as may be requested. Final approval of a substitution must be made by both the Engineer and Owner.

- E. No additional costs of any kind will be incurred by the Owner or Engineer by approval or rejection of any substitution request.

1.05 SUBMITTALS

A. Technical submittals

1. Technical submittals covered by these specifications include manufacturer's information, shop drawings, test procedures, test results, samples, request for substitutions and miscellaneous work-related submittals. Submittals shall also include, but not be limited to, all mechanical, electrical and electronic equipment and systems, materials, reinforcing steel, fabricated items, piping and conduit details, and lead time required for delivery to job site.
2. Contractor's Responsibilities
 - a. The Contractor shall furnish all drawings, specifications, descriptive data, certifications, dimensional drawings, samples, tests, methods, schedules and manufacturers installation and other instructions as required by the contract documents, or the Engineer, to demonstrate fully that the materials and equipment to be furnished and the methods of work comply with the provisions and intent of the contract documents.
 - b. The Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment or method of work shall be as described in the submittal. The Contractor shall verify that all features of all products conform to the specified requirements.
 - c. The Contractor shall ensure that there is no conflict with other submittals and notify the Engineer in each case where the Contractor's submittal may affect the work as shown on the Plans.
 - d. The Contractor shall coordinate submittals among his/her subcontractors and suppliers.
 - e. Submittals shall coordinate 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.
 - f. The Contractor shall not proceed with work related to a submittal until the submittal process is complete.
 - g. The Contractor shall certify on each submittal document that the Contractor has reviewed the submittal, verified final conditions and complied with the contract documents. The Contractor may authorize in writing a material or equipment supplier to deal directly with the Engineer. This interaction shall be limited to contract interpretations to clarify and expedite the work.

- h. Charges will be documented and the Contractor will be charged for review of multiple non-conforming submittals for any one (1) item in excess of two (2) times.

1.06 RECORD DRAWINGS

- A. During the course of construction, Contractor shall maintain a marked-up set of the project drawings. See Section 01 78 39.

1.07 OPERATION AND MAINTENANCE (O&M) MANUALS

- A. Contractor shall collect O&M data from all equipment and material suppliers for all items provided in the project. See Section 01 92 13.

1.08 ENGINEER'S REVIEW

- A. Review shall not extend to means, methods techniques, sequences or procedures of construction, or to verify quantities, dimensions, weights or gages, or to fabrication processes, except when specifically indicated or required by the contract documents, or to safety precautions or programs.
- B. The Contractor shall submit electronic copies of all submittal material to Engineer.
- C. Unless otherwise specified, within 14 calendar days after receipt of submittal, the Engineer will return the marked-up copies. The Contractor shall take appropriate action if the submittal needs to be resubmitted. If specified submittal material is to be used for O&M data, all corrections shall be made and new clean copies shall be submitted with the O&M data.
- D. Review of contract documents, method of work or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of his/her responsibilities for errors therein and shall not be regarded as an assumption of risks or liability by the Engineer or Owner. The Contractor shall have no claim under the Contract on account of failure or partial failure of the method of work, material or equipment so reviewed.

END OF SECTION

SECTION 01 41 00 – REGULATORY REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall at all times observe and comply with all federal and state laws and lawful regulations issued and local laws, ordinances and regulations which in any manner affect the activities of the Contractor under this contract and further shall observe and comply with all orders or decrees as exist as present and those which may be enacted later by bodies or tribunals having any jurisdiction or authority over such activities of the Contractor.

- B. The Contractor shall be responsible and liable for all accidents, damage or injury to any person or property resulting from any activity, duty and obligation of the Contractor under this Contract for which the Contractor may be legally liable. The contractor shall hold blameless and harmless and shall indemnify the Owner and its officers, employees against any and all claims, demands, loss injury, damage, actions and cost of actions whatsoever which they or any may sustain by reason of any act, omission or neglect of the Contractor or employees, agents, representatives or assignees of the Contractor in connection with the activities, duties and obligations of the Contractor under this Contract.

1.02 PROJECT REQUIREMENTS

- A. **Inadvertent Discovery Plan** – The Port of Toledo will provide the Contractor with an approved Inadvertent Discovery Plan (IDP) upon execution of the Contract. The Contractor will be required to follow the guidelines of the IDP.

END OF SECTION

SECTION 01 42 19 – REFERENCE STANDARDS

PART 1 GENERAL

1.01 SUMMARY

A. Abbreviations and Acronyms. Whenever the following abbreviations are used in these specifications or in the drawings, the following definitions apply. Unless otherwise designated, all reference to the following standards, specifications and methods shall imply the latest adopted revision in effect at the time of bid opening. Such standard, except as modified herein, shall have full force and effect as though printed in the specifications.

1. AASHTO American Association of State Highway and Transportation Officials
2. ACI American Concrete Institute
3. AIA American Institute of Architects
4. AISC American Institute of Steel Construction
5. ANSI American National Standards Institute
6. APWA American Public Works Association
7. ASCE American Society of Civil Engineers
8. ASME American Society of Mechanical Engineers
9. ASTM American Society of Testing Materials
10. AWWA American Water Works Association
11. EPA United States Environmental Protection Agency
12. DEQ Department of Environmental Quality (both Federal and State)
13. DWP Oregon Dept. of Human Services, Drinking Water Program
14. FM Factory Mutual
15. NEC National Electric Code
16. NEMA National Electric Manufacturers Association
17. NFPA National Fire Protection Association
18. NSF National Sanitation Foundation
19. OAR Oregon Administrative Rules
20. ODOT Oregon Department of Transportation
21. ORS Oregon Revised Statutes
22. OSHA Occupational Safety and Health Act (both Federal and State)

- 23. UL Underwriters' Laboratories
- 24. USDA United States Department of Agriculture
- 25. SSPC Steel Structures Painting Council or, The Society for Protective Coatings

1.02 The abbreviation of "N.I.C." if shown on the plans or specifications represents work that is "Not in Contract". This work is to be completed at a later date by Owner or others and for which the Contractor will not be responsible.

END OF SECTION

SECTION 01 45 00 – QUALITY CONTROL

PART 1 GENERAL

1.01 SUMMARY

- A. Work shall conform to these specifications and the standards of quality contained herein.
 - 1. Only new items of recent manufacturer and quality specified, free from defects, will be permitted on the Work, unless items are specifically noted as existing to be reutilized. Remove rejected items immediately from the Work and replace with items of quality specified. Failure to remove rejected materials and equipment shall not relieve the Contractor from responsibility for quality and character of items used, nor from any other obligation imposed by the Contract.
 - 2. No work defective in construction or quality, or deficient in any requirement of the drawings and specifications will be acceptable in consequence of the Owner's or the Engineer's failure to discover or to point out defects or deficiencies during construction; nor will the presence of Resident Project Representatives on the work relieve the Contractor from responsibility for securing the quality and progress of work as required by the Contract. Defective work revealed within the time required by guarantees shall be replaced by the Contractor by work conforming to the intent of the Contract. No payment, whether partial or final, shall be construed as an acceptance of defective work or improper materials.

END OF SECTION

SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SUMMARY

- A. This section includes mobilization, temporary utilities, temporary construction, safety requirements, temporary environmental controls, and other temporary controls.
- B. Submittals
 - 1. Plans for disposal of waste materials and excavated material not required for fill, including permits as required.
- C. Permits. Contractor shall secure and pay for all permits and fees required pertaining to temporary facilities and all other work.
- D. Mobilization shall include de-mobilization and consist of preparatory work and operations, including but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site; for the establishment of offices, buildings and other facilities necessary for work on the project; for premiums on bond and insurance for the project, and for other work and operations which the Contractor must perform or costs the Contractor must incur before beginning work on the project and after completion of the project.
- E. Access of Government Officials. Authorized representatives of the Federal, State and Local Governments shall at all times have safe access to the Work, whenever in preparation or in progress, and Contractor shall provide proper facilities for such access and inspections.

1.02 MATERIALS

- A. Contractor shall provide all materials necessary for work this Section.

1.03 WORKMANSHIP

- A. During all construction operations, the Contractor shall construct and maintain such facilities as may be required to provide access by all property owners to their property. No person shall be cut off from access to their place of business or residence, unless the Contractor has made special arrangements with the affected persons and has notified Engineer and Owner. All temporary facilities shall be removed by the Contractor upon completion of the Work.
- B. Temporary Utilities
 - 1. Electric Power and Telephone
 - a. Electrical power. Power requirements should be confirmed by the Contractor for any special power needs. Arrangements for power shall be the responsibility of the Contractor.
 - b. Phone service shall be the responsibility of the Contractor.

C. Sanitary Facilities

1. The Contractor shall provide chemical toilets of suitable types and maintain them in a sanitary condition at all times, conforming to code requirements and acceptable to the health authorities. They shall be of watertight construction so that no contamination of the area can result from their use. Arrangements shall be made for frequent emptying of the toilets. Upon completion of the work, toilets shall be removed and the area restored to its original condition.
2. Portable toilet facilities shall be located only at locations approved by the Owner.

D. Water

1. Water for normal filling, flushing, and testing operations should be obtained in a manner approved by the City of Toledo.

E. Safety Requirements

1. Proper traffic control shall be provided in accordance with Section 01 55 26.
2. Access for Police, Fire, and School Bus Service
 - a. Notify the fire department, police department and, when applicable, the School District before closing any street or portion thereof, and no closing shall be made without the Engineer's approval. Notify said departments when the streets are again passable for emergency vehicles. Do not block off emergency vehicle access to any area, such as consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, unless the Contractor obtains special written permission from the chief of the fire department. Conduct operations so as to cause the least interference with any fire station access and at no time prevent such access.
 - b. The Contractor shall furnish a list of emergency telephone numbers to both the Engineer and the Owner so that contact may be made easily at all times in cases of emergencies.
3. Fire Prevention. Contractor shall perform all work in a fire-safe manner. Contractor shall supply and maintain on site all fire-fighting equipment, supplies, and capable personnel for extinguishing incipient fires as required by all Federal, State and local laws and regulations. Each piece of internal combustion engine-driven equipment shall be equipped with a fire extinguisher in accordance with the appropriate recommendation of the National Fire Protection Association (NFPA). All engines shall be equipped with functional spark arrestors and sound suppression devices.

F. Temporary Environmental Controls

1. The Contractor shall maintain affected areas from the Contractor's construction free from environmental pollution that would be in violation of federal, state or local regulations.
2. Air Pollution Control
 - a. Minimize air pollution likely to occur from construction operations by wetting down bare soils to control dust and requiring proper combustion emission control devices on construction vehicles.

- b. Give unpaved streets, roads, and detours or haul roads in the construction area a dust preventative treatment or periodically water to prevent dust. Strictly adhere to applicable environmental regulations for dust prevention.

3. Water Pollution Control and Erosion Control

- a. Erosion control measures shall be maintained as necessary to ensure their continued effectiveness. See also Section 02370.
- b. Dispose of water removed during dewatering in accordance with local and state laws.
- c. Petroleum products, chemicals, or other deleterious materials shall not be allowed to enter the water.

G. Material Transport Issues (Haul)

- 1. The Contractor shall be responsible for the planning and execution of the import and export of material to and from the project sites. This will include planning the routes, traffic control, roadway cleanup, and any permitting that may be required.
- 2. The Contractor will plan routes that will avoid creating negative traffic impacts whenever possible.
- 3. The haul routes shall be maintained and kept free of dirt, dust, and other debris that will result in unfavorable conditions for the residents of the area. The contractor shall sweep, wash, and otherwise clean the local routes, on a regular basis, if tracking of dirt on the roadways cannot be avoided.
- 4. The Contractor shall seek to keep heavy equipment off the roads, including track driven equipment, in an effort to avoid damage and breakup of local pavement structures. The Contractor will be responsible for the repair of roads that are damaged due to negligence or if the damage could have been avoided. Care shall be taken to avoid allowing dirt, gravel, sand, or other deleterious materials from entering storm drains, ditches, and waterways.
- 5. Temporary roads, parking, site access, and staging areas
- 6. Construction staging areas:
 - a. No viable construction staging areas exist within the project area.
 - b. The Contractor shall be responsible to arrange for construction staging areas as needed.
- 7. There are no known wetlands associated with the project. However, if potential wetlands are encountered at the project site they must not be impacted. Any damage to or encroachment into wetland areas will be the responsibility of the Contractor including all reporting, cleanup, mitigation, and fines that may be required by the interested agencies.

H. Material Storage and Handling Provisions

- 1. The Contractor shall make provisions for the storage and handling of all materials and equipment to be used on the project. This shall be done in such a way to protect and preserve the materials and equipment until they can be installed.

2. When needed, provisions shall be made to keep materials dry and out of the weather. Alternatively, some materials should be protected from UV exposure. Regardless of the material or equipment, care should be taken to protect and preserve them in like new condition.
3. Handling of materials and equipment shall also be done in such a way to protect them from damage, neglect, or harm. Appropriate methods to strap, tie-down, cushion, cover, or otherwise protect the material when being moved or handled shall be employed.
4. The Engineer shall review and inspect the provisions for material storage and handling. If any material or equipment is determined to be damaged or in any other condition than new, the Contractor shall repair or replace the material or equipment before it is installed on the project.

1.04 MEASUREMENT AND PAYMENT

- A. Payment for this item shall be on a lump sum basis at the amount stated on the Bid Form for "Mobilization, Overhead, Bonds" and shall include all activities related to mobilization and demobilization on the project, insurance and bonding costs, costs related to scheduling, coordination, submittals, preparatory work, temporary construction facilities, project offices, miscellaneous equipment, project closeout, building permits (as required), other agency fees, other facilities and equipment necessary and all other Division 1 activities within the scope of work not designated with individual payment items for work on the project.
- B. Construction Facilities and Temporary Controls - Payment for work in this item shall be on a lump sum basis at the amount stated on the Bid Form and shall include all temporary construction facilities, project offices, miscellaneous equipment, costs related to scheduling, coordination, submittals, and all other Division 1 activities within the scope of work not designated with individual payment items shall be included within this item.

END OF SECTION

SECTION 01 66 00 – PRODUCT STORAGE AND HANDLING

PART 1 GENERAL

1.01 SUMMARY

- A. Protect products scheduled for use in the Work by means as described in this Section and as recommended by the manufacturer.

1.02 MANUFACTURER'S RECOMMENDATIONS

- A. Except as otherwise approved by the Owner, determine and comply with manufacturers' instructions on product handling, storage and protection.

1.03 PACKAGING

- A. Deliver products to the job site in their manufacturer's original container, with the labels intact and legible.
- B. Maintain packaged materials with seals unbroken and labels intact until time of use.
- C. Promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements at no additional cost to the Owner.
- D. The Owner may reject as non-complying such material and products that do not bear identification satisfactory to the Owner as to the manufacturer, grade, quality and other pertinent information.

1.04 STORAGE

- A. Store materials on-site in coordination with the Owner to provide suitable site access and clearance.
- B. Do not store unnecessary materials that will not be incorporated into the work.

1.05 PROTECTION

- A. Protect stored materials from moisture and temperature, and unauthorized handling.
- B. Provide protection for finished surfaces.
- C. Maintain finished surfaces clean, unmarred and suitably protected until accepted by the Owner.
- D. Provide proper protection for all workers.

1.06 REPAIRS AND REPLACEMENTS

- A. In event of damage, promptly make replacements and repairs to the approval of the Owner and at no additional cost to the Owner.
- B. Additional time required to secure replacements and to make repairs will not be considered by the Owner to justify an extension of the Contract Time of Completion.
- C. Repair all scratches and damage to painted surfaces promptly with proper color and material.

END OF SECTION

SECTION 01 71 33 – PROTECTION OF ADJACENT CONSTRUCTION

PART 1 GENERAL

1.01 SUMMARY

- A. Where Contractor's operations are near utility systems, structures, or are adjacent to other property, no work shall be started until Contractor has made all arrangements necessary for protection thereof. Contractor shall exercise all possible precautions to prevent damage to existing structures, improvements, and underground utilities which are to remain.

- B. Approximate locations of known underground utilities are shown on the Plans. Exact location or extent of such utilities is not guaranteed, and utilities may exist which are not shown on the Plans. Contractor shall call for utility locates prior to any digging. Contractor shall also pothole as required ahead of the work to verify the location and depths of affected utilities. No additional compensation will be given for such work or for utilities being different from as shown on the plans.
 - 1. All trench excavations and structure excavations within two (2) feet of any existing underground utility shall be performed by hand methods in accordance with state laws.

- C. The Contractor shall be solely and directly responsible to the owners and operators of such properties and services for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the carrying out of the work to be done under this Contract.

- D. Restoration of Existing Improvements. Except as shown on the Plans or as provided elsewhere in these specifications, the Contractor shall, at their own expense, repair and/or replace all utilities, services, landscaping, structures, substructures and other improvements damaged by the operations associated with this project, as directed. These repairs and replacements shall all be suitable and proper for intended use and in every respect acceptable to the Owner, Engineer and appropriate governing body or owner of such improvement. At minimum, restoration will be required to match the existing adjacent structure/improvement in thickness, finish, quality, quantity, and aesthetics.

- E. In the event of interruption of domestic water, electric, telephone, sewer, or other utility services, the Contractor shall promptly notify the proper authority and the Owner. The Contractor shall cooperate with the proper authority in restoration of service as promptly as possible and shall bear all costs of repair. In no case shall interruption of any water, sewer, or utility service be allowed to exist outside working hours unless prior approval is received from said authority and Owner.

- F. The Contractor shall pothole existing waterlines or other utilities ahead of the Contractor's work so that potential conflicts can be minimized or that minor relocation of the new waterline routes can be made. Potholing is defined as exploratory excavation of existing waterlines or other utilities to verify their depth and location.

1.02 INTERFERING STRUCTURES, IMPROVEMENTS AND LANDSCAPING

- A. It shall be entirely the responsibility of the Contractor to locate and protect all existing structures, landscaping, and other improvements in advance of the work. Neither the Owner, Engineer, nor any of their officers or agents shall be responsible to the Contractor for damages as a result of any structures or improvements being located differently than indicated in the drawings, nor which exist and are not indicated on the drawings.

- B. If interfering power poles, telephone poles, guy wires, or anchors are encountered, the Contractor shall notify the affected utility and the Engineer at least seven (7) days in advance of construction to permit arrangements for protection or relocation of the structure. However, failure of utility to respond shall create no obligation on Owner, and Contractor shall protect all utilities against damage, or shall stand all costs involved thereof.
- C. Landscaping, Tree and Plant Protection. Provide adequate protection of existing landscaping against damage from construction operations, including all structures and vegetation. Protect roots, trunk and foliage of existing and new shrubs and trees from all damage including that possible from compaction and dust. Contractor shall be entirely responsible to remove and replace all property which is damaged by work related to the project. Contractor shall bear all costs associated with replacement of existing landscaping, and shall cooperate with the owner of such improvements, the Owner, and the Engineer in all protection and restoration/replacement that is required. In specific circumstances, Contractor may make special arrangements with property owners for removal of landscaping without replacement. Copies of written agreements for all such arrangements shall be furnished to the Engineer.
- D. When construction operations will affect the property of a private citizen (such as driveways, landscaping, etc.), even when such improvements are in the road right-of-way, the Contractor shall notify the owner of such property and the Owner, at least seven (7) days in advance of any affecting Work, so that any desired preparations can be made.

1.03 ROADS AND ACCESS

- A. All work shall be conducted to minimize damage to existing roadways, easements and parking lots, including limiting wheel loads to acceptable levels. At all times keep roadways, shoulders, and ditches free from excess materials and debris.
- B. Spillage of soil, dust, rock, mud, etc. on all roads (including State, County, City and private roads) used by the Contractor (and any working for Contractor) during construction, shall be prevented as much as possible. If spillage cannot be prevented, an hourly patrol shall be provided by the Contractor to police and sweep clean all spillage. At the conclusion of each workday, such traveled areas shall be left completely clean and free from all extraneous materials. Contractor is entirely responsible to prevent such spills and follow all related laws and regulations. If spillage of hazardous material occurs, Contractor shall immediately notify the proper authorities and remove the spill in the proper manner. Owner will not be liable for any additional costs due to spillage of any kind.
- C. All damaged gravel, concrete and/or asphaltic concrete surfaces shall be repaired as required to conditions acceptable to the governing body and Engineer. No cleated or crawl-type equipment shall be operated on paved surfaces, except to cross a road when adequate protection of the surface is provided.
- D. During construction, the Contractor shall take necessary measures to avoid and abate excessive dust. Sprinkling of roadways and sites may be necessary and shall be conducted carefully to avoid over wetting while keeping dust to a minimum.

END OF SECTION

SECTION 01 77 00 – CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes procedures and requirements for finalizing and closing out the Project(s).
- B. Final clean-ups and restorations shall be done prior to requesting final inspections.

1.01 RELATED DOCUMENTS

- C. Section 01 78 36 – Warranties

1.03 RESTORATION AND CLEAN-UP

- A. Upon completion of any portion of the work, promptly remove temporary facilities generated by that portion of the work, including surplus materials, equipment and machinery unless directed otherwise by the Engineer or the Owner. All construction work by the Contractor shall be clean and free of rubbish, dirt, overspray, and extraneous materials to the satisfaction of the Engineer before acceptance of the work.
- B. Street/Road Cleanup. All roadways affected during construction shall be cleaned and restored. All ditches and culverts shall be cleaned and re-graded for proper drainage. Culverts broken or damaged by construction activities shall be restored to their original condition and location. Immediately following construction, remove all dirt, mud, rock, gravel, and other foreign material at the completion of the day or as otherwise required by the Engineer.
- C. Site Restoration and Cleanup. Restore or replace any ground covering (e.g., bark chips, cinders, gravel, river rock, etc.) to the original condition or better. Replace top-soiled areas, rake and grade to conform to their original contours. Replace any damaged landscaping or plantings to prior conditions in manner acceptable to Owner. Reseed grass areas as approved. Seed and protect any disturbed slopes.

1.04 CERTIFICATIONS

- A. Contractor to prepare on Contractor's letterhead with project title and number clearly identified. Submit to Engineer with application for Final Payment.
- B. A written certification that Contractor has fully completed the Work in strict compliance with the Contract Documents, and requesting final inspections.
- C. Written certification that all subcontractors and suppliers who have furnished work or materials as part of this project have been paid in full.
- D. Written certification that Contractor will replace all materials and workmanship that prove defective within one-year after the date of Final Acceptance. Date Engineer signs Final Payment Certificate is date of Final Acceptance and starts the Contractor's one-year guarantee period.
- E. Submission of a signed State or Federal approved Wage Certification Form certifying that Contractor has paid not less than the Prevailing Wage Rate as required by law, and that Contractor has timely submitted the required payroll certificates to the appropriate state or federal wage division.

- F. One-Year Warranty Inspection. On the 11th month following final project completion and acceptance, Contractor shall be available to be present during the on-site warranty inspection. Any defects identified in materials or workmanship shall be corrected within 30 days by the Contractor at the Contractor's own expense.

END OF SECTION

SECTION 01 78 36 – WARRANTIES

PART 1 GENERAL

1.01 SUMMARY

- A. Installed Materials Warranties. Prior to 75% completion and payment for work under this Contract, the Contractor shall furnish the Owner through the Engineer, all warranty and/or guarantee forms normally furnished by the manufacturer of equipment. Warranty form shall include the specific equipment installed, the duration of the warranty, details of the warranty, and the installer's name, address and phone number. Installation date will be filled in by the Owner and will coincide with date of substantial completion of the work under this contract. All such warranties shall name the Owner as the warranted party.

- B. Attention is directed to various other sections of the Contract Documents where specific material or installation warranties may be required for items specified.

- C. Contractor shall guarantee the Work for a period of one (1) year from the date of Final Acceptance. All materials and workmanship that prove defective within the one-year guarantee period shall be promptly replaced or corrected with no additional cost to the Owner. Written certification that Contractor will replace all materials and workmanship that prove defective within one-year after the date of Final Acceptance is required for project close-out and shall accompany application for Final Payment.

1.02 RELATED DOCUMENTS

- A. Section 01 77 00 – Closeout Procedures

END OF SECTION

SECTION 01 78 39 – PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.01 SUMMARY

- A. This section outlines in general the Contractor requirements for preparing and maintaining Record Drawings of the project.
- B. Contractor shall provide access to the Record Drawings to the Engineer and Owner throughout construction and shall finalize and submit complete record drawings upon completion of the work.
- C. Accurate Record Drawings or “As-Builts” are considered extremely important and it shall be entirely the Contractor’s responsibility to maintain a complete and accurate record of all details of the project as the Contractor constructs and installs equipment and materials.
- D. Engineer or Owner may stop work if it is determined that Contractor is not properly recording details in record drawings and require correction and accurate documentation of all previous work before additional work proceeds.
- E. Engineer must accept and approve the drawings prior to recommending final payment.

1.02 RELATED SECTIONS

- A. General Conditions – Article 7.11, Record Documents

1.03 SUBMITTALS

- A. Submit two complete sets of initial marked-up Record Drawings immediately upon completion of construction work. Engineer will review for completeness and either approve or return one set with comments and corrections.
- B. If initial submittal required corrections, submit one complete set of corrected marked-up Record Drawings to Engineer with or before request for final payment.

PART 2 PRODUCTS

2.01 RECORD DRAWINGS

- A. Maintain one set of black-line prints of the Contract Drawings. Mark-up drawings using erasable red-colored pencil. Use additional colors as necessary to clearly document changes from original drawings for different categories of work at the same location.
- B. Use clear original or copy of project drawings for mark-up. Use shop drawings for markup when they are more capable of showing actual physical conditions completely and accurately.
- C. All deviations or differences from the original drawings, including dimensional, location, layout, material, and other details shall be noted clearly. Any additional information discovered during construction shall also be noted including location and depth of buried utilities and structures not shown in the original drawings.

2.02 FORMAT

- A. Organize Record Drawings into manageable sets using plans and shop drawings as applicable. Keep sets bound and protected.
- B. Keep on-site during construction and clearly identify as “Record Drawing” on cover.

PART 3 EXECUTION

3.01 RECORDING AND MAINTENANCE

- A. Record data as soon as possible after obtaining it. Do not wait until the end of the job or a portion of the job to record data.
- B. Give particular attention to information concealed that would be difficult to identify or measure and record later. Record and check the markup before enclosing concealed installations.
- C. Require the individual who installed or constructed the portion of the work, or otherwise obtained the record data, to prepare that portion of the marked-up record print.
- D. Incorporate changes and additional information previously marked on Record Drawings, erase, redraw, and add details and notations where applicable.
- E. Refer instances of uncertainty to Engineer for resolution.

END OF SECTION

DIVISION 2 – SITE WORK **TABLE OF CONTENTS**

<u>SECTION NO.</u>	<u>TITLE</u>
SECTION 33 31 11	PVC PIPE FOR SANITARY SEWER
SECTION 46 50 00	PUMP CONTROL SYSTEM FOR DUPLEX SEWAGE PUMP STATION
SECTION 46 90 01	SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM

SECTION 33 31 11
PVC PIPE FOR SANITARY SEWER

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Work of this Section includes providing underground PVC non-pressure pipe for gravity sewer flow and all appurtenant work, complete in place.
- B. It shall be the responsibility of the Contractor to furnish and install all plastic piping systems specified herein and as shown on the Contract Drawings. Each system shall be installed complete with all required fittings, supports, anchors, expansion joints, flexible connections, valves, wall castings, sleeves, and accessories to provide a functional system as specified.
- C. The Contractor shall be responsible for all piping identification, testing, cleaning, disinfecting, excavation, backfill and/or encasement specified herein or shown on the Contract Drawings.
- D. PVC pipe shall be used in sanitary sewer systems and/or when necessary for sewer and water pipeline separation requirements as specified on the Drawings.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. The requirements of the following sections and divisions apply to the Work of this section. Other sections and divisions of the Specifications, not referenced below, shall also apply to the extent required for proper performance of this Work.
 - 1. Section 31 23 00, Trenching, Excavation, Backfill and Compaction
 - 2. Section 31 23 19, Dewatering
 - 3. Division 33

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. All Work specified herein shall conform to or exceed the applicable requirements of the referenced portions of the following publications to the extent that the provisions thereof are not in conflict with other provisions of these Specifications.
- B. Comply with the applicable editions of the following codes, regulations and standards.
 - 1. Port of Toledo Detail Drawings for the Construction of Sanitary Sewer Systems
 - 2. Industry Standards:
 - a. Materials and Testing:

ASTM D 1784	Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds
ASTM D 2122	Test method for Determining Dimensions of Thermoplastic Pipe and Fittings
ASTM D 2241	Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)

ASTM D 2412	Determination of External Loading Characteristics of Plastic Pipe by Parallel Plate Loading
ASTM D 3034	Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
ASTM D 3212	Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
ASTM F 477	Elastomeric Seals (Gaskets) for Joining Plastic Pipe
ASTM F 593	Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs
ASTM F 679	Standard Specification for Poly (Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings
ASTM F 1336	Standard Specification for Poly (Vinyl Chloride) (PVC) Gasketed Sewer Fittings

b. Installation

ASTM F 1668	Standard Guide for Construction Procedures for Buried Plastic Pipe
ASTM D 2321	Standard Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe
AWWA M-23	PVC Pipe - Design and Installation

c. Other:

AWWA	American Water Works Association
SSPWC	Standard Specifications for Public Works Construction
ISO 9001	Quality Management Systems – Requirements

C. Comply with the applicable reference specifications listed in the General Conditions, other applicable parts of the Contract Documents, and as specified herein.

1.04 SUBMITTALS

- A. Shop Drawings: The Contractor shall submit shop drawings and engineering data on all pipe, joints, special fittings, and piping appurtenances in accordance with the General Conditions, other applicable parts of the Contract Documents, and as specified herein.
- B. Certificates: The Contractor shall provide manufacturer's certificates for all materials indicating conformance to the Contract Documents.
- C. Shoring and bracing drawings in accordance with the requirements of Section 31 23 00, Trenching, Excavation, Backfill and Compaction.

1.05 QUALITY ASSURANCE

A. Testing

1. ISO quality management system: Manufacturer shall have an ISO 9001 quality management system, certified by an accredited certifying agency within the four (4) years prior to the Notice to Proceed.
2. All materials testing shall be based upon applicable ASTM Test Methods and AWWA Standards referenced herein for the materials specified. All costs of such inspection and tests shall be borne by the Contractor.
3. The manufacturer shall perform all tests and submit the test results data and certification in compliance with SSPWC Subsection 207-17.4.

1.06 DELIVERY, HANDLING, AND STORAGE

- A. Pipe shall be stored at the jobsite in unit packages provided by the manufacturer. Caution shall be exercised to avoid compression, damage or deformation to bell ends of the pipe.
- B. If pipe is to be exposed to direct sunlight for any length of time it must be covered with an opaque material while permitting adequate air circulation above and around the pipe to prevent excessive heat accumulation.
- C. If pipe is strung along trench prior to installation, string only pipe to be used within a 24-hour period; all pipe is to be laid on a flat surface.
- D. The interior as well as all sealing surfaces of pipe, fittings, and other accessories shall be kept free from dirt and foreign matter.
- E. Gaskets shall be protected from excessive exposure to heat, direct sunlight, ozone, oil and grease.

PART 2 PRODUCTS

2.01 GENERAL

- A. All PVC pipe, fittings, couplings and appurtenances shall comply with SSPWC Subsection 207-17.
- B. All PVC pipe shall be continuously and permanently marked with the manufacturer's name and code, pipe size, PVC minimum cell classification, pipe stiffness designation, and the designation ASTM D 3034 or F 679.
- C. The manufacturer's code shall include the year, month, day, shift, plant and extruder of manufacture. This coding shall be done in conjunction with records to be held by the manufacturer for 2 years, covering quality control tests, raw material batch number, and other information deemed necessary by the manufacturer.
- D. The pipe and fittings shall be homogenous throughout and free from visible cracks, holes, foreign inclusions and other injurious defects. The pipe shall be as uniform as commercially practical in color, opacity, density and other physical properties.

2.02 PIPE

- A. All PVC pipe shall be joined by compression joints unless otherwise shown or specified, and shall conform to the following requirements:
 1. Unless otherwise shown on the Drawings PVC pipe shall be SDR 35.

2. Pipe and fittings 4-inch through 15-inches in diameter shall conform to ASTM D 3034.
3. Pipe and fittings 18-inches in diameter and larger shall conform to ASTM F 679.
4. The pipe shall be joined with an integral bell and spigot type rubber gasketed joints. Each integral bell joint shall consist of a formed bell with a rubber gasket. Flexible gasketed joints shall be elastomeric compression types conforming to ASTM F 477. Joints shall be tested in accordance with ASTM D 3212.
5. Pipe shall be made of PVC plastic having a cell classification of 12454 or 12364 as defined in ASTM D 1784. Maximum filler content shall be 10 percent.
6. All pipe, fittings, gaskets, and joint lubricants shall be supplied by the manufacturer, or per manufacturer's specifications.
7. Pipe shall be furnished in standard laying lengths not exceeding 20 feet and shall be colored green in accordance with the Utility Location and Coordination Council Uniform Color Guide.

2.03 FITTINGS

- A. All fittings for PVC pipe shall conform to the requirements of ASTM D 3034 or F 679, as applicable, and have a cell classification of 12454. The ring groove and gasket ring shall be compatible with PVC pipe ends.
- B. The minimum wall thickness of the fittings shall be not less than the minimum wall thickness of the equivalent size of pipe.

2.04 CAPS

- A. Pipe caps shall be Mission Rubber Company Bands Seal End Caps, or equal.

2.05 MANUFACTURERS

- A. PVC gravity sewer pipe shall be as manufactured by Diamond Plastics Corporation JM Eagle, North American Pipe Corporation, or approved equal.
- B. PVC gravity sewer pipe fittings shall be as manufactured by HARCO Fittings, or approved equal.

2.06 IDENTIFICATION AND LOCATOR TAPE

- A. Identification and locator tape materials shall be as required by the Contract Documents.

PART 3 EXECUTION

3.01 GENERAL

- A. All laying, jointing, and testing for defects and for leakage shall be performed in the presence of the Port Representative, and shall be subject to their acceptance. All material found during the progress to have defects will be rejected and the Contractor shall promptly remove such defective materials from the site of the Work.
- B. Installation shall conform to the requirements of ASTM D 2321, SSPWC Section 306, and to the supplementary requirements or modifications specified herein. Wherever the provisions of this Section and the requirements of ASTM D 2321 and SSPWC Section 306 are in conflict, the more stringent provision shall apply.

3.02 TRENCHING, BEDDING, AND BACKFILL

- A. Trench excavation, bedding, and backfill shall conform to the requirements of Section 31 23 00, Trenching, Excavation, Backfill, and Compaction.
- B. Contractor shall be responsible for keeping the trench in a dewatered condition during pipe installation.
- C. The minimum depth of cover over the top of the pipe shall be 7 feet unless otherwise shown on the Drawings. The width of the trenches shall be as indicated on the Drawings, but not less than required per ASTM D 2321.

3.03 LAYING PIPE

- A. The pipe shall be installed in accordance with the requirements of ASTM D 2321 and as specified herein and shown and the sections shall be closely jointed to form a smooth flow line. Immediately before placing each section of pipe in final position for jointing, the bedding for the pipe shall be checked for firmness and uniformity of surface.

Proper implements, tools, and facilities as recommended by the pipe manufacturer's standard printed installation instructions shall be provided and used by the Contractor for safe and efficient execution of the Work. All pipe, fittings, valves, and accessories shall be carefully lowered into the trench by means of derrick, ropes, or other suitable equipment in such a manner as to prevent damage to pipe and fittings. Under no circumstances shall pipe or accessories be dropped or dumped into the trench.

- B. Cutting and machining of the pipe shall be accomplished in accordance with the pipe manufacturer's standard procedures for this operation. Pipe shall not be cut with a cold chisel, standard iron pipe cutter, nor any other method that may fracture the pipe or will produce ragged, uneven edges.
- C. The pipe and accessories shall be inspected for defects prior to lowering into the trench. Any defective, damaged or unsound pipe shall be repaired or replaced. All foreign matter or dirt shall be removed from the interior of the pipe before lowering into position in the trench. Pipe shall be kept clean during and after laying. All openings in the pipe line shall be closed with water tight expandable type sewer plugs or PVC test plugs at the end of each day's operation or whenever the pipe openings are left unattended. The use of burlap, wood, or other similar temporary plugs will not be permitted.

3.04 HANDLING

- A. Handling of the PVC pipe shall be done with care to insure that the pipe is not damaged in any manner during storage, transit, loading, unloading, and installation.
- B. Pipe shall be inspected both prior to and after installation in the ditch and all defective lengths shall be rejected and immediately removed from the working area.

3.05 FIELD JOINTING

- A. Each pipe compression type joint shall be joined with a lock-in rubber ring and a ring groove that is designed to resist displacement during pipe insertion.
- B. The ring and the ring seat inside the bell shall be wiped clean before the gasket is inserted. At this time a thin film of lubricant shall be applied to the exposed surface of the ring and to the outside of the clean pipe end. Lubricant other than that furnished with the pipe shall not be used. The end of the pipe shall be then forced into the ring to complete the joint so that the second home mark is just visible adjacent to the bell entry point.

- C. The pipe shall not be deflected either vertically or horizontally in excess of 75% of the manufacturer's recommendations for joint deflection.
- D. When pipe laying is not in progress, the open ends of the pipe shall be closed to prevent trench water from entering pipe. Adequate backfill shall be deposited on pipe to prevent floating of pipe. Any pipe which has floated shall be removed from the trench, cleaned, and re-laid in an acceptable manner. No pipe shall be laid when, in the opinion of the Engineer, the trench conditions or weather are unsuitable for such Work.

3.06 INSTALLATION OF BENDS, TEES, AND REDUCERS

- A. Fittings shall be installed utilizing standard installation procedures. Fittings shall be lowered into trench by means of rope, cable, chain, or other acceptable means without damage to the fittings. Cable, rope, or other devices used for lowering fitting into trench, shall be attached around exterior of fitting for handling. Under no circumstances shall the cable, rope or other device be attached through the fitting's interior for handling. Fittings shall be carefully connected to pipe or other facility, and joint shall be checked to insure a sound and proper joint.

3.07 HAUNCHING

- A. Once the pipe is joined together, pipe bedding material shall be placed in the haunching per the trench details shown on the Drawings and Section 31 23 00, Trenching, Excavation, Backfill, and Compaction. The haunching area extends from the bottom of the pipe to the springline of the pipe. Bedding shall be as shown on the Drawings.

3.08 IDENTIFICATION AND LOCATOR TAPE

- A. Identification and locator tape shall be placed as required by the Contract Documents.

3.09 SEWAGE BYPASS

- A. The Contractor shall prepare a bypass plan and control the flow as required by the Contract Documents. A sewage bypass plan shall be submitted to Port of Toledo for approval prior to construction. The Contractor shall at all times, be responsible for the operations of this bypass system, including furnishing all the necessary equipment and making arrangements to obtain power as required. The Contractor shall not be permitted to trench public or private streets for bypass purposes without the approval of the entity (State, County, City, etc.) having jurisdiction.

3.10 SHORING REMOVAL

- A. Any bedding, pipe zone or backfill voids created by moving or removing shoring shall be left in place or filled per the trench details shown on the Drawings and Section 31 23 00, Trenching, Excavation, Backfill, and Compaction.

3.11 CONNECTIONS TO MANHOLES

- A. Pipelines shall be connected to manholes as indicated on the Drawings. Each connection shall be made at a time and in a manner that will result in the least interruption of service.
- B. Pipe connections to new or existing manholes shall be done under the direction of the Engineer and other applicable requirements specified for new manholes, including all necessary concrete work, coring, and shaping of channel.
- C. All PVC pipe entering or leaving a manhole shall have a rubber sealing gasket firmly seated perpendicular to the pipe axis, around the pipe exterior and cast into the structure base or near the wall center as a water stop. Water stop may also consist of a manhole coupling with rubber sealing rings cast into the structure base.

- D. Sanitary sewer connections to existing manholes shall be core-drilled and made using a flexible rubber seal/water stop.

3.12 CONNECTIONS TO EXISTING PIPE

- A. The Contractor shall provide fittings or adapters required to connect new pipe to existing pipe. Detail drawings of such fittings or adapters and the method of connection shall be submitted to Port of Toledo for approval. Each connection shall be made at a time and in a manner that will result in the least interruption of service.
- B. Pipelines shall be connected to existing gravity sewer mains.
- C. Lateral connections to gravity PVC sewer mains shall be made using a Port of Toledo approved saddle tee or saddle wye.

3.13 TESTING AND ACCEPTANCE

A. General

- 1. It is the intent of the Contract Documents that the completed sewer pipe of all types, along with manholes and other appurtenances, shall be watertight.
- 2. Unless otherwise indicated on the Drawings, air testing, infiltration testing, deflection testing, sag measurements, and video inspection shall be performed in accordance with this specification section.
- 3. The Contractor shall furnish all labor and materials for making the tests required at no additional cost to Port of Toledo. All tests shall be completed before the street and/or trench is resurfaced, unless otherwise directed by Port of Toledo.
- 4. Tests shall be made in the presence of Port of Toledo’s Representative.

B. Air Testing

- 1. Contractor shall perform field air testing.
- 2. If, in the opinion of Port of Toledo, excessive groundwater is encountered during construction of a section of sewer, the air pressure test for leakage shall not be used. An infiltration test shall be performed instead.

C. Sag Measurement

- 1. Contractor shall perform sag measurements.

D. CCTV Inspection

- 1. Contractor shall perform CCTV inspection if required by Construction Manager..
- 2. Sags, or standing water in pipe, shall meet the following criteria:

E. Deflection Testing

- 1. Deflection measurements shall be performed on all gravity sewer pipe. If the mandrel sticks in the pipe at any point the pipe shall be repaired and retested. Pipe sections not meeting the deflection requirements shall be excavated, re-installed, and subject to an additional 30-day deflection test at no additional cost to Port of Toledo. The cost for the deflection test shall be included in the unit price bid for the sanitary sewer pipe.

Complies with Specification	Unacceptable: Replace Pipe
Sag: 1/2" or less	Sag: greater than 1/2"

F. Acceptance

1. Even though a section of sewer may have previously passed the leakage or infiltration test, each section of pipe shall be tested subsequent to the last backfill compacting operation thereon. If, in the opinion of Port of Toledo, heavy compaction equipment or any of the operations of the Contractor may have affected the required watertight integrity of the pipe, structure, or appurtenances, additional leak testing shall be required.
2. If the pressure drop, leakage and/or infiltration rate, sag, or deflection measurements are greater than specified herein, the sewer shall be repaired, or, if necessary, the pipe shall be removed and re-laid at no additional cost to Port of Toledo.
3. The sewer will not be considered acceptable until the pressure drop, leakage and/or infiltration rate, as determined by the appropriate test, meets the allowable limit. Even when infiltration is less than the specified amount, the Contractor shall stop any observed individual leaks when detected by the Contractor and/or ordered to do so by Port of Toledo.
4. For pipe not meeting the sag requirements:
 - a. If the sag exceeds the allowable value, then work will not be accepted and payment won't be released until the installation is corrected to satisfy the minimum sag required in this specification.
 - b. Due to unacceptably high operation and maintenance costs and poor system reliability, pipelines with sag depths exceeding allowed amount will be rejected. Replacement of pipe includes all construction costs including, but not limited to, sewer bypassing, excavation, pipe installation, backfilling, resurfacing, tunneling, etc., for the length of pipe that exceeds the sag amount specified, plus 20 linear feet of pipe in each direction. Damaged pipe shall be removed and disposed of in a legal manner, and new pipe shall be installed and retested at no additional cost to Port of Toledo.
5. For pipe not meeting the deflection test requirements:
 - a. Contractor shall make the necessary repairs or replacements at the Contractor's expense by a method acceptable to Port of Toledo's Representative at no additional cost to Port of Toledo.
 - b. Pipe shall be subject to an additional 30-day deflection test at no additional cost to Port of Toledo.

END OF SECTION

SECTION 46 50 00
PUMP CONTROL SYSTEM FOR DUPLEX SEWAGE PUMP STATION

PART 2 GENERAL

2.01 SCOPE

- A. The work in this section shall include furnishing and placing into operation the monitoring and control panel a pump station with 2 submersible wastewater pumps.
- B. The controller shall alternate the pumps and operate the pumps always at its best efficiency.

2.02 RELATED SECTIONS

- A. Section 46 32 16, Prefabricated Sewage Pump Station With 2 Submersible Pumps
- B. Section 46 35 13 Submersible Grinder Pumps

2.03 REFERENCES

- A. Electrical work shall be in accordance with Division 16 - Electrical
- B. UL 508A and 698A
- C. NFPA 70 - NEC (2017)
- D. NFPA 820
- E. ISA 5.1 and 5.4

2.04 SUBMITTALS

- A. Submittals shall include but not be limited to the following:
 - 1. Shop drawings
 - 2. Bill of Material (BOM)
 - 3. Wiring diagrams
 - 4. Outline and dimension drawings
 - 5. Enclosure mounting details

2.05 DELIVERY, STORAGE, AND HANDLING

- A. Store in a clean, dry space.
- B. Lift only with lugs provided for the purpose.
- C. Handle carefully to avoid damage to internal components, enclosure and finish.

2.06 QUALIFICATION REQUIREMENTS

- A. The manufacturer shall provide data on alternate equipment manufacturer's experience. Only Manufacturers with 20 or more years of experience who have furnished at least 20 similar lift stations that have been in regular operation not less than 5 years will be considered. Evidence of experience and operational data may be required from the manufacturer to determine the suitability and efficiency of the equipment offered.
- B. The Manufacturer shall be able to offer Alarm Transmission Service via CLOUD (Internet) for a monthly fee. Information such as SMS or email shall be available 24 hours / 7 days with and update interval: 60 seconds

2.07 INSTALLATION

- A. After installation, a pump station start-up shall be performed by the installing contractor under the supervision of the manufacturer's authorized representative 30 days of field service shall be provided by an authorized, factory trained representative of the pump manufacturer. Services shall include, but not be limited to, inspection of the completed pump station installation to ensure that it has been performed in accordance with the manufacturer's instructions and recommendations, supervision of all field-testing and activation of the Pump Manufacturer's Warranty. The test shall demonstrate to the satisfaction of the Owner that the equipment meets all specified performance criteria, is properly installed and anchored, and operates smoothly without exceeding the full load amperage rating of the motor. The Contractor shall be responsible for coordinating the required field services with the Pump Manufacturer.
- B. All electrical work performed shall be in full accordance to the requirements of the Division 16 (Electrical) Specifications.

2.08 WARRANTY

- A. When installed in accordance with all the provisions of this section, related sections and the supplier's installation manual, the warranty on the Monitoring and Control equipment shall be 60 months.
- B. The warranty period shall start from the date of equipment delivery to the job site.

PART 3 PRODUCTS / MONITORING AND CONTROL

3.01 MONITORING AND CONTROL / PUMP DRIVE (FLYGT SMARTRUN SRC 300 OR EQUIVALENT)

- A. The station is equipped with 2 pumps. Each pump shall be equipped with a pump drive unit sized to match the submersible electric motor and designed for a power supply from 230-480V 60 Hz 3 phase.
- B. The pump drive shall provide all level control functionality, hand/auto operation, pump alternation, pump over temperature monitoring, seal leakage monitoring, pump self-cleaning, and pipe cleaning algorithms. The pump drive shall also include capability to monitor station inflow, pump speed and energy consumption in order to automatically operate the pump station at optimal energy efficiency.
- C. One Pump drive per pump should be used to allow full redundancy and alternation.
- D. The software shall be programmed with all parameters and set-tings pre-configured for an efficient operation.
- E. It shall be freestanding for wall mounting or cabinet installation construction an equipped with an air ventilated system.
- F. Without any limitation or derating, it shall operate in ambient temperature of up to 40°C (104°F) at an altitude up to 1000m.
- G. It shall include provision for external communication to higher-level system. Communication shall be via 2-wire RS-485 connection to the pump drive. Communication shall be available as MODBUS RTU.
- H. Serial communication capabilities shall include, but not be limited to set Start- and stop level, Pump clean interval, speed and ramp times as well as PID control parameters.

- I. The communication telegram shall include process variable feed-back like Sump level, power (kW), Output speed/frequency, current (A), % torque, relay outputs, digital inputs and drive status and fault information.
- J. Following function shall be provided by the equipment:
 1. High/Low Level Sump Control:
 - a. The pump drive shall provide automatic level control via means of a submersible pressure transducer (4-20mADC). User-programmable Start Level shall indicate the point at which the pump will start. Upon activation the pump shall run at maximum speed for a pre-determined period, then ramp down to the energy efficient Optimal speed, calculated by the pump drive. When the water level reaches the Stop Level, the pump shall stop. The Optimal Speed shall either be calculated by the pump drive or manually entered by the user.
 - b. In case of high inflow, the pump drive shall increase pump speed until the water level begins to decrease. When the water level reaches the Stop Level, the pump shall stop.
 - c. In case of very high inflow, in a duplex installation, when a single pump is unable to overcome the inflow conditions even at maximum speed, additional pumps shall be activated and run at maximum speed until the Stop Level is reached. If water levels continue to rise, a High Level Alarm shall be activated.
 - d. The pump drive shall incorporate a Minimum Speed function that prevents the pump from operating at speeds too low to move water based on the pump curve.
 2. Run Time Averaging and random start levels
 - a. The pump drive shall provide the capability to balance run times for even wear. This shall be an internal function of the drive and not require external devices, such as an alternating relay.
 - b. Each drive shall determine its own random start level independent of each other. New random start levels shall be determined after each pump cycle. The pump with the lowest random start level shall be first to start on any given pump cycle. The second pump shall remain in Standby capacity in case the lead pump shall not be able to lower the water level as described in the section above. By recalculating the random start levels every pump cycle the operating hours of the pumps shall be balanced and the settling of "Grease-rings" in the station shall be avoided.
 3. Pump Cleaning Function:
 - a. The Pump drive shall incorporate a "self-cleaning" function to remove debris from the impeller. The cleaning shall be triggered by following circumstances:
 - i. Soft Clogging: When motor current is increasing over a certain period of time defined by the pump supplier.
 - ii. Hard Clogging: When motor current is increase drastically and pump stops.

- b. The cleaning function shall consist of forced stopping, reversal and forward runs timed to allow for debris to fall from the impeller. After cleaning cycle is complete, drive shall resume to automatic operation.
- 4. Sump Cleaning Function:
 - a. The pump drive shall incorporate a sump cleaning function to ensure surface solids and grease is regularly removed from the sump. The sump cleaning function shall perform regularly when enabled by the operator. Sump cleaning shall consist of the following functions:
 - i. Sump cleaning is triggered when internal timer expires and during a normal pump down cycle
 - ii. Pump is automatically ramped to maximum speed
 - iii. Pump runs at maximum speed for designated time or until the pump are snoring."
 - iv. When Sump Cleaning is over, the pump is shut off and resumes normal operation.
- 5. Pipe Cleaning Function:
 - a. The pump drive shall incorporate a pipe cleaning function to avoid discharge pipe sedimentation and clogging due to reduced pump speed. This shall be an automatic feature that initiates with every pump cycle. Upon reaching Pump Start Level, the drive shall operate the pump at 100% speed for a determined time before ramping down to the most energy efficient speed for the duration of the cycle.
- 6. Energy efficient speed finder:
 - a. The pump drive shall provide a function that automatically calculates the most energy efficient speed for the pump based on station inflow characteristics. The speed shall be constantly adjusted to account for changes of the inflow without requiring operator adjustment.
 - b. This function shall also prevent the drive from running off of the system curve and ensure the maximum hydraulic efficiency.
- 7. Alarms and Monitoring:
 - a. The pump drive shall provide alarms and monitoring for the drive, pump and sump. Alarms shall be presented on the LCD display, via a Summary Alarm relay and via Modbus registers. All alarms, when occurring, shall remain active until reset.
 - b. Alarms shall have a built-in 4 second delay to prevent nuisance tripping. Alarms shall be as follows:
 - i. Motor monitoring:
 - a) Motor Temperature too high
 - b) Leakage in stator housing
 - ii. Sump monitoring:
 - a) High sump Level (via float switch or transducer)
 - b) transducer sensor error (connection failure, faulty values)

- iii. Pump drive monitoring:
 - a) overcurrent or overload trip
 - b) over- or under voltage
 - c) ambient or drive temperature too high
 - d) ambient temperature too low.
 - e) input phase loss
 - f) max torque exceeded

K. User Interface

1. The pump drive shall incorporate an (OLED) LCD screen to display drive operating status, alarms, liquid level and parameters.
2. The pump drive shall include 7 pushbuttons with the following functions: Pump Start, Pump Stop, Hand (Manual) Operation, Auto Operation, Menu Access, Increase Value, and Decrease Value.
3. Pump Start Level, Operating Parameter Adjustment and Alarm History shall be accessed via menu structure. Menu shall have at least 2 levels of security, limiting access to qualified personnel only.
4. The LCD screen shall display status information in 4 modes: Off, standby, active auto and active Manual.
5. The information shown shall be as follows:

OFF:	Firmware name, Status (“STOP”), Rating (kW/hp)
STANDBY:	Status and Name, Operating Mode, Sump Level
Auto/Manual:	Status and Name, Operating Mode, Motor Freq. Power, Sump Level, Current

3.02 LEVEL CONTROL (FLYGT ENM 10)

- A. Each station shall be equipped with 2 Float switches for backup level sump control approved according LVD EN61058.
- B. CSA approved according Class I Zone 0, Gr. IIC and Div.1 Gr A, B, C&D
- C. Material of casing: Polypropylene.
- D. Degree of protection: NEMA 6.
- E. They shall be applicable for liquids with a density of 0.95 – 1.10 g/cm³. The Level control shall include 40 feet submersible cable.

3.03 LEVEL TRANSMITTER (FLYGT LTU 801)

- A. Each station shall be equipped 1 Level transmitter approved acc. EN 61000-6-2, EN 61000-6-3, EN 61326-1. It shall be approved for explosive areas according UL Class 1, 2 and 3 Division 1 Group A-D T4/T5/T6
- B. Output 4–20 mA direct current, proportional to the measured level. Low supply voltage 8–30 V DC – or battery operation.
- C. It shall be suitable for waste water with a diaphragm made of ceramic.
- D. Insulated > 100 MΩ at 500 V DC. Material of sensor body: Ryton PPS.

- E. Degree of protection: Nema 6.
- F. The transmitter shall include 35 feet submersible cable.

3.04 CABINET

- A. The Monitoring & Control and the telemetry and 2 pump drives shall be assembled in a cabinet. It shall be made of Reinforced plastic or stainless steel and it shall be prepared for an installation on a concrete floor.
- B. Beside the Monitoring & Control unit it shall have enough space for the customer-installed telemetry equipment and include.
 - 1. 1 backup battery for the telemetry unit.
 - 2. Red-dome style flashing alarm light
 - 3. Alarm Horn or Bell with Alarm silence button
 - 4. Intrinsically safe barrier for UL 913 requirements
 - 5. Anti-condensation heater and thermostat
 - 6. Generator receptacle and Emergency circuit breaker (walking-beam interlocked with Main breaker)
 - 7. Enclosure legs
 - 8. Power switch, which can be locked in the off position by a pad-lock.
 - 9. 1 light group with socket
- C. The inner dimension of the cabinet shall reserve at least 10% back panel space for future adjustments.
- D. All components on the front of the machine should be provided with function plate.

PART 4 EXECUTION

4.01 GENERAL

- A. Perform installation in accordance with Contract Documents and manufacturers specifications.

4.02 EXAMINATION

- A. A factory trained technician shall examine the work area prior to beginning work and check the following:
 - 1. The environment is safe to begin working in
 - 2. All surfaces are ready to receive work
 - 3. All tools are in the proper location and are in good condition
 - 4. Grounding of the system

4.03 FIELD QUALITY CONTROL

- A. The follow field tests shall be performed by a factory trained technician
 - 1. Point to point wiring verification
 - 2. Utility power verification

3. Site acceptance testing
 4. System demonstration
- B. Point to Point I/O Verification
1. After installation of the pumps and the control panel, a factory trained technician shall prepare the I/O checklist. The checklist shall include the following:
 - a. All inputs and outputs connected to the control panel
 - b. All alarms that can be generated by the control panel
 2. The technician shall follow a test procedure to test all I/O and alarms.
 - a. All digital inputs shall be tested from point of origin unless it is unsafe.
 - b. All digital outputs shall be tested by running a simulation test from the controller or by simulating the fault condition.
 - c. All analog inputs shall be tested from the point of origin where possible and by use of a signal generator otherwise.
 - d. All analog outputs shall be tested by running a simulation program or by forcing the output to a value.
 3. The technician shall follow a test procedure to insure the system operation parameters are met.
- C. Configuration Verification
1. The factory trained technician shall document the settings using a factory provided configuration checklist. Each parameter shall be verified prior to the beginning of testing and then again after testing is completed.
 2. The configuration of the pump station manager as well as the IPS gateways shall be documented.
 3. The pump station manager configuration shall be saved to a factory provided SD card after testing is completed.

4.04 FACTORY TRAINED SUPERVISION

- A. The contractor shall procure a factory trained technician to check over equipment prior to putting the equipment into operation.
- B. Point to point test of all wiring.
- C. Functional test of all equipment alarms and controls.

4.05 CERTIFICATION OF TESTING

- A. All tests shall be performed in the presence of a duly authorized representative of the Owner. If the presence is waived, certified results shall be provided by the Contractor.
- B. Written notice of all tests shall be given two weeks in advance.

4.06 TEST EQUIPMENT

- A. All test equipment shall be provided by the Contractor.

4.07 TRAINING

- A. Training shall be a minimum of four (4) hours and cover the complete Pumping System and related controls.
- B. Instruction material shall be provided for four (4) trainees.

END OF SECTION

SECTION 46 90 01
SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish, install, calibrate, test, start-up and place in satisfactory operation a complete Cloud based Supervisory Control and Data Acquisition (SCADA) System.
- B. The SCADA system shall consist of three sub-systems: a Central Server, a web-based user interface and the Remote Terminal Units (RTU's) of various sizes.
- C. The SCADA system shall be manufactured by High Tide Technologies, LLC, or pre-approved equal.

1.02 GENERAL

- A. The Central server shall consist of a cluster of servers providing various data processing, web server and database functions. The system shall be scalable to add more servers as the demands on the system increase.
- B. The web-based user interface software shall provide all the functions necessary for the Owner to interact with the data from the remote units as well as execute configuration and control commands.
- C. RTU's shall be furnished and installed at each of the monitored sites. The Manufacturer shall have available several models of RTU's which will accommodate a wide variety of Input and Output requirements.

1.03 QUALIFICATIONS

- A. The SCADA System shall be furnished by a single Supplier who shall assume responsibility for providing a complete and integrated system.
- B. Manufacturers Qualifications: Only manufacturers who have been regularly engaged in the supply of SCADA equipment for at least 10 years and are capable of meeting the following criteria are qualified.
 - 1. Have completed a minimum of three (3) satellite telemetry systems and three (3) cellular telemetry systems.
 - 2. Provide the Owner with reference names and phone numbers for a minimum of two Satellite Telemetry System customers and two Cellular Telemetry system customers.
 - 3. Acknowledge that shipment of the SCADA RTU units and related equipment shall be authorized only by the Owner.
 - 4. Utilize only UL listed and rated components in enclosure manufacture.
 - 5. Provide 100 percent of all hardware and software technical manuals to the Owner in digital format (Adobe PDF).
 - 6. Provide a complete bill-of-materials (BOM) and enclosure layouts that are numerically cross-referenced together for each SCADA unit. The BOM shall contain the standard factory supplied part numbers instead of proprietary numbers.

7. Provide a warranty and customer support for a period of not less than one (1) year after the Owner accepts each SCADA unit.
 8. Provide primary technical support to the Owner by full-time qualified staff members only.
- C. Security Certifications:
1. To assure that the supplier is protecting the customers private data and providing adequate reliability, the system supplier must have SOC 2 certification per the AICPA covering all five “trusted service principles” – Security, availability, processing integrity, confidentiality and privacy.
- D. Installers Qualifications:
1. Installers who have been regularly engaged in the installation of SCADA equipment and have completed the Manufacturer’s installer certification course are qualified.

PART 2 PRODUCTS

2.01 CENTRAL SERVER

- A. The Central Server core shall be configured as a cluster of servers, each performing different tasks. Key functions shall be running on multiple servers thus providing redundancy in the event of hardware failures. The entire cluster shall be hosted in a server-hosting center with power, network and hardware redundancy built in.

2.02 WEB-BASED USER INTERFACE SOFTWARE

- A. Compatibility: The system shall be compatible with modern web browsers on various operating systems including computers, tablets and smartphones.
- B. Access and Security: Access to the customer’s user interface shall begin with a username and password screen. The web interface shall utilize fully encrypted data and passwords via standard HTTPS technology – the same level of security used by online banking applications. The person designated by the Owner as the “administrator” shall have authority to manage usernames and passwords as well as control and change certain parameters related to their system. The system shall offer Multi-factor Authentication as an option for enhanced security
- C. Levels of Access: Four levels of access shall be provided. VIEWERS shall only have permission to view the system data. OPERATORS shall be able to view and acknowledge alarms. SUPERVISORS shall be able to perform all the functions of the operators as well as change parameters in the system and manually turn pumps on and off. ADMINISTRATORS shall be able to perform all the functions of the supervisors as well as create and delete users from the system. Administrators shall also be able to assign which contacts will receive alarms.
- D. User Limits: The Owner shall be able to create as many users as needed and all users shall be able to be logged in simultaneously. No additional charge shall be assessed on the number of users or viewers.
- E. User Interface Types:
1. The system shall provide options to the Owner for either tabular or graphical status representations of the installations.

2. Larger systems shall be able to be broken down into segments or zones for easy navigation and display. Size, location and layout of objects on the screen shall be customizable by the software provider upon Owner request.
 3. The software shall be capable of showing location and status of each RTU installation on maps, given Owner supplied addresses or coordinates.
- F. The system shall have robust Alarming Capabilities, including the following features:
1. The ability to send alarms via voice calls, text messages or emails.
 2. The ability to configure a preferred alarm delivery order with delays between each level and each operator.
 3. The ability to accept acknowledgments via voice or text at the time the alarm is delivered or via the web interface at any time.
 4. The ability for users to view a list of alarm histories for each installation including which user acknowledged the alarm.
 5. The ability to set any alarm recipient to be “Nagged” by calling them every 10 minutes until some-one acknowledges the alarm.
 6. The ability to set shifts and days off for each alarm recipient and set day and night shift alarm notifications.
 7. The ability to have audible and visual alarms pop up on the computer that is logged in to the system.
 8. The ability to alarm the user if the RTU has stopped communicating with the host servers.
- G. Auto Refresh: The web interface shall automatically refresh when new data or alarms are reported.
- H. Data Analytics and Graphing: The system shall provide various menus to allow users to view historical data on pop-up graphs. Users shall have the ability to set the time range of the graphs and zoom in to view events of the past. When a user’s mouse is held over a data point, the details of that data point shall appear on the screen.
- I. Historical Date: The system shall store all historical data and provide interfaces so that the user can view graphs and generator reports for any data back to when the unit was first activated.
- J. Raw Data Downloads: The user shall be able to dump raw data in tabular format for offline analysis that can be imported into a spreadsheet for further analysis.
- K. External Access to Data: The system shall provide a standard secure JSON interface for downloading data into local systems.
- L. Report Generation: The user shall have the ability to download formatted spreadsheet reports of various functions. The software shall also provide the ability to automatically fill in the owner’s report forms in standard Excel formatted files.
- M. Screen Configuration: The Manufacturer shall provide a service to configure graphic and tabular screen layouts, particular locations and sizes of graphical objects to match the customer’s requirements.
- N. Service History: The system shall provide a mechanism for the user to enter freeform service history information for all RTU sites.

- O. The system shall be capable of providing Automatic and Manual Controls as listed below:
1. Ability for one Tank to control one or more remotely located pump stations and valves based on tank level or system pressures. This should be performed in either round robin or lead/lag configurations.
 2. Ability to automatically cause the digital input from one RTU to be replicated on the digital output of another RTU (when digital outputs are available).
 3. Ability to automatically cause the analog input level at one RTU to be replicated on the analog out-put of another RTU (when analog outputs are available).
 4. Ability for the user to set analog threshold alarms and controls and have them downloaded to the RTU. These include levels, pressures, flow rates and any physical sensor that outputs an analog signal. This feature shall apply to RTU's with analog input capability.
 5. Ability of the system provider to provide custom control scripts specified by the end users.
 6. Ability for supervisors or administrators to manually control digital outputs that are connected to valves or pumps on RTU's that are equipped with outputs.

2.03 REMOTE TERMINAL UNITS (RTU)

- A. General: RTU's shall be A/C or Solar powered depending on the model, as designated by the Own-er. The RTU's shall be available as either a kit that can be mounted in existing cabinets or supplied in a NEMA 4X enclosure with a raised door supported by stainless steel hinges on the left and a stainless steel latch configured for a padlock (supplied by Owner). The electronic components pro-vided shall be din-rail mounted for easy replacement without removal of the enclosure. AC power supplies and solar regulators shall be modular and easily replaceable in the field. (Excluding HTT300 that is provided in an IP67 Polycarbonate enclosure)
- B. The Manufacturer shall have the following types of RTU's available or equivalent:

Option	DIs	AIs	DOs	AOs	Networks	Applications
HTT300	4	1			Sat, Cellular	Manholes, Lift Stations, Alarms
HTT900	12				Sat, Cell, IP	Lift Stations, Meters
HTT1100	8	4 inc. + 4 opt.	4 opt.		Sat, Cell, IP	Lift Stations, Tanks, Meters, Valves, Pressure, Boosters etc.
HTT3100	28	6 inc + 4 opt.	4	2	Sat, Cell, IP	Larger Lift Stations, Boosters, Small Plants
HTT4100	28+	12+	8	opt.	Cell, IP	Plant Monitoring

1. Solar power shall be available as requested for HTT300 and HTT1100.
 - a. Solar power options include 10W,20W,60W,120W power systems. Each of these is chosen based on the application and external I/O drain requirements.
 - b. Batteries for each of the solar power options is also sized appropriately between 10Ah and 180Ah capacity.
 - c. HTT300 solar option is integrated into the design and is fixed in size.

2. Back-up battery power shall be available for all but HTT4100 in the event that AC power is lost. When in battery backup mode the unit will at a minimum have enough power to send out a power fail alarm and on some options actually maintain full functionality for a small number of days.
- C. The Manufacturer shall have the following types of Inputs and Outputs available:
1. Digital inputs compatible with either open collector or dry contact sources. Optional 115V or 230V instrumentation relays to mount in the enclosures when required.
 2. Counter inputs. Four of the digital inputs configurable as pulse counters for flow monitoring equipment or rain gauges.
 3. Analog inputs configurable to accept either 0-5V or 4-20ma and 0-20ma inputs. For 4-20ma and 0-20ma inputs, the sense resistor shall be 250ohms and removable for voltage sensors. 4-20ma inputs configurable to accept 2-wire, 3-wire or 4-wire sensors. Battery backed up 24V loop power shall also be available as well as analog inputs with optional integrated surge protection available.
 4. Digital Outputs. RTU's with digital outputs configured with din-rail mounted Form-C relays capable of switching up to 5A at 250V.
 5. Analog Outputs. RTU's with analog outputs capable of syncing 4-20ma outputs under RTU control.
 6. Modbus Master. At least one type RTU shall have an RS-232 port that can be configured as a Mod-bus Master for reading data from third-party PLC or sensor equipment.
- D. Two-way Communications: The RTU shall have capability to both send alarms and scheduled re-reports up to the server as well as receive commands from the server at any time. All functional configurations and alarm thresholds shall be able to be sent from the server without visiting the RTU.
- E. Digital Alarm Functions: The RTU shall be able to report status changes or alarms on any digital input. All analog inputs may be configurable as digital/alarm inputs.
1. Pseudo alarms shall be available to report when two or more selected digital inputs are in the alarm state at the same time.
 2. Whenever a digital alarm occurs the status shall be reported to the server after a programmable validation delay.
- F. The RTU shall have the following Analog Input Monitoring Functions:
1. Reports analog input levels on programmable schedules ranging from 1 min to several hours.
 2. Ability of the user to configure up to four separate alarm thresholds for each analog input. The RTU shall send an extra report to the server whenever the analog level passes through any of the alarm thresholds. Alarm thresholds shall be continuously monitored regardless of the reporting interval.
 3. Ability to configure the RTU to sample the analog input only when one or more digital inputs are active. This may be used to monitor pump amps or flow rate only when a pump is running.
 4. Ability to report an alarm when an analog reading falls too rapidly such as tank level falling due to system leak.

- G. Local Pump Alternator/Controller. The RTU shall include a software pump controller with the following functions built in and configurable over the communications channel:
1. Local control for up to three pumps.
 2. Local alternation, lead lag or round robin control behavior.
 3. A maximum number of pumps running setting that actively turns off pumps to stay below the maximum.
 4. Back up timers that can be set for maximum ON time or maximum OFF time or both. The maximum on setting can be configured to turn all pumps off or to force alternation.
 5. Ability to set a time of day where the RTU turns pumps ON for a fixed duration of time.
 6. Alarm the server if a pump is called for but does not start.
 7. Ability to turn a pump ON or OFF based on local analog input alarm thresholds. This can be used for functions like low suction cut-off, local altitude valve control or local alarm light activation.
 8. Ability to program the RTU to turn ON or OFF a pump at a particular time of day.
- H. Flow Meter Functions. The RTU shall support the following features associated with flow meters:
1. Four internal 32-bit pulse counters stored in non-volatile memory.
 2. Ability to report the counter totals on intervals ranging from 1 minute to daily.
 3. Ability to convert two of the counter inputs pulse rates to a flow rate and report to the server in the form of an instantaneous flow rate reading.
 4. Ability to take two of the Analog inputs connected to flow rate outputs of meters and integrate the signal to create a pseudo totalizer simulating a pulse counter. This will be used when pulse outputs are not available from the flow meters.
- I. Rain Gauge Monitoring. The RTU counter inputs shall be able to support tipping bucket rain gauge instruments with the following reporting features:
1. Ability to report rainfall in 15 min resolutions.
 2. Graph rain on the web interface in hourly, daily and monthly increments.
- J. Wastewater Pump Station Functions. The RTU shall support the following pump station monitoring functions:
1. Ability to accumulate and report start and runtime statistics for up to five pumps. The statistics may be scheduled to report to the server on intervals between hourly and daily.
 2. Ability to report an alarm if a single pump run cycle exceeds a threshold set by the user.
 3. Optional flow estimation based on wet well geometries and pump on/off levels.
 - a. Works for either float or level based installations
 - b. Pump Capacity calculation
 - c. Station output flow rate and totalization

- d. Station inflow rate estimation
- K. Power Monitoring. The RTU shall support the following power related functions:
 - 1. All units shall have battery backup that keeps the core functions active for at least two days. De-pending on what option is installed, some I/O's will continue to function normally.
 - 2. Alarms shall be sent to the server when power loss is detected.
 - 3. For solar RTU's or A/C powered RTU's running on battery, alarms shall be sent to the server when the battery reaches a critical low level. Solar units shall also report if no charging voltage is received for 4 days as an indication that the panel may be stolen or defective.
- L. Ease of Replacement. Main electronics' modules shall have the following features:
 - 1. Main electronic modules shall be din-rail mounted for easy removal and replacement. (Excluding HTT300)
 - 2. All power and I/O connectors shall be two-part pluggable terminals so that when a module is re-placed no wires have to be removed from the terminals.
 - 3. The same basic RTU shall be used for all communications options with no I/O configuration changes. (Excluding HTT300)
- M. Antenna Options:
 - 1. Cellular options shall include an antenna that is internal to the enclosure, an omnidirectional antenna external to the enclosure or a directional (higher gain) antenna external to the enclosure.
 - 2. Satellite RTU's shall require an external stub antenna with a bracket and either a 15, 30 or 50-foot external cable.
 - 3. IP units shall only require standard 10baseT RG6 Internet patch cable connection.
- N. Expansion and Accessories. The RTU's shall have the following optional factory-installed accessories available: (Excluding HTT300)
 - 1. Din-rail mounted main power surge arrestor.
 - 2. Din-rail mounted Analog or Digital signal surge arrestors.
 - 3. RTU's with four Analog inputs shall have an optional expansion module to add four additional 4-20ma analog inputs.
 - 4. Enclosure heaters and thermostats.
 - 5. Local digital displays for analog inputs.
 - 6. RTU's with a programming port through which qualified installers may upgrade internal software without returning the equipment to the factory.
- O. Modbus Interfaces. The RTU shall have an optional RS232 Modbus Master interface that can be configured to read and write registers in customer provided PLC or other sensor. These interfaces are always custom and configured with the customer.
- P. Communication Platforms:

1. RTU's may be configured with either low earth orbit satellite (Iridium), LTE cellular for either ATT or Verizon or IP (Internet) as designated by the Owner to communicate bi-directionally from the RTU to the Central Server.

2. RTUs will have functions built in to allow for the upgrade of the firmware in the cellular modems if Carriers make changes that effect the modems.

Q. Customer Service:

1. The Manufacturer shall provide 24-hour, seven days a week phone support access to the Owner by the Manufacturer's customer support personnel. Customer support personnel shall provide assistance with software, communications and hardware as required by the Owner. The Manufacturer shall provide the Owner with a toll-free number to contact their customer support personnel. No additional fees shall be charged by the Manufacturer for configuring the Owner's software for his applications.

PART 3 EXECUTION

3.01 INSTALLATION, GENERAL

A. Install all equipment in accordance with ANSI C2, ANSI/NFPA 70 and the requirements specified herein.

B. Install all field instruments in accordance with the Manufacturer's recommendations.

3.02 WIRING

A. Install conductors and cables in conduit, unless indicated otherwise.

B. Complete raceway systems and remove obstructions before pulling conductors into place. Avoid damaging insulation during conductor installation. Use an approved lubricating compound as re-quired to facilitate pulling wires.

3.03 SPLICES AND TERMINATIONS

A. Make up both mechanically and electrically tight.

B. Provide with a flashover or insulation value at least 100 percent in excess of wire insulation.

C. Make splices and terminations in junction boxes.

D. Make connections in No. 10 AWG and smaller conductors with insulated pressure connectors or wire nut connections.

E. Use terminal blocks of the proper voltage for interconnecting or splicing control cables, communication cables, and other conductors. Mount terminal blocks in a cabinet and label terminals properly.

3.04 SATELLITE ANTENNA MOUNTING

A. All antennas shall be mounted with galvanized clamps or other non-corroding attachment devices.

B. The mounting of the antennas shall be in such a manner to prevent welding, drilling or other corrosion and stress inducing modifications, or damage to paint systems.

C. All antennas shall utilize existing non-load bearing structures such as safety rails for mounting points.

- D. Antennas shall be mounted in a manner so that cables and antennas do not interfere with safety equipment or harnesses while climbing up or on the structures.
- E. Cutting into a structural member is not acceptable.
- F. All antennas shall be mounted to insure the most direct view of the sky at the remote sites.
- G. Antenna masts shall be provided where necessary to elevate the antenna high enough to insure direct view of the sky, and shall include the mast and all attachment hardware.

3.05 ANTENNA CONNECTION SEALING

- A. All antenna connections shall be coated with silicon grease and then covered with a protective rubber boot.

3.06 TESTING

- A. Performance Verification Test: Conduct performance verification tests to demonstrate that control system maintains set-points, and that system is programmed for the correct sequence of operation. Conduct performance verification test one day after work is installed of continuous RTU systems operation and before final acceptance of work. Performance verification test shall demonstrate the following:
 - 1. Field Testing: Calibrate field equipment and verify equipment and system operation before placing the system on-line.
 - 2. Calibration Accuracy and Operation of Inputs Test: Check for proper calibration and operation of each input instrument. Document each reading for the test report.
 - 3. RTU Startup and Memory Test: Demonstrate that programming is not lost after a power failure, and RTU controllers automatically resume proper control after a power failure.
 - 4. Surge Protection: Show that surge protection, meeting the requirements of this specification, has been installed on incoming power to the digital controllers and on communications lines.

3.07 FIELD TESTS

- A. Demonstrate compliance of the control system with the contract documents. Furnish personnel, equipment, instrumentation, and supplies necessary to perform calibration and site testing. Ensure that tests are performed by competent employees regularly employed in the testing and calibration of instrumentation systems.
- B. Notify the Owner of any defective products and workmanship disclosed by the tests.
- C. Testing will include the field and the performance verification tests. Field tests shall demonstrate proper calibration of input devices, and the operation of specific equipment. Performance verification test shall ensure proper execution of the sequence of operation and proper tuning of control loops.
- D. Test each device such that each item will function not less than five times.
- E. Tests are subject to oversight and approval by the Owner.

END OF SECTION

DIVISION 3 – PROJECT PLANS
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SHEET S08	INDUSTRIAL YARD SEWER IMPROVEMENTS

PORT OF TOLEDO

LINCOLN COUNTY, OREGON

SEWER CONNECTION EXPANSION PROJECT

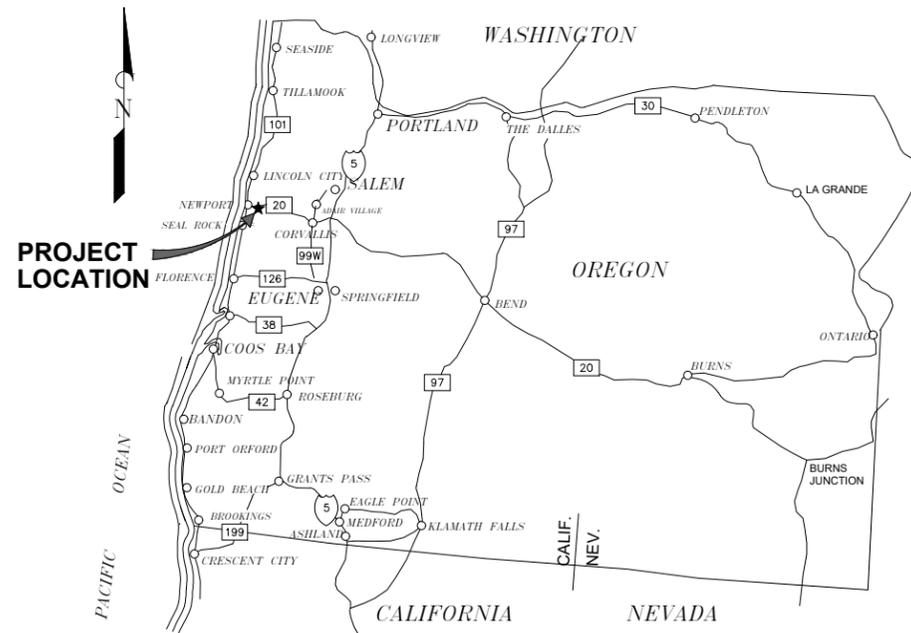
INDUSTRIAL YARD SEWER IMPROVEMENTS



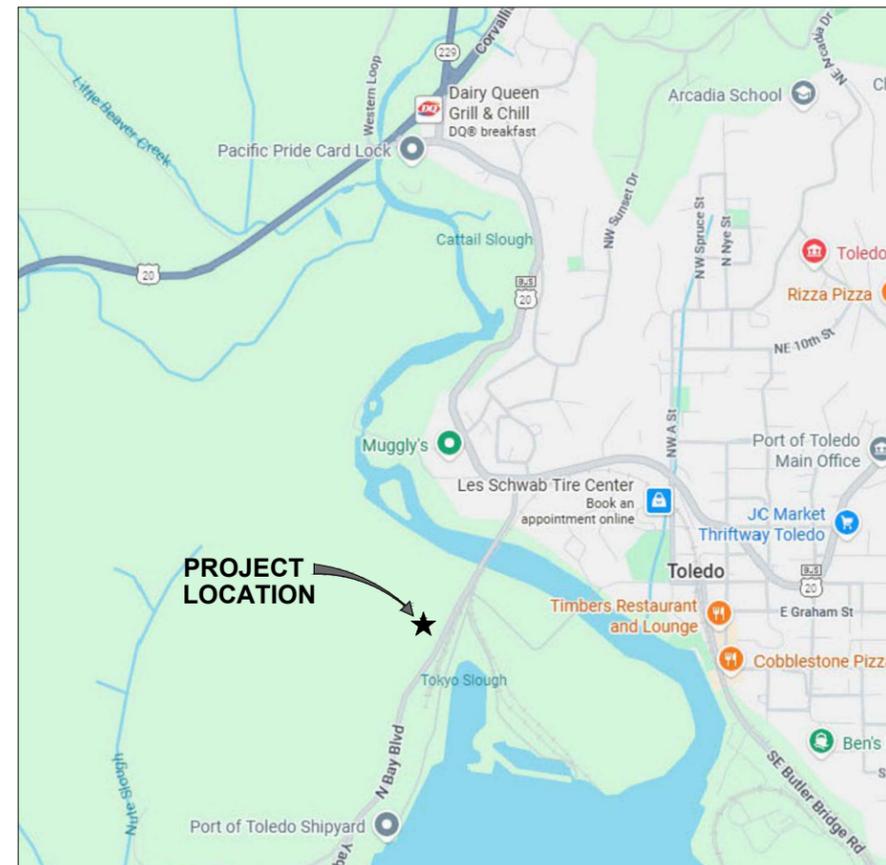
PROJECT NO. 2513-002
DEC. 2025



541-264-7040
www.civilwest.com
409 SW 10TH ST.
NEWPORT OR 97365



LOCATION MAP



VICINITY MAP

NOT TO SCALE

REV.	DATE	DESCRIPTION	BY

DESIGNED BY: TEG	DRAWN BY: TEG	CHECKED BY: Value
PROJECT NO.: 25133-002		

PORT OF TOLEDO
LINCOLN COUNTY, OREGON
SEWER CONNECTION EXPANSION PROJECT
INDUSTRIAL YARD SEWER IMPROVEMENTS
COVER

GENERAL NOTES

- ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090. YOU MAY OBTAIN A COPY OF THE RULES BY CALLING THE CENTER.

NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987.
STAT. AUTH.: ORS 757.542 THROUGH ORS 757.562 AND ORS 757.993.
- THE CONTRACTOR SHALL CONTACT 'ONE CALL' FOR UTILITY LOCATES PRIOR TO EXCAVATION. (1-800-332-2344)
- THE EXISTING UTILITY CROSSINGS OF THE PIPELINES ARE SHOWN ACCORDING TO AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL THE UTILITY CROSSINGS ALONG THE LENGTH OF THE PIPELINES AS SPECIFIED. NO GUARANTEE IS MADE THAT ALL OF THE EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING HIS OPERATIONS.
- OVERHEAD ELECTRICAL DISTRIBUTION SYSTEMS MAY NOT BE SPECIFICALLY INDICATED ON THE DRAWINGS BUT DO EXIST ALONG THE PIPELINE ROUTES.
- EXISTING WATER METER BOXES AND VALVES MAY NOT BE SPECIFICALLY INDICATED ON THE DRAWINGS BUT DO EXIST ALONG THE PIPELINE ROUTES. CONTRACTOR SHALL LOCATE PRIOR TO THE START OF CONSTRUCTION.
- THE LOCATION AND DEPTH SHOWN ON THESE DRAWINGS FOR THE EXISTING WATERLINES ARE APPROXIMATE ONLY AND BASED ON AS BUILT DRAWINGS, VALVE LOCATIONS AND OTHER INFORMATION. THERE ARE NO TRACER WIRES FOR LOCATING THE MAJORITY OF EXISTING WATERLINES AND EXISTING WATERLINES MAY BE IN CLOSE PROXIMITY TO NEW WATERLINE ROUTES.
- CONTRACTOR SHALL POTHOLE AND LOCATE EXISTING WATERLINES PRIOR TO PLACEMENT OF NEW WATERLINES. EXISTING WATERLINES SHALL REMAIN IN SERVICE AND BE PROTECTED IN PLACE UNTIL COMPLETION OF NEW WATERLINES. CONTRACTOR SHALL PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN CONTINUED SERVICE TO CUSTOMERS UNTIL COMPLETION OF NEW WATERLINE.
- AFTER COMPLETION OF NEW WATERLINES AND ALL TESTING AND CONNECTIONS HAVE BEEN MADE. DESIGNATED PORTIONS OF THE EXISTING WATERLINES ARE TO BE ABANDONED IN PLACE. REMOVE TEMPORARY CONNECTIONS, EXISTING VALVES, COVERS AND PROVIDE END CAPS OR PLUGS AS REQUIRED FOR ABANDONMENT.
- THE PIPELINE PROFILES HAVE BEEN MARKED TO INDICATE THE REQUIRED BACKFILL CLASSES (A, B, & E) SEE TECHNICAL SPECIFICATION FOR SPECIFIC BACKFILL MATERIAL REQUIREMENTS.
- WHEN NO RECORD WAS AVAILABLE TO INDICATE THE ELEVATION OF AN EXISTING UTILITY A MINIMUM COVER OF 30-INCHES WAS ASSUMED. THE CONTRACTOR SHALL EXERCISE CAUTION WHILE EXCAVATING NEAR THESE ESTIMATED UTILITY LOCATIONS WHICH ARE INDICATED ON THE PROFILE DRAWINGS.
- CONTRACTOR SHALL INSTALL NEW WATERLINES WITH A MINIMUM CLEARANCE OF 18-INCHES AT ALL CROSSINGS WITH SANITARY SEWER LINES AND/OR STORM DRAIN LINES, UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE ENGINEER. WHERE NEW WATERLINES CROSS EXISTING UNDERGROUND TELEPHONE, ELECTRICAL, AND/OR GAS LINES, A MINIMUM CLEARANCE OF 6-INCHES SHALL BE UTILIZED, UNLESS OTHERWISE NOTED.
- ALL MATERIALS IN CONTACT WITH WATER SHALL BE NSF 61 APPROVED.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PROJECT DESIGN SPECIFICATIONS AND DRAWINGS. THESE DRAWINGS SHALL BE COORDINATED AND USED IN CONJUNCTION WITH THE TECHNICAL SPECIFICATIONS AND APPROVED SUBMITTALS. CONSTRUCTION PERMITS AS REQUIRED FROM LINCOLN COUNTY ROAD DEPARTMENT TO WORK WITHIN THE RIGHT-OF-WAY SHALL BE OBTAINED BY THE OWNER PRIOR TO THE START OF CONSTRUCTION.
- PROPERTY AND RIGHT OF WAY LINES SHOWN IN THIS PLAN SET ARE APPROXIMATE AND BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL OBTAIN TEMPORARY CONSTRUCTION ACCESS OR PERMISSION FROM PRIVATE LAND OWNERS PRIOR TO ENTERING PRIVATE PROPERTY.
- PERMITS ASSOCIATED WITH THE TRENCH DE-WATERING SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO POTHOLE EXISTING WATERLINES AND SURROUNDING UTILITIES TO DETERMINE THEIR EXACT LOCATION AND DEPTH. POTHOLE EXPLORATION SHALL OCCUR A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE COMMENCEMENT OF WORK IN ANY AREA.
- PVC SEWER PIPE SHALL BE CLASS SDR-35 UNLESS OTHERWISE NOTED.

SHEET INDEX

SHEET # SHEET NAME

GENERAL

- G1 - COVER
- G2 - GENERAL NOTES, SHEET INDEX & ABBREVIATIONS
- G3 - SYMBOLS & LEGENDS

SEWER

- S08 - INDUSTRIAL YARD SEWER IMPROVEMENTS

ELECTRICAL

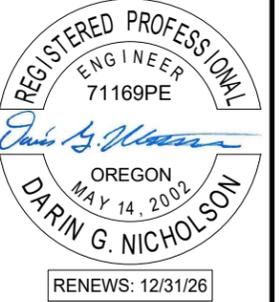
- E1-REV - INDUSTRIAL YARD PS03 ELECTRICAL IMPROVEMENTS

DETAILS

- D1 - PS03 MECHANICAL & PIPING DETAILS
- D2 - SEWER LATERAL & CLEANOUT DETAILS

GENERAL ABBREVIATIONS

AC	PAVEMENT	HDD	HORIZONTAL DIRECTIONAL DRILLING	SD	STORM DRAIN
BC	BEGIN CURVE	HDPE	HIGH DENSITY POLYETHYLENE PIPE	SE	SPOT ELEVATION
BFV	BUTTERFLY VALVE	HPC	HYPOCHLORITE	SPW	SPILLWAY
BLDG	BUILDING	HS	HARVESTED SLUDGE	SS	SANITARY SEWER
BM	BENCH MARK	HSG	HIGH PRESSURE SLUDGE GAS	STA	STATION
BOW	BACK OF WALK			SW	SIDEWALK
		IE	INVERT ELEVATION		
CB	CATCH BASIN	IP	IRON PIPE	TBC	TOP BACK OF CURB
CPLG	COUPLING			TD	TANK DRAIN
CTR	CENTER	LIP	LIP OF GUTTER	TG	TOP OF GRATE
CW	CITY WATER (POTABLE)	LT	LEFT	TOE	TOP OF SLOPE
CWN	CITY WATER (NONPOTABLE)			TOP	TOP OF BANK
		MH	MANHOLE	TOC	TOP OF CURB
D	DRAIN	MJ	MECHANICAL JOINT	TRANS.	TRANSITION
DI	DUCTILE IRON			TYP	TYPICAL
		NG	NATURAL GAS	TW	TOP OF WALL
EC	END CURVE				
EL	ELEVATION	OF	OVERFLOW	UNO	UNLESS NOTED OTHERWISE
EOC	EDGE OF CONCRETE			V	VENT
EOG	EDGE OF GRAVEL	PED	PEDESTAL	VAC	VACUUM
EOP	EDGE OF PAVEMENT	PRC	POINT OF REVERSE CURVATURE	VC	VENT (CHEMICAL)
EX	EXISTING	PVC	POLY VINYL CHLORIDE PIPE		
		PVI	POINT OF VERTICAL INTERSECTION	WM	WATER METER
FH	FIRE HYDRANT			WV	WATER VALVE
FL	FLOWLINE	ROW	RIGHT OF WAY		
FLG	FLANGE	RS	RAW SEWAGE		
FM	FORCE MAIN	RT	RIGHT		
		RW	RAW WATER		
GV	GATE VALVE	RWR	RECLAIMED WATER		

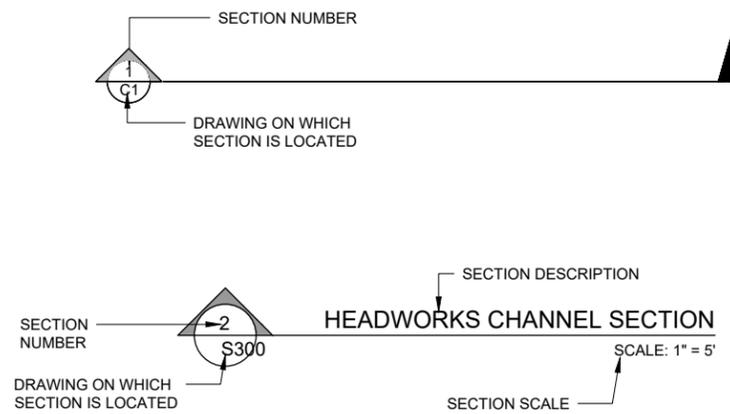


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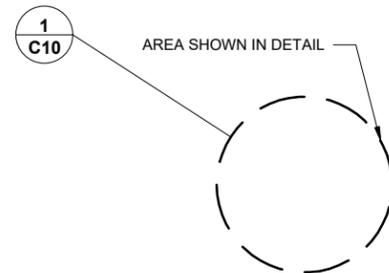
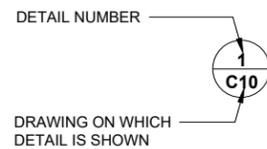
DESIGNED BY: TEG
DRAWN BY: TEG
CHECKED BY: Value
PROJECT NO: 2513-002

PORT OF TOLEDO
LINCOLN COUNTY, OREGON
SEWER CONNECTION EXPANSION PROJECT
INDUSTRIAL YARD SEWER IMPROVEMENTS
GENERAL NOTES, SHEET INDEX +
ABBREVIATIONS

SECTION REFERENCING



DETAIL REFERENCING



EXISTING FEATURE LEGEND

SYMBOL LEGEND

SANITARY SEWER MANHOLE	(S)	MAIL BOX	MB
STORM DRAIN MANHOLE	(D)	AIR RELEASE VALVE	○-----
CATCH BASIN	▨	BLOW OFF VALVE	○-----
WATER VALVE	WV	PROFILE SERVICE LATERAL CROSSING	— LAT —
WATER METER	W	PROFILE TELEPHONE LINE CROSSING	— TEL —
FIRE HYDRANT	Y	PROFILE COMMUNICATIONS LINE CROSSING	— COM —
CLEANOUT	CO	PROFILE ELECTRICAL LINE CROSSING	— ELE —
POWER POLE	○	PROFILE WATERLINE CROSSING	— WTR —
GUY ANCHOR	⤴	PROFILE SANITARY SEWER CROSSING	— SS —
POWER PEDESTAL	E	PROFILE STORM DRAIN CROSSING	— SD —
TELEPHONE PEDESTAL	T	TREE/SHRUB	⊙
SURVEY MARKER	▲	STREET SIGN	○

LINETYPE LEGEND

WATER LINE	— W — W — W —
STORM DRAIN	— SD — SD — SD —
SANITARY SEWER	— SS — SS — SS —
ELECTRICAL	— E — E — E —
OVER HEAD LINE	— OH — OH — OH —
TELEPHONE LINE	— T — T — T —
COMMUNICATION LINE	— C — C — C —
GAS LINE	— G — G — G —
TREELINE
EDGE OF PAVEMENT	=====
RIGHT OF WAY	-----
CONTOURS	230

HATCH LEGEND

CONCRETE	
PAVEMENT	
GRANULAR MATERIALS SUCH AS CRUSHED ROCK OR GRAVEL	
NATURAL GROUND	
WETLANDS	
BUILDING	

NEW FEATURE LEGEND

SYMBOL LEGEND

SANITARY SEWER MANHOLE	(S)	TEE/CROSS FITTING	⊥
STORM DRAIN MANHOLE	(D)	ELBOW FITTING	⌋
CATCH BASIN	▨	REDUCER FITTING	⌌
WATER VALVE	WV	MECHANICAL JOINT ADAPTER	⊞
WATER METER	W	AIR RELEASE VALVE	○-----
FIRE HYDRANT	Y	BLOW OFF VALVE	○-----
CLEANOUT	CO	MAILBOX	MB
		ANCHOR WALL	⊞

LINETYPE LEGEND

WATER LINE	— W — W — W —
STORM DRAIN	— SD — SD — SD —
SANITARY SEWER	— SS — SS — SS —
ELECTRICAL	— E — E — E —
OVER HEAD LINE	— OH — OH — OH —
TELEPHONE LINE	— T — T — T —
GAS LINE	— G — G — G —
CONTOURS	

HATCH LEGEND

CONCRETE	
PAVEMENT	
GRANULAR MATERIALS SUCH AS CRUSHED ROCK OR GRAVEL	

GRADING LEGEND

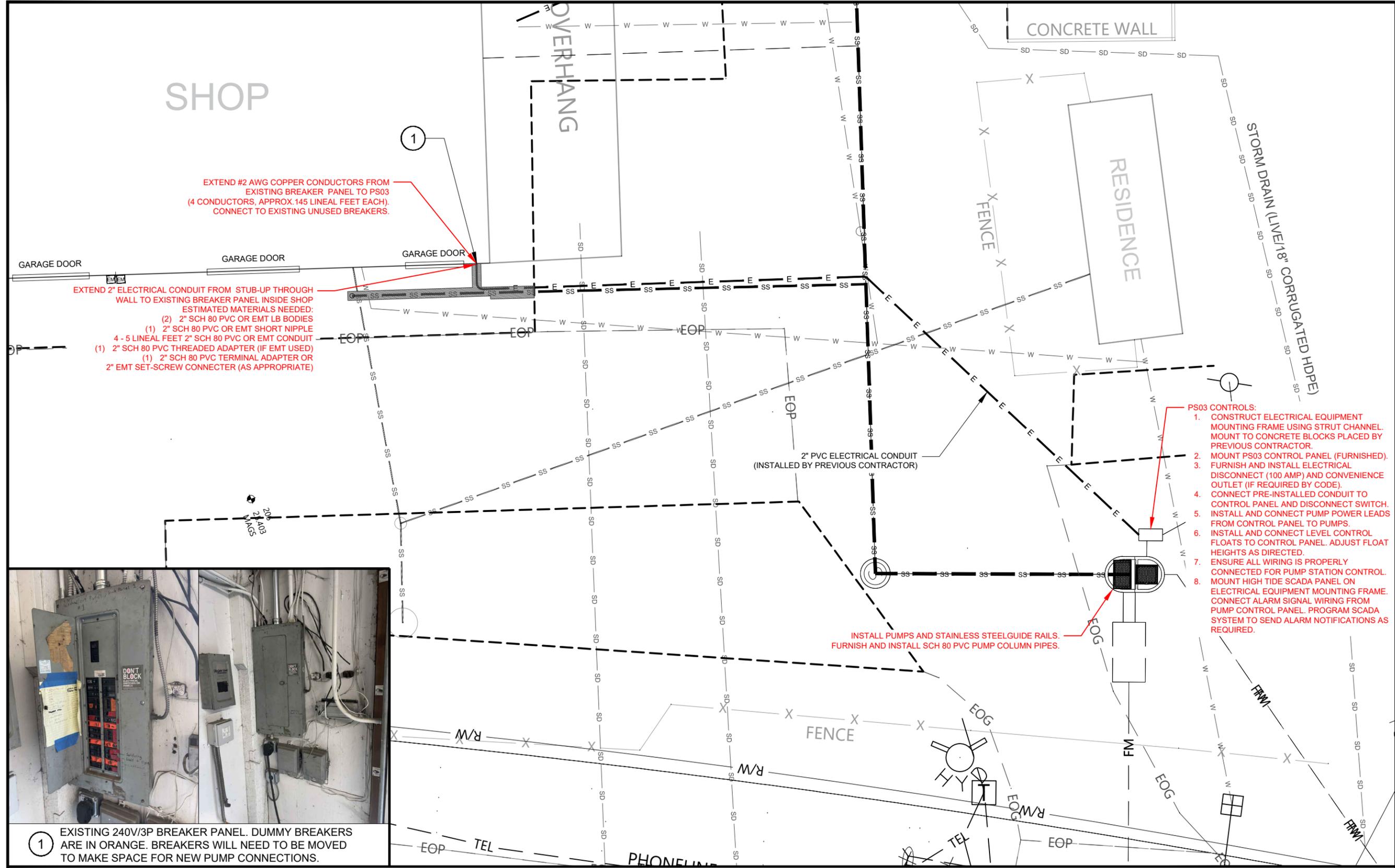
CUT OR FILL SLOPE-ARROWS POINT DOWN SLOPE	
GRADING SLOPE: 2 HORIZONTAL:1 VERTICAL	2:1
EXISTING GRADE SPOT ELEVATION	210.0
FINISH GRADE SPOT ELEVATION	210.0



REV.	DATE	DESCRIPTION	BY
DESIGNED BY: TEG	DRAWN BY: TEG	CHECKED BY: Value	PROJECT NO: 2513-002

PORT OF TOLEDO
LINCOLN COUNTY, OREGON
SEWER CONNECTION EXPANSION PROJECT
INDUSTRIAL YARD SEWER IMPROVEMENTS
SYMBOLS + LEGENDS

DATE:1/2/26 FILE:N:\2513 Port of Toledo\2513-002 Boat Yard Sewer Project\04 Design\CAD\DWG\IPOT WORKING not for stakeout 8-26-25.dwg



EXTEND #2 AWG COPPER CONDUCTORS FROM EXISTING BREAKER PANEL TO PS03 (4 CONDUCTORS, APPROX. 145 LINEAL FEET EACH). CONNECT TO EXISTING UNUSED BREAKERS.

EXTEND 2" ELECTRICAL CONDUIT FROM STUB-UP THROUGH WALL TO EXISTING BREAKER PANEL INSIDE SHOP
 ESTIMATED MATERIALS NEEDED:
 (2) 2" SCH 80 PVC OR EMT LB BODIES
 (1) 2" SCH 80 PVC OR EMT SHORT NIPPLE
 4 - 5 LINEAL FEET 2" SCH 80 PVC OR EMT CONDUIT
 (1) 2" SCH 80 PVC THREADED ADAPTER (IF EMT USED)
 (1) 2" SCH 80 PVC TERMINAL ADAPTER OR
 2" EMT SET-SCREW CONNECTER (AS APPROPRIATE)

PS03 CONTROLS:
 1. CONSTRUCT ELECTRICAL EQUIPMENT MOUNTING FRAME USING STRUT CHANNEL. MOUNT TO CONCRETE BLOCKS PLACED BY PREVIOUS CONTRACTOR.
 2. MOUNT PS03 CONTROL PANEL (FURNISHED).
 3. FURNISH AND INSTALL ELECTRICAL DISCONNECT (100 AMP) AND CONVENIENCE OUTLET (IF REQUIRED BY CODE).
 4. CONNECT PRE-INSTALLED CONDUIT TO CONTROL PANEL AND DISCONNECT SWITCH.
 5. INSTALL AND CONNECT PUMP POWER LEADS FROM CONTROL PANEL TO PUMPS.
 6. INSTALL AND CONNECT LEVEL CONTROL FLOATS TO CONTROL PANEL. ADJUST FLOAT HEIGHTS AS DIRECTED.
 7. ENSURE ALL WIRING IS PROPERLY CONNECTED FOR PUMP STATION CONTROL.
 8. MOUNT HIGH TIDE SCADA PANEL ON ELECTRICAL EQUIPMENT MOUNTING FRAME. CONNECT ALARM SIGNAL WIRING FROM PUMP CONTROL PANEL. PROGRAM SCADA SYSTEM TO SEND ALARM NOTIFICATIONS AS REQUIRED.

INSTALL PUMPS AND STAINLESS STEELGUIDE RAILS. FURNISH AND INSTALL SCH 80 PVC PUMP COLUMN PIPES.



1 EXISTING 240V/3P BREAKER PANEL. DUMMY BREAKERS ARE IN ORANGE. BREAKERS WILL NEED TO BE MOVED TO MAKE SPACE FOR NEW PUMP CONNECTIONS.

1 INDUSTRIAL YARD PS03 ELECTRICAL IMPROVEMENTS
 E1-REV SCALE: 1" = 16'



SHEET NOTES:
 1. MANUFACTURER'S REPRESENTATIVE WILL PERFORM PUMP STATION STARTUP ONCE ELECTRICAL IMPROVEMENTS ARE COMPLETE AND PUMPS ARE READY FOR INSTALLATION. TO SCHEDULE PUMP STARTUP, CONTACT JANETTE DAHL AT WHITNEY EQUIPMENT CO., PH: 425-540-0450

REGISTERED PROFESSIONAL ENGINEER
 71169PE
 DARIN G. NICHOLSON
 OREGON
 MAY 14, 2002
 RENEWS: 12/31/26

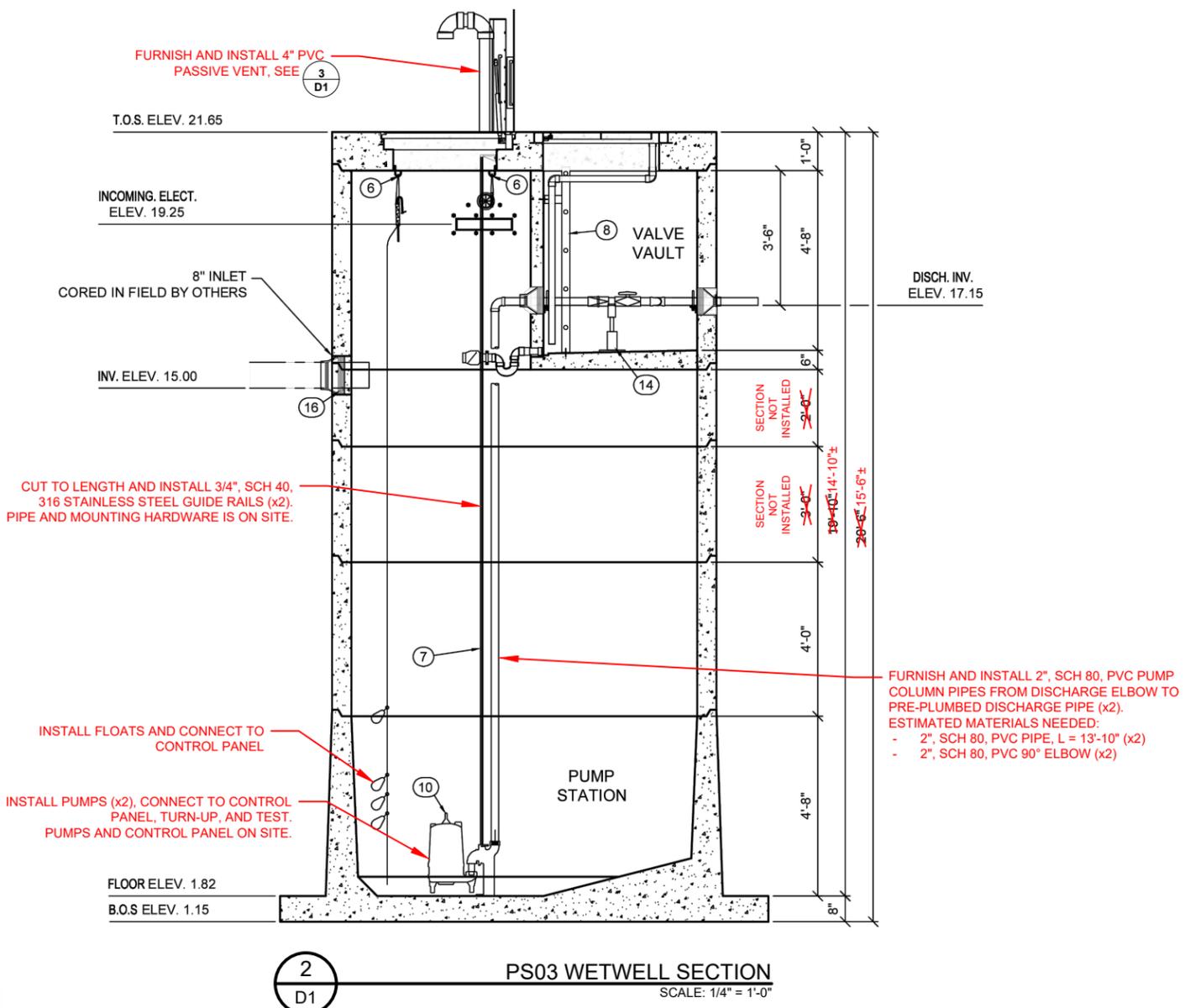
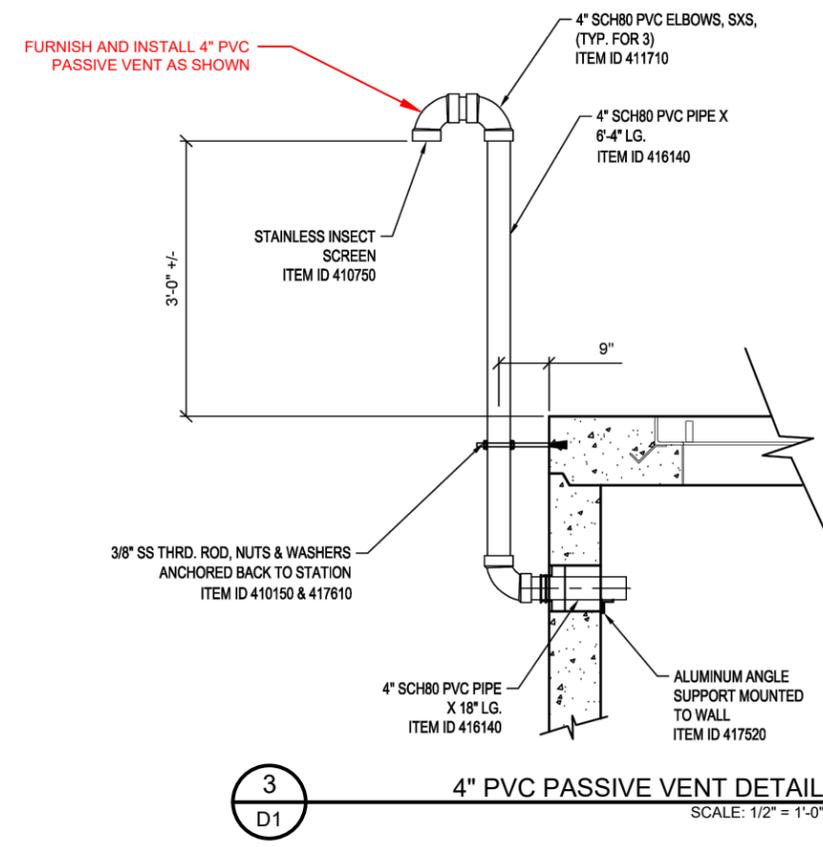
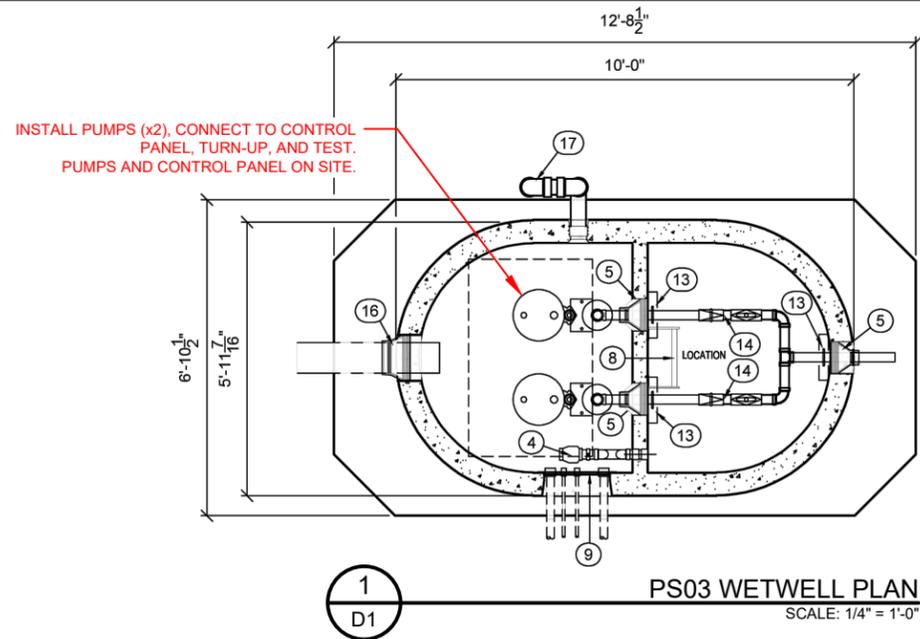
Civil West Engineering Services, Inc.
 409 SW 10TH ST.
 NEWPORT OR 97365
 541-264-7040
 www.civilwest.com

REV.	DATE	DESCRIPTION	BY

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PORT OF TOLEDO
 LINCOLN COUNTY, OREGON
 SEWER CONNECTION EXPANSION PROJECT
 INDUSTRIAL YARD SEWER IMPROVEMENTS
 INDUSTRIAL YARD PS03
 ELECTRICAL IMPROVEMENTS

Sheet No. E1-REV
 Date DEC. 2025



Parts List			
ITEM	QTY	NAME	ITEM ID
1	1	ONELIFT 509 ROUNDED CORNER PRECAST CONCRETE PUMP STATION WITH INTEGRAL VALVE VAULT	
2	1	PUMP ACCESS HATCH - 30" x 48" CLEAR OPENING, SLIP RESISTANT, ALUMINUM ACCESS, WITH SAFETY GRATE, H-20 OFF-STREET RATED	4302825
3	1	VALVE VAULT ACCESS HATCH - 30" x 36" CLEAR OPENING, SLIP RESISTANT, ALUMINUM ACCESS, WITH SAFETY GRATE, H-20 OFF-STREET RATED	4302815
4	1	VALVE VAULT PVC DRAIN ASSEMBLY (SEE DETAIL IN CUT SHEET BOOKLET)	416200, 418400
5	3	MH BOOT FOR 3" SCHEDULE 80 PVC PIPE	
6	2	6 HOOK FLOAT BRACKET, STAINLESS STEEL	410800
7	4	3/4" PUMP GUIDE RAIL X 20'-0", SCH40, 316 STAINLESS STEEL - RAILS WILL BE LEFT LONG BY APPROX. 6" FOR FINAL CUTTING TO EXACT LENGTH BY OTHERS, AFTER FINAL STATION ERECTING IN THE FIELD	
8	1	ALUMINUM LADDER WITH SERRATED RUNGS (4'-10") 7" STANDOFF AND SAFETY PULL-UP	414400
9	1	4-GANG CONDUIT PLATE WITH WATERSTOP AND SS HDWR. - SEE DETAIL PAGE 3	411031
10	2	PUMP LIFTING CABLE/CHAIN SUPPLIED WITH PUMPS	
11	2	2" SUBMERSIBLE PUMP BASE	
12	2	SUBMERSIBLE PUMPS (SHIPPED LOOSE, INSTALLED ON SITE BY OTHERS)	
13	3	2" ANGLE WALL-MOUNT PIPE SUPPORT (SEE CUT SHEET DETAIL APS-1)	
14	2	2" PIPE FLANGE CRADLE SUPPORT - FLOOR MOUNT	
16	1	MH BOOT FOR 8" INLET	
17	1	4" SCH80 PVC PASSIVE VENT ASS'Y. WITH STAINLESS INSECT SCREEN - SEE DETAIL SHEET 3	SEE SHEET 4

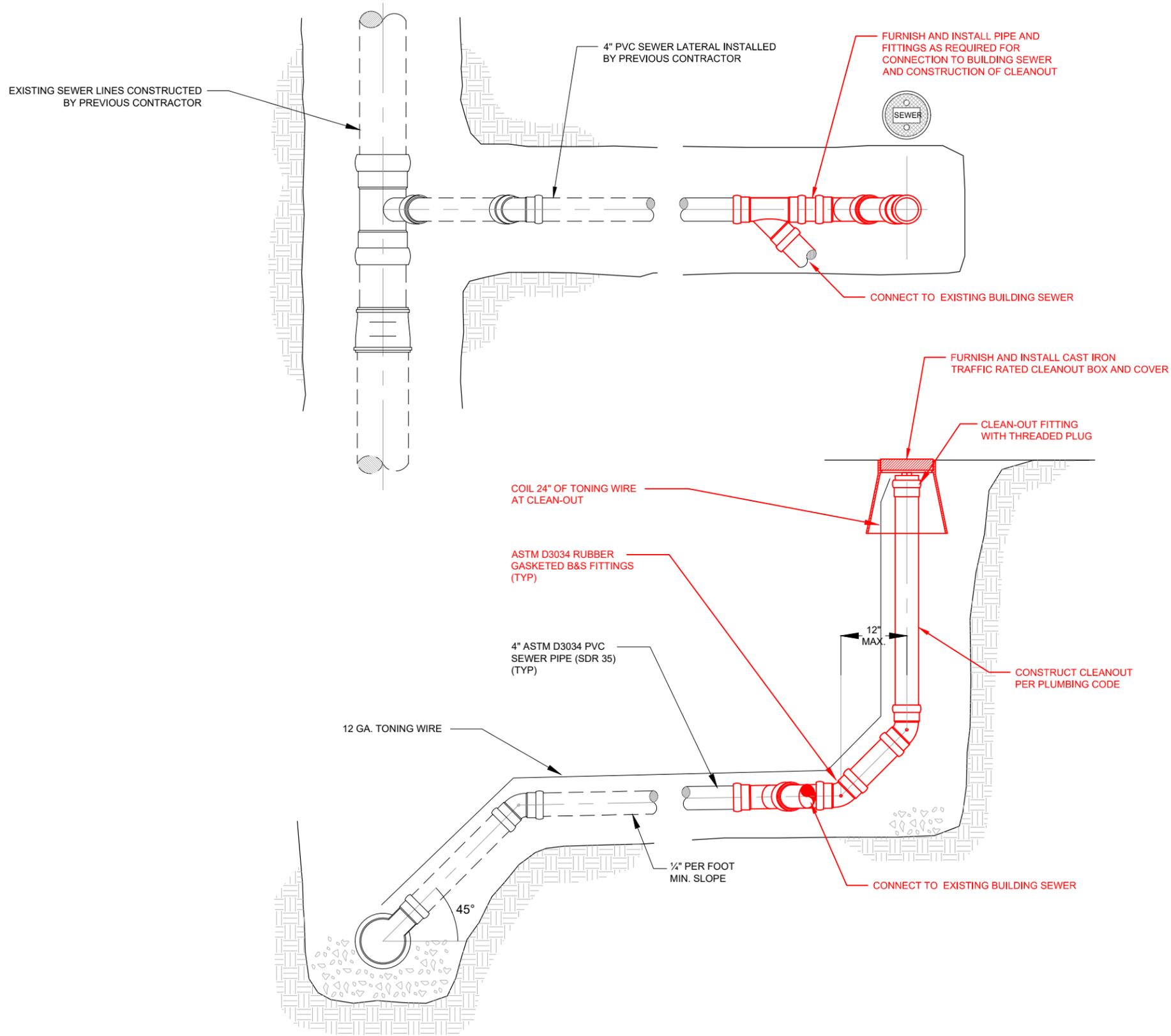


REV.	DATE	DESCRIPTION	BY

DESIGNED BY: TEG
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PROJECT NO: #####

PORT OF TOLEDO
LINCOLN COUNTY, OREGON
SEWER CONNECTION EXPANSION PROJECT
INDUSTRIAL YARD SEWER IMPROVEMENTS
PS03 MECHANICAL + PIPING
DETAILS

Sheet No. D1
Date DEC. 2025



1
D2 4" PVC SEWER LATERAL & CLEANOUT
SCALE: NTS



Civil West
Engineering Services, Inc.

541-264-7040
www.civilwest.com

409 SW 10TH ST.
NEWPORT OR 97365

REV.	DATE	DESCRIPTION	BY

DESIGNED BY: TEG
DRAWN BY: TEG
CHECKED BY: Value

PROJECT NO: #####

PORT OF TOLEDO
LINCOLN COUNTY, OREGON

SEWER CONNECTION EXPANSION PROJECT
INDUSTRIAL YARD SEWER IMPROVEMENTS

SEWER LATERAL + CLEANOUT
DETAILS

Sheet No. **D2**
Date **DEC. 2025**

REFERENCE DOCUMENTS FOR

**PORT OF TOLEDO
SEWER CONNECTION EXPANSION PROJECT**

**PORT OF TOLEDO
TOLEDO, OREGON**
January 2026

ARPA/SLFRF Required Contract Clauses

Purpose: The purpose of this reference is to assist ARPA grant award recipients by summarizing required contract clauses consistent with the federal Uniform Guidance requirements that are applicable to the State and Local Fiscal Recovery Funds (SLFRF) program as part of the American Rescue Plan Act (ARPA).

As described in this document a “recipient” is a recipient of an APRA funded grant award from Business Oregon.

The SLFRF awards are generally subject to the requirements set forth in the [The Office of Management and Budget's \(OMB\) Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards](#) (commonly called "Uniform Guidance"). The “Uniform Guidance” is the set of federal rules (administrative requirements, cost principles, and audit guidelines) that apply to federal money. This includes requirements such as the treatment of eligible uses of funds, procurement, and reporting requirements. [Please see the SLFRF Compliance and Reporting Guidance page 12 for full Award terms and conditions.](#)

It is the recipient’s responsibility to ensure all SLFRF award funds are used in compliance with these requirements. In addition, recipients should be mindful of any additional compliance obligations that may apply – for example, additional restrictions imposed upon other sources of funds used in conjunction with SLFRF award funds, or statutes and regulations that may independently apply to water and sewer infrastructure projects.

Contract Clause Checklist

Directions:

[Appendix II of 2 CFR 200 \(The Uniform Guidance\)](#) outlines the contract provisions that you must place in contracts with your contractors, and in contracts with subrecipients (if any). The checklist below contains these standard clauses for inclusion in contracts needed to utilize ARPA funds.

Clauses for All Contracts:

Creating a contract that complies with ARPA requirements must include the below sections as verbatim:

Contractor must be registered in SAM.gov. - The Contractor shall register in the System for Award Management (SAM), which is the primary registrant database for the U.S. Federal Government and shall update the information at least annually after the initial registration and maintain its status in the SAM through the Term of this

Agreement. Information regarding the process to register in the SAM can be obtained at Sam.gov

Whistleblower - Contractor receiving ARPA funds shall under or through this contract post notice of the rights and remedies provided to whistleblowers under No Fear Act Pub. L. 107-174. 29 CFR § 1614.703 (d).

Inspections; Information - Contractor shall permit, and cause its subcontractors to allow the State of Oregon, the federal government and any party designated by them to:

- Examine, visit and inspect, at any and all reasonable times, the property, if any, constituting the Project.
- Inspect and make copies of any accounts, books and records, including, without limitation, its records regarding receipts, disbursement, contracts, and any other matters relating to the Project, and to its financial standing, and shall supply such reports and information as reasonably requested.
- Interview any officer or employee of the Contractor, or its subcontractors, regarding the Project.

Equal Opportunity - Contractor shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60).

Copeland "Anti-Kickback" Act - Contractor shall comply with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Debarment and Suspension (Executive Orders 12549 and 12689) - A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

Prohibition on purchasing telecommunications or surveillance equipment, services, or systems. As required by 2 CFR 200.216, federal grant or loan recipients and subrecipients

are prohibited from obligating or expending loan or grant funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment, video surveillance services or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). Prohibitions extend to the use of Federal funds by recipients and subrecipients to enter into a contract with an entity that “uses any equipment, system, or service that uses covered telecommunications equipment or services” as a substantial or essential component of any system, or as critical technology as part of any system. Certain equipment, systems, or services, including equipment, systems, or services produced or provided by entities subject to the prohibition are recorded in the System for Award Management exclusion list.

Preference to United States made goods. - As appropriate and to the extent consistent with law, the contractor should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award. For purposes of this section:

- (1) “Produced in the United States” means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
- (2) “Manufactured products” means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

Additional Clauses for Contracts Over \$10,000:

Creating a contract over \$10,000 that complies with ARPA requirements must include the additional below sections as verbatim:

Procurement of recovered materials over \$10,000. - The Contractor must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that

maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

Termination for cause and for convenience - Contractor shall address termination for cause and for convenience, including the manner by which it will be affected and the basis for settlement.

The Contract Owner shall have the option, in its sole discretion, to terminate this Agreement, at any time during the term hereof, for convenience and without cause. The Contract Owner shall exercise this option by giving Contractor written notice of termination. The notice shall specify the date on which termination shall become effective.

Additional Clauses for Contracts Over \$100,000:

Creating a contract over \$100,000 that complies with ARPA requirements must include the additional below section(s) as verbatim:

Certification form located in Appendix I. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352) - Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

Note: Only include for contracts that involve the employment of mechanics or laborers. The Contract Work Hours and Safety Standards Act requires all contractors—prime and sub—to pay laborers and mechanics performing on a federal service contract and federal and federally assisted construction contract over \$100,000, 1.5 times their basic rate of pay for all hours worked over 40 in a workweek. Employers are liable to employees for these unpaid wages. The failure of a contractor to comply with this Act may also result in liability under the False Claims Act. Employees who are due unpaid wages under the Contract Work Hours and Safety Standards Act may file a complaint with the Wage and Hour Division within the U.S. Department of Labor. The DOL may then enforce the provisions of the Act against violators.

Additional Clauses for Contracts Over \$150,000:

Creating a contract over \$150,000 that complies with ARPA requirements must include the additional below section(s) as verbatim:

Contractor shall comply with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).

Additional Clauses for Contracts Over \$250,000 (the simplified acquisition threshold as of 2022):

Creating a contract over \$250,000 that complies with ARPA requirements must include the additional below section(s) as verbatim:

Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. Upon any breach of this Agreement by Contractor, the Contract Owner shall have all remedies available to it both in equity and/or at law.

Appendix I

Certification Regarding Lobbying

(Awards to Contractors and Subcontractors in Excess of \$100,000)

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signed: _____

Title: _____

Date: _____

Appendix II to 2 CFR Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

(A) Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by [41 U.S.C. 1908](#), must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

(B) All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.

(C) Equal Employment Opportunity. Except as otherwise provided under [41 CFR Part 60](#), all contracts that meet the definition of “federally assisted construction contract” in [41 CFR Part 60-1.3](#) must include the equal opportunity clause provided under [41 CFR 60-1.4\(b\)](#), in accordance with [Executive Order 11246](#), “Equal Employment Opportunity” ([30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp.](#), p. 339), as amended by [Executive Order 11375](#), “Amending [Executive Order 11246](#) Relating to Equal Employment Opportunity,” and implementing regulations at [41 CFR part 60](#), “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”

(D) Davis-Bacon Act, as amended ([40 U.S.C. 3141-3148](#)). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act ([40 U.S.C. 3141-3144](#), and [3146-3148](#)) as supplemented by Department of Labor regulations ([29 CFR Part 5](#), “Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction”). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland “Anti-Kickback” Act ([40 U.S.C. 3145](#)), as supplemented by Department of Labor regulations ([29 CFR Part 3](#), “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give

up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

(E) Contract Work Hours and Safety Standards Act ([40 U.S.C. 3701-3708](#)). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with [40 U.S.C. 3702](#) and [3704](#), as supplemented by Department of Labor regulations ([29 CFR Part 5](#)). Under [40 U.S.C. 3702](#) of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of [40 U.S.C. 3704](#) are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

(F) Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of “funding agreement” under [37 CFR § 401.2 \(a\)](#) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of [37 CFR Part 401](#), “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

(G) Clean Air Act ([42 U.S.C. 7401-7671q.](#)) and the Federal Water Pollution Control Act ([33 U.S.C. 1251-1387](#)), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act ([42 U.S.C. 7401-7671q](#)) and the Federal Water Pollution Control Act as amended ([33 U.S.C. 1251-1387](#)). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

(H) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see [2 CFR 180.220](#)) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at [2 CFR 180](#) that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than [Executive Order 12549](#).

(I) Byrd Anti-Lobbying Amendment ([31 U.S.C. 1352](#))—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a

member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by [31 U.S.C. 1352](#). Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

(J) See [§ 200.323](#).

(K) See [§ 200.216](#).

(L) See [§ 200.322](#).

[[78 FR 78608](#), Dec. 26, 2013, as amended at [79 FR 75888](#), Dec. 19, 2014; [85 FR 49577](#), Aug. 13, 2020]

Appendix A to 40 CFR Part 33—Term and Condition

Each procurement contract signed by an EPA financial assistance agreement recipient, including those for an identified loan under an EPA financial assistance agreement capitalizing a revolving loan fund, must include the following term and condition:

The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of [40 CFR part 33](#) in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.