GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS

PUD 18th Street Wash Rack Connection

P.U.D. #1 OF CLALLAM COUNTY
WATER AND WASTEWATER SYSTEMS

GENERAL REQUIREMENTS

1. SUMMARY OF WORK

A. Contract Description: The work of this contract includes connecting the existing wash rack to the Port Angeles public sewer system and rehabilitating an existing infiltration trench at the Clallam County PUD 18th Street Operations Center located at 1936 W. 18th Street in Port Angeles.

1. The work includes installing sewage infrastructure necessary to provide sewer connection for the existing wash rack at the PUD 18th Street Operations Center in Port Angeles, WA. The work includes installation of an oil/water separator, pump station and controls, and other improvements as needed to connect to an existing pressure sewer line which connects to the City of Port Angeles public sewer system.

2. Rehabilitation of an existing onsite stormwater infiltration trench including removal of existing aggregate and piping and replacement with new washed aggregate and perforated piping.

3. Other Work typically associated with a project of this type and as described in the Contract Drawings and these specifications

4. **The wash rack connection to the Port Angeles public sewer system must be functioning prior to January 31st, 2019.**

B. The Contractor is responsible for verifying all systems, assemblies, and details of construction prepared by the Owner or Owner's consultant as being appropriate to and within the standard practices of the building trades involved. The Contractor and all of his subcontractors and sub-subcontractors shall have reviewed all documents thoroughly and shall report all discrepancies, irregularities, and items that differ from standard practices during the bidding phase. The Contractor shall be responsible to ensure proper coordination between all trades and all the corresponding documentation directing those trades. The Contractor shall also be responsible for confirmation of all manufacturers' instructions and special requirements of the use and application of their products.

2. WORK NOT IN CONTRACT

A. 'NIC' (Not in Contract) items are as follows:

1. See drawings.

3. CONTRACTOR USE OF PREMISES

A. The Contractor shall have access only to the areas where the Work is to be executed. The Contractor shall coordinate with the Owner for staging, power outages, construction, and parking during construction, which will be limited to the area of Work. Work times and dates shall be scheduled and approved by the Owner prior to start of work.

B. Given the nature of the day-to-day operations of this facility, it is imperative that all scheduling of work be approved beforehand by Owner.

4. UNIT PRICING

A. The Contract for this project is for a Lump Sum price. Unit pricing does not apply.

5. ALTERNATES

A. Alternates quoted on Bid Forms, Section 00300, will be reviewed and accepted or rejected at the Owner's option.

B. Coordinate related Work as required for a proper installation of all the Work of this Contract.

C. Alternates: As approved on final Section 00500 Form of Agreement between Owner and Contractor.

6. COORDINATION

A. Coordinate scheduling, submittals, and Work of the various sections of specification to ensure efficient and orderly sequence of installation of interdependent construction elements with a minimum of public service disruption.

B. In finished areas, conceal pipes and wiring within the construction.

7. WORKING HOURS

A. Normal working hours shall be from 8:00 a.m. to 4:30 p.m., Monday through Friday, unless otherwise authorized by the District. The lunch period shall be observed from 12:00 Noon to 12:30 p.m. unless unusual circumstances prevail. The Contractor shall observe holidays that correspond with District holidays on the same day as observed by the District.

8. EXAMINATION

A. Verify that existing conditions are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

B. Coordinate with Public Utility District personnel to confirm location of all underground utilities (water, power, communication) within the construction zone. Pothole as necessary to confirm locations and protect all utilities during construction.

9. PREPARATION

A. Install all required Temporary Erosion and Sediment Control measures prior to the start of construction.

B. Provide construction schedule to Owner for approval prior to the start of construction.

10. SUBMITTAL PROCEDURES

A. Submittal form to identify Project, Contractor, Subcontractor or supplier; and pertinent Contract Document references.

B. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents, prior to submitting the submittal for review by the Owner or Owner's Representative Engineer.

C. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.

D. Revise and re-submit submittals as required; identify all changes made since previous submittal.

E. Submit a minimum of three (3) copies.

11. QUALITY ASSURANCE - CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions.

C. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

12. TOLERANCES

A. Monitor tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply fully with manufacturers' tolerances.

13. REFERENCES

A. Conform to reference standards applicable for each system, product, or assembly as commonly applied to each trade or discipline for this type of work and level of quality specified or implied, by date of issue current as of date of Contract Documents.

B. Should specified reference standard conflict with Contract Documents, request clarification from Owner before proceeding.

14. ELECTRICITY

A. Contractor may use existing electrical power as available at the facility and in proximity to the project. Any equipment modification or temporary connections required to accommodate the Contractor's needs shall be at the Contractor's cost. Modifications shall only be made with approval of the Owner and equipment shall be returned to its original condition or better at the conclusion of the Work.

15. LIGHTING FOR CONSTRUCTION PURPOSES

A. Contractor may use existing lighting. Any equipment modification required to accommodate the Contractor's needs shall be at the Contractor's cost.

16. WATER

A. Water is available from the Owner at the site. Coordinate with Owner to arrange water service.

17. SANITARY FACILITIES

A. The Contractor is to provide his/her own sanitary facilities.

18. PROJECT SAFETY

A. See drawings for specific barrier requirements.

B. At a minimum, the Contractor shall erect and maintain an orange construction fence around the entire area of work, and provide temporary closures for protection of adjacent existing conditions, and barriers and signage to protect the public from construction hazards, including any overhead work. Prior to leaving the site in the evening the Contractor shall inspect and insure all fencing and barriers adequately protect the public from the safety hazards created by the construction of this project.

19. PROTECTION OF INSTALLED WORK

A. Protect installed Work and provide special protection where specified in individual specification sections.

20. SECURITY

A. Provide security and facilities to protect Work and Owner's operations from unauthorized entry, vandalism, or theft.

21. PROGRESS CLEANING AND WASTE REMOVAL

A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain construction area in a clean and orderly condition. Dispose of waste material properly. Contractor is responsible for all costs involved in waste removal.

22. REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, and materials prior to Final Completion review.

B. Clean and repair damage caused by installation or use of temporary work.

C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

23. PRODUCTS

A. Products: means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.

B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the Contract Documents.

C. Provide interchangeable components of the same manufacturer for components being replaced and/or added in addition to existing components, e.g. lighting, switches, receptacles, etc.

24. TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

A. Transport, handle, store, and protect Products in accordance with manufacturer's instructions.

25. CONTRACT CLOSE-OUT PROCEDURES

A. Submit written certification that the Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with the General Conditions and the Contract Documents and ready for Owner inspection.

B. Submit final Application for Payment identifying total adjusted Contract Sum/Price previous payments, and amount remaining due.

C. Complete and submit all required documentation, covered in this Project Manual, and the drawings.

26. FINAL CLEANING

A. Execute final cleaning prior to final inspection.

B. Remove waste and surplus materials, rubbish, and construction facilities from the site.

27. TESTING AND ADJUSTING

A. Perform any/all testing of installed as per Manufacturer's recommendations if applicable.

29. WA STATE L&I PREVAILING WAGE

A. This project is subject to WA State L&I Prevailing Wage Rates.

B. All required Intents and Affidavits of wages paid must be submitted prior to Owner request from the State for retainage release.

END OF SECTION 01001

SECTION 013300

SUBMITTAL PROCEDURE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Description.
B. General Submittal Requirements.
C. Specific Submittal Requirements.
D. Action on Submittals.

1.02 DESCRIPTION

A. The types of submittal requirements specified in this Section include Shop Drawings, product data, Samples and miscellaneous Work-related submittals. Individual submittal requirements are specified in applicable Sections for each unit of Work. Refer to other Division -1 Sections and other Contract documents for requirements of administrative submittals.

B. Definitions: Work-related submittals of this Section are categorized for convenience as follows:
   1. Shop Drawings: Specially-prepared technical data for this Project, including Drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form for general application to several projects.
   2. Product Data: Standard printed information on materials, products and systems; not specially-prepared for this Project, other than the designation of selections from among available choices printed therein.
   3. Samples: Fabricated and unfabricated physical examples of materials, products and units of Work; both as completed units and as smaller portions of units of Work; either for limited visual inspection or (where indicated) for more detailed testing and analysis.
   4. Miscellaneous: Submittals related directly to the Work (non-administrative) include warranties, maintenance agreements, workmanship bonds, Project photographs, survey data and reports, physical Work records, quality testing and certifying reports, copies of industry standards, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar information, devices and materials applicable to the Work and not processed as Shop Drawings, product data or Samples. See Specification Sections.

1.03 GENERAL SUBMITTAL REQUIRMENTS

A. Coordination and Sequencing: Coordinate preparation and processing of submittals with performance of the Work so that Work will not be delayed by submittals. Coordinate and sequence different categories of submittals for same Work, and for interfacing units of Work, so that one will not be delayed for coordination with another.

B. Preparation of Submittals: Provide permanent marking on, or with, each submittal to identify Project, date, Contractor, sub-contractor, submittal name and similar information to distinguish it from other submittals.

1.04 SPECIFIC SUBMITTAL REQUIREMENTS

A. General:
   1. Except as otherwise indicated in individual Work Sections, comply with requirements specified herein for each indicated category of submittal.
   2. Provide and process intermediate submittals, where required between initial and final, similar to initial submittals.
   3. Include a transmittal with all submittals

B. Shop Drawings:
   1. General: No claims for extras may be initiated, based on Work shown on Shop Drawings, unless so noted on Contractor's transmittal letter.
   2. Where Work of more than one sub-contractor is involved, submit composite Drawings, clearly defining the Work of each separate sub-contractor.
   3. No extension of time in respect to the final completion date will be granted to Contractor because of failure to have any Shop Drawings submitted in ample time to allow for checking and approval.
   4. The Contractor shall verify all dimensions by taking field measurements. Work shall not begin until required submittals have been returned by the Engineer with stamp and initials indicating review. If Work has been done which is contrary to the approved Drawings, it shall be corrected at no additional cost to the Owner.

C. Product Data
   1. General:
      a. Collect required data into one submittal for each unit of Work or system; and mark each copy to show which choices and options are applicable to Project. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and modify details as required for application into the Work. Include color selection information where necessary.
      b. Do not proceed with installation of materials, products or systems until final copy of applicable product data is in possession of Installer. Maintain one complete set of product data at the site for use by Engineer.
   2. Preparation and Processing: Do not submit product data, or allow its use on the Project, until compliance with requirements of Contract documents has been confirmed by Contractor. Submittal is for information and record, unless otherwise indicated. Initial submittal is final submittal unless returned promptly by Engineer, marked with an "Action" which indicates an observed noncompliance.
   3. Submit five (5) copies. Engineer will retain three (3) copies and return two (2) copies to the Contractor.

D. Samples:
   1. General: Provide units identical with final condition of proposed materials or products for the Work. Include "range" Samples (not less than three (3) units) where unavoidable variations between units of each set. Provide full set of optional Samples where Engineer's selection is required. Prepare Samples to match Engineer's sample where so indicated. Include information with each sample to show generic description, source or product name and manufacturer, limitations, and compliance with standards. Samples are submitted for review and confirmation of color, pattern, texture and "kind" by Engineer. Engineer will not "test" Samples (except as otherwise indicated) for compliance with other requirements, which are therefore for exclusive responsibility of the Contractor.
   2. Processing: Submit two (2) sets of Samples for Engineer's review and "Action"; one set will be returned. Large Samples, which may be incorporated into the Work, may be submitted singly.
   3. Reusable Samples: Returned Samples which are intended or permitted to be incorporated in the Work are so indicated in the individual Work sections, and must be in undamaged condition at time of use.

E. Warranties: In addition to copies desired for Contractor's use, furnish two (2) executed copies, except furnish additional copies where required for maintenance manuals.

F. Survey Data: Refer to other Sections for specific general requirements on property surveys, field measurements, quantitative records of actual Work, damage surveys, photographs and similar data required by individual Work Sections of these specifications. None of specified copies will be returned

1.05 ACTION ON SUBMITTALS

A. Engineer's Action: Engineer will review each submittal, mark with "Action", and where possible return within two (2) days of receipt. Where submittal must be held for coordination, Contractor will be so advised without delay.

1. Final Unrestricted Release: Work may proceed, provided it complies with Contract documents, when submittal is returned with marking: "Approved as Submitted".
2. Final-But-Restricted Release: Work may proceed, provided it complies with notations and corrections on submittal and with Contract documents, when submittal is returned with the marking: "Approved as Noted".
3. Returned and Rejected: Do not proceed with Work. Submittal item is not acceptable and may not be used on the Project when noted as "Not Approved".

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 014000

QUALITY REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Workmanship.
B. Material Inspection Control.
C. Inspection of Work.
D. Manufacturer Instructions.
E. Manufacturer Certifications.
F. Field Measurements.
G. Defective Work.
H. Testing and Inspections.

1.02 WORKMANSHIP

A. All Work shall be done by competent craftsmen skilled in the specific Work and trade involved. Materials and equipment shall be installed in a neat and workman like manner following the best practice of the trade.
B. All Work performed by the Contractor which is, in the opinion of the Engineer, below normal accepted standards of workmanship for each trade involved shall be remade to the satisfaction of the Engineer, at no additional cost to the Owner

1.03 MATERIAL INSPECTION CONTROL

A. The Contractor shall keep daily tabulations on all quantities used on the Project and such tabulation shall be available to the Engineer at all times to provide a basis for inspection and payment controls. Where various measurable materials are incorporated into the items that are paid for on a unit or lump sum basis, the Engineer will require the Contractor to provide documentation of the various quantities involved prior to payment.

1.04 INSPECTION OF WORK

A. The Contractor shall notify all appropriate governing authorities at proper stages of construction to obtain required inspections, testing, approvals, etc., regardless of inspections conducted by the Engineer. The Contractor shall notify the Engineer of all scheduled inspections, tests, etc. a minimum of 48 hours in advance to allow the Engineer to be present for such inspections
B. The Engineer will conduct regular and frequent inspections of all materials and completed Work. The Contractor shall keep the Engineer apprised of construction progress and current activities to allow proper scheduling of inspections of each completed phase of the Work.

1.05 MANUFACTURER INSTRUCTIONS

A. Comply with all manufacturer instructions for preparation and installation. Should instructions conflict with the Contract documents, request clarification from the Engineer prior to proceeding.

1.06 MANUFACTURER CERTIFICATIONS

A. Submit manufacturer certificate, when required by individual specification section, indicating that products meet or exceed specified requirements.

1.07 FIELD MEASUREMENTS

A. The Contractor shall field verify all measurements, dimensions, and elevations prior to the start of Work. The Engineer shall be promptly notified of any discrepancies between the plans and existing conditions prior to proceeding with the Work.

1.08 DEFECTIVE WORK

A. The Contractor shall remove and replace or correct any Work which has been found to be defective or not in compliance with Contract requirements, at no additional cost to the Owner.
B. Do not proceed with other Work related to or affected by the defective Work until the defective Work has been corrected to the satisfaction of the Engineer.

1.09 TESTING AND INSPECTIONS

A. Tests and inspections required by codes, ordinances or by a plan approval authority, and which are made by a legally constituted authority, shall be the responsibility of and paid by the Contractor, unless otherwise provided in the Contract documents.
B. Tests and inspections performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.
C. Neither the observations of the Owner in the administration of the contract, nor inspections, tests, or approvals by persons other than the Contractor, shall relieve the Contractor from the Contractor's obligations to perform the Work in accordance with the Contract documents.
D. When inspection and testing by the Owner or an independent agency is called for in the specifications, the Contractor shall afford access and reasonable time in the construction sequence for such tests and inspections to be performed. The Contractor shall cooperate with the agencies and provide incidental labor and services necessary for removal and delivery of test Samples, and for the inspections and taking of measurements. Provide any necessary patching and restoration where test Samples have been removed.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 015700

TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Protection of Property and Existing Facilities.
B. Environmental Protections.
C. Traffic / Pedestrians Controls.
D. Protection of Work.
E. Roadway Closure.
F. Utilities.

1.02 PROTECTION OF PROPERTY AND EXISTING FACILITIES

A. Provide all protections necessary to prevent damage to existing property and facilities.
B. Only rubber-tired equipment shall be permitted to operate on paved roads.
C. Protect existing trees and other vegetation indicated to remain in place against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, or smothering of trees by stockpiling materials within dripline. Provide necessary temporary guards to protect trees and vegetation to remain in place.
D. The Contractor shall make every effort to minimize damage to and cutting of major tree roots during excavation operations. Provide protection for larger tree roots exposed and/or cut during excavation operations.

1.03 ENVIRONMENTAL PROTECTIONS

A. The Contractor shall provide all labor, materials, equipment and perform all Work required for the protection of the environment during and as a result of construction operations under this contract.
B. To prevent and to provide for control of any environmental pollution, the Contractor and the Contractor’s sub-contractors shall comply with all applicable federal, state and local laws and regulations concerning environmental pollution control and abatement, as well as specific requirements elsewhere in the specifications.
C. The Contractor shall give special attention to the effect of the Contractor’s operations upon the surroundings, shall take special care to maintain natural surroundings undamaged and shall conduct the Work at all times in compliance with the following requirements.
D. When Work is completed, all camp, storage and other Contractor buildings and facilities shall be removed, and sites restored to a neat and presentable condition appropriate to the surrounding landscape, unless otherwise specified, or facilities are a permanent and ongoing part of the Contractor's operation. All debris resulting from the Contractor's operation shall be removed.
E. Petroleum products, industrial chemicals and similar toxic or volatile materials shall be stored in durable containers approved by the Engineer and located in areas so that any accidental spillage will not drain into any water. Substantial quantities of such materials shall be stored in an area surrounded by containment dikes of sufficient capacity to contain an aggregate capacity of all tanks.
F. The Contractor shall be responsible for preservation of all public and private property, monuments, power and telephone lines, other utilities, prevention of damage to the natural environment, etc., where shown or not shown on the Drawings, insofar as they may be endangered by their operations. When or where any direct or indirect damage or injury is done to the public or private property by or on account of any act, omission, neglect or misconduct in the execution of the Work, or in consequence of non-execution thereof on the part of the Contractor; it shall be restored, or have restored at the Contractor’s expense, such property to a condition similar and equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring same, or they shall make good damage or injury in some other

acceptable manner.

G. Dust control shall be required on roads used by the Contractor and other areas as specified below. The Contractor shall maintain all excavations, embankments, stockpiles, roads, plant sites, waste areas, borrow areas and all other Work areas within or without the Project boundaries free from dust which would cause a hazard or nuisance to others. Approved, temporary methods of stabilization consisting of sprinkling, chemical treatment, light bituminous treatment or equal methods shall be provided to control dust. If sprinkling is used, the sprinkling must be repeated at such intervals as to keep all parts of disturbed areas at least damp at all times.

H. Temporary Water Pollution/Erosion Controls:
   1. The Contractor shall provide for prevention, control and abatement of soil erosion and water pollution within the limits of the Project. This Work is intended to prevent and/or minimize damage to adjacent bodies of water and the Work itself.
   2. The Contractor shall coordinate these temporary soil erosion/water pollution control measures with the permanent drainage and erosion control Work to ensure effective and continuous controls are maintained throughout the life of the Project.
   3. The Contractor shall develop a written spill prevention and response plan for construction activities adjacent to/and over any surface waters and/or wetlands. "Adjacent" means within 150' as measured on a horizontal plane.
      a. Narrative description of the proposed construction methods, materials, and equipment to be used for the Work.
      b. Assessment and listing of hazardous materials and/or potential contaminants that could be released during execution of the Work.
      c. MSDS sheets with cleanup instructions for all potential contaminants.
      d. Spill response/cleanup materials and instructions for their use.
      e. Procedures and precautions to prevent spills.
      f. Spill response training for on site personnel, including the location of the containment and cleanup materials at the site.
      g. Emergency notification in case of a spill or release. The Engineer must be included on the list of those who must be notified.
   4. The spill prevention and response plan shall comply with all applicable codes and ordinances and a copy submitted to the Engineer before commencing any Work adjacent to or over any waters and/or wetlands.

I. Emergency Spill Response Notification
   1. Under state law, Ecology must be notified when any amount of regulated waste or hazardous material that poses an imminent threat to life, health, or the environment is released to the air, land, or water, or whenever oil is spilled on land or to waters of the state. The spiller is always responsible for reporting a spill. Failure to report a spill in a timely manner may result in enforcement actions. If you are not responsible for a spill, making the initial notification does not make you liable for the spill. However, please consult with Ecology's response team before attempting any type of response or cleanup.
   2. If oil or hazardous materials are spilled to state waters, the spiller must notify both federal and state spill response agencies. The federal agency is the National Response Center at 1-800-424-8802. For state notification, call the Washington Emergency Management Division (EMD) at 1-800-258-5990 or 1-800-OILS-911 AND the appropriate Ecology regional office for your county (see numbers below). An Ecology spill responder will normally call the reporting party back to gather more information. The agency will then determine its response actions.
   3. Ecology Regional Spill Reporting Number:
      a. Southwest Regional Office: (360) 407-6300 (Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties) TDD: (360) 407-6306*

1.04 TRAFFIC / PEDESTRIAN CONTROLS

A. The Contractor shall be required to properly warn the public of construction equipment and activities, open trenches, and/or other unsafe conditions by providing all necessary warning equipment. Such equipment shall include warning signs, barricades, fencing, flashing lights and traffic control personnel (flaggers).
B. The Contractor shall conduct all operations with the least possible obstruction and inconvenience to the public in accordance with appropriate Section(s) of the WSDOT "Standard Specifications".
C. All costs for traffic control and warning/safety provisions shall be incidental to the contract.

1.05 PROTECTION OF WORK

A. Protect all Work, materials and equipment against damage, weather conditions, or any other hazards. Equipment, Work or materials found damaged or in other than new condition will be rejected by the Engineer.

1.06 ROADWAY CLOSURE

A. Closure of any road is not in the best interest of the Owner, and roads being trenched or graded shall only be closed while work is being done, and shall be immediately reopened for traffic. The Contractor shall supply all necessary barricades, etc., to effectively prevent automotive traffic from entering upon any traveled way while trenches are open, except as necessary, unless appropriate safety measures are taken.

1.07 UTILITIES

A. Existing subsurface utilities on the Project are represented on the Contract Drawings to the best of the Owner's knowledge. However, it is the Contractor's responsibility to verify the existence of these, or any other utilities, and to determine their exact location and depth. Use of the utilities shall be maintained during construction through temporary connections or other measures suitable to the Owner. No extra compensation will be made for removal, temporary connections, relocations, or replacement of utilities.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 015713

TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Temporary Erosion and Sediment Control Measures.

1.02 RELATED SECTIONS

A. Section 312300 – Excavation and Fill

1.03 REFERENCES

A. Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction (current edition).

1.04 SUBMITTALS

A. A written spill prevention and response plan is not required on this project.

1.05 QUALITY ASSURANCE

A. The Owner will provide weekly inspections of the installed erosion control measures to ensure they're functioning properly. The Contractor shall repair any deficiencies within 24 hours of being made aware by the Owner.

PART 2 PRODUCTS

No products anticipated.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine site to confirm location of erosion control measures as shown on the drawings will prevent sediment laden runoff from leaving the site.

3.02 TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES INSTALLATION

A. Sawcutting shall be done with water to prevent dust and the resulting slurry is to be vaccumed up immediately.

B. Concrete trucks shall wash out in designated concrete washout area. Washout area to be in conformance with BMP C154 found in the Volume 2 of the *2012 Stormwater Management Manual for Western Washington* (Department of Ecology).

C. Access to the site shall be from the existing property entrance from 18th Street. Construction traffic shall be limited to existing paved surfaces to the greatest extent feasible to prevent trackout from the site. Any trackout onto public roadways shall be cleaned up immediately.

3.03 TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MAINTENANCE

A. All erosion and sediment control measures shall be maintained by the Contractor for the life of the project. Any labor and equipment required to maintain the functionality of the TESC measures for the life of the Contract shall be the responsibility of the Contractor.

END OF SECTION

SECTION 312300

EXCAVATION AND FILL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Excavation and Backfill.
B. Trench Compaction.
C. Fill Compaction.
C. Disposal of Excavated Material.

1.02 RELATED SECTIONS

1.03 REFERENCES

A. Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction (current edition).

1.04 SUBMITTALS

A. Haul location of all material being transported off site.
B. See Section 321100 for material submittals.

1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with Division 2 of the WSDOT Standard Specifications.

PART 2 PRODUCTS

2.01 TRENCH FILL MATERIAL

A. Trench Backfill in roadway areas shall be controlled density fill conforming to the requirements included in the approved project plans.
B. Trench Backfill in non-roadway areas may be native material.
C. Pipe bedding shall be gravel backfill for pipe zone bedding conforming to Section 9-03.12(3) of the WSDOT Standard Specifications.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that all drainage structures and conditions are consistent with the approved plans.
B. Inspect erosion control measures to ensure proper installation prior to beginning work.

3.02 EXCAVATION AND BACKFILL FOR TRENCHES

A. Excavation and backfill for trenches shall be in conformance with Sections 7-08.3(1)A of the WSDOT Standard Specifications and as further described herein:

1. The Contractor has a maximum limit of 100 LF of open trench, and the Owner reserves the right to restrict the allowable limit of open trench as it sees fit to promote safety. Upon completion of work each day, all pipe line and open trenches shall be completely backfilled and leveled.
2. Above the foundation material, if any, the gravel backfill for pipe bedding shall be placed in a lift of approximately 4”, and compacted to 90%, creating a uniform ground in which to lay the pipe. Once the pipe has been laid, gravel backfill shall be placed by hand shovel, and compacted to 90%, to a point 6” above the top of the pipe. Complete backfilling of trenches

shall not be permitted until the section of pipe in question has been inspected by the Engineer.

3. From the point 6” above the top of the pipe, backfill with controlled density fill up to the base of adjacent asphalt.
4. The Contractor shall repair any defects that appear in the backfill prior to final acceptance of the work. Cleanup operations shall progress immediately behind backfilling to accommodate the return to normal use of the trench area.

B. Trench Compaction

1. Pipe bedding material shall be compacted to at least 90% of the maximum dry density, using the modified Proctor, per ASTM D1557.

END OF SECTION

SECTION 333100

SANITARY SEWERAGE PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Sanitary Sewer Piping.

B. Sanitary Sewer Structures.

C. Gravel Backfill for Pipe Zone Bedding.

1.02 RELATED SECTIONS

A. Section 312300 – Excavation and Fill.

B. Section 333000 – Sanitary Sewerage Utilities

C. Section 333613 – Sanitary Sewerage Equipment

1.03 REFERENCES

A. Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction (current edition).

1.04 SUBMITTALS

A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements.

B. Project Record Documents: Accurately record actual locations of underground utilities in reference to permanent site fixtures.

1.05 QUALITY ASSURANCE

A. Follow all manufacturer recommendations for handling and installing pipe and equipment.

B. All pipes and structures of the same style or type shall be furnished by a single manufacturer.

PART 2 PRODUCTS

2.01 PIPING

A. Pipe and Fittings: Gravity PVC sewer pipe and fittings shall comply with ASTM D3034, SDR 35. Pipe and fittings shall be furnished with bells and spigots, which are integral with the pipe wall and with a rubber gasket securely locked in place in the bell. Pipe joints shall use flexible elastomeric gaskets conforming to ASTM D3212. Pressurized PVC transport pipe shall be Schedule 40 solvent weld pipe complying with ASTM D1785 and D2665 or Class 200 PVC solvent weld pipe complying with ASTM D2241.

2.02 GRAVEL BACKFILL FOR PIPE ZONE BEDDING

A. Gravel Backfill for Pipe Zone Bedding: Gravel backfill for pipe bedding shall consist of crushed, processed or naturally occurring granular material, and shall meet gradation standards from Section 9-03.12(3) of the WSDOT Standard Specifications. The material shall be free of clay and organic material. It shall have such characteristics of size and shape that it will compact readily.

PART 3 EXECUTION

3.01 EXAMINATION

A. Carefully investigate site condition and confirm that trenches are located as shown on the drawings, are of specified size and have the minimum requirements of bedding.

3.02 GRAVITY PIPE INSTALLATION

A. Sanitary sewer pipe installation shall conform to Section 7-08.3 of the Washington State Department of Transportation Standard Specifications and as follows.

B. Each piece of pipe and each fitting shall be carefully inspected prior to placement and no defective pipe shall be laid in trench. Pipe laying shall begin at the discharge end and proceed toward the origin of gravity line with bell ends pointing upstream.

C. All bell and spigot connections shall be made up in strict compliance with the manufacturer's recommendations and all sewer pipe manufacture and handling shall meet or exceed the ASTM and CPAW recommended specifications, current revisions.

D. Pipe handling after the gasket has been affixed shall be carefully controlled to avoid disturbing the gasket and knocking it out of position, or loading it with dirt or other foreign material. Any gaskets so disturbed shall be removed, cleaned, re-lubricated if required, and replaced before the rejoining is attempted.

E. Care should be taken to properly align the pipe before joints are entirely forced home. During insertion of the tongue or spigot, the pipe shall be partially supported by hand, sling or crane to minimize unequal lateral pressure on the gasket and to maintain concentricity until the gasket is properly positioned. Since most flexible gasketed joints tend to creep apart when the end pipe is deflected and straightened, such movement shall be held to a minimum once the joint is home.

F. Sufficient pressure shall be applied in making the joint to assure that it is home, as described in the installation instructions provided by the pipe manufacturer. Sufficient restraint shall be applied to the line to assure that joints once home are held so, until fill material under and alongside the pipe has been sufficiently compacted.

G. Dissimilar pipe shall be joined by use of a Caldor-type flexible coupling.

H. Contractor shall verify that no sewer is being installed within 10 lateral feet and 18 vertical inches of a water line. Where crossings do occur, the sewer pipe is to be located so that both joints are as far from the water main as possible and the sewer pipe shall be encased in an AWWA PVC C900, Pressure Class 150, DR 18 pipe.

3.03 FIELD QUALITY CONTROL

A. Coordinate with the Engineer if there are discrepancies with the approved contract documents and existing utility locations and elevations in the field.

End of Section 33 30 00

SECTION 333613

SANITARY SEWERAGE EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pump Chamber

B. Sewage Pumps

C. Pump Controls

1.02 RELATED SECTIONS

A. Section 313000 – Sanitary Sewerage Utilities.

B. Section 333100 – Sanitary Sewerage Equipment

1.03 REFERENCES

A. Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction (current edition).

1.04 SUBMITTALS

A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements.

B. Project Record Documents: Accurately record actual locations of underground utilities in reference to permanent site fixtures.

1.05 QUALITY ASSURANCE

A. Follow all manufacturer recommendations for handling and installing equipment.

PART 2 PRODUCTS

2.01 SEWAGE PUMP

A. Pump to be Goulds RGS 2012 or approved equal conforming to the following requirements:
   1. Minimum 2 hp pump single phase 220V.
   2. Rated for 39 gpm at 45 TDH.
   3. CSA and UL listed.
   4. Oil filled motor housing.
   5. Cast iron pump housing with Epoxy coating
   6. Minimum 3-year warranty from date of manufacture

2.02 PUMP CHAMBER

A. Pump chamber to be 48" diameter type 2 catch basin per WSDOT Standard plan B-10.20-02.

2.03 PUMP CONTROLS

A. Pump controller to be custom Orenco MVP Simplex or approved equal conforming to the following requirements:

   1. Industrial control panel in Nema 4X enclosure with UL 508 listing for intrinsically safe circuit extensions, dose counter with redundant off, high water alarm, intrinsically safe relays for switch circuits, elapsed time meter and programmable for timed or demand dosing applications. Additionally the controller to include ability to delay pump start time by up to 2 hours.

PART 3 EXECUTION

3.01 EXAMINATION

A. The Contractor shall carefully investigate site condition and confirm that trenches are located as shown on the drawings, are of specified size, and have the minimum requirements of bedding.

3.02 TANK/PUMP CHAMBER INSTALLATION

A. Pump chamber installation shall conform to Chapter 2 of the City of Port Angeles Urban Services Standards and Guidelines (2017).

B. The Contractor shall carefully inspect the pump chamber for deficiencies prior to placement.

C. Contractor shall verify that no sewer is being installed within 10 lateral feet and 18 vertical inches of a water line. Where crossings do occur, the sewer pipe is to be located so that both joints are as far from the water main as possible and the sewer pipe shall be encased in an AWWA PVC C900, Pressure Class 150, DR 18 pipe.

3.03 PUMP/CONTROL INSTALLATION

A. Pump shall be installed per the manufacturer's recommendations, and per project plans.

B. Controllers shall be mounted to either a 4x4 pressure treated post or the side of the adjacent building as specified in the project plans. Wire for commercial installation per national electrical code (NEC) Class 1, Division 1, Hazardous Locations. Junction box must be explosion proof if located within pump chamber.

3.04 FIELD QUALITY CONTROL

A. Coordinate with the Engineer if there are discrepancies with the approved contract documents and existing utility locations and elevations in the field.

End of Section 33 36 13