CLACKAMAS WATER ENVIRONMENT SERVICES

Gregory L. Geist
Director

Board of County Commissioners
Clackamas County

Members of the Board:

Approval of Contract between Water Environment Services and Kennedy/Jenks Consultants, Inc., for the
Boring Pump Station and Force Main Engineering Services

Purpose/Outcome	Execution of Contract #3803 for engineering design services for the Boring Pump Station and Force Main
Dollar Amount and Fiscal Impact	Total Contract Value of $1,907,043.00 until July 1, 2022.
Funding Source	639-01-20100-481020-P632313
Duration	Contract until July 1, 2022
Previous Board Action/Review	Board reviewed Boring Facilities Plan that recommended project on 11/17/2020. Project included in prior discussions related to budget and Capital Improvements Plan. Issue Discussion July 20, 2021, approved to move forward to Business Meeting on July 29, 2021.
Strategic Plan Alignment	1. This project supports the County's Strategic Plan of building a strong infrastructure that delivers services to customers and honors, utilizes, promotes and invests in our natural resources. 2. This project supports the WES Strategic Plan goal to provide properly functioning infrastructure that supports healthy streams and reduces flooding.
Counsel Review	Amanda Keller in County Counsel reviewed this Contract on July 6, 2021.
Procurement Review	Was this project processed through Procurement? Yes.
Contact Person	Steven Rice, Civil Engineering, 971-284-3710
Contract No.	3803

BACKGROUND:
WES has selected Kennedy/Jenks Consultants for design of the Boring Pump Station and Force Main project. The Boring Water Resource Recovery Facility (WRRF) was originally designed for conventional secondary treatment (BOD and TSS removal). Since then, a year round ammonia limit and temperature limit have been imposed. In recent years, meeting these criteria has been problematic and in winter months operations staff have been forced to truck flow from the facility to a discharge manhole for eventual conveyance to Tri City WRRF. The Boring WRRF also has several systems in poor condition, including influent pumps, mixers, and liners. To address these issues, a new pump station and conveyance line to the discharge manhole are proposed. The Boring WRRF will then be decommissioned.

The engineering services include evaluation of pumping alternatives, pipeline alignment, right of way coordination, permitting assistance, geotechnical investigation, survey, traffic control design, pump station and force main design, related electrical and instrumentation and control upgrades, and decommissioning design of the existing Boring WRRF. The recommended pipeline alignment and pump station siting will consider the impacts of potential expansion of the existing WES service area along the corridor. Engineering recommendations will be documented in a preliminary design deliverable, followed by development of bid-ready contract documents. Anticipated services also include support during the bidding phase. Additional services, such as construction administration, inspection, or start-up support may be added by future amendment.

PROCUREMENT PROCESS: This project was advertised in accordance with ORS and LCRB Rules on December 28, 2020. Proposals were opened on January 25, 2021. The District received three (3) proposals: Murraysmith, Inc., Kennedy/Jenks Consultants, Inc., and West Yost Associates. The Evaluation Committee selected Kennedy/Jenks Consultants, Inc. as the highest ranking proposer and recommended a contract be awarded. Following award, the Project Manager entered into negotiations with Kennedy/Jenks Consultants, Inc. and developed a final statement of work, along with final billing rates and contract value.

RECOMMENDATION:
Staff recommends that the Board of County Commissioners of Clackamas County, acting as the governing body of Water Environment Services, approve and execute the Contract between Water Environment Services and Kennedy/Jenks Consultants, Inc. for the Boring Pump Station and Force Main Project.

Respectfully submitted,

Greg Geist (Jul 14, 2021 13:38 PDT)
Greg Geist
Director, WES

Placed on the _____ Agenda by the Procurement Division.

WATER ENVIRONMENT SERVICES
PERSONAL SERVICES CONTRACT
Contract #3803

This Personal Services Contract (this "Contract") is entered into between **Kennedy Jenks Consultants, Inc.**, ("Contractor"), and Water Environment Services, a political subdivision of the State of Oregon ("District").

ARTICLE I.

1. **Effective Date and Duration.** This Contract shall become effective upon signature of both parties. Unless earlier terminated or extended, this Contract shall expire on **July 1, 2022**.

2. **Scope of Work.** Contractor shall provide the following personal services: Boring Pump Station and Force Main Engineering Services ("Work"), further described in **Exhibit A.**

3. **Consideration.** The District agrees to pay Contractor, from available and authorized funds, a sum not to exceed **One Million Nine Hundred Seven Thousand Forty-Three Dollars ($1,907,043.00)**, for accomplishing the Work required by this Contract. Consideration rates are on a time and materials basis in accordance with the rates and costs specified in **Exhibit B**. If any interim payments to Contractor are made, such payments shall be made only in accordance with the schedule and requirements in Exhibit B.

4. **Invoices and Payments.** Unless otherwise specified, Contractor shall submit monthly invoices for Work performed. Invoices shall describe all Work performed with particularity, by whom it was performed, and shall itemize and explain all expenses for which reimbursement is claimed. The invoices shall include the total amount billed to date by Contractor prior to the current invoice. If Contractor fails to present invoices in proper form within sixty (60) calendar days after the end of the month in which the services were rendered, Contractor waives any rights to present such invoice thereafter and to receive payment therefor. Payments shall be made in accordance with ORS 293.462 to Contractor following the District's review and approval of invoices submitted by Contractor. Contractor shall not submit invoices for, and the District will not be obligated to pay, any amount in excess of the maximum compensation amount set forth above. If this maximum compensation amount is increased by amendment of this Contract, the amendment must be fully effective before Contractor performs Work subject to the amendment.

   Invoices shall reference the above Contract Number and be submitted to: Steven Rice.

5. **Travel and Other Expense.** Authorized: ☒ Yes ☐ No
   If travel expense reimbursement is authorized in this Contract, such expense shall only be reimbursed at the rates in the Clackamas County Contractor Travel Reimbursement Policy, hereby incorporated by reference and found at: https://www.clackamas.us/finance/terms.html. Travel expense reimbursement is not in excess of the not to exceed consideration.

6. **Contract Documents.** This Contract consists of the following documents, which are listed in descending order of precedence and are attached and incorporated by reference, this Contract, Exhibit A, and Exhibit B.

7. Contractor and District Contacts.

Contractor	District
Administrator: Dean Wood Phone: 503-423-4021 Email: deanwood@kennedyjenks.com	Administrator: Steven Rice Phone: 503-742-4605 Email: SRice@clackamas.us

Payment information will be reported to the Internal Revenue Service ("IRS") under the name and taxpayer ID number submitted. (See I.R.S. 1099 for additional instructions regarding taxpayer ID numbers.) Information not matching IRS records will subject Contractor payments to backup withholding.

ARTICLE II.

1. **ACCESS TO RECORDS.** Contractor shall maintain books, records, documents, and other evidence, in accordance with generally accepted accounting procedures and practices, sufficient to reflect properly all costs of whatever nature claimed to have been incurred and anticipated to be incurred in the performance of this Contract. District and their duly authorized representatives shall have access to the books, documents, papers, and records of Contractor, which are directly pertinent to this Contract for the purpose of making audit, examination, excerpts, and transcripts. Contractor shall maintain such books and records for a minimum of six (6) years, or such longer period as may be required by applicable law, following final payment and termination of this Contract, or until the conclusion of any audit, controversy or litigation arising out of or related to this Contract, whichever date is later.

2. **AVAILABILITY OF FUTURE FUNDS.** Any continuation or extension of this Contract after the end of the fiscal period in which it is written is contingent on a new appropriation for each succeeding fiscal period sufficient to continue to make payments under this Contract, as determined by the District in its sole administrative discretion.

3. **CAPTIONS.** The captions or headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any provisions of this Contract.

4. **COMPLIANCE WITH APPLICABLE LAW.** Contractor shall comply with all applicable federal, state and local laws, regulations, executive orders, and ordinances, as such may be amended from time to time.

5. **COUNTERPARTS.** This Contract may be executed in several counterparts (electronic or otherwise), each of which shall be an original, all of which shall constitute the same instrument.

6. **GOVERNING LAW.** This Contract, and all rights, obligations, and disputes arising out of it, shall be governed and construed in accordance with the laws of the State of Oregon and the ordinances of Clackamas County without regard to principles of conflicts of law. Any claim, action, or suit between District and Contractor that arises out of or relates to the performance of this Contract shall be brought and conducted solely and exclusively within the Circuit Court for Clackamas County, for the State of Oregon. Provided, however, that if any such claim, action, or suit may be brought in a federal forum, it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this section be construed as a waiver by the District of any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court. Contractor, by execution of this Contract, hereby consents to the personal jurisdiction of the courts referenced in this section.

7. **RESPONSIBILITY FOR DAMAGES; INDEMNITY.** Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay which may be caused by, or result from, the conduct of Work, or from any wrongful act, omission, or neglect of Contractor, its subcontractors, agents, or employees. The Contractor agrees to indemnify, hold harmless and defend the District and Clackamas County, and their officers, elected officials, agents and employees from and against all claims and actions, and all expenses incidental to the investigation and defense thereof, arising out of or based upon damage or injuries to persons or property caused by the negligent acts or omissions of the Contractor or the Contractor's employees, subcontractors, or agents. However, neither Contractor nor any attorney engaged by Contractor shall defend the claim in the name of District or Clackamas County ("County"), nor purport to act as legal representative of District or County, without first receiving authority to act as legal counsel for District or County from the Clackamas County Counsel's Office, nor shall Contractor settle any claim on behalf of District or County without the approval of the Clackamas County Counsel's Office. District or County may, at their election and expense, assume their own defense and settlement.

8. **INDEPENDENT CONTRACTOR STATUS.** The service(s) to be rendered under this Contract are those of an independent contractor. Although the District reserves the right to determine (and modify) the delivery schedule for the Work to be performed and to evaluate the quality of the completed performance, District cannot and will not control the means or manner of Contractor's performance. Contractor is responsible for determining the appropriate means and manner of performing the Work. Contractor is not to be considered an agent or employee of District for any purpose, including, but not limited to: (A) The Contractor will be solely responsible for payment of any Federal or State taxes required as a result of this Contract; and (B) This Contract is not intended to entitle the Contractor to any benefits generally granted to District employees, including, but not limited to, vacation, holiday and sick leave, other leaves with pay, tenure, medical and dental coverage, life and disability insurance, overtime, Social Security, Workers' Compensation, unemployment compensation, or retirement benefits.

9. **INSURANCE.** Contractor shall secure at its own expense and keep in effect during the term of the performance under this Contract the insurance required and minimum coverage indicated below. The insurance requirements outlined below do not in any anyway limit the amount of scope of liability of Contractor under this Contract. Contractor shall provide proof of said insurance and name the District and Clackamas County as an additional insureds on all required liability policies. Proof of insurance and notice of any material change should be submitted to the following address: Clackamas County Procurement Division, 2051 Kaen Road, Oregon City, OR 97045 or procurement@clackamas.us.

Required - Workers Compensation: Contractor shall comply with the statutory workers' compensation requirements in ORS 656.017, unless exempt under ORS 656.027 or 656.126.
☒ Required – Commercial General Liability: combined single limit, or the equivalent, of not less than $1,000,000 per claim, with an annual aggregate limit of $2,000,000 for Bodily Injury and Property Damage.
☒ Required – Professional Liability: combined single limit, or the equivalent, of not less than $1,000,000 per occurrence, with an annual aggregate limit of $2,000,000 for damages caused by error, omission or negligent acts.
☒ Required – Automobile Liability: combined single limit, or the equivalent, of not less than $1,000,000 per accident for Bodily Injury and Property Damage.

The policy(s) shall be primary insurance as respects to the District. Any insurance or self-insurance maintained by the District shall be excess and shall not contribute to it. Any obligation that District agree to a waiver of subrogation is hereby stricken.

10. **LIMITATION OF LIABILITIES.** This Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provisions herein which would conflict with law are deemed inoperative to that extent. Except for liability arising under or related to Article II, Section 13 or Section 20 neither party shall be liable for (i) any indirect, incidental, consequential or special damages under this Contract or (ii) any damages of any sort arising solely from the termination of this Contact in accordance with its terms.

11. **NOTICES.** Except as otherwise provided in this Contract, any required notices between the parties shall be given in writing by personal delivery, email, or mailing the same, to the Contract Administrators identified in Article 1, Section 6. If notice is sent to District, a copy shall also be sent to: Clackamas County Procurement, 2051 Kaen Road, Oregon City, OR 97045, or procurement@clackamas.us. Any communication or notice so addressed and mailed shall be deemed to be given five (5) days after mailing, and immediately upon personal delivery, or within 2 hours after the email is sent during District's normal business hours (Monday – Thursday, 7:00 a.m. to 6:00 p.m.) (as recorded on the device from which the sender sent the email), unless the sender receives an automated message or other indication that the email has not been delivered.

12. **OWNERSHIP OF WORK PRODUCT**. All work product of Contractor that results from this Contract (the "Work Product") is the exclusive property of District. District and Contractor intend that such Work Product be deemed "work made for hire" of which District shall be deemed the author. If for any reason the Work Product is not deemed "work made for hire," Contractor hereby irrevocably assigns to District all of its right, title, and interest in and to any and all of the Work Product, whether arising from copyright, patent, trademark or trade secret, or any other state or federal intellectual property law or doctrine. Contractor shall execute such further documents and instruments as District may reasonably request in order to fully vest such rights in District. Contractor forever waives any and all rights relating to the Work Product, including without limitation, any and all rights arising under 17 USC § 106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use or subsequent modifications. Notwithstanding the above, District shall have no rights in any pre-existing Contractor intellectual property provided to District by Contractor in the performance of this Contract except to copy, use and re-use any such Contractor intellectual property for District use only. Any use the District makes of the materials referred to in Paragraph 12 hereof, except for purposes of the work contemplated by this Contract shall be at the District's risk.

13. **REPRESENTATIONS AND WARRANTIES.** Contractor represents and warrants to District that (A) Contractor has the power and authority to enter into and perform this Contract; (B) this Contract, when executed and delivered, shall be a valid and binding obligation of Contractor enforceable in accordance with its terms; (C) Contractor shall at all times during the term of this Contract, be qualified, professionally competent, and duly licensed to perform the Work; (D) Contractor is an independent contractor as defined in ORS 670.600; and (E) the Work under this Contract shall be performed in the same professional skill, care, diligence and standards as other professionals performing similar services under similar conditions. The warranties set forth in this section are in addition to, and not in lieu of, any other warranties provided. The Contractor shall be responsible for the technical accuracy of its services and documents resulting therefrom, and District shall not be responsible for discovering deficiencies therein. The Contractor shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in information furnished by the District.

14. **SURVIVAL.** All rights and obligations shall cease upon termination or expiration of this Contract, except for the rights and obligations set forth in Article II, Sections 1, 6, 7, 11, 13, 14, 16, 21 and 27, and all other rights and obligations which by their context are intended to survive. However, such expiration shall not extinguish or prejudice the District's right to enforce this Contract with respect to:

(a) any breach of a Contractor warranty; or (b) any default or defect in Contractor performance that has not been cured.

15. **SEVERABILITY.** If any term or provision of this Contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular term or provision held to be invalid.

16. **SUBCONTRACTS AND ASSIGNMENTS.** Contractor shall not enter into any subcontracts for any of the Work required by this Contract, or assign or transfer any of its interest in this Contract by operation of law or otherwise, without obtaining prior written approval from the District, which shall be granted or denied in the District's sole discretion. In addition to any provisions the District may require, Contractor shall include in any permitted subcontract under this Contract a requirement that the subcontractor be bound by this Article II, Sections 1, 7, 8, 13, 16, and 27 as if the subcontractor were the Contractor. District's consent to any subcontract shall not relieve Contractor of any of its duties or obligations under this Contract.

17. **SUCCESSORS IN INTEREST.** The provisions of this Contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective authorized successors and assigns.

18. **TAX COMPLIANCE CERTIFICATION.** The Contractor shall comply with all federal, state and local laws, regulation, executive orders and ordinances applicable to this Contract. Contractor represents and warrants that it has complied, and will continue to comply throughout the duration of this Contract and any extensions, with all tax laws of this state or any political subdivision of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318. Any violation of this section shall constitute a material breach of this Contract and shall entitle District to terminate this Contract, to pursue and recover any and all damages that arise from the breach and the termination of this Contract, and to pursue any or all of the remedies available under this Contract or applicable law.

19. **TERMINATIONS.** This Contract may be terminated for the following reasons: (A) by mutual agreement of the parties or by the District (i) for convenience upon thirty (30) days written notice to Contractor, or (ii) at any time the District fails to receive funding, appropriations, or other expenditure authority as solely determined by the District; or (B) if contractor breaches any Contract provision or is declared insolvent, District may terminate after thirty (30) days written notice with an opportunity to cure.

    Upon receipt of written notice of termination from the District, Contractor shall immediately stop performance of the Work. Upon termination of this Contract, Contractor shall deliver to District all documents, Work Product, information, works-in-progress and other property that are or would be deliverables had the Contract Work been completed. Upon District's request, Contractor shall surrender to anyone District designates, all documents, research, objects or other tangible things needed to complete the Work

20. **REMEDIES.** If terminated by the District due to a breach by the Contractor, then the District shall have any remedy available to it in law or equity. If this Contract is terminated for any other reason, Contractor's sole remedy is payment for the goods and services delivered and accepted by the District, less any setoff to which the District is entitled.

21. **NO THIRD PARTY BENEFICIARIES.** District and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly or

otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.

22. **TIME IS OF THE ESSENCE.** Contractor agrees that time is of the essence in the performance this Contract.

23. **FOREIGN CONTRACTOR.** If the Contractor is not domiciled in or registered to do business in the State of Oregon, Contractor shall promptly provide to the Oregon Department of Revenue and the Secretary of State, Corporate Division, all information required by those agencies relative to this Contract. The Contractor shall demonstrate its legal capacity to perform these services in the State of Oregon prior to entering into this Contract.

24. **FORCE MAJEURE.** Neither District nor Contractor shall be held responsible for delay or default caused by events outside the District or Contractor's reasonable control including, but not limited to, fire, terrorism, riot, acts of God, or war. However, Contractor shall make all reasonable efforts to remove or eliminate such a cause of delay or default and shall upon the cessation of the cause, diligently pursue performance of its obligations under this Contract.

25. **WAIVER.** The failure of District to enforce any provision of this Contract shall not constitute a waiver by District of that or any other provision.

26. **PUBLIC CONTRACTING REQUIREMENTS.** Pursuant to the public contracting requirements contained in Oregon Revised Statutes ("ORS") Chapter 279B.220 through 279B.235, Contractor shall:
    a. Make payments promptly, as due, to all persons supplying to Contractor labor or materials for the prosecution of the work provided for in the Contract.
    b. Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or subcontractor incurred in the performance of the Contract.
    c. Not permit any lien or claim to be filed or prosecuted against District on account of any labor or material furnished.
    d. Pay the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.
    e. As applicable, the Contractor shall pay employees for work in accordance with ORS 279B.235, which is incorporated herein by this reference. The Contractor shall comply with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract, and failure to comply is a breach entitling District to terminate this Contract for cause.
    f. If the Work involves lawn and landscape maintenance, Contractor shall salvage, recycle, compost, or mulch yard waste material at an approved site, if feasible and cost effective.

27. **NO ATTORNEY FEES**. In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Contract, each party shall be responsible for its own attorneys' fees and expenses.

28. **MERGER.** THIS CONTRACT CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES WITH RESPECT TO THE SUBJECT MATTER REFERENCED THEREIN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS CONTRACT. NO AMENDMENT, CONSENT, OR WAIVER OF TERMS OF THIS CONTRACT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY ALL PARTIES. ANY SUCH AMENDMENT, CONSENT, OR WAIVER SHALL BE EFFECTIVE ONLY IN THE SPECIFIC INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. CONTRACTOR, BY THE SIGNATURE HERETO OF ITS AUTHORIZED REPRESENTATIVE, IS AN INDEPENDENT CONTRACTOR,

ACKNOWLEDGES HAVING READ AND UNDERSTOOD THIS CONTRACT, AND CONTRACTOR AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

By their signatures below, the parties to this Contract agree to the terms, conditions, and content expressed herein.

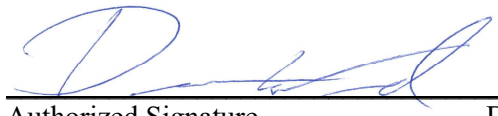
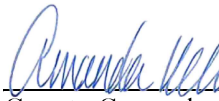
Kennedy Jenks Consultants, Inc.,	Water Environment Services
	
Authorized Signature Date	Chair Date
Dean Wood - Vice President	
Name / Title (Printed)	Recording Secretary
015461-26	Approved as to Form:
Oregon Business Registry #	
FBC/California	 7/6/21
Entity Type / State of Formation	County Counsel Date

EXHIBIT A
STATEMENT OF WORK

I. Background

Kennedy/Jenks Consultants, Inc. (Consultant) shall complete a conceptual and final design of one new pump station and forcemain for the Clackamas Water Environment Services' (District). The new pump station and forcemain will convey wastewater from the existing Boring Water Resource Recovery Facility (WRRF) to a connection point into the District's existing collection system approximately six miles west of the WRRF. The project also includes decommissioning of the WRRF following the installation of the new pump station and forcemain. Consultant's scope of work will result in production of bid ready documents for the described project to be constructed by a General Contractor under a single construction contract.

The project includes a conceptual design phase of work, followed by detailed design, and includes the following:

- Desktop route evaluation study to identify a preferred forcemain alignment and pumping scenario. The desktop evaluation will include pumping and piping alignment considerations and hydraulics, environmental and permitting baseline investigations, surge impacts, and cost.
- Site survey of the existing wastewater treatment plant to develop level of detail needed at the preferred pump station location.
- Site survey of the preferred forcemain alignment.
- Geotechnical explorations and geotechnical design recommendations.
- Traffic analysis including developing traffic counts and the development of traffic control design drawings.
- Subsurface utility identification, location, and coordination.
- Transient surge analysis.
- Preliminary and final design of one pump station located at the existing WWRF with a small building to house electrical and control equipment, and a permanent standby generator in an outdoor enclosure, the forcemain, and the treatment plant decommissioning work.

II. General Assumptions

1. The design will be based on standards in effect on the effective date of the authorization to proceed.
2. Meetings and Workshops will be held virtually unless specified herein.
3. Consultant will submit draft minutes from each workshop not later than 5 working days following each respective workshop.
4. District will provide comments on draft meeting minutes within 10 working days of receiving the draft minutes. Consultant shall incorporate and provide finalized meeting minutes. If no District comments are provided, the draft meeting minutes will become finalized.
5. EJCDC General Conditions will be used. Consultant shall provide Division 1 specifications based on EJCDC General Conditions for project use with District review and comment.
6. Consultant shall use the 49 Division format master specifications.
7. Draft reports, memoranda, and meeting minutes will be provided in MS Word format with final versions provided in .PDF format.

8. Drawings (11-inch by 17-inch) in .PDF format will be provided for each District internal review.
9. Drawings (11-inch by 17-inch) in .PDF format and native AutoCAD (.dwg) and Revit 3D Model files (.rvt) will be provided for the Final Submittal.
10. Drawings will be prepared in AutoCAD and, or Revit 3D using Consultant drafting standards.
11. Specifications (8-1/2 inch by 11 inch) in .PDF format will be provided for each District internal review and the Final Submittal.
12. The site is free of any hazardous wastes, asbestos, lead paint or other types of contamination that might require remediation.
13. At a minimum (unless otherwise approved by District), two vendors will be named for each manufactured component or piece of equipment with provisions for an "equal" to be proposed by the contractor and subject to approval by the Engineer. An exception to this assumption applies to the pumps, with which the District has standardized around Flygt N-Pumps, by Xylem.
14. The project duration for tasks described in the scope of services is assumed to be 12 months.
15. Final design effort and drawing sheet list has been developed based on installation of one new pump station and a new force main along Highway 212 and decommissioning of the entire existing wastewater treatment plant property. The sheet list utilizes plan and profile drawings at 1 sheet = 1000 feet. Additional scope and level of effort budget is expected to be required if the preferred alignment or preferred pumping strategy differs from this assumption. This additional scope could include additional design, geotechnical, site survey, and permitting services.
16. The scope of work and budget assumes either a precast wet well or an existing storage lagoon will be used as a wet well. Should a large concrete constructed wet well be needed to store influent flows prior to pumping, additional scope and budget will be required.
17. Temporary traffic control and traffic signal modification plans and specifications along OR212 will meet ODOT and MUTCD requirements.
18. Field related efforts are budgeted on the assumption that Right of Way access to the project corridor will be available all or nearly all at once to avoid the need for multiple mobilization efforts.

III. District Provided Services

1. District will provide to Consultant known data in District's possession relating to Consultant's services on the Project. Consultant will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by District.
2. District will make its facilities accessible to Consultant as required for Consultant's performance of its services.
3. District will apply for required permits and pay permit fees.
4. District will provide a set of consolidated review comments on documents submitted for review.
5. District will provide Division 0 specifications.
6. District will perform public outreach.
7. District will perform easement negotiation and acquisition.
8. District will secure Rights of Entry as required for survey and geotechnical field work.

IV. Scope of Services

Consultant's Scope of Services shall include the following Tasks:

Task 1: Project Management

Task 1.1 - Project Management: Project setup including a Project Management Plan, Hazard Appraisal and Recognition Plan (HARP), and Quality Assurance / Quality Control Plan (QA/QC) following notice to proceed. These documents are internal documents for Consultant's use only. This task also includes the oversight for the Consultant's project team, task leads, overall internal and external management of the design project, maintaining the project schedule, and monthly preparation of invoices and progress reports.

Task 1.1 Deliverables:

- Invoices with status report and monthly schedule updates (monthly for the duration of the project) in PDF format.

Task 1.2 - Project Design Meetings:

- Internal Coordination Meetings: Consultant will conduct coordination meetings with internal staff and subconsultants. This is assumed to be one hour once every two weeks between Consultant project manager and project engineer and subconsultants project managers.

Task 1.2 Assumptions:

- None noted.

Task 1.2 Deliverables:

- Meeting Agenda and Minutes

Task 2: Quality Assurance/ Quality Control

Task 2.1 - Sub Consultant QA/QC: QA/QC of all draft technical memoranda, draft basis of design report, Construction Document Submittals (30%, 60%, 90%, 100%), and other deliverables included in the scope of work will be reviewed.

Task 2.2 - Quality Management Plan: Develop a Quality Management Plan (QMP) for the project that identifies procedures, compliance methods, lines of communications and responsibilities, methods of checking and correcting the work, formats and procedures for responding to Owner's comments on deliverables, and record keeping requirements. The QMP shall also identify personnel and schedules to complete Quality Assurance and Quality Control (QA/QC) reviews of the work and deliverables.

Task 2.3 - 30% Design Submittal QA/QC: QA/QC of the draft Basis of Design report and the 30% Design Submittal. Reviews will be performed by senior Consultant staff as identified in the QMP.

Task 2.4 - 60% Design Submittal QA/QC: QA/QC of the 60% Design Submittal. Reviews will be performed by senior Consultant staff as identified in the QMP.

Task 2.5 - 90% Design Submittal QA/QC: QA/QC of the 90% Design Submittal. Reviews will be performed by senior Consultant staff as identified in the QMP.

Task 2.6 - Final Design Submittal QA/QC: QA/QC of the Final Design Submittal. Reviews will be performed by senior Consultant staff as identified in the QMP.

Task 2 Assumptions:

- None noted.

Task 2 Deliverables:

- Cover sheet of the Consultants Quality Review Form indicating review was completed and review comments addressed. One form per submittal, pdf only.

Task 3: Development of Site-Specific Information

Task 3.1 – Data Collection. Consultant shall issue one (1) Request for Information and will review information provided by the District (Record drawing information showing structures and utilities in project area, past geotechnical studies, existing survey information, and available photos). Follow up requests for information can be used to obtain additional information and clarification, if needed.

Task 3.1 Assumptions:

- None noted.

Task 3.1 Deliverable:

- RFI

Task 3.2 – Geotechnical Investigation and Recommendations Report. Consultant shall conduct subsurface explorations to define existing conditions and make geotechnical recommendations and shall include the following:

Task 3.2.1 – Geotechnical Explorations

Conduct the following geotechnical exploration:

- One (1) boring for the pump station site to a depth of 50 feet;
- Fourteen (14) borings for the proposed force main to depths ranging from 20 to 40 feet. At an assumed length of the force main of approximately 6 miles, the average spacing of the borings will be approximately 2,500 feet.
- The borings will collect standard penetration test (SPT) and thin wall Shelby tube soil samples for laboratory testing and assessing soil parameters for geotechnical and trenchless engineering evaluations;
- One (1) piezometer for groundwater level monitoring.

The proposed explorations shall be advanced and backfilled by a subcontracted State licensed drilling company. The explorations shall be observed by a member of the geotechnical subconsultant's engineer/geology staff who will develop field logs. Selected soils samples in the borings shall be collected for laboratory testing.

Prior to the field explorations, boring locations shall be marked, and the utility notification center (One-Call) shall be contacted for utility clearance.

Laboratory testing shall be conducted on selected samples collected from borings. The laboratory testing program shall include moisture contents, sieve analyses, and Atterberg limits.

Task 3.2.2 – Geotechnical Engineering Evaluation

Based on the field logs, develop subsurface condition logs for the borings. Geotechnical engineering design and construction recommendations shall include the following:

- Geotechnical engineering assessments for the pipeline including subgrade conditions, bedding and backfill material requirements;
- Geotechnical engineering assessments and recommendations for construction of an onsite

building to house pumping electrical equipment and controls, including over excavation, materials, compaction, groundwater control, and foundation design.

- Pipe design recommendation for subgrade modulus (E'), flotation resistance, thrust resistance, and trench cutoff;
- Roadway and pavement design section recommendations for pavement replacement along the pipeline.
- Soil settlement potential under pipe and backfill loads;
- Anticipated subgrade conditions and potential need for rock excavation and pipe subgrade stabilization;
- Recommendations for open excavation along pipeline, rock excavation, subgrade stabilization, shoring and groundwater control during construction;
- Discussions on the potential needs for trenchless construction;
- Backfill recommendations for the pipeline, and compaction criteria;
- Develop a Geotechnical Data Report (GDR) to document the factual subsurface condition for contractor bidding;
- Develop a Geotechnical Engineering Report (GER) to summarize the geotechnical investigation, testing, engineering evaluation and recommendation for the design and construction of the pipeline.
- Review and input during detailed design stage to plans and specifications for items related to trench excavation, groundwater control, shoring and earthworks.

Task 3.2.3 – Trenchless Crossing Design

Conduct the following design items for one trenchless crossing design:

- Develop design criteria and assess the ground behavior
- Evaluate horizontal and vertical alignments.
- Trenchless pipe analysis and recommendation for pipe material selection based on stress during installation and during service, and minimum diameter.
- Evaluate construction staging areas and other restraints.
- Recommendations for construction methods.
- Assessment of potential shoring schemes for the entry and exit pits.
- Construction cost estimate, AACE Class 4.
- Develop a trenchless design memorandum.
- Provide input to trenchless design, including specific crossing pipe details, instrumentation and monitoring, temporary construction easement and staging areas, lateral earth pressure for shoring design, and specifications for trenchless crossing pipe and construction.

Task 3.2 Assumptions:

- Scope assumes the forcemain alignment is along Highway 212.

Task 3.2 Deliverables:

- Geotechnical Data Report
- Geotechnical Design Report
- Trenchless Design Memorandum

Task 3.3 – Traffic Analysis

Consultant shall complete traffic analyses to determine impacts to the travelling public during

construction of the pump station(s) and pipeline and to identify specific traffic control strategies (e.g., lane closures, detours, etc.) to safely accommodate traffic during construction and minimize impacts to the traveling public, key businesses, and significant traffic generators. Strategies will be developed for all roadway users, including vehicles, farm equipment, bicycles, pedestrians, and transit.

Consultant shall identify up to seven key study intersections. Locations of study intersections and evaluation methodology will be verified following consultation with District, Clackamas County, and ODOT.

Up to three 24-hour bi-directional traffic counts shall be collected along OR212 on two (2) separate days (weekday and weekend). Turn movement counts will be collected at key study intersections during both AM and PM peak periods. Existing relevant data from recent or concurrent project work will be used to the extent possible. Traffic data will be evaluated to determine recommended lane closure hours and test potential traffic control strategies developed by the project team. This task also includes specific analysis requested by ODOT or Clackamas County as part of the plan review process. An inventory of existing business access points impacted by construction will be performed to develop design recommendations to maintain access to businesses. General recommendations for maintaining residential access will be included as well.

Consultant shallsubmit a report that includes traffic data summaries, analysis results, and recommendations for traffic control strategies along the proposed pipe alignment. The traffic report shall meet the varying needs of Clackamas County and ODOT, and will support plan preparation and permitting.

Task 3.3 Assumptions:

- Traffic counts are assumed to be collected along Highway 212 from the Boring Wastewater treatment plant to the proposed tie in connection at SE 172nd Ave.
- Traffic counts will only be completed after the preferred alignment is selected.

Task 3.3 Deliverables:

- Traffic Analysis report

Task 3.3.1 – Traffic Analysis Meetings: Consultant will lead two coordination meetings with ODOT and two coordination meetings with District staff to review project approach to confirm approach is permittable. Attendees will be Kennedy Jenks project manager and two DKS staff (DKS project manager and DKS project engineer).

Task 3.4 – Surge Analysis

Consultant shall prepare a surge model using profile drawings, preliminary pump curves, maximum number of pumps that can operate together, wetwell supply level range, and pipeline material, pressure class, and diameter to evaluate surge conditions for sudden pump power loss and normal startup and shutdown (normal shutdown will be covered by sudden pump power loss). Consultant shall provide surge protection recommendations to limit maximum surge pressures below the allowable surge pressure for the pipe material and preclude the formation of vapor pressure within the force main. Surge protection measures may include, but are not limited to, sewage vacuum relief valves, pressure relief valves, a surge tank, and pump flywheels.

A hydraulic and surge analysis technical memorandum shall be submitted as part of the 30% Design and finalized for the 90% Design submittal. Technical memoranda shall summarize

applicable hydraulics and surge information and describe recommendations to be included in the design documents.

Consultant shall lead a review meeting following the 30% submittal to review the findings of the report and discuss any questions or comments from the District. Meeting attendees will be Kennedy Jenks Project Manager and Project Engineer and Flow Science Project Manager.

Task 3.4 Assumptions:

Surge analysis assumes a single forcemain and single pump station. Should a second pump station be selected as the preferred pumping and pipeline alternative, additional modeling scope and budget will be required.

Task 3.4 Deliverables:

- Surge Analysis Report
- Meeting minutes following the Surge Memo review meeting.

Task 3.5 - Environmental Baseline Investigations

Consultant shall conduct baseline investigations to identify if preliminary designs could require the need for permits, including potential for:

- Army Corps of Engineers 404 Permit
- Oregon Department of State Lands Removal-Fill Permit
- Oregon DEQ Section 401 Water Quality Certification
- Endangered Species Act compliance
- Section 106 Cultural Resource compliance
- Land Use
- City or County building, mechanical, electrical permits

These baseline investigations shall be completed as part of the desktop route evaluation described in Task 4.2 and completed for each of the three potential alignments. This will help inform the specific environmental concerns along each potential alignment. This effort will consist of a review of existing readily available data, including GIS mapping, of regulated natural resources (e.g., wetlands, streams, Goal 5 resources) that may occur along each of the three alignments. An Oregon Biological Information System (ORBIC) database search will be conducted to review documented presence of sensitive wildlife, fish, and plant species. State Historic Preservation Office (SHPO) records will be reviewed. A reconnaissance level drive through of the project site by a DEA Ecologist and HRA Archaeologist will occur. Land use code will be reviewed to assess code and permitting requirements that could affect alternatives selection. Findings will be summarized in a series of draft memorandums, which will also include discussion of potential permitting issues. District comments will be addressed, and the memorandums will be finalized. Relevant GIS layers will be provided to Consultant.

Task 3.5 Assumptions:

Environmental baseline investigation assumes the pipeline will be located within the right of way and that 50% of the alignment length will be installed within the roadway section.

Task 3.5 Deliverables:

- Natural Resources Memorandum
- Cultural Resources Memorandum
- Land Use Issues Memorandum

Task 3.5.1 - Permitting Coordination Meetings: Consultant will lead one meeting with District staff and permitting stakeholders (identified as Clackamas County and City of Boring, Damascus, and Happy Valley, if needed) to review project approach to confirm approach is permittable (land use and environmental permitting). Consultant's attendees will be Kennedy Jenks project manager and two DEA environmental staff (DEA Environmental Lead and DEA Land Use Planner) would attend these meetings, which include the following:

- One virtual (1 hour) meeting with Clackamas WES to discuss land use and environmental permitting issues.
- One remote meeting (1 hour) with Clackamas County Land Use Department
- One remote meeting (1 hour) with City of Happy Valley Land Use Department

Task 3.5.1 Assumptions:

- Wetland and waterway impacts can be avoided and therefore meetings with the U.S. Army Corps of Engineers and Oregon Department of State Lands will not be necessary

Task 3.5.1 Deliverables:

- Meeting agenda (final, electronic.pdf) and meeting minutes (draft and final, electronic.pdf)

Task 4: Utility Location and Survey of Project Area.

Consultant shall coordinate with local agencies, municipalities, and Oregon Utility Notification Center (OUNC) to complete utility location, mapping, and survey of the project area. Scope described in Task 4 is specific to only the preferred alignment and schedule for these tasks will extend beyond the 30% design phase. Utility and Survey support for the desktop route evaluation is described in Task 5.

Due to the high traffic volumes, and potentially narrow roadways, depending on which alternative is selected, traffic control will be needed to ensure the safety the traveling public and that of the survey crews conducting the various tasks included in this scope of work. Traffic control needs are identified in the Task 3 tasks.

Task 4.1 – Utility Locate Coordination

Request utility as-built data through Clackamas County, City of Boring, City of Happy Valley and Oregon Utility Notification Center (OUNC). Maintain contact log of utility providers contacted and materials received from each. When electronic data is available update the base mapping with GIS or CAD data received from each utility.

Prior to submitting field utility locate requests for the alignment, work with OUNC to schedule a Pre-Survey Utility Locate coordination meeting with utility stakeholders. The meeting will be attended by DEA Surveyors and the Design Team Lead from Kennedy-Jenks. Pre-survey utility locate requests will then be submitted along the preferred alignment in incremental segments to better manage the schedule and survey areas. A log of ticket numbers, as-built maps data, and locator contacts will be maintained. Ticket numbers will be included on the final topographic basemap.

Task 4.1 Assumptions:

- Pre-Survey tickets will be submitted for the known alignment sections as early as possible for the fixed alignment areas while the desktop route evaluation is still in process.

- Upon selection of a preferred alignment the remaining locate requests will be submitted.
- Utility locate requests on a project of this size may or may not be painted in the field by one-call. One-call locator response to locate requests is outside of Consultant's control.

Task 4.1 Deliverables:

- As-built data obtained from each utility and electronic as-built data combined into project basemap.
- Documentation of Pre-Survey Utility Locate meeting
- All As-built Request and Pre-Survey locate tickets.
- Contact log for utilities contacted and response

Task 4.2 – Records Research

Consultant shall research public records for existing survey and plat records, roadway surveys, and public land corner records. Research to include Clackamas County Records and ODOT Records. Where the alignment is fully within the right of way, records research will be limited in nature and focus on only monuments that need to be protected from disturbance or destruction during construction. This would include primarily centerline monuments, public land corner monuments and ODOT control monuments shown on filed Records of Survey.

Task 4.2 Assumptions:

- Research will begin while the desktop route evaluation is in process.
- Preferred alignment will be contained within existing right-of-way and that Trio's or Title Reports are not required except as noted in Task 3.9.
- Road right of way and property sideline locations will be determined by County GIS data, except where the alignment approaches or leaves the right of way boundary.

Task 4.2 Deliverables:

- Raw LiDAR, GIS, and Aerial photography files, clipped to the area of interest. Base Map shall remove points as needed to simplify the existing ground surface and documentation of data source.
- LiDAR, GIS, and Aerial photography files combined into project base map.
- Compiled assessor maps and surveys from Clackamas County Records
- ODOT Survey records

Task 4.3 – Survey Control

Establish survey control throughout the project area to support mobile scanning operations, monument recovery and topographic design survey needs. A sufficient number, approximately one every 500 feet of survey alignment, of Control points will be iron rods or bernsten plugs, so that control will last through the construction process.

Survey Control will be coordinated with LiDAR, GIS and aerial orthophoto data to ensure all project components are on the same datum.

Horizontal Control – GPS control points will be set at approximately one-mile intervals and processed through NOAA's On Line Positing User Service (OPUS) software to establish primary control. Additional control points will be set at intervals of approximately every 500 feet and traversed through the GPS primary control points. All control points will be processed through Star*Net Least Square Adjustment passing at the 95% confidence level. Coordinates will be based on the Oregon State Plane Coordinate System, North Zone, International feet, and reduced

to a local datum plane.

Vertical Control – Control will be established on NAVD88 vertical datum using GPS methods with an OPUS solution on primary project control benchmarks not to exceed one-mile intervals. Intermediate control point elevations will be established by trigonometric methods.

Task 4.3 Assumptions:

- Delivery of field notes and adjustment files is not required.

Task 4.3 Deliverables:

- PNEZD text file of primary survey control
- Survey control incorporated into project basemap CAD file.
- Land XML file of the surface model.

Task 4.4 – Mobile Scanning and Topographic Mapping

Consultant shall complete a mobile laser scanning survey of the project limits to collect detailed laser scan data throughout the project corridor.

The mobile laser scanning will be controlled with targets and verified with confidence targets painted on the ground. The resultant laser scan data will be accurate to plus or minus 0.05-feet relative to the project control.

The control targets will be used to constrain the mobile laser scan data and the confidence targets will be used to verify the accuracy of the fully controlled and adjusted laser scan data.

Digital photography will be acquired throughout the project limits while completing the mobile laser scanning. The digital photos will be provided in electronic format in a web-based geodatabase that maps and is hyperlinked to the digital photos.

From the laser scans, 3D break lines and point features will be developed based on project CAD specifications. Mapping will be completed at approximately 50-foot intervals and will include the pavement section plus approximately 10-feet which can be accurately depicted using the scan data. The features to be mapped include manmade surface features and ground topography to be represented with 1-foot ground elevation contours. Manmade surface features include pavement, traffic striping and symbols, driveways, walkways, sidewalks, retaining walls, ADA ramps, signal poles, signs including labeling, utility poles, overhead utility lines, luminaires, fences including gates, and surface utilities. Surface utilities to be mapped include valves, meters, vaults, cabinets, hydrants, manholes, catch basins, standpipes, utility locate markings (if in place at time of scanning). The mapping is limited to features that are clearly visible in the laser scans within the project limits.

Structure measure down data is not included in mobile scan data and requires traditional field crews to collect this data.

The 3D break lines and point features will be imported into Civil 3D and an existing ground surface model will be developed. Project CAD standards will be adhered to. This Civil 3D file will be provided to the design team for the 30% design process.

Task 4.4 Assumptions:

- There will be areas that are not visible in the laser scan data due to obstructions and/or vegetation and cannot be mapped with mobile scanning. Consultant shall provide outlines around these obscured areas and collect data in these areas using terrestrial survey methods.

- Mobile scanning schedules are dependent on dry pavement conditions. Long periods of wet weather may affect project schedules and deliverable schedules. Consultant cannot be responsible for delays due to weather or other conditions beyond Consultant's control.
- Mobile scanning will commence as soon as survey control and mobile scan targets are in place.
- Mobile scanning does not include scanning of side streets intersecting the project. Intersection locations requiring traffic control and limits beyond the extents of the mobile scanning will utilize County GIS data for development of the intersection basemap.
- Surveyed right of way location will not be included with mobile scan data. Right of Way will be based upon GIS data for 30% design.
- LiDAR data will be used in initial Quality Control of scan data prior to completion of terrestrial topographic survey and confidence point measurements.

Task 4.4 Deliverables:

- Civil 3D Topographic Base Map with 3D break lines, point features, and surface model, clipped to the area of interest. Base Map shall remove points as needed to simplify the existing ground surface.
- Digital photography and geodatabase of linked photo locations.
- Mobile laser scan point clouds

Task 4.5 – Utility Potholing

Develop potholing plan based on marked utilities and preliminary alignment. Potholing plan will identify up to 30 potholes, 25 in pavement and 5 in soft surfaces to be physically located in the field via metal rod and vacuum method. The pothole subconsultant will set a PK Nail nearby the pothole location and record horizontal and vertical offset information on their pothole data sheets. Survey subconsultant will survey PK nails and record PNEZD information. Survey subconsultant will then record the horizontal location and elevation of utilities uncovered by potholing based on the nail location and pot hole data sheets and then indicate this information on base map file. Reported data will be coordinated with pothole data sheets for location, depth, and where available, material of each utility.

Task 4.5 Assumptions:

- Pothole locations will be in a safe location and traffic control will not be required.

Task 4.5 Deliverables:

- PNEZD ASCII text file of Pothole locations
- Potholing data sheets
- Updated project basemap with pothole information including utility type, size, and depth derived from provided data sheets.

Task 4.6 – Boring Wastewater Treatment Plant Survey

Perform topographic survey and boundary survey of existing wastewater treatment plant. Coordinate on site utility locates with a private locate company and map topographic features within the plant boundary. Survey to include the following: buildings, ponds, pump locations, roads, utilities, trees, fencing, and above ground features observable during the survey. Invert elevations of storm and sanitary structures will be measured and noted on the topographic base map. Survey to include sufficient spot elevation data to produce topographic basemap with one-foot contours.

A title report for the property will be obtained as part of the survey, and the location of any easements disclosed in the title report will be included in the survey.

Task 4.6 Assumptions:

- No new property corners will be set for the boundary of the treatment plant and a separate Record of Survey will not be filed.
- The topographic survey will not extend beyond the property boundary.
- No specialized safety training is required for entry into the site.
- Site survey will be performed on same horizontal and vertical datum as the project and match into the preferred alternative alignment survey.

Task 4.6 Deliverables:

- Data on project basemap.

Task 4.7 – Terrestrial Topographic Survey

This task will include collection of utility locate paint, obscured topographic features and storm and sanitary structures along the preferred alignment to supplement the mobile laser scanning. This task does not include the full right of way width of any road on the preferred alignment and will generally be contained to an area within 25 feet of the proposed pipe. Additional, survey data will be collected for specific areas which require design of ancillary structures for the facility.

Topographic data collected for design of ancillary structures may include trees 6" DBH or larger, utility locate paint, obscured features, right-of-way fencing, ditches, and other above ground topographic features outside of the limits of the mobile scan data. This portion of the topographic survey will be limited to the frontage of the five proposed properties identified under Task 3.8 and may not include the entire property frontage.

Survey data to include storm and sanitary sewer depths based upon manhole measure down data collected in the field. Depth of other utilities will not be included unless potholed or indicated by utility locate paint.

Quality control verification for the mobile scan DTM surface will utilize topographic data collected through the utility locate mapping and other supplemental mapping identified in this section.

Terrestrial Topographic point data to be collected with an accuracy of 0.05 feet vertically on hard surfaces and 0.2 feet vertically on natural surfaces when compared to the control point it was collected from.

Task 4.7 Assumptions:

- Topographic Survey will not extend beyond the right of way or include side streets intersecting the project alignment.
- Trees will be identified as conifer or deciduous only.

Task 4.7 Deliverables:

- Updated project basemap and DTM with combined scanning and terrestrial survey data, right of way locations, and storm and sanitary structure invert elevation data. Survey map update to include treatment plant survey.
- Land XML file of the surface model.
- Updated project basemaps shall be clipped to the area of interest. Consultant shall remove

points as needed to simplify the existing ground surface.

Task 4.8 – Legal Descriptions and Exhibits

Perform right of way retracement for the frontage of up to five (5) properties identified for this task. Right of way retracement efforts include records research, field work and right of way resolution in advance of the preparation of the required legal descriptions. Prepare up to five (5) Legal Descriptions and Exhibits for acquisition of easements for the selected alignment. Title reports will be obtained for each of the subject properties in support of this task.

Provide field staking of proposed acquisitions for review by land owners and client during negotiations.

Task 4.8 Assumptions:

- Survey of the boundaries of the subject properties is not required or will be completed by contract addendum.
- Title report expenses will be billed for reimbursement at actual cost.
- Deed preparation, easement appraisals and acquisitions will be completed by others.
- Modifications to easement alignments, locations or configurations after the Legal Description and Exhibit is prepared will be considered additional services.
- Services in support of acquisitions which require platting or property line adjustments will be considered additional services.

Task 4.8 Deliverables:

- Legal Descriptions with Exhibits for proposed easements for up to five (5) properties. The descriptions and exhibits will be prepared and stamped by a Registered Professional Land Surveyor. Properties with both a temporary and permanent easement description will be considered a single property for purposes of the five descriptions and exhibits included within the scope of supply. Legal descriptions and Exhibits will be provided in pdf format.
- Title report for each property for which a Legal Description is prepared, electronic, pdf.

Task 5: Conceptual Design Phase

Task 5.1 – Kickoff Meeting

Conduct a project kickoff meeting with the District to review and discuss project elements, review the schedule, construction sequencing and key issues to be considered and addressed during the preliminary design and desktop analysis phase of work. Consultant attendees include Kennedy Jenks Project Manager, Project Engineer, and two staff engineers, DEA Project Manager, and DKS Project Manager.

Task 5.1 Assumptions:

- None noted.

Task 5.1 Deliverables:

- Meeting Agenda and Minutes

Task 5.2 – Desktop Routing Analysis TM

Develop a draft technical memorandum documenting the desktop route analysis and pumping scenarios. The memorandum will include the following elements:

- A review of the existing plant drawings and flow data related to historical treatment plant flows.
- Desktop route analysis to consider three potential force main alignments:
    - Highway 212
    - Highway 212, Hoffmeister Road, and SE Sunnyside Road
    - Highway 212, Hoffmeister Road, and Highway 212
- Preliminary Pump Station siting and sizing to consider:
    - Single pump station configuration: a new pump station located at the existing wastewater treatment plant with a single forcemain. This scenario will investigate needed forcemain diameter sizing and wet well or storage well volume sizes. Varying forcemain diameter and pumping volume will be used to develop a pump selection within the District's standard pump manufacturer's recommendations.
    - Two pump station configuration: a new pump station located at the existing wastewater treatment plant and a second pump station located along the alignment. This configuration will reduce the individual operating pressure of each pump station, may allow a smaller forcemain diameter to be utilized, and develop a pump selection within the District's standard pump manufacturer's recommendations. This configuration will consider sighting the second pump station at one of two locations, one of which is in Damascus that could serve wastewater collection service within the Damascus area.
        - The pump station evaluation shall be completed independent of the forcemain alignment evaluation.
        - Preliminary system curves and pump selections will be completed for the three pumping scenarios independent of the multiple forcemain route options. Individual system curves and pump selections will not be completed for each combination of alignment and pump station options.

The desktop analysis will include use of existing publicly available LiDar, GIS, and aerial photography data to develop preliminary alignment footages and profiles to be used in developing system curves for each alignment, review of existing documented utilities utilizing District GIS data and quantification of potential conflicts along each alignment, development of conceptual pump station configurations, identify preliminary locations of air/vacuum release valves and pigging stations, and develop AACE Class 5 cost estimates for each alignment alternative.

The desktop analysis task includes a qualitative/relative evaluation of 'high level' traffic analysis and surge considerations for three alignment alternatives. The surge analysis support will include 'back of the envelope' sizing for a surge tank, vacuum valves, pressure relief valves, etc. No computer modelling will be completed. The traffic analysis will include comparison of traffic impacts or benefits relative to traffic control elements needed along each route.

The desktop analysis will use a weighted scoring system that will be developed in collaboration with the District to allow both financial and non-financial criteria to be considered. The result of the analysis will be a recommended alignment and pump station configuration.

Task 5.2.1 - Desktop Route Evaluation Meeting: Consultant shall attend one review workshop to review findings of the desktop route evaluation meeting, discuss alignment findings, criteria weighting, and development of the recommended alignment. Following review of the analysis by

the District, Consultant shall address District review comments and finalize the Routing Analysis TM. Consultant attendees include Kennedy Jenks Project Manager and two project engineers. Meeting duration assumed to be two hours.

Task 5.2 Assumptions:

- None noted.

Task 5.2 Deliverables:

- Updated project basemap with combined scanning and terrestrial DTM, rights of way
- Routing Analysis TM (electronic.pdf, draft and final)
- Routing evaluation meeting Agenda and Minutes (pdfs, as meetings occur)

Task 5.3 – Basis of Design (BOD) Memorandum and 30% Design.

Consultant shall use the data collected and analyzed during Tasks 3 and 4 to develop the draft BOD Memorandum with 30% design and AACE Class 3 Engineer's Opinion of Probable Construction Cost, which Consultant shall submit to the District for review. The BOD and 30% design drawings will serve as the basis of design for the pump station and forcemain and include the following: recommendations for pump configuration and sizes, corrosion and odor control strategy and equipment, geotechnical engineering report, architectural and structural considerations, surge analysis and mitigation strategy, summary of electrical power requirements and energy efficiency measures to consider, relevant code review information, and basis for telemetry and SCADA design features. Exhibits shall be included for expected environmental permitting needs, traffic control findings and recommendations, geotechnical reports, and surge analysis.

Task 5.3 Assumptions:

- No permanent pavement marking plans will be prepared for pavement markings damaged during construction. This information will be included in the technical specifications.

Task 5.3 Deliverables:

- 30% Design TM
- 30% Design Drawings
- Specification Table of Contents

Task 5.4 – 30% Preliminary Design Review Workshop

Consultant shall attend one (1) meeting with the District to discuss the design criteria identified in the BOD Memorandum. District comments shall be addressed and the final TM shall be submitted as an appendix to the Basis of Design Report described in Task 5.3. Following the BOD Workshop, Consultant will tour one or more of the District's existing pump stations with District operations and maintenance staff to understand key design features to incorporate into the new station. Consultant attendees include Kennedy Jenks Project Manager and two project engineers. Meeting duration assumed to be two hours. The site visit is assumed to be four hours.

Task 5.4 Assumptions:

- None noted.

Task 5.4 Deliverables:

- Review Workshop meeting agenda and meeting minutes

Task 5.5 – Environmental Support for 30% Design

This task provides services to the design team on an as needed basis, within contracted budget, to support 30% design efforts. Due to schedule constraints, full natural resource (e.g., wetland delineation) and cultural resource surveys along the preferred alignment likely will not be feasible prior to completion of 30% design. Therefore 30% design will primarily rely on environmental results from the alternatives analysis. However, this task is intended to allow for focused field efforts if needed to support design decisions during preparation of 30% design. Survey efforts would be documented in brief memorandum, which could then be incorporated into formal report deliverables for the entire preferred route if needed for permitting. Full environmental reporting would occur after 30% design and contracting of this work would also occur after 30% when the need, scope, and scale of these efforts can be better understood. Additional technical support time to the design team is also included with this task to respond to questions and provide guidance regarding environmental and land use permitting matters.

Task 5.5 Assumptions:

- Eight hours of field work, including travel

Task 5.5 Deliverables:

- Brief findings memos, as needed and within contracted budget.

Task 6: Final Design

Task 6.1 - 60% Design Site Visits. Meet with District staff two (2) times during 60% final design to investigate design needs at the treatment plant site and along the alignment. This task assumes 16 hours for Kennedy Jenks Project Manager and Project Engineer, and 8 hours for Kennedy Jenks Electrical Engineer.

Task 6.1 Assumptions:

- None noted.

Task 6.1 Deliverables:

- Site Visit field notes

Task 6.2 - 60% Final Design. Advance design to 60% completion to show areas of work on the Project identified in the attached Sheet List. The engineering disciplines designs will be 2D drawings, produced from AutoCAD. The 60% design submittal will include 60% construction drawings and specifications, P&IDs, and control descriptions, 60% Engineer's Opinion of Probable Construction Cost (Engineer's Estimate) AACE Level 2 and updated Project Schedule.

Task 6.2 Assumptions:

- None noted.

Task 6.2 Deliverables:

- 60% Design Submittal

Task 6.3 - 60% Design Review Workshop. Conduct a workshop with District staff to review the 60% Design Drawings, Engineers Estimate, Schedule and Construction Sequencing Plan. The workshop will be divided into two parts, the first part a review of the process mechanical design, first named manufacturers, and equipment specifications, and the second part used to specifically review the electrical and instrumentation design components. The review workshop

will be attended by Kennedy Jenks Project Manager and Project Engineer. The second part of the meeting will also include the Electrical Engineer and the Instrumentation Engineer.

Task 6.3 Assumptions:

- None noted.

Task 6.3 Deliverables:

- Review Workshop meeting agenda (final, electronic.pdf) and meeting minutes (draft and final, electronic.pdf)

Task 6.4 - Decommissioning Coordination with DEQ. Conduct a review meeting with the District and DEQ to review proposed decommissioning plans and approach. The meeting will be used to identify necessary testing or documentation needed for DEQ to approve plant decommissioning. This task includes additional phone calls and communication to support discussions with DEQ.

Phase 6.4 Assumptions:

- Decommissioning design level of effort is based on demolition of existing above grade structures, process mechanical piping and equipment, and electrical and instrumentation equipment no longer necessary at the site, removal of the existing lagoon and infiltration pond liners, followed by rough grading to fill in the existing basins and hydroseeding to top surface.

Task 6.4 Deliverables:

Review Workshop meeting agenda (final, electronic.pdf) and meeting minutes (draft and final, electronic.pdf)

Task 6.5 – 90% Design Site Visits. Meet with District staff one (1) time during 90% final design to investigate design needs at the treatment plant and along the alignment. This task assumes 8 hours for Kennedy Jenks Project Manager and Project Engineer.

Task 6.5 Assumptions:

- None noted.

Task 6.5 Deliverables:

- Site Visit field notes

Task 6.6 – 90% Final Design. Advance design to 90% completion to show all areas of work on the Project identified in the attached Sheet List. The 90% design submittal will include 90% construction drawings and specifications, P&IDs, and control descriptions, 90% Engineer's Opinion of Probable Construction Cost (Engineer's Estimate) AACE Level 1, and updated Project Schedule.

Task 6.5 Assumptions:

- None noted.

Task 6.6 Deliverables:

- 90% Design Submittal. The 90% Design Submittal will be stamped and used as the Permit submittal.
- Engineer's Opinion of Probable Construction Cost AACE Class 1 (electronic.pdf)

Task 6.7 – 90% Design Review Workshop. Conduct a workshop with District staff to review the 90% Design Drawings, Engineers Estimate, Schedule and Construction Sequencing Plan. The review workshop will be attended by Kennedy Jenks Project Manager and Project Engineer. The second part of the meeting will also include the Electrical Engineer and the Instrumentation Engineer.

Task 6.7 Assumptions:

- None noted.

Task 6.7 Deliverables:

- Review Workshop meeting agenda and meeting minutes

Task 6.8 – Prepare Final Design Submittal. Address District comments from the 90% design workshops and prepare final stamped Contract Documents for construction.

Task 6.8 Assumptions:

None noted.

Task 6.8 Deliverables:

- Final Design Submittal (size and format per General Assumptions). The Final Design Submittal will be electronically stamped.

Task 7: Bidding Assistance

Consultant shall provide services to assist the District in selection of a single Contractor assigned to construct the project. The budget and level of effort included herein for this task is an allowance for use as directed by District staff. Consultant will provide services under this task up to the limit of the budget allocated. These services are expected to consist of the following.

Task 7.1 – Preparation and Delivery of Bid Documents

Consultant will print hard copies of bid documents for Consultant and District team to use during the bid period.

Task 7.1 Assumptions:

- None noted.

Task 7.1 Deliverables:

- Ten (10) sets bid documents for use by the District during bidding. Bid Documents including drawings, which are 11”x17” hardcopy and the Project Manual which is 8.5”x11”.

Task 7.2 – Respond to Bidder Questions
Consultant will provide technical interpretation of the Bid Documents and will prepare, for District Project Manager or Procurement Officer approval, proposed responses to all proposers’ substantive questions and requests. This task assumes the effort is in support of two addendums.

Task 7.2 Assumptions:

- County Procurement Officer will be the contact for receipt of bidder questions and will issue any necessary addenda.

Task 7.2 Deliverables:

- Responses to questions

- Revised drawings or specifications, as needed (.PDF)

Task 7.3 – Attend Pre-Bid Conference

Consultant shall attend one pre-bid conference. In consultation with District, Consultant will provide assistance with development of the draft content for the pre-bid conference.

Task 7.3 Assumptions:

- Attendance is by Consultant Project Manager and Project Engineers. A total duration of 4 hours for the pre-bid conference is assumed.

Task 7.3 Deliverables:

- PowerPoint slides for pre-bid conference, (electronic ppt)

Task 7.4 – Evaluate Bids

This task is an allowance to support District evaluation of bids.

Task 7.4 Assumptions:

- An allowance of 4 hours for the Consultant's Project Manager is provided to support this task.

Task 7.4 Deliverables:

- None noted.

Task 7.5 – Conformed Documents

- Consultant will incorporate addenda during bidding phase into the contract documents.

Task 7.5 Assumptions:

- None Noted

Task 7.5 Deliverables:

- Two (2) full-size sets and twelve (12) half-size sets of conformed drawings; twelve sets of specifications.
- Two USB flash drives with electronic files (PDF format, AutoCAD, Revit .rvt).

In developing the scope of services, the following drawings have been used to develop the proposed budget. These drawings will be included in final design along with associated specifications and the District's standard Division 0 specifications:

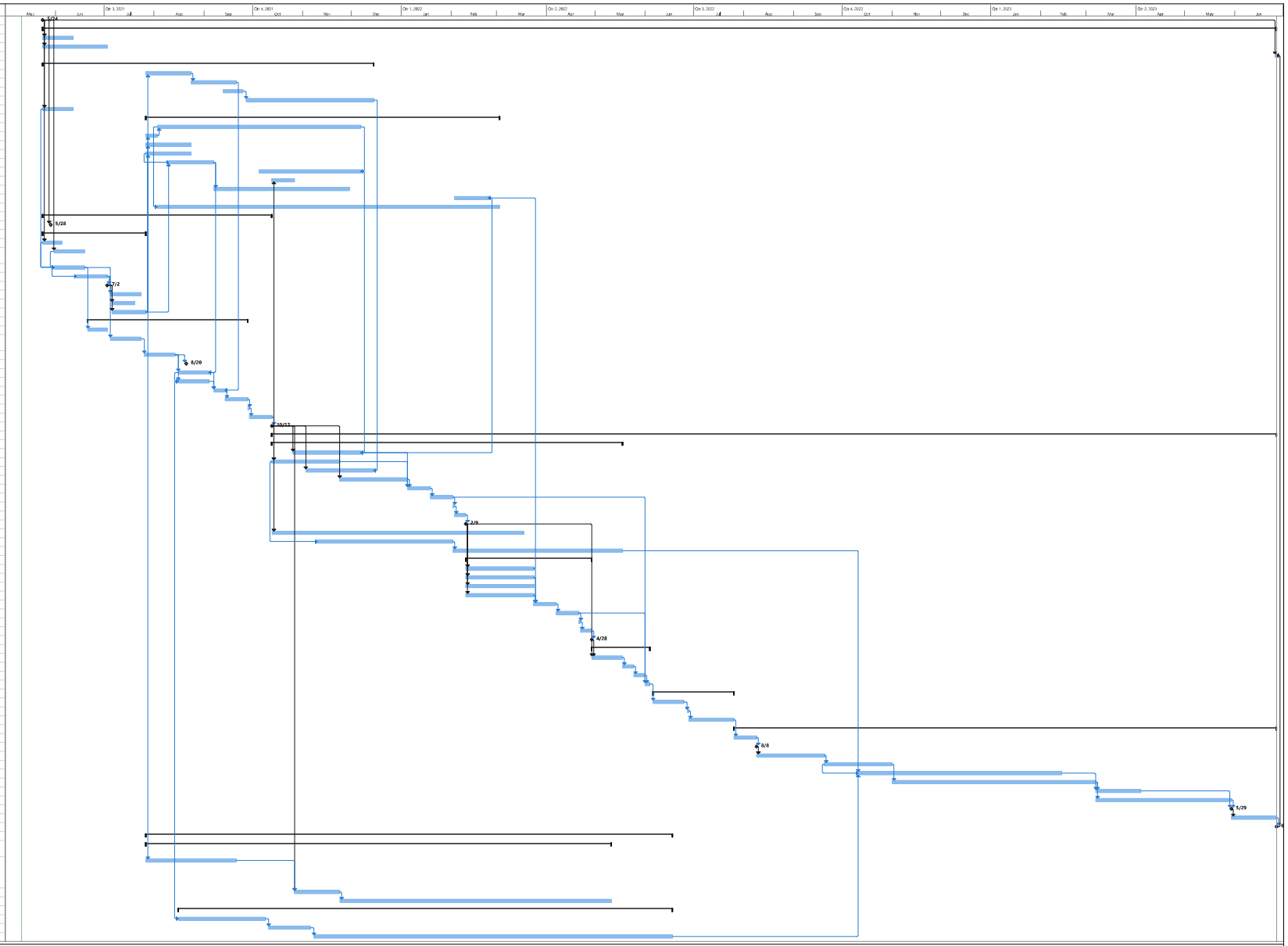
Drawing Sheet List attached

V. Schedule

Schedule attached.

Schedule subject to change based on permitting needs identified during Phase 4, Conceptual Design.

ID	Task Mode	Task Name	Duration	Start	Finish
1		NTP	0 days	Mon 5/24/21	Mon 5/24/21
2		**Phase 1 PM**	**546 days?**	**Mon 5/24/21**	**Mon 6/26/23**
3		QA/QC Plan	15 days	Mon 5/24/21	Fri 6/11/21
4		SubContracting	30 days	Mon 5/24/21	Fri 7/2/21
5		Monthly PM	1 day?	Mon 6/26/23	Mon 6/26/23
6		**Phase 2 Data Development**	**147 days**	**Mon 5/24/21**	**Tue 12/14/21**
7		Geotech borings and subsurface work	20 days	Tue 7/27/21	Mon 8/23/21
8		Geotechnical Design Report	20 days	Tue 8/24/21	Mon 9/20/21
9		Collect Traffic Counts	10 days	Mon 9/13/21	Fri 9/24/21
10		Traffic Analysis and Report	57 days	Mon 9/27/21	Tue 12/14/21
11		Environmental Baseline Investigations	15 days	Mon 5/24/21	Fri 6/11/21
12		**Phase 3 Survey**	**157 days**	**Tue 7/27/21**	**Wed 3/2/22**
13		Utility Locate Coordination	90 days	Tue 8/3/21	Mon 12/6/21
14		Pre-Survey Utility locate meeting	5 days	Tue 7/27/21	Mon 8/2/21
15		Records Research	20 days	Tue 7/27/21	Mon 8/23/21
16		Survey Control	20 days	Tue 7/27/21	Mon 8/23/21
17		Mobile Scanning/Topo Mapping	20 days	Tue 8/10/21	Mon 9/6/21
18		Utility Potholing	45 days	Tue 10/5/21	Mon 12/6/21
19		WWTP Survey	10 days	Wed 10/13/21	Tue 10/26/21
20		Terrestrial Topo Survey	60 days	Tue 9/7/21	Mon 11/29/21
21		Legal Descriptions/Exhibits	15 days	Thu 2/3/22	Wed 2/23/22
22		Survey QC	152 days	Tue 8/3/21	Wed 3/2/22
23		**Phase 4 Preliminary Design**	**102 days**	**Mon 5/24/21**	**Tue 10/12/21**
24		Kickoff Meeting	0 days	Fri 5/28/21	Fri 5/28/21
25		**Desktop Routing TM**	**46 days**	**Mon 5/24/21**	**Mon 7/26/21**
26		Compile Lidar Data	10 days	Mon 5/24/21	Fri 6/4/21
27		Traffic Impacts in support of route evaluation	15 days	Mon 5/31/21	Fri 6/18/21
28		Destop Pipeline Route Evaluation	15 days	Mon 5/31/21	Fri 6/18/21
29		Conceptual Pumpsta Layout	15 days	Mon 6/14/21	Fri 7/2/21
30		Route Analysis Check in Meeting	0 days	Fri 7/2/21	Fri 7/2/21
31		Conceptual surge analysis	15 days	Mon 7/5/21	Fri 7/23/21
32		Route Alternative Analysis Findings	10 days	Tue 7/6/21	Mon 7/19/21
33		Routing TM	15 days	Tue 7/6/21	Mon 7/26/21
34		**BOD and 30% Design**	**71 days**	**Mon 6/21/21**	**Mon 9/27/21**
35		Preliminary forcemain alignment	10 days	Mon 6/21/21	Fri 7/2/21
36		Pump/FM sizing and Op Strategy Evaluation	15 days	Mon 7/5/21	Fri 7/23/21
37		Pump Selection/Design	15 days	Mon 7/26/21	Fri 8/13/21
38		Pumping and Piping Findings Meeting	0 days	Fri 8/20/21	Fri 8/20/21
39		Preliminary Design Drawing	15 days	Mon 8/16/21	Fri 9/3/21
40		Preliminary Design Report	15 days	Mon 8/16/21	Fri 9/3/21
41		Internal QA/QC	5 days	Tue 9/7/21	Mon 9/13/21
42		Address QA/QC comments	10 days	Tue 9/14/21	Mon 9/27/21
43		30% Submittal	1 day	Tue 9/28/21	Tue 9/28/21
44		WLS Review 30% Design	10 days	Wed 9/29/21	Tue 10/12/21
45		30% Design review meeting	0 days	Tue 10/12/21	Tue 10/12/21
46		**Phase 5: Design**	**444 days**	**Wed 10/13/21**	**Mon 6/26/23**
47		**60% Design**	**155 days**	**Wed 10/13/21**	**Tue 5/17/22**
48		Pipeline Design	30 days	Tue 10/26/21	Mon 12/6/21
49		Pump Station Design	30 days	Wed 10/13/21	Tue 11/23/21
50		60% Traffic Control layout drawings	30 days	Wed 11/3/21	Tue 12/14/21
51		Plant Decomissioning Design	30 days	Wed 11/24/21	Tue 1/4/22
52		Internal QA/QC	10 days	Wed 1/5/22	Tue 1/18/22
53		Address QA/QC comments	10 days	Wed 1/19/22	Tue 2/1/22
54		60% Submittal	1 day	Wed 2/2/22	Wed 2/2/22
55		WFS Review 60% Design	5 days	Thu 2/3/22	Wed 2/9/22
56		60% Design review meeting	0 days	Wed 2/9/22	Wed 2/9/22
57		Coordination with ODOT & Clack Co.	112 days	Wed 10/13/21	Thu 3/17/22
58		Easement Acquisition	60 days	Wed 11/10/21	Tue 2/1/22
59		Property Acquisition	75 days	Wed 2/2/22	Tue 5/17/22
60		**90% Design**	**56 days**	**Thu 2/10/22**	**Thu 4/28/22**
61		Pipeline Design	30 days	Thu 2/10/22	Wed 3/23/22
62		Pump Station Design	30 days	Thu 2/10/22	Wed 3/23/22
63		90% Traffic Control layout drawings	30 days	Thu 2/10/22	Wed 3/23/22
64		Plant Decomissioning Design	30 days	Thu 2/10/22	Wed 3/23/22
65		Internal QA/QC	10 days	Thu 3/24/22	Wed 4/6/22
66		Address QA/QC comments	10 days	Thu 4/7/22	Wed 4/20/22
67		90% Submittal	1 day	Thu 4/21/22	Thu 4/21/22
68		WLS Review 90% Design	5 days	Fri 4/22/22	Thu 4/28/22
69		90% Design review meeting	0 days	Thu 4/28/22	Thu 4/28/22
70		**Bid Documents**	**26 days**	**Fri 4/29/22**	**Fri 6/3/22**
71		Drawings and Specs	13 days	Fri 4/29/22	Tue 5/17/22
72		Internal QA/QC	5 days	Wed 5/18/22	Tue 5/24/22
73		Address QA/QC comments	5 days	Wed 5/25/22	Tue 5/31/22
74		Stamp and Print	3 days	Wed 6/1/22	Fri 6/3/22
75		**Bid Period**	**36 days**	**Mon 6/6/22**	**Mon 7/25/22**
76		Procurement	15 days	Mon 6/6/22	Fri 6/24/22
77		Advertisement	1 day	Mon 6/27/22	Mon 6/27/22
78		Bid Opening	20 days	Tue 6/28/22	Mon 7/25/22
79		**Construction**	**240 days**	**Tue 7/26/22**	**Mon 6/26/23**
80		Contracting	10 days	Tue 7/26/22	Mon 8/8/22
81		NTP	0 days	Mon 8/8/22	Mon 8/8/22
82		Submittals	30 days	Tue 8/9/22	Mon 9/19/22
83		Procurement	30 days	Tue 9/20/22	Mon 10/31/22
84		Pipeline Installation (400'/day - 2 headings)	90 days	Tue 10/11/22	Mon 2/13/23
85		Pump Station Installation	90 days	Tue 11/1/22	Mon 3/6/23
86		Commissioning of Pump Station and FM	20 days	Tue 3/7/23	Mon 4/3/23
87		Decomission existing treatment plant	60 days	Tue 3/7/23	Mon 5/29/23
88		Substantial Completion	0 days	Mon 5/29/23	Mon 5/29/23
89		Punchlist	20 days	Tue 5/30/23	Mon 6/26/23
90		Final Completion	0 days	Mon 6/26/23	Mon 6/26/23
91		**Permitting in Support of Final Design**	**234 days**	**Tue 7/27/21**	**Fri 6/17/22**
92		**Environmental Contingency Tasks (If needed)**	**206 days**	**Tue 7/27/21**	**Tue 5/10/22**
93		Field Tasks and Reporting (Rpt/outfitting/Needed wetland delineations, cultural resource surveys, stream/wetland functional assessments)	40 days	Tue 7/27/21	Mon 9/20/21
94		Joint Permit Application Prep	20 days	Wed 10/27/21	Tue 11/23/21
95		Agency Review	120 days	Wed 11/24/21	Tue 5/10/22
96		**Land Use**	**220 days**	**Mon 8/16/21**	**Fri 6/17/22**
97		Permit Applications	40 days	Mon 8/16/21	Fri 10/8/21
98		Permit Submittals	20 days	Mon 10/11/21	Fri 11/5/21
99		Agency coordination and Permit Approvals	160 days	Mon 11/8/21	Fri 6/17/22



Project: Schedule_RoringV2
Date: Tue 5/11/21

Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Progress | Manual Progress

EXHIBIT B
FEE SCHEDULE

Proposal Fee Estimate **Kennedy/Jenks Consultants**

CLIENT Name: Clackamas County Water Environment Services
PROJECT Description: Boring Pump Station and Forcemain and Plant Decommissioning
Proposal/Job Number: B10761005/0006 Date: 5/26/2021

Classification:	QA/QC - Eng-Sci-8 Fretwell	CSM- Eng-Sci-8 Wood	PM - Humm - Eng-Sci-6	PE- Connors- Eng-Sci-5	PE - Carney - Eng-Sci-4	Process Mech Lead - Lubovich Eng-Sci-5	Engr Staff - Eng-Sci-2 Tetzloff	Principal Electrical Mohr - Eng-Sci-8	Elec Staff Engr - Hoepf Eng-Sci-4	Sr. Struct - Salter - Eng-Sci-5	Struct Staff Engr - Pritchett - Eng-Sci-3	Sr. Architect - Preston	Mechanical Engr - Ray E7	Mechanical Engr - Ross E4	Cost Estimating Eng-Sci-6 - Hoffman	CAD Designer - Lasselle	Sr. CAD Tech - Cadiente	Project Admin. - Aquino	Total	KJ Total Labor	Sub David Evans	Sub DKS	Sub Flow Science	Sub McMillian Jacobs	Sub Portland Engineering	Sub VacX	KJ Sub-Markup	KJ ODCs	KJ ODCs MarkUp	Total Expenses	Total Labor + Expenses
Hourly Rate:	$230	$230	$226	$159	$152	$207	$110	$230	$168	$173	$134	$217	$216	$153	$171	$142	$111	$119	Hours	Fees	Fees	Fees	Fees	Fees	Fees	Fees	5%	Fees	0%		Fees
Task 1 Project Management																														
Task 1.1: Project Management	6	22	202	24														22	276	$58,615	$15,070	$6,960					$1,102		$0	$23,132	$81,747
Task 1.2 Project Design Meetings	0	0	52	52	0	26	0	0	12	12	0	12	0	12	0	0	0	0	178	$33,952	$5,498	$7,550					$652		$0	$13,700	$47,653
Task 1 - Subtotal	6	22	254	76	0	26	0	0	12	12	0	12	0	12	0	0	0	22	454	$92,568	$20,568	$14,510	$0	$0	$0	$0	$1,754	$0	$0	$36,832	$129,400
Task 2 Quality Assurance/Quality Control																														
Task 2.1: Sub Consultant QA/QC																			0	$0	$10,000	$12,500	$2,500	$6,500	$4,000		$1,775		$0	$37,275	$37,275
Task 2.2: Quality Management Plan	6	4	6					0										2	18	$3,897							$0		$0	$0	$3,897
Task 2.3: 30% Design Submittal QA/QC	20							3											23	$5,313							$0		$0	$0	$5,313
Task 2.4: 60% Design Submittal QA/QC	67							30											163	$22,264							$0		$0	$0	$22,264
Task 2.5: 90% Design Submittal QA/QC	56							19											75	$17,331							$0		$0	$0	$17,331
Task 2.6: Final Design Submittal QA/QC	23							7											30	$6,958							$0		$0	$0	$6,958
Task 2 - Subtotal	172	4	6	0	0	0	0	60	0	0	0	0	0	0	0	0	0	2	310	$55,762	$10,000	$12,500	$2,500	$6,500	$4,000	$0	$1,775	$0	$0	$37,275	$93,037
Task 3 Development of Site Specific Info																														
Task 3.1: Data Collection			2	16	16		12			12									58	$8,824		$2,480					$124		$0	$2,604	$11,428
Task 3.2 Geotechnical Investigations			2	2	2					16									22	$3,842							$0		$0	$0	$3,842
Task 3.2.1 Geotechnical Explorations																			0	$0				$31,820			$1,591		$0	$33,411	$33,411
Task 3.2.2 Geotechnical Evals																			0	$0				$34,510			$1,726		$0	$36,236	$36,236
Task 3.2.3 Trenchless Crossing Design																			0	$0				$17,330			$867		$0	$18,197	$18,197
Task 3.3 Traffic Analysis			2	8			16												26	$3,485		$29,510					$1,476		$0	$30,986	$34,470
Task 3.3.1 Traffic Analysis Meetings			8	16															24	$4,352		$4,000					$200		$0	$4,200	$8,552
Task 3.4 Surge Analysis			4		16	8													28	$4,996			$22,400				$1,120		$0	$23,520	$28,516
Task 3.5 Environmental Baseline Investigations			4	16															20	$3,446	$16,826						$841		$0	$17,667	$21,113
Task 3.5.1 Permitting Coordination Mtgs			4	8															12	$2,176	$2,500						$125		$0	$2,625	$4,801
Task 3 - Subtotal	0	0	26	66	34	8	28	0	0	28	0	0	0	0	0	0	0	0	190	$31,120	$19,326	$35,990	$22,400	$83,660	$0	$0	$8,069	$0	$0	$169,445	$200,565
Task 4 Utility Location and Survey of Project Area																														
Task 4.1 Utility Locate Coordination							64												64	$7,048	$14,594						$730		$0	$15,324	$22,372
Task 4.2 Records Research																			0	$0	$7,422						$371		$0	$7,793	$7,793
Task 4.3 Survey Control																8			8	$1,137	$47,867						$2,393		$0	$50,260	$51,397
Task 4.4 Mobile Scanning/Topographic Mapping																			0	$0	$75,382						$3,769		$0	$79,151	$79,151
Task 4.5 Utility Potholing				8			40									8			56	$6,812	$5,321					$52,500	$2,891		$0	$60,712	$67,524
Task 4.6 WWTP Site Survey																8			8	$1,137	$9,636						$482		$0	$10,118	$11,255
Task 4.7 Terrestrial Topo Survey																			0	$0	$93,430						$4,672		$0	$98,102	$98,102
Task 4.8 Legal Descriptions and Exhibits				5			20									10			35	$4,418	$33,840						$1,692		$0	$35,532	$39,950
Task 4 - Subtotal	0	0	0	13	0	0	124	0	0	0	0	0	0	0	0	34	0	0	171	$20,552	$287,492	$0	$0	$0	$0	$52,500	$17,000	$0	$0	$356,992	$377,543

Proposal Fee Estimate **Kennedy/Jenks Consultants**

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Classification:	QA/QC - Eng-Sci-8 Fretwell	CSM- Eng-Sci-8 Wood	PM - Humm - Eng-Sci-6	PE- Connors- Eng-Sci-5	PE - Carney - Eng-Sci-4	Process Mech Lead - Lubovich Eng-Sci-5	Engr Staff - Eng-Sci-2 Tetzloff	Principal Electrical Mohr - Eng-Sci-8	Elec Staff Engr - Hoepf Eng-Sci-4	Sr. Struct - Salter - Eng-Sci-5	Struct Staff Engr - Pritchett - Eng-Sci-3	Sr. Architect - Preston	Mechanical Engr - Ray E7	Mechanical Engr - Ross E4	Cost Estimating Eng-Sci-6 - Hoffman	CAD Designer - Lasselle	Sr. CAD Tech - Cadiente	Project Admin. - Aquino	Total	KJ Total Labor	Sub David Evans	Sub DKS	Sub Flow Science	Sub McMillian Jacobs	Sub Portland Engineering	Sub VacX	KJ Sub-Markup	KJ ODCs	KJ ODCs Markup	Total Expenses	Total Labor + Expenses
Hourly Rate:	$230	$230	$226	$159	$152	$207	$110	$230	$168	$173	$134	$217	$216	$153	$171	$142	$111	$119	Hours	Fees	Fees	Fees	Fees	Fees	Fees	Fees	5%	Fees	0%		Fees
Task 5 Conceptual Design Phase																															
Task 5.1 Kickoff Meeting		1	4	8	8	4		2		2									29	$5,257	$650	$500					$58		$0	$1,208	$6,464
Task 5.2 Desktop Routing TM		2	8	80	24	16	40											8	178	$27,296	$7,197	$2,860	$2,500				$628		$0	$13,185	$40,481
Task 5.2.1 Review Meeting			4	8	4	4		2		2									24	$4,418							$0		$0	$0	$4,418
Task 5.3 30% Design Submittal																			0	$0	$6,310	$3,960			$10,854		$1,056		$0	$22,180	$22,180
Task 5.3.1 BOD TM			8	40	24	16	60	2	8	4		4						8	174	$26,055							$0		$0	$0	$26,055
Task 5.3.2 30% Design Drawings		0	16	65	44	7	78		63	11	22	8			6	233	67	0	620	$89,339							$0		$0	$0	$89,339
Task 5.4 30% Design Review Meeting			4	8	4	4		2		2									24	$4,418							$0		$0	$0	$4,418
Task 5.5 30% Environmental Support			4	16															20	$3,446	$10,242						$512		$0	$10,754	$14,200
Task 5 - Subtotal	0	3	48	225	108	51	178	8	71	21	22	12	0	0	6	233	67	16	1069	$160,230	$24,399	$7,320	$2,500	$0	$10,854	$0	$2,254	$0	$0	$47,327	$207,557
Task 6 Design Phase																															
Task 6.1 60% Design Site Visits			16		16				8										40	$7,405		$1,700					$85	$250	$0	$2,035	$9,440
Task 6.2 60% Final Design		0	38	203	129	17	183		237	37	50	32	11	31	14	543	156	32	1713	$251,850	$1,920	$74,533	$1,200		$16,090		$4,687		$0	$98,430	$350,280
Task 6.3 60% Design Review Workshop			4	8	4	2		2		2									22	$4,004		$500					$25		$0	$525	$4,529
Task 6.4 Decommissioning Coordination with DEQ					16														16	$2,434							$0		$0	$0	$2,434
Task 6.5 90% Design Site Visits			8		8														16	$3,029		$1,700					$85	$100	$0	$1,885	$4,914
Task 6.6 90% Final Design		0	37	178	116	17	183		192	31	50	25	10	29	14	543	156	16	1597	$233,100	$1,920	$48,022	$1,200		$16,090		$3,362		$0	$70,594	$303,694
Task 6.7 90% Design Review Workshop			4	8	4	2		2		2									22	$4,004		$500					$25		$0	$525	$4,529
Task 6.8 Prepare Final Design Submittal		0	16	74	49	7	78		78	13	22	10	4	12	6	233	67	5	673	$98,114		$48,850			$7,236		$2,804		$0	$58,890	$157,005
Task 6 - Subtotal	0	0	122	471	342	45	444	4	516	85	122	67	24	73	34	1318	379	53	4099	$603,941	$3,840	$175,805	$2,400	$0	$39,416	$0	$11,073	$350	$0	$232,884	$836,825
Task 7 - Bid Period Services																															
Task 7.1 Preparation and Delivery of Bid Docs					4													8	12	$1,564							$0	$5,000	$0	$5,000	$6,564
Task 7.2 Respond to Bidder Questions	4		16	24	16		32	2	8	2	8	2	2	8			40	16	180	$25,974		$1,820			$2,400		$0		$0	$4,220	$30,194
Task 7.3 Attend Pre-Bid Conference			8	2	8		8												26	$4,227							$0		$0	$0	$4,227
Task 7.4 Evaluate Bids			4																4	$906							$0		$0	$0	$906
Task 7.5 Conformed Documents				2			4										40	16	62	$7,099		$1,325			$5,000		$0	$6,800	$0	$13,125	$20,224
Task 7 - Subtotal	4	0	28	28	28	0	44	2	8	2	8	2	2	8	0	0	80	40	284	$39,771	$0	$3,145	$0	$0	$7,400	$0	$0	$11,800	$0	$22,345	$62,116
All Phases Total	182	29	536	932	512	156	818	74	619	160	152	104	28	105	40	1585	526	133	6577	$1,003,944	$365,625	$249,270	$29,800	$90,160	$61,670	$52,500	$41,924	$12,150	$0	$903,099	$1,907,043

Kennedy Jenks_WES_Contract Packet_202107

Final Audit Report 2021-07-14

Created:	2021-07-14
By:	Lauren Haney (LHaney@clackamas.us)
Status:	Signed
Transaction ID:	CBJCHBCAABAAIFyq0YqotrCU1v1h4xD8_R6JHd3AEUyf

"Kennedy Jenks_WES_Contract Packet_202107" History

Document created by Lauren Haney (LHaney@clackamas.us)
2021-07-14 - 8:31:13 PM GMT- IP address: 174.204.192.46

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