

PERSONAL SERVICES AGREEMENT

BETWEEN LEWIS COUNTY AND HDR Engineering, Inc.

PARTIES TO THE CONTRACT

This Contract is made and entered into by and between Lewis County hereinafter referred to collectively as the "COUNTY" and HDR Engineering, Inc., hereinafter referred to as the "CONSULTANT." The COUNTY and the CONSULTANT together, are hereinafter referred to as the "PARTIES."

Lewis County
351 NW North St
Chehalis WA 98532

HDR Engineering, Inc.
929 108th Ave NE Ste 1300
Bellevue, WA 98004
(425) 450-6200

PURPOSE

Lewis County hereby enters into a contract agreement with HDR Engineering, Inc. to design the sewer collection and treatment system for the community of Packwood.

PERIOD OF PERFORMANCE

The term of this Agreement shall commence on the 1st day of March 2023 and shall, unless terminated or renewed as provided elsewhere in this Agreement, terminate on the 31st day of October of 2024, but may be extended by mutual agreement.

STATEMENT OF WORK

The CONSULTANT agrees to provide to the COUNTY services and any material set forth in the project narrative identified as Exhibit "A" during the Contract period. CONSULTANT provides such services as an independent contractor using CONSULTANT'S own officers, agents, employees, or contractors. This Contract shall not be construed to make COUNTY an employer or joint employer of CONSULTANT or any of CONSULTANT's officers, agents, employees, or contractors. The standard of care for CONSULTANT's services shall be the care and skill ordinarily used by members of CONSULTANT's profession practicing under the same or similar circumstances at the same time and in the same locality.

ESTIMATES

Any estimates of project cost, value or savings provided by CONSULTANT are intended to allow a comparative evaluation between alternatives and do not constitute a detailed evaluation or prediction of actual project costs, value or savings. Any such estimates are made on the basis of information available to CONSULTANT and on the basis of CONSULTANT's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since CONSULTANT has no control over the impact of various factors that impact the actual project cost, value or savings,

CONSULTANT does not guarantee that the actual project cost, value or savings will not vary from CONSULTANT's estimates.

FUNDING/COMPENSATION

Funding for this Contract is Three Million Nine Hundred Eighty-Seven Thousand Thirty Nine Dollars. Total CONSULTANT compensation will not exceed \$3,987,039 unless this Contract is subsequently amended by both parties.

BILLING PROCEDURES AND PAYMENT

The CONSULTANT shall provide the COUNTY with monthly invoices due 30 days after receipt describing and documenting to the COUNTY'S satisfaction the work performed. The CONSULTANT must provide a breakdown of expenses, identifying what was expended and when. Any fees for additional services will be discussed and approved by the COUNTY in advance of services being performed.

The COUNTY may, in its sole discretion, terminate the Contract or withhold payments claimed by the CONSULTANT for services rendered if the CONSULTANT fails to satisfactorily comply with any term or condition of this Contract and fails to cure such failure within a period of 10 days following written notice of thereof.

MODIFICATIONS

Either party may request changes in this Agreement. Any and all modifications agreed to by the parties shall be memorialized in a writing signed by each of the parties.

TERMINATION FOR DEFAULT

If the Consultant defaults by failing to perform any of the obligations of this Agreement or becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency or makes an assignment for the benefit of creditors, the County may, by depositing written notice to the Consultant in the U.S. mail, postage prepaid, terminate the Agreement, and at the County's option, obtain performance of the work elsewhere. However, the County will not terminate for default without providing Consultant written notice of the default and a period of 10 days to cure. If the Agreement is terminated for default, the Consultant shall not be entitled to receive any further payments under the Agreement until work called for has been fully performed. Any extra cost or damage to the County resulting from such default(s) shall be deducted from any money due or coming due to the Consultant. The Consultant shall bear any extra expenses incurred by the County in completing the work, including all increased costs for completing the work, and all damage sustained, or which may be sustained by the County by reason of such default.

If a notice of termination for default has been issued and it is later determined for any reason that the Consultant was not in default, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to the Termination for Public Convenience paragraph hereof.

TERMINATION FOR PUBLIC CONVENIENCE

The County may terminate the Agreement in whole or in part whenever the County determines, in its sole discretion that such termination is in the interests of the County. Whenever the Agreement is terminated

in accordance with this paragraph, the Consultant shall be entitled to payment for actual work delivered at unit contract prices for completed items of work. An equitable adjustment in the Agreement price for partially completed items of work will be made, but such adjustment shall not include provision for loss of anticipated profit on deleted or non-completed work. Termination of this Agreement by the County at any time during the term, whether for default or convenience, shall not constitute a breach of contract by the County.

WITHHOLDING PAYMENT

In the event the CONSULTANT has failed to perform any substantial obligation required under this Contract the COUNTY shall notify the CONSULTANT in writing. If that failure has not been cured within thirty days after notification, then the COUNTY may, upon written notice, withhold all monies due and payable to CONSULTANT, without penalty, until such failure to perform is cured or otherwise adjudicated.

OWNERSHIP OF ITEMS PRODUCED

All writings, programs, data, public records or other materials prepared by the Consultant and/or his consultants or subcontractors, in connection with the performance of this Agreement shall be the sole and absolute property of the County. Any modification or reuse of such items for purposes other than those intended by this Agreement shall be at County's sole risk and without liability to Consultant.

CONTRACT MANAGEMENT

The Contract Manager for each of the PARTIES shall be the contact person for all communications and billings regarding the performance of this Contract.

The COUNTY representative shall be Josh Metcalf, 2025 NE Kresky Ave, Chehalis WA 98532; 360-740-2762, josh.metcalf@lewiscountywa.gov

The CONSULTANT representative shall be Michael Starling, 600 University St. Ste 500, Seattle, WA 98101; (206) 826-4731, Michael.starling@hdrinc.com

INDUSTRIAL INSURANCE

With respect to the performance of this Contract, CONSULTANT shall comply with Title 51 of the Revised Code of Washington, the Industrial Insurance Act, for injuries to its employees and agrees that COUNTY shall have no obligations under that Title to any of CONSULTANT's officers, agents, employees, or contractors.

INDEMNITY

CONSULTANT agrees to indemnify, defend and hold COUNTY and COUNTY'S officials, employees, agents, volunteers, and insurers harmless from and against any and all claims, damages, losses and expenses, including but not limited to court costs, attorney's fees and alternative dispute resolution costs, for any personal injury, for any bodily injury, sickness, disease or death and for any damage to or destruction of any property (including the loss of use resulting therefrom) to the extent caused by any negligent or wrongful act or omission of CONSULTANT or CONSULTANT's officers, agents, employees, or contractors.

CONSULTANT's indemnification obligation shall not be limited in any way by the Washington State Industrial Insurance Act, RCW Title 51, or by application of any other workmen's compensation act, disability benefit act or other employee benefit act, and CONSULTANT hereby expressly waives any immunity afforded by such acts. The foregoing indemnification obligations were mutually negotiated by the parties as a material inducement to enter into this Contract.

COUNTY reserves the right, but not the obligation, to participate in the defense of any claim, damages, losses or expenses and such participation shall not constitute a waiver of CONSULTANT's indemnity obligations herein.

The indemnity obligations herein shall survive this Contract's completion, expiration or termination.

SEVERABILITY

If any term or condition of this Agreement or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications, which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this Agreement are declared severable.

ORDER OF PRECEDENCE

This Contract is entered into, pursuant to, and under the authority granted by applicable federal and state laws. The provisions of the Contract shall be construed to conform to those laws. In the event of an inconsistency in the terms of this Contract, or between its terms and any applicable statute, rule, or policy or procedure, the inconsistency shall be resolved by giving precedence in the following order:

- Applicable federal laws and regulations,
- State law,
- Washington Administrative Code,
- This Contract, and
- Any other provision, term or material incorporated herein by reference or otherwise incorporated.

This Contract represents all the terms and conditions agreed upon by the PARTIES. No other statements or representations, written or oral, shall be deemed a part hereof.

CONFORMANCE AND CHOICE OF LAW

If any provision of this Contract violates any statute or rule of law of the State of Washington, it is considered modified to conform to that statute or rule of law. This Contract shall be construed under the laws of the State of Washington, except with respect to any choice of law rules. Venue for any action arising out of this Contract or its performance shall be in the Superior Court of Washington in and for Lewis County or in the U.S. District Court for the Western District of Washington, Tacoma Division.

APPROVAL

This Contract shall be subject to the written approval of the COUNTY authorized representative and shall not be binding until so approved. The Contract may be altered, amended, or waived only by a written amendment executed by both PARTIES.

This CONTRACT is executed by the persons signing below who warrant that they have the authority to execute the Contract.

LEWIS COUNTY

Josh Metcalf
Director, Public Works

DATE

CONSULTANT



Rob Berman
Senior Vice President

02/15/2023

DATE

EXHIBIT A

Lewis County Public Works Packwood Sewer System

Scope of Services

February 2023



**905 Plum Street SE
Suite 200, Town Square 3
Olympia WA 98501-9000
(360) 570-4400**

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EXHIBIT A

SCOPE OF SERVICES

Background

Lewis County Public Works (COUNTY) selected HDR Engineering, Inc. (HDR) to provide design, plans, specifications, and engineer's estimate of probable construction costs, and permitting services for construction of the new Sewer System in the community of Packwood, Washington. The County had previously contracted with Territorial-Landworks, Inc. to provide an Alternative Evaluation for a Large On-site Sewage System (LOSS) for Packwood. HDR will build off the existing study to site and design the sewage collection and treatment systems.

Scope of Services

Task 100 Project Management

Objective

The purpose of this task is to monitor the scope, schedule, and budget as well as provide monthly status reporting, accounting and invoicing, and management of the project team including subconsultants and project coordination with County staff.

CONSULTANT Services

1. Prepare monthly invoices and status reports describing services completed during the period, issues to be addressed, identification of possible out of scope items, and services planned for next month's invoicing period.
2. Attend Project Kickoff Meeting
3. Attend biweekly coordination meetings.
4. Project Team Internal Coordination.
5. Project setup, management, and coordination with subconsultants.
6. At project initiation prepare the following:
 - A. Prepare a Project Management Plan (Project Guide) to clearly communicate objectives, scopes, budgets, schedule, communications protocols, health and safety requirements for field work, and guidelines to project team members.
 - B. Prepare a Quality Assurance and Quality Control (QA/QC) Plan outlining the QA/QC procedures that will be used by the CONSULTANT during the design process throughout the life of the project.
 - C. CONSULTANT will conduct a quality assurance review of CONSULTANT's Project Approach and Resource Review at project commencement to confirm the projects technical approach, team resources, other available firm resources, and project management approach. Review will be by two senior municipal infrastructure engineers not associated with the project.
7. Provide written agendas and meeting summary notes of key issues discussed at meetings.
8. Prepare Job Hazard Analysis (JHA) for any required field visits.

County Responsibilities

1. Attendance at project meetings (total of 40 meetings).
2. Review and provide timely, consolidated (conflict-resolved) comments on deliverables within 10 business days
3. Review and provide comments to meeting summary notes in relation to accuracy.
4. Prompt processing and payment of compliant invoices. The COUNTY will make one progress payment each month provided the invoices are complete, accurate, and in format requested by the COUNTY.

Assumptions

1. The project duration for completing Tasks 100 through 1100 will be 20 consecutive months, commencing in March 2023 to end of October 2024, based on an assumed Notice to Proceed date of March 1, 2023. Task 1200 Bid Support Services will occur in November and December 2024.
2. CONSULTANT will provide Construction Management and Inspection Services as requested by the COUNTY. This effort is not included in this scope of services but will be added as supplemental services in an amendment to the contract.
3. Biweekly project meetings will include updates on current work and coordination items for the design team. Project meetings will be held in person at CONSULTANT's Olympia office.
4. The COUNTY will schedule project team meetings and coordinate the necessary activities with other COUNTY departments in relation to the defined services provided by CONSULTANT herein.
5. CONSULTANT will not be held responsible for delays occasioned by factors beyond its control, which could not reasonably have been foreseen at the time of execution of the Agreement.
6. Project kickoff meeting will be held both in person and virtually. In person meeting will be hosted by the COUNTY at HDR's office at 905 Plum Street SE, Olympia, WA. Virtual meeting will be with Microsoft Teams. A maximum of 5 CONSULTANT staff will attend in person. All other CONSULTANT staff will attend virtually.
7. Project team meetings will be attended by a maximum of 2 CONSULTANT staff. Meetings will be a maximum of 1.5 hours with addition 0.5 hour for meeting preparation and follow-up per meeting. Meetings will be virtual, with a quarterly in-person meeting held at HDR's office at 905 Plum Street SE, Olympia, WA.
8. During invoicing periods when no design/engineering work is performed, CONSULTANT will not submit an invoice/status report to the COUNTY for that billing period.

Deliverables

1. Project Management Plan (Project Guide) will be available to the County upon request (PDF format) and will include a health and safety plan for any CONSULTANT staff performing work in the field.
2. Monthly reports and invoices (one copy with invoice).
3. Meeting agenda and summary of meeting notes (PDF format).

Task 200 Survey

Objective

CONSULTANT will provide topographic and right-of-way survey for the project.

CONSULTANT Services

Right-of-Way Survey

CONSULTANT will do the appropriate field and office work to establish the right-of-way of SR-12 and associated side streets as identified in the service area map provided by COUNTY. CONSULTANT will also establish side lines of adjacent properties based on record information. No easements will be shown, and no title reports obtained or reviewed for sideline establishment. Sidelines will be considered approximate.

Boundary Establishment CONSULTANT will complete a boundary survey of the parcel selected for treatment and disposal and find or set markers (rebar and land surveyors cap) at the exterior corners of the parcel. We will show easements and other encumbrances as revealed by a Title Report provided by the COUNTY. If the COUNTY does not have a current title report, a Record of Survey drawing will be prepared and recorded with the County Auditor's office as required by law. The County recording fee is included in our fee.

Topographic Mapping

CONSULTANT will complete a topographic survey of the sites as specified above and defined on the attached Survey Limits Exhibit. The topographic survey will include the following:

1. One-foot contours with tops, toes and breaks, spot grades to be taken at 50' intervals or less.
2. Buildings and other structures on site with finished floor elevation.
3. Other visible improvements such as curbs, mailboxes, lights poles, etc.
4. Hard surfaces such as concrete, pavement and gravel.
5. Trees 6" and larger diameter-at-breast-height with diameter and species measured.
6. CONSULTANT will hire and coordinate a utility locator service to paint the buried conductible utilities. CONSULTANT will then field map the utilities paint marks and surface appurtenances. CONSULTANT will open and measure utility structures and measure pipe sizes, types and invert elevations.

The Survey will be completed on the Washington State Plane Coordinate System and NAVD 88 vertical datum.

Assumptions

1. Right-of-Way Gravity Sewer.
 - Full ROW mapping for SR-12 and side streets as defined in service area map provided by COUNTY
 - Include Right-of-Way establishment and topographic survey.
2. Force Main Topo.
 - 50' wide area of mapping along yellow line along force main routing to treatment facility.

- Includes Topographic mapping, and partial Boundary establishment of property lines adjacent or running through the mapping area.
3. Sewer Treatment and drain field mapping.
 - Area as outlined in red on attached Survey Limits Exhibit.
 - Topographic mapping and Boundary establishment of parcel.
 4. Private property connections.
 - Assumed 62 sites, topographic mapping only.
 - Topographic mapping from ROW to house locations for sewer connection.
 - Assumed mapping area of 500 SQ. FT. or less.
 - Assumed COUNTY to provide right of entry.
 - COUNTY to provide all title reports.

Deliverables

1. Topographic Survey Map in pdf form.
2. ACAD electronic drawing file of the project by email.

Task 300 Geotechnical

Objective

CONSULTANT will provide geotechnical engineering and recommendations for the project.

CONSULTANT Services

Field Investigation

1. Review readily available geotechnical and geologic data for the project area to help characterize soil conditions and identify geologic conditions that could impact the proposed project.
2. Plan and execute a geotechnical investigation consisting of 18 machine-drilled exploratory borings; 15 borings along the sewer and pump station alignment and 3 borings at the LOSS site. Proposed boring depths are 25 ft along the sewer alignment, 50 ft at pump station sites, and 40 ft and 100 ft at the LOSS site. Landau will subcontract the drill rig and operator.
3. During drilling of the geotechnical borings in proximity to the former Packwood Lumber site, screen soils for organic vapors by headspace analysis using a photoionization detector (PID) a water sheen test, and visual and olfactory methods (i.e., stained or discolored soils and/or adverse odors). If field indications of contamination are detected, collect at least one soil sample from each suspect contaminated boring location. Groundwater samples would also be collected from suspect contaminated boring locations via temporary wells installed during drilling activities. Soil and groundwater samples will be collected following regulatory agency standard operating procedures.
4. Plan and execute a geotechnical investigation consisting of four exploratory test pits at the LOSS site. Complete Soil Characterization in accordance with WAC 246-272B-03400.
5. Install a groundwater monitoring well in 5 borings along the sewer line and pump station alignment and 3 borings at the LOSS site (8 total).

6. Perform geotechnical laboratory testing. For budgetary purposes Landau has assumed 72 combined analysis (sieve plus hydrometer) and 32 moisture content determinations.
7. After a one-year groundwater monitoring period, coordinate and subcontract groundwater monitoring well decommissioning for monitoring wells within WSDOT ROW.
8. If required for Task 501, an excavator and operator will be hired for two days to advance test pits at potential dispersal sites.

Groundwater monitoring

1. Install a pressure transducer in each groundwater monitoring well. Visit the site monthly to collect data. Prepare graphs of groundwater elevation, precipitation, and river elevation (if applicable) versus time over a one-year study period.

Geotechnical Design Services

1. Develop grain-size-based infiltration rates at the LOSS site.
2. Evaluate seismic design requirements including estimating liquefaction induced settlement and potential for lateral spreading using simplified empirical methods.
3. Complete a hydrogeologic study to satisfy Lewis County Critical Aquifer Recharge Area and WAC 246-272B-02050 requirements.
4. Prepare critical area studies for volcanic hazards and channel migration hazards across the project area.
5. Develop geotechnical foundation design recommendations for structures at the pump stations and LOSS site.
6. Develop surface restoration design recommendations for the LOSS site for site pavement and/or surfacing.
7. Provide recommendations for earthwork, including structural fill placement and compaction and shoring and dewatering considerations.
8. Develop recommendations for design lateral earth pressures for buried structures.
9. Prepare a Geotechnical Data Report and Geotechnical Design Report.
10. Address Critical Aquifer Recharge Area designation, Channel Migration Zone designation, and Volcanic Hazard Risks, including Lahar within the Baseline Report or Draft Geotechnical Design Report or separate discipline reports.

County Responsibilities

1. Review and provide timely, consolidated (conflict-resolved) comments on deliverables within 10 business days.
2. County will provide place to store contaminated soils should any be encountered during the geotechnical investigation.

Assumptions

1. Because layout of the sewer alignment is unknown, a nominal 15 foot boring in the sewer corridor has been assumed.
2. A total drilling footage of 605 ft (with 235 ft of groundwater monitoring well screen) has been assumed for cost estimates.

3. CONSULTANT will coordinate and obtain WSDOT ROW permits for work performed adjacent to SR-12. This is assumed to be 15 borings. CONSULTANT assumes WSDOT ROW permit costs will not exceed \$500 in total. It is assumed that test pits and drilling activities and the dispersal review sites, and at the selected LOSS site will not require WSDOT permits or coordination.
4. Drilling in the WSDOT ROW will require restricted hours (9:00 am to 3:00 pm) or similar. Inclement weather will not delay drilling.
5. Borings will not be located within SR-12 travel lanes, and will be outside of paved areas where possible.
6. CONSULTANT will subcontract traffic control services for WSDOT ROW drilling and groundwater monitoring readings.
7. Drilling will be completed using hollow-stem auger and mud rotary techniques. Rock coring and sonic drilling are excluded.
8. COUNTY will provide County right-of-way (ROW) permits at no cost to CONSULTANT.
9. Rights of entry onto private property for drilling activities and groundwater monitoring, if required, will be coordinated by the County.
10. Soil conditions are anticipated to consist of sand and gravel.
11. The planned explorations do not include an environmental site assessment, and the site is assumed to be free of hazardous or contaminated materials. Soil cuttings will be drummed and disposed of off-site by the drilling subcontractor. However, to address potential contaminated soil handling and disposal concerns at or near the Old Mill property, CONSULTANT has included a nominal budget contingency for analytical testing and disposal of contaminated soil in three borings.
12. Only structures at the LOSS and pump station sites will require seismic design. Ground improvement design is excluded.
13. If the County or team elects to mitigate liquefaction at the pump station sites (likely with deep piles), additional geotechnical drilling may be required prior to bidding.
14. Groundwater modeling and on-site infiltration testing services are excluded.

Deliverables

1. HASP and QAP delivered via email.
2. A site plan sketch and test pits logs for Task 501 Contingency Services (PDF format).
3. Draft and Final Geotechnical Data Report (PDF format).
4. Draft and Final Geotechnical Design Report (PDF format).

Task 400 Public Engagement

The purpose of this task is to develop and implement a Public Engagement Plan in coordination with County staff.

Website and Public Engagement Activities –On request from the COUNTY, CONSULTANT will assist the COUNTY in implementing the Public Engagement Plan and preparing a Project webpage on the County's Packwood website for the Project. Facilitate stakeholder involvement

and community meetings. Provide regular updates, FAQ, Fact Sheets, etc. for the project webpage, County staff, Board of County Commissioners I, and the public.

CONSULTANT Services

1. Develop the Public Engagement Plan as requested. The Plan will include identifying stakeholders and level of engagement for each stakeholder group, determining tools and mechanisms for soliciting input from stakeholders and the general public, and establishing meeting and event schedules. Assume three public meetings: a kick-off briefing and two additional meetings during the design process, with commitment to use the results of engagement to refine the design.
 - A. Plan will be developed to have engagement early and often during the Project.
 - B. An early step in the process should be developing an effective Public Engagement Plan to determine which engagement tools/ methods will be most successful.
 - C. Specific meetings will be held with key property owners as needed. COUNTY to provide initial email list for CONSULTANT use.
 - D. Community Open House will include a presentation on the Project, current updates, and a Fact sheet handed out at the events as supporting material.
 - E. Each meeting will be summarized by posting a short description of the meeting, a copy of handouts and additional FAQ from the meeting will be added the master FAQ on the webpage and included in the final summary if required by the funding agency.
2. CONSULTANT will develop project webpage information for posting on COUNTY hosted webpage and maintain as requested to provide project updates.
 - A. Webpage will provide an Overview of the Project including current schedule, maps, purpose and need, graphics, FAQ, document library, list of upcoming events, and project contact email/phone numbers
3. Scheduled Community Open House(s) will be held to inform the Public on the Project and to solicit input from the Public. The public engagement activities will be designed to be implemented based upon the state and national environmental review requirements and the project schedule. It is intended that
 - A. Summaries of Activities and Input will be prepared, submitted to the County for review and posted to the webpage as appropriate.
 - B. Engagement activities will support the permitting and environmental review requirements as defined by the environmental team.
4. Attend project team meetings and workshops as requested by the County.

County Responsibilities

1. Engage CONSULTANT as needed for services described in this task.
2. Facilitate webpage location on Packwood website for hosting of the engagement pages. Hosting of website.
3. Provide resources to update engagement pages using information provided by the CONSULTANT.

Assumptions

1. CONSULTANT will provide materials such as graphics, schedules, documentation needed for the development / updates to the webpage.
2. COUNTY will provide comments and direction on the development of the website and public engagement efforts and documents.
3. A total of 4 public meetings will be attended by up to 3 CONSULTANT staff each. Meetings will be held at project kickoff and at 30%, 60% and 90% milestones.

Deliverables

1. Public Engagement Plan will be delivered based upon a jointly agreed upon schedule.
2. Based upon the approval of the Public Engagement Plan, the CONSULTANT will initiate design and implementation of the Project Webpage which will be hosted by the County on their Packwood webpage.
3. Implementation of Public Engagement Plan such as development of email list, creation of Sewer Project Advisory Committee, holding focus group meetings, holding Community Meetings, etc. as approved by the County.
4. The In-person and On-line Community Open House(s) to be held based upon a jointly agreed upon schedule as needed to meeting permitting and environmental review requirements.
5. Summaries of Engagement Activities / Comments will be provided within two weeks of closing of the In-person / On-line Community Open House and within two weeks of the closing of the Public Comment Period.

Task 500 Data Review and Analysis

CONSULTANT Services

1. CONSULTANT to review basis of design documentation prepared by Territorial-Landworks, Inc.

County Responsibilities

1. Provide previously developed studies and plans for the Packwood Sewer System.

Deliverables

1. Technical Memorandum documenting the observations of the file review (PDF format).

Subtask 501 – Dispersal Site Review

Objective

The study will examine sites outlined in the 2013 Alternative Evaluation and up to 3 additional sites selected by the Lewis County officials, excluding any sites that require a crossing of the Cowlitz River. The study is not a comprehensive analysis, it will be a high-level review of site constraints, opportunities, risks, and vulnerabilities.

CONSULTANT Services

Services include gathering information and assembling a mapping tool and matrix for discussion of preferred dispersal site(s) to be included in the community sewer project scope. This task includes the following services:

1. Review available site information including any additional information that fed into the 2013 evaluation.
2. Develop a web-based interactive community map utilizing county GIS data and additional layers as applicable.
3. Develop suitability matrix for up to 5 considered parcels.
4. Wetland and Stream reconnaissance. Visit top 5 sites and complete reconnaissance level mapping and assessment of wetlands and streams within the vicinity of each of these 5 sites.
 - Wetlands and streams will not be delineated but will be mapped using GPS instruments by locating limited stream and wetland approximate boundary points closest to the potential dispersal site.
 - Preliminary wetland ratings and stream classifications will be provided, in order to determine approximate wetland and stream buffer widths.
 - Site visits will be limited to what can be completed in one 10-hour day, by a team of 2 field scientists.
5. Prepare a Dispersal Site Selection Technical Memorandum that evaluates constraints and feasibility of the 5 sites.

County Responsibilities

The COUNTY will secure rights of entry to the selected potential dispersal sites.

Assumptions

1. Attend up to three (3) virtual workshops to discuss parcels and findings, as well as make a final selection(s):
2. Initial Assessment Workshop to discuss the five (5) reviewed parcels – 1.5 hours.
3. Refined Assessment Workshop to discuss the five (5) reviewed parcels – 2.0 hours.
4. Final Assessment Workshop, make final recommendation – 1.5 hours.

Deliverables

1. Online GIS mapping tool.
2. Map of the top 5 sites and their proximity to field-verified wetlands and streams and their approximate buffers (PDF format).
3. Draft and Final Dispersal Site Selection Technical Memorandum with proposed next-steps or list of information needed to scope next phase (PDF format).

Task 600 Environmental Documentation and Permitting

Objective

CONSULTANT will provide environmental support services for this project. This includes natural resource delineations and documentation; local, State, and Federal permitting; and coordinating with agencies having jurisdiction over the project. This task includes regulatory coordination services during permit acquisition.

Subtask 601 – Phase I Environmental Site Assessment

Objective Perform a Phase I Environmental Site Assessment (ESA) in accordance with the requirements of the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I ESA Process, Designation E1527-13 (ASTM E1527-13) to assess the presence or likely presences of petroleum hydrocarbons or hazardous substances within the study area. If required, a Phase II assessment will be scoped under a subsequent amendment.

CONSULTANT Services

1. Phase I ESA Research and Fieldwork: staff will review the government database search results, environmental records review, and then conduct a visual site inspection. HDR will review available environmental documents, aerial photographs, historic topographic maps and records available on the State of Washington environmental websites. The records review is conducted first to identify known or anticipated environmental contamination associated with the Site or its immediate vicinity prior to the site visit. Interviews of individuals knowledgeable of the project site may be conducted prior to the site visit and/or questionnaires may be submitted to individuals knowledgeable of the project site.
2. HDR will perform a site reconnaissance of the property and surrounding properties, in accordance with the guidance provided in the ASTM standard. The site reconnaissance will be conducted in order to identify potential Recognized Environmental Conditions located on the Site, or on surrounding properties with the potential to impact the Site. The site reconnaissance may also be augmented with a Site Reconnaissance Questionnaire that will document the general site setting and exterior and interior observations (if applicable and available).
3. Phase I ESA Report Preparation: HDR will prepare a report summarizing the activities performed and likelihood of environmental contamination affecting the Site. The report will present findings and conclusions regarding the presence or likely presence of hazardous materials or petroleum products in the soil or groundwater and recommendations for further work, if necessary.

Assumptions

1. The Study Area for the Phase 1 ESA are the three sites potentially contaminated sites identified on the Department of Ecology's Toxic Cleanup site. These three sites are:
 - A. Beslow Auto Parts located at 13017 US Highway 12, Packwood, WA. Tax Parcel Numbers 011230000000 and 011231000000.



B. Rick's Chevron located at 12974 US Highway 12, Packwood, WA. Tax Parcel Numbers 035220001003 and 035222002001.



C. Packwood Lumber Company 12832 US Highway 12, Packwood, WA. Tax Parcel Numbers 035231001000, 035239004003, and 035239004002



2. Individual Phase I ESA reports will prepared for each of the sites identified above.
3. Lewis County will arrange full site access for HDR and provide contact information for site owners that may be aware of the Site's history.
4. This task covers the Phase I ESA only and does not include any services related to additional investigation of any portion of the Site and/or Phase II ESA services.
5. No invasive site work, quantitative chemical analysis, asbestos, lead-based paint, components of building materials, radon, wetlands, archaeological or threatened & endangered species reviews are included in the scope of this Phase 1 ESA.
6. The ASTM Standard currently requires a real-estate assessment to be completed in the event there is a significant devaluation of the subject property due to an environmental condition. HDR's professional services do not include this assessment, and this will be noted as an exception to the ASTM Standard.

Deliverables

1. Three Draft Phase I ESA reports. (in pdf and WORD electronic format)
2. Three Final Phase I ESA report3. (in pdf and WORD electronic format)

Subtask 602 – Natural Resources Field Assessment and Documentation

Objective

Conduct site visits to delineate and map Critical Areas and prepare natural resource documentation that characterizes Critical Areas in the project area and that describes anticipated project impacts pursuant to regulatory requirements.

CONSULTANT Services

1. Complete a desktop assessment of background information regarding the preferred project site, to include review of the web-based interactive community map developed under Task 501. Use this information to determine the likelihood of wetland, stream, or other critical areas being located on or within 300 feet of the preferred project area (the sewer gravity main, force main, and LOSS site) and for general background to inform the field work.
2. Participate in discussions with COUNTY to select the proposed gravity main conveyance route and LOSS site.
3. Delineate and map the boundaries of wetlands and the ordinary high-water mark (OHWM) of Hall Creek and Hager Creek and any other streams identified along the selected conveyance and within the vicinity of the final proposed LOSS site. Final wetland ratings and stream classifications will also be conducted and buffer widths determined and mapped.
4. Produce a Draft and Final Project Mapbook that will be used to support the natural resources documentation and will show (as appropriate) critical areas and buffers, delineated wetland and stream features, parcel boundaries, jurisdictional boundaries, topographic contours, and other available data. The maps will also show project information including the location of the LOSS and associated conveyance and infrastructure elements.
5. Prepare a Draft and Final Critical Areas Report (compliant with Lewis County Code 17.38.070, 17.38.320 and 17.38.500 and other as necessary). This document provides information on the presence of delineated streams, wetlands, the shoreline, and their buffers, based on HDR's background data review and field delineations; discusses the proposed mitigation sequencing and project impacts to wetlands, shorelands, and Fish and Wildlife Habitat Conservation Areas; and discusses applicable County regulations, utility exemptions, and buffer averaging and buffer width reduction mechanisms.
6. If the project will impact critical areas and/or their buffers, beyond any standards allowed for buffer averaging and buffer width reduction, CONSULTANT will, in coordination with the COUNTY:
 - A. Apply the credit-debit assessment tool to any wetlands in the vicinity of the project site in order to evaluate the requirement for credit/debit-based compensation of wetland or wetland buffer encroachments.
 - B. Develop a compensatory mitigation plan.
 - C. Prepare a report that consolidates the requirements for both the assessment report and the mitigation plan (per LCC 17.38.080). A compensatory mitigation plan would address mitigation site selection, site work and engineering, a landscaping plan, financial assurances, site security, and long-term monitoring and maintenance.
7. If the project will require any placement of fill or discharge material into Waters of the United States, a Biological Assessment will be required. It is assumed this will be necessary, but

this subtask will be dropped if determined to be unnecessary. A Biological Assessment (BA) will evaluate the proposed project in terms of its potential impacts to any species listed or proposed for listing as threatened or endangered under Section 7 of the Endangered Species Act.

Assumptions

1. The boundaries of wetlands and streams outside of the immediate project corridor will be estimated, rather than delineated. The estimated boundaries will be shown on the Draft and Final Project Mapbook.
2. No more than six (6) wetlands and four (4) streams will be identified along the project corridor and will require a team of two CONSULTANT staff for three 12-hour field days. If more wetlands or streams are found, they can be delineated and mapped under a future phase of the project or with a Change Order.
3. Access to wetland and stream boundaries is possible and not occluded with vegetation that is too dense to be worked through in the three 12-hour field days allotted. If it is found that underbrush is excessive and will require more field time, CONSULTANT will communicate that as early as possible to the County.
4. Informal consultation with the National Marine Fisheries Service and US Fish and Wildlife Service is assumed for this project. Services for formal consultation are outside the scope of this AGREEMENT.

Deliverables

1. Draft and Final Critical Areas Report (electronic PDF format).
2. Draft and Final Project Mapbook.
3. Draft and Final Consolidated Critical Areas Report and Compensatory Mitigation Plan (if required).
4. Draft and Final Biological Assessment (if required).

Subtask 603 – Permitting Support Services

Objective

Prepare permit documentation and applications to support required project approvals. The jurisdictions anticipated to require permits or approvals for the project include the following:

1. Lewis County.
2. Washington Department of Fish and Wildlife (WDFW).
3. Washington Department of Ecology (WDOE).
4. Washington Department of Health (WDOH).
5. US Army Corps of Engineers (USACE).

CONSULTANT Services

1. Prepare Permit Matrix. Research Local, State, and Federal permits required for the project, what triggers the need for each, the submittal requirements, and timelines for approval. Record findings within a matrix to inform completion of permit applications.

2. Prepare Lewis County Pre-Submission conference application package. Prepare a Draft and Final Pre-Submission Conference Request Packet for submittal to the County. This packet will contain the following:
 - A. Pre-Submission Conference Submittal Checklist and Form.
 - B. Vicinity Map
 - C. Detailed Site Plan
 - D. Preliminary Construction Plans
 - E. Project Narrative and Questions for County Permitting staff.
 - F. Attend Pre-Submission Conference
 - i. The assumption is that this will be a virtual conference and up to 5 Consultant staff members will be in attendance. The conference is expected to require no more than 2 hours.
3. Prepare Lewis County Permit Package. Prepare a Draft and Final Consolidated Lewis County Permit package including:
 - A. Special Use Permit Application
 - B. Preliminary site Plan
 - C. Aerial photo-based Mapbook
 - D. JARPA Application for Lewis County Shoreline Conditional Use Permit, Shoreline Substantial Development Permit and Floodplain Development Permit.
 - E. Shoreline Burden of Proof Statement.
 - F. Septic Permit Application
 - G. SEPA Checklist
 - H. Critical Areas Report or Consolidated Critical Areas Report and Compensatory Mitigation Plan, if compensatory mitigation is required.
 - I. Cultural Resources Technical Report
 - J. Other permit applications and project information (to be determined at Pre-Submission Conference, likely to include:
 - i. Stormwater Permit
 - ii. Fill and Grade
 - iii. Any additional information, identified by the review authority to provide sufficient information about the proposed project
4. Prepare Draft and Final JARPA for USACE Section 404, Nationwide Permits #39 and #58- and DOE Section 401 certification (if required, due to unavoidable discharge of fill material into Waters of the United States).
5. Prepare Draft and Final online HPA application (consisting of uploading the JARPA prepared for the USACE and completing minimal additional online forms).
6. Prepare a Notice of Intent to use the Washington State Construction General Stormwater Permit.

County Responsibilities

1. Review and comment on draft permit applications.
2. Provide applicable real estate and legal description information.
3. Sign permit forms, as necessary, and authorize CONSULTANT to act as applicant's agent for permit submittals and reviews.
4. Responsible for fees, public notices, and distribution required by the reviewing agencies.

Assumptions

1. CONSULTANT will prepare final deliverables upon receipt of one (1) set of consolidated comments on the draft versions from the County.
2. The LOSS system will not be placed directly within a wetland or Water of the United States.
3. The project will not require an individual Section 404 permit; it will meet the requirements of Nationwide Permit #39 and/or #58.
4. Shoreline Substantial Development, Shoreline Conditional Use and Special Use permits will be processed as Type III permits.

Deliverables

1. Draft and Final Permitting Matrix
2. Draft and Final Pre-Submission Conference Meeting Request Packet for Lewis County (PDF format)
3. Draft and Final SEPA Checklist (PDF format)
4. Draft and Final JARPA (PDF format)
5. Draft and Final Permit Application Packet for Lewis County (PDF format)
6. Draft and Final online HPA Application
7. Draft and Final NOI for Construction General Stormwater Permit.

Task 700 Cultural Resources

Objective

Provide archaeological services, to include a field survey of the project alignment, background research and documentation, and completion of a technical report for the project in compliance with state regulations. In addition, the project may require compliance with Section 106 of the National Historic Preservation Act (NHPA) if a federal permit is necessary for the project, including but not limited to a Section 404 permit from the USACE. This scope includes background research, archaeological and architectural history field investigation, and the preparation of a Cultural Resources Inventory Report in compliance with the Revised Code of Washington and the Department of Archaeology and Historic Preservation (DAHP) standards and guidelines. In the event that compliance with Section 106 is necessary, the work will be completed to Section 106 standards.

CONSULTANT Services

1. Assist in developing the Project Area, which will encompass areas where project activities may impact known or unknown cultural resources. Consultant will prepare an exhibit illustrating the Project Area for use in consultation with the Department of Archaeological and Historical Preservation (DAHP), Indian tribes, and other agencies, as appropriate.
2. Perform background review of the Project Area and a 1-mile buffer around the Project Area. Review records of existing cultural resources data including previous cultural resources investigations, archaeological site inventory forms, and historic property inventory (HPI) forms on file at DAHP. Additionally, review online assessor data, historic maps, imagery, and atlases, as well as published ethnographic data. The results of the background research will inform the field investigation and will be incorporated into the technical report. Consultant will also review previous consultation, to be provided by County, which will be included in an appendix to the technical report.
3. Assist the County in outreach with Indian tribes who may have an interest in the Project Area. Consultant will reach out to the tribes to ask if they have any information or concerns about the Project Area that they would like to share prior to and after the field investigation. Consultant assumes the Indian tribes with interests in the Project Area include the Confederated Tribes of the Chehalis Reservation, Cowlitz Indian Tribe, Nisqually Indian Tribe, Squaxin Island Tribe, Confederated Tribes and Bands of the Yakama Nation, and Confederated Tribes of the Warm Springs Reservation. This outreach does not constitute formal government-to-government consultation.
4. Assist the County in consulting with the DAHP and other agencies, as applicable (e.g., USACE, WDFW, Ecology) for cultural resources discussions and concerns.
5. Develop a survey plan that shows the locations of subsurface shovel probing within the Project Area, which will be provided to the DAHP and consulting tribes prior to commencing survey. Perform archaeological and architectural history field investigation within the Project Area. Consultant professional archaeologist and Consultant professional architectural historian, who meet or are supervised by a Consultant who meets the SOI professional qualifications for the respective disciplines will complete the fieldwork. A pedestrian archaeological survey will be completed within the Project Area to document the existing conditions and observed archaeological resources on site inventory forms, as feasible. Up to 30 shovel probes will be excavated in areas with intact native sediments where ground disturbance is proposed. No areas with impervious surface (e.g., pavement, road gravel, etc.) or existing utilities will be shovel probed. Additional subsurface observations will be conducted by observing the geotechnical exploration work noted above. A reconnaissance-level architectural history survey will be completed in the Project Area to record historic built environment resources and document them on HPI forms.
6. The results of cultural resources background review and field investigation will be presented in a technical report suitable for submission to DAHP, other agencies as appropriate, and Indian tribes. The report will include information concerning any identified cultural resources and will provide recommendations of their eligibility for listing in the National Register of Historic Places (NRHP) and Washington Heritage Register (WHR), if feasible, or if further work is needed to complete eligibility evaluations. The report will also include recommendations regarding project impacts and ways to avoid or minimize damage to cultural resources, as well as any additional cultural resources work that may be necessary (e.g., construction monitoring). Due to confidentiality requirements for archaeological site location data, distribution of the report may be restricted.

7. Prepare a project-specific inadvertent discovery plan (IDP) and append to the report. The IDP will outline the processes to follow in the event of an inadvertent discovery during construction. The IDP will include the contact information for all parties to contact in the event of a discovery and will provide photographic attachments that illustrate various types of cultural resources. Construction monitoring protocols would be incorporated into the Construction IDP as necessary based upon the results of survey and agency and tribal consultation. The Construction IDP would comply with the RCW and other applicable regulations (e.g., Section 106 of the NHPA).

County Responsibilities

1. COUNTY will provide rights of entry as necessary.
2. Review draft Cultural Resources Technical Report within twenty (20) business days of receipt from CONSULTANT.
3. Provide project information pertinent to the cultural resources background review and field investigation.

Assumptions

1. Project requires compliance with the State Environmental Policy Act (SEPA) and Revised Code of Washington (RCW).
2. Consultant will assist the County with agency and tribal coordination for background research, field investigation, and reporting.
3. A maximum of two (2) archaeological sites will be identified, documented on site inventory forms, and appended in the draft and final Cultural Resources Technical Report.
4. A maximum of ten (10) historic built environment resources will be identified and documented on HPI forms and appended in the draft and final Cultural Resources Technical Report.
5. Field investigation will be completed in 5 days for archaeology and 3 days for architectural history.
6. No monitoring of geotechnical borings. This work can be completed upon a scope modification.
7. No subsurface investigation will be completed within known archaeological sites.
8. No DAHP permit is included in the scope of work.
9. Fieldwork includes roundtrip travel from respective HDR offices, mileage, printing cost, and daily rental fee of iPad with submeter receiver.
10. Draft Cultural Resources Technical Report will be submitted to the County 45 days after completion of fieldwork.
11. Final Cultural Resources Technical Report will be submitted to the County 10 days after receipt of comments, or after receiving the site trinomial from DAHP, whichever is later.
12. In the event that further cultural resources work is warranted (i.e., monitoring during geotechnical borings and construction), Consultant will submit a scope of work and cost adjustment for those services.

Deliverables

1. Project area exhibit
2. Cultural Resources Technical Report
3. Up to 2 archaeological site inventory forms and up to 10 HPI forms
4. Project-specific Inadvertent Discovery Plan

Task 800 Preliminary Design

Objective

1. Prepare preliminary design and hydraulic evaluation for two pump stations, associated force mains, and gravity sewer lines.
2. Prepare conceptual site layout for each pump station site.
3. Identify design concepts required for the design phase.
4. Prepare Preliminary Design Report documenting design criteria, alternatives evaluated, and preferred alternative.

CONSULTANT Services

1. Pump Station Design
 - A. Prepare a conceptual site layout (one sheet) illustrating the following for two separate pump stations:
 - i. Wetwell, Valve Vault, Control Panel, Flow Meter Vault.
 - ii. Site Yard Piping
 - iii. Diesel Standby Generator Location.
 - iv. Site Lighting
 - v. Associated fencing and landscaping improvements.
2. Force Main Preliminary Design
 - A. Prepare preliminary force main alignment drawings with preliminary profiles. These preliminary drawings are intended to illustrate the force main general alignments and identify any potential major conflicts along the alignment. The drawings will be a reduced scale and are intended to assist in verification of route feasibility.
 - B. As part of the pump station hydraulic analysis in the pump station preliminary design, evaluate the need for the force mains to meet the requirements for varying flow requirements over the life of the facility.
 - C. Identify potential need/location of air release valves along the alignment.
 - D. Evaluate and recommend materials for construction of the force mains. Recommend pipe joint detail acceptable for anticipated conditions.
 - E. Evaluate roadway crossings to determine feasibility of open cut or trenchless under crossings. Determine acceptable location for jacking and receiving pits and/or other trenchless methods.
 - i. Evaluate the potential for combining service crossings for multiple residences or commercial facilities.

- F. Assess the impact of suspected and contaminated soils on pipeline alignments.
- G. Size force mains for an average velocity range of 3 to 5 feet per second with a maximum velocity of 8 feet per second over the projected range of flows.

3. Gravity Main Preliminary Design

- A. Prepare preliminary gravity sewer line alignment drawings with preliminary profiles for non-residential areas. Residential area drawings will be plan view drawings showing key inverts and manholes. These preliminary drawings are intended to show gravity sewer line general alignments and identify any potential major conflicts along the alignment. The drawings will be a reduced scale and are intended to assist in verification of route feasibility.
- B. Evaluate and recommend materials of construction for gravity sewer lines. Examine roadway crossings for trenchless undercrossings based on design standards and determine acceptable locations for jacking and receiving pits.
- C. Assess the impact of suspected and contaminated soils on pipeline alignments.
- D. Size gravity mains for an average velocity range of 3 to 5 feet per second with a maximum velocity of 8 feet per second over the projected range of flows.

4. Opinion of Probable Construction Cost

- A. Prepare Opinion of Probable Construction Cost (OPCC) based on the preliminary layouts and designs.
- B. OPCC to utilize methodologies established by the Association of Advancement of Cost Engineering (AACE International) Recommended Practice 18R-97. Preliminary design shall match a Class V estimate for accuracy for two pump stations, force mains, and gravity mains.
- C. OPCC will be based upon WSDOT standard bid items for applicable items. Costs for items not found in WSDOT standard bid items will be developed from existing similar bid items from CONSULTANT records.

5. Preliminary Design Report

- A. Prepare a Preliminary Design Report in general shall include:

- i. Introduction and Summary
 - 1) Site Description, Problem Identification, and Map
 - 2) Description of Discharge Standards
 - 3) Background Information
 - 4) Future Conditions
- ii. Alternative Listing
- iii. Final Recommended Alternative
 - 1) Pump Station Layouts and Design Criteria
 - a) Prepare pump and system curves.
 - 2) Gravity Sewer Line Plan and Profiles and Design Criteria
 - 3) Force Main Plan and Profiles and Design Criteria
 - 4) Opinion of Probable Construction Cost
 - 5) Project Phasing

6. Quality Control (QC) Review

- A. Conduct a review of preliminary designs and layouts to identify opportunities for cost savings, added value, constructability, and overall quality of the design.
- B. Bid Packaging Review
 - i. Conduct review of the project and make a recommendation on packaging of the construction contracts.
 - ii. Determine if bidding the projects together or separate is the most economical and feasible method.

County Responsibilities

- 1. Provide written consolidated comments on the draft preliminary design report.
- 2. Provide available record drawings for all utilities with the proposed project limits.
- 3. Attend and participate in coordination meetings.

Assumptions

- 1. Force main and gravity mains preliminary alignment drawings will be of a reduced scale and are not intended for final design. We have budgeted for 20 plan sheets and 20 profile sheets for force main and gravity sewer alignment drawings.
 - A. The gravity sewer and force main will be located outside the existing paved surface of US 12, where feasible, on either the east or west side.
 - B. Property acquisition will be required for the construction of the pump stations.
 - C. Gravity main length is approximately 11,000 feet. Force main lengths are approximately 4,200 feet each (two mains).
- 2. Drawings will be prepared using AutoCAD 2020.
- 3. Sewer design will follow the Criteria for Sewer Works Design (Washington State Department of Ecology).

Deliverables

- 1. Draft and Final Opinion of Probable Construction Cost (pdf format)
- 2. Preliminary force main, gravity main alignment drawings and pump station conceptual layout drawings. Drawing size shall be 11x17 (pdf format).
- 3. Preliminary Design Report: One copy in electronic format (PDF) for draft and final delivered to the County via e-mail, plus two hard copies.

Task 900 Final Design

Objective

Prepare drawings, contract documents, and engineer's opinion of probable construction cost (OPCC) estimates based on the selected treatment location.

Prepare drawings, contract documents, and engineer's opinion of probable construction cost based on the County's input from the Preliminary Design Report in Task 800.

CONSULTANT Services

1. Pipelines PS&E Development

- A. Design the force mains and gravity sewer mains in accordance with the preliminary layouts and information developed and presented in the Preliminary Design Report. For the purpose of this scope, it is assumed that the pipelines design will include the following:
 - i. Design force mains to account current and future buildout of the UGA. Review the force main sizing developed during preliminary design with the final force main alignment
 - ii. Confirm that recommended materials of construction, interior lining, exterior coating, and pipe joint details are acceptable for anticipated operating conditions
 - iii. Evaluate roadway crossings for trenchless undercrossings based on design standards and determine acceptable locations for jacking and receiving pits
 - iv. Design utility supports for pipelines at water crossings (i.e. Canal & Hall Creek)
 - v. Prepare plan and profile drawings for pipelines

2. Pump Station PS&E Development

3. Drawings and Specification

- A. Coordinate and assemble submittals including Drawings and Technical Specifications for bidding and construction.
- B. Prepare 60 percent and 90 percent submittals for COUNTY review prior to the Final bidding documents submittal.
- C. Prepare 60 percent design review submittals:
 - i. Meet with COUNTY staff to receive and discuss comments at the 60 percent Design Evaluation Workshop
 - ii. Following receipt and discussion of the County 60 percent review comments, incorporate consolidated comments into the design

4. Prepare 90 percent design review submittals:

- A. Meet with COUNTY staff to receive and discuss comments at the Final Design Evaluation Workshop
- B. Following receipt and discussion of COUNTY's 90 percent review comments, incorporate appropriate comments into the design

5. Prepare Final sealed Bidding Documents:

- A. Incorporate consolidated comments from 90 percent review into the 100 percent Bidding Documents

6. Prepare Draft and Final Stormwater Pollution Prevention Plan.

7. Prepare Permit Submittal

- A. Prepare a set of drawings and calculations for use by the COUNTY in the application for building and grading permits for the pump station sites

8. Opinion of Probable Construction Cost

9. Prepare drawings, contract documents, and engineer's OPCC estimates at the 60%, 90%, and Final Issue for Bid design levels.

10. Attend 60% and 90% review meetings.
11. Prepare Draft and Final Stormwater Pollution and Prevention Plan (SWPPP).

County Responsibilities

1. Attend 60% and 90% review meetings as described in Task 100.
2. Review and provide comments on 60% and 90% deliverables.
3. Provide electronic version of the County's most recent Division 00 specifications.

Assumptions

1. Review meetings will be conducted in accordance with the assumptions listed in Task 100.
2. CONSULTANT will coordinate with subconsultants for inclusion of contract documents into submittal packages.
3. The design will be in accordance with COUNTY design standards.
4. The sewer main will be constructed within WSDOT Right-of-Way adjacent to SR-12 outside of SR-12 pavement on one side of highway.
5. SR-12 side sewer crossings will be trenchless. Crossings will be combined to have as few crossings of SR-12 as can be achieved.
6. A single force main will be designed as depicted in the Alternate Evaluation Summary for Large On-site Sewage System for Community of Packwood, 2013.
7. Force main will include one bridge crossing and will discharge to a large drain field outside of the sewer service area.
8. Drawings:
 - A. The Drawings will be per CONSULTANT standards. County Standard Details will be used where applicable. Structural and Mechanical drawings will be prepared using Revit.
 - B. The budget is based upon production of the following estimated (170) Final Design Drawings:
 - i. Cover Sheet (1)
 - ii. Legend (1)
 - iii. TESC and Demo, General Notes and Details (30)
 1. Traffic Control Plan (11)
 - iv. Site Plan (2)
 - v. Site Grading and Drainage Plan and Details (22)
 - vi. Restoration Plans (15)
 - vii. Structural (Total of 3 Sheets)
 - 1) General Structural Notes and Special Inspections (1)
 - 2) Pump Station Manhole Layout Plan, Section and Details (2)
 - viii. Mechanical (Total of 11 Sheets)
 - 1) General Notes (1)
 - 2) Pump Station Arrangement (2)
 - 3) Station Sections (2)
 - 4) Pump Equipment Assembly (2)
 - 5) Discharge Piping Layout (2)

- 6) Discharge Piping Details (2)
 - ix. Electrical (Total of 20 Sheets)
 - 1) General Notes and Symbols (2)
 - 2) Electrical Details (3)
 - 3) Generator Interconnection Diagram (1)
 - 4) One-Line Diagram (2)
 - 5) Electrical Equipment Elevations (2)
 - 6) I&C Conduit and Wiring Block Diagram (2)
 - 7) Elementary Control Diagram (2)
 - 8) Site Plan (2)
 - 9) Power and Instrumentation Plan (2)
 - 10) Designation and Classification Plan (2)
 - x. Instrumentation & Control (Total of 5 Sheets)
 - 1) Legend and Abbreviations (1)
 - 2) Details (2)
 - 3) Pump Station 1 P&ID (1)
 - 4) Pump Station 2 P&ID (1).
 - xi. Sewer Collection System (Total of 49 Sheets)
 - 1) General Notes (1)
 - 2) Gravity Sewer Plan and Profile (22)
 - 3) Gravity Sewer Details (6)
 - 4) Force Main Plan and Profile (18)
 - 5) Force Main Details (2)
9. Contract Documents:
- A. Contract Documents will comply with Washington State Department of Commerce SLFRF Final Infrastructure Project Guidelines.
 - B. Project Manual will be prepared using Microsoft Word software, consisting of:
 - i. Part I Bidding Requirements will be County standard forms used on similar County public works projects, updated by CONSULTANT specifically for this project.
 - ii. Part II Contract Forms Submitted Following Award of Contract will be County standard forms used on similar County public works projects, updated by CONSULTANT specifically for this project.
 - iii. Part III Specifications will include:
 - 1) WSDOT Standard Specifications for Road, Bridge, and Municipal Construction (M 41-10), current edition
 - 2) Special Provisions specific to this project prepared by CONSULTANT.
 - 3) Technical Specifications, which will supersede the WSDOT Standard Specifications and Special Provisions, will be per six-digit standard specification sections in CSI format.
 - iv. Part IV Attachments will consist of permits obtained by the COUNTY, and state prevailing wage rates, along with geotechnical investigation performed as part of Task 400.
10. Issue for Bid Submittal of Drawings and Contract Documents will be suitable for competitive bidding and will be stamped by professional engineers licensed in the State of Washington.
11. Engineer's OPCC Estimates:

- A. 60% Submittal. Engineer's OPCC estimate for 60% submittal will have a range of accuracy based upon AACE International Recommended Practice No. 17R-97, Class 3, 30 to 70 percent project definition, +30% to -20% Range of Accuracy.
 - B. 90% Submittal Engineer's OPCC estimate for 90% submittal will have a range of accuracy based upon AACE International Recommended Practice No. 17R-97, Class 2, 60 to 95 percent project definition, +20% to -15% Range of Accuracy.
 - C. Issue for Bid Submittal. Engineer's OPCC estimate for Issue for Bid submittal will have a range of accuracy based upon AACE International Recommended Practice No. 17R-97, Class 1, 90 to 100 percent project definition, +15% to -10% Range of Accuracy.
 - D. Any OPCC estimates provided by CONSULTANT are made on the basis of information available to CONSULTANT and on the basis of CONSULTANT's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since CONSULTANT has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s) methods of determining prices, or over competitive bidding or market conditions, CONSULTANT does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost CONSULTANT prepares.
12. Pump station design will conform to Hydraulic Institute standards include:
 - A. ANSI/HI 9.8-2018 Rotodynamic Pumps for Pump Intake Design.
 - B. ANSI/HI 9.6.6-2016 Rotodynamic Pumps for Pump Piping.
 13. Each pump station will include two submersible pumps, with each pump being able to pump the peak hour flow.
 14. Hydraulics of the pump station and force main will be validated, surge analysis of the pumps and force main are not included in this scope of services.
 15. The wetwell is to be precast and is assumed to be 8-foot in diameter.
 16. CONSULTANT will design a valve vault to include a check valve, gate, valve, pipe supports, and associated piping.
 17. CONSULTANT will design a flow meter, pipe supports, and associated piping.
 18. Acoustic study of the pump station is not included in this scope of services.
 19. Stormwater Site Plan is not required for this project.
 20. Dewatering Plan is not included in this scope of services. Dewatering Plan will be the responsibility of the Contractor and reviewed by the County.
 21. Structural design will be performed according to IBC 2021 and its references.
 22. Shoring type and design are not included in the CONSULTANT's contract documents. Shoring is considered contractor's means and methods and to be selected by construction contractor.
 23. CONSULTANT drawing standards will be used.
 24. The service for each pump station will be 480Y/277 V and 800 A or less.
 25. No HVAC equipment is required.
 26. Conduit and Wiring will be shown on One Lines and Block Diagram, not a Conduit and Cable Schedule.

27. Lightning protection system is not required.
28. No site lighting.
29. No Lighting and Receptacle Plans.
30. Conduit alignment and handholes for communication between pump stations and treatment plant will be shown on civil drawings.
31. There will be a Pump Power and Control Panel for each pump station that contains electrical and I&C equipment.
32. Pump Power and Control Panel is performance specification; internal wiring and details not shown on drawings.
33. Harmonic correction equipment is not required.

Deliverables

1. 60%, 90%, and Final drawings (PDF format, half-size drawings 11" x 17")
2. 60%, 90%, and Final technical specifications (PDF and Word format)
3. 60%, 90%, and Final Bid Engineer's OPCC estimates (PDF format)
4. Draft and Final SSWPPP (PDF format).

Subtask 901 – Treatment System Design

Objective

CONSULTANT to provide treatment design for the project. The treatment system is anticipated to include an influent submersible pump station with a wet well sized for equalization, a skid mounted MBR treatment system (complete with screens, blowers, pumps, UV disinfection, process tanks, etc.) housed in a building, an effluent pump station and bladder tanks for utility water use, and a solids storage tank for hauling to regional partner for processing and beneficial use. No chemical feed systems are assumed at this time. Other treatment plant site improvements are anticipated to consist of odor control for the MBR building and solids tanks, site stormwater management, access roads, security fencing, an operations building with a bathroom, laboratory for process control analysis and office/control room (compliance analysis will be sent to a state-accredited laboratory).

CONSULTANT Services

1. Data Review
 - A. Review County's documents. Effort is limited to 24 hours.
 - B. Coordination with Task 300. Effort is limited to 24 hours.
 - C. Coordination with Task 500. Effort is limited to 24 hours.
 - D. Coordination with Task 600. Effort is limited to 24 hours.
 - E. Conduct a site visit. Two consultants attend and the site visit will be up to 2 hours.
2. Engineering Report
 - A. Develop load projections with input from the County.

- B. Evaluate 3 treatment options for discussion with the County. Desktop evaluation will involve soliciting budgetary quotes and drawings from vendors and developing a pros/cons list for the options. The three treatment options are anticipated to be MBR, MBBR and MABR.
 - C. Lead a workshop with the County to discuss the flow and load projections and the treatment options evaluated. The County will decide the treatment system to be selected with input from CONSULTANT. CONSULTANT will develop a workshop agenda, PowerPoint presentation and develop meeting minutes. CONSULTANT will have 2 consultants attend and the workshop will be up to 2 hours.
 - D. Develop pre-selection materials, answer questions during the proposal phase and conduct an evaluation of the proposals. Materials developed for the RFP will include the County's standard RFP modified for this pre-selection, a treatment system specification, evaluation criteria scoresheet, and support for the County in development of procurement documents.
 - E. Develop design criteria including code review for the following elements:
 - i. Influent pump station and wet well
 - ii. Treatment building
 - iii. Effluent pump station and utility water system
 - iv. Solids storage tank
 - v. Operations building
 - vi. Odor control
 - vii. Stormwater management
 - viii. Site civil
 - F. CONSULTANT to lead a workshop with the COUNTY to discuss the process design criteria. CONSULTANT will develop a workshop agenda, PowerPoint presentation and develop meeting minutes.
 - G. CONSULTANT to lead a workshop with the COUNTY to discuss the site and building design criteria. CONSULTANT will develop a workshop agenda, PowerPoint presentation and develop meeting minutes.
 - H. Develop an Engineering Report to meet the requirements of WAC 173-240-060.
 - i. A Draft version will be submitted to the COUNTY for review.
 - ii. A Final Draft version will be submitted to the JHA for review.
 - iii. A Final version will be submitted the COUNTY and the JHA.
 - I. Develop up to four figures for the Engineering Report. Other figures needed for the Engineering Report will be developed by others in the Tasks.
 - J. Conduct a meeting with the County to review comments on the Engineering Report. CONSULTANT will develop meeting agenda elements specific to the Treatment System.
 - K. Conduct a meeting with the County and the JHA to review comments on the Engineering Report. CONSULTANT will develop meeting agenda elements specific to the Treatment System.
 - L. Perform other alternatives analysis as needed over the course of the development of the Engineering Report. Effort is limited to 120 hours.
3. 30% Design
- A. Develop 30% design drawings.

- B. Develop a Table of Contents for the technical specifications for the 30% design.
 - C. Develop an opinion of probable construction cost for the treatment system. Prepare the basis of estimate. The OPCC will be a Class 4 estimate.
 - D. Develop preliminary operations and maintenance costs for the treatment facility.
 - E. Respond to comments from the County.
 - F. Attend one meeting with the County to review the County's comments. CONSULTANT will develop meeting agenda elements specific to the Treatment System. CONSULTANT will have 2 consultants attend and the meeting will be up to 1 hour.
 - G. Provide quality control for deliverables.
4. 60% Design
- A. Develop 60% design drawings.
 - B. Develop 60% technical specifications.
 - C. Develop an opinion of probable construction cost for the treatment system. Prepare the basis of estimate. The OPCC will be a Class 3 estimate.
 - D. Respond to comments from the County.
 - E. Attend one meeting with the County to review the County's comments. CONSULTANT will develop meeting agenda elements specific to the Treatment System. CONSULTANT will have 2 consultants attend and the meeting will be up to 1 hour.
 - F. Provide quality control for deliverables.
5. 90% Design
- A. Develop 90% design drawings.
 - B. Develop 90% technical specifications.
 - C. Develop an opinion of probable construction cost for the treatment system. Prepare the basis of estimate. The OPCC will be a Class 2 estimate.
 - D. Respond to comments from the County.
 - E. Attend one meeting with the County to review the County's comments. CONSULTANT will develop meeting agenda elements specific to the Treatment System. CONSULTANT will have 2 consultants attend and the meeting will be up to 1 hour.
 - F. Provide quality control for deliverables.
6. Issue for Bid
- A. Develop Issue for Bid design drawings.
 - B. Develop Issue for Bid technical specifications.
 - C. Develop an opinion of probable construction cost for the treatment system.
 - D. Respond to comments from the jurisdictions having authority and the County.
 - E. Attend one meeting with the County to review the County's comments. CONSULTANT will develop meeting agenda elements specific to the Treatment System. CONSULTANT will have 2 consultants attend and the meeting will be up to 1 hour.

- F. Attend one meeting with the JHA and the County to review the JHA's comments. CONSULTANT will develop meeting agenda elements specific to the Treatment System. CONSULTANT will have 2 consultants attend and the meeting will be up to 1 hour.
 - G. Digitally seal and sign the design.
 - H. Provide quality control for deliverables.
7. Other Services
- A. Attend a pre-application meeting with the Building Official. Submit for a building permit. 18 hours max.
 - B. Attend a pre-application meeting with the Site Development Official. Submit for a site development permit. Effort is limited to 18 hours.
 - C. Support activities in Task 400. Effort is limited to 24 hours.
 - D. Support activities in Task 1000. Effort is limited to 24 hours.
 - E. Support the County in the negotiations and development of an agreement for solids hauling and disposal. Effort is limited to 24 hours.

County Responsibilities

- 1. Review submittals, answer questions, and provide guidance and direction in the design of the lift station electrical system.
- 2. Provide anticipated BOD, TSS and TKN loads for the businesses to be connected to the LOSS.
- 3. Facilitate the RFP process for pre-selection of the treatment system.
- 4. Provide inputs and information for the operations and maintenance cost development as needed.

Assumptions

- 1. The jurisdictions having authority will be the Department of Health and/or the Department of Ecology.
- 2. Potable water can be provided to the treatment plant site.
- 3. Property acquisition will be required for the construction of the treatment system and will be performed by others.
- 4. Drawings:
 - A. County Standard Details will be used where applicable. CONSULTANT will utilize REVIT for drawings of facilities as appropriate. CONSULTANT will utilize AutoCAD for site drawings as appropriate.
 - B. The budget is based upon production of the following estimated number (#) of Design Drawings: 93
- 5. Technical Specifications:
 - A. The budget is based upon production of the following estimated number (#) of Technical Specifications: 66

Deliverables

1. Engineering Report (Draft, Draft Final, and Final, PDF Format)
2. 30%, 60%, 90%, and Issue for Bid drawings (PDF format)
3. 30%, 60%, 90%, and Issue for Bid technical specifications (MS Word).
4. 30%, 60%, 90%, and Final OPCC estimate (MS Excel).

Subtask 902 – LOSS Design

Objective

CONSULTANT will provide LOSS design for the project.

CONSULTANT Services

1. Coordination with design team on site evaluation and selection
 - A. Collaborate with others evaluating wetland, surface water, and other applicable setbacks.
2. Integrated Design Coordination and Review
 - A. Coordination with Task 300. Effort is limited to 24 hours.
 - B. Coordination with Task 300. Effort is limited to 24 hours.
 - C. Coordination with Task 500, Subtask 901. Effort is limited to 24 hours.
3. Lead LOSS soils evaluation.
 - A. Coordinate the construction of soil test pits for both primary and reserve drainfield area, estimated at #.
 - B. Create and log soil profiles for each test pit.
 - C. Coordinate regulatory review
 - D. Ensure proper backfill of test pits.
4. Prepare a LOSS Predesign Report
5. Review of geotechnical investigation, by others
6. Review of hydrological analysis by others.
7. Design coordination with Owner's representative.
8. Design coordination with Manufacturer's / Supplier's representatives.
9. Design the LOSS
10. Prepare an Operations and Maintenance Manual.

Regulators Responsibilities

1. Review submittals, answer questions, and provide guidance and direction in the design of the LOSS.

Assumptions

1. Review meetings will be conducted in accordance with the assumptions listed in Task 100.

2. Site Risk Survey (SRS) will be performed by others.
3. Hydrogeological Report (HGR) will be completed by others.
4. All permit fees are paid by COUNTY.
5. All public engagement and notifications are handled by others.
6. Drawings:
 - A. County Standard Details will be used where applicable.
 - B. The budget is based upon production of the following estimated number (#) Final Design Drawings:
 - i. General Notes and Details (4)
 - ii. Site Plan (1)
 - iii. LOSS Layout (4)
 - iv. LOSS Details (4)
7. A rapid infiltration strategy will not be used for wastewater dispersal.

Deliverables

1. LOSS Predesign Report
2. Preliminary Engineering Plans
3. 60%, 90%, and Issue for Bid drawings (PDF format, half-size drawings 11" x 17").
4. 60%, 90%, and Issue for Bid technical specifications (PDF format).
5. 60%, 90%, and Final OPCC estimate (PDF format).
6. Operational & Maintenance (O&M) Manual (PDF format).

Task 1000 Right-of-Way Services

Objective

CONSULTANT will provide preliminary Right of Way (ROW) services including review of the preliminary construction plans to identify needed property interests and mitigate landowner impacts, research and compile landownership info, order, and review title, obtain any right of entry agreements needed for the project, and prepare a ROW acquisition plan that includes a preliminary ROW budget and schedule. CONSULTANT will coordinate with WSDOT to determine requirements and costs to utilize WSDOT right of way for sewer and water lines for incorporation into the ROW acquisition plan.

CONSULTANT Services

1. Research and compile landownership data from available public records in the form of Landowner Impact Spreadsheet
2. Complete an encumbrance review memo for title reports supplied by County
3. Review preliminary construction plan to identify needed property interests and offer recommendation to mitigate impacts to landowners
4. Coordinate and facilitate meetings with WSDOT involving County if needed to determine requirements and costs to utilized WSDOT right of way for sewer and water line facilities.

5. Acquire needed right of entry agreements, up to 150.
6. Prepare a ROW Acquisition Plan including a preliminary ROW budget and schedule in the form of a Tech Memo

County Responsibilities

1. Review and approve landowner impact spreadsheet
2. Provide title reports and review and approve encumbrance memos supplied by HDR.
3. Review and authorize all early landowner contacts.
4. Identify and authorize parcels needing right of entry agreements.
5. Attend WSDOT coordination meetings if needed
6. Review and approve ROW Acquisition Plan

Assumptions

1. There will be a maximum of 150 parcels requiring encumbrance review memos and right of entry agreements
2. County will provide or approve ROE form and cover letter to be used.
3. Right of entry agreement negotiations will be deemed complete if agreements are acquired or if owner refuses to sign after three significant landowner interactions defined as an in person or virtual meeting or substantive email, phone or written correspondence exchanges.
4. ROE agreements will not be recorded
5. It is anticipated there will be a maximum of four WSDOT coordination meetings.
6. There will be one draft and one final ROW Acquisition Plan prepared

Deliverables

1. Landowner Impact Spreadsheet
2. Encumbrance review memos
3. Completed ROE cover letters and forms
4. WSDOT Coordination meetings agendas and notes.
5. Signed ROE Agreements
6. ROW Acquisition Plan

Task 1100 Third Party Coordination

Objective

This activity is to provide support to the COUNTY for the purpose of coordinating with the local utility companies and staff to identify potential conflicts with proposed project infrastructures and for resolving those conflicts.

CONSULTANT Services

1. The CONSULTANT will perform a Field Investigation Site Visit: This activity will include a site visit to validate existing survey and record drawings along the project corridor.
2. The CONSULTANT will assess information, including existing “As-Built” plans and/or drawings provided by private utility companies and COUNTY staff and identify possible conflicts with proposed roadway, storm drainage, sanitary sewer, and water infrastructure being installed in conjunction with the project.
3. The CONSULTANT will meet with the COUNTY project manager, Staff, and applicable utility representatives to address potential conflict locations and recommend measures for resolving conflicts and/or identify locations for the relocation of utilities to avoid conflict with proposed infrastructure.
4. The CONSULTANT will retain the services of a Utility Locating “Potholing” firm to verify critical public utility conflicts. Private utilities will pothole their respective facilities. The CONSULTANT will develop a list of locations in concert with the COUNTY project manager and coordinate with survey staff for survey services in support of verifying the depth and location of existing utilities.
5. The CONSULTANT will work with COUNTY project manager and applicable utility representative to identify the number of working days required by each utility company for relocation of their respective utility should avoidance measures for the roadway infrastructure not be possible in advance of advertisement/award of a construction contract. The CONSULTANT will work with the COUNTY project manager to develop a “Utility Relocation Window” for incorporation into the project contract documents to assist the utility companies in the relocation/conversion of their respective utility should right-of-way not be available to the utility companies prior to advertisement/construction of the project.
6. The CONSULTANT will maintain a Utility Conflict Matrix with utility conflict information and resolution. The matrix will be updated for each submittal up to and including the 90% Plans.
7. The CONSULTANT will work with the COUNTY project manager to develop a “Letter of Concurrence” to be signed by each utility company representative acknowledging their role and responsibility for implementing work to relocate/convert/ and install their respective utility during construction of the project.

County Responsibilities

1. The COUNTY will submit or mail plans, cross sections and other support information to the respective utility companies as part of the coordination process for use in identifying conflict locations and follow-up meetings.
2. The COUNTY will compile and provide all utility As-Built information to the CONSULTANT for use in project development and for assessing conflicts with existing private and public utilities within the project limits.
3. The COUNTY will schedule all coordination meetings with utility providers. Two CONSULTANT staff will attend two utility coordination meetings at each stage of design.

Assumptions

1. There will be up to 10 potholing locations for the purposed of verifying utility conflicts.

Deliverables

1. Utility Conflict Matrix to be provided at 30%, 60% and 90% design levels.

Task 1200 Bid Support Services

Objective

The objective of this task is to provide assistance to the COUNTY during the advertisement for construction and bidding phase in order to provide information to prospective bidders to support a competitive bidding environment.

CONSULTANT Services

1. CONSULTANT will provide written responses to questions and requests for clarifications to the contract documents submitted to the COUNTY during the bidding period. Responses will be provided in Microsoft Word format and submitted to the COUNTY for inclusion in contract addenda.
2. CONSULTANT will evaluate Bidder requests for alternative ("or equal") approvals during the bidding phase.
3. CONSULTANT will assist the COUNTY in preparing up to 4 addenda.

COUNTY Responsibilities

1. Record, consolidate and deliver Bidder questions and requests for contract document interpretations to the CONSULTANT in timely fashion.
2. Schedule, organize and conduct the Pre-Bid Conference.
3. COUNTY will issue addenda.

Assumption(s):

1. This PROJECT will be bid as one construction project.

Deliverables:

1. Written responses to Bidders' questions and requests for interpretations and evaluation of acceptable alternates ("or equals").
2. Pre-bid addenda.
3. Conformed set of contract documents.

Task 1300 Construction Support

Services

Construction Management and Inspection services are not needed at this time. Should these services become necessary they will be added as a supplement to the project in an amendment to contract.

Task 1400 Grant Support

Services

Grant Support services are not needed at this time. Should these services become necessary they will be added as a supplement to the project in an amendment to contract.

Estimated Fee for Professional Services

The estimated total contract amount to complete the professional services identified in this Scope of Services is offered on a **time-and-materials basis not-to-exceed \$3,987,039**. Following are estimated professional services costs for the tasks provided in this scope of services. The following table is provided only to show the COUNTY an approximate breakdown of estimated costs.

The schedule of rates and staff identified in the table above are current. During the course of the contract, HDR may need to bill for staff not identified or listed in the table, and HDR will bill at hourly rates that are based direct labor rates at the time services are provided. Expenses and subconsultants will be billed at a 5% Markup

Task	Estimated Task Cost
Task 100 – Project Management	\$376,679
Task 200 – Survey	\$136,039
Task 300 – Geotechnical	\$388,050
Task 400 – Public Outreach	\$69,236
Task 500 – Data Analysis & Review	\$62,477
Task 600 – Environmental Permitting	\$96,327
Task 700 – Cultural Resources	\$48,739
Task 800 – Preliminary Design	\$765,593
Task 900 – Final Design	\$1,590,860
Task 1000 – ROW Services	\$366,489
Task 1100 – Third Party Coordination	\$22,846
Task 1200 – Bid Support	\$63,704
Total	\$3,987,039

EXHIBIT B
CONSULTANT FEE

Project Role		Project Manager	Deputy PM	PIC	Senior Review	Project Assistant	Tech Editor	Project Engineer	EIT	Engineer
Name		Starling, Jonathan M (Michael)	Johnson, Ty M	Shea, Bradley J	Bartle, Brian D	Johnson, Michelle Kathy	Draheim, Daniel P (Dan)	Kuhns, David W Jr.	Bush, Jaelen Alexander	Gibbs, Troy M
100	Project Management	756	574	15	15	20	0	2	2	2
200	Survey	0	0	0	0	0	0	4	0	4
300	Geotechnical	0	0	0	0	0	0	0	0	0
400	Public Outreach	20	20	0	0	0	0	0	24	0
500	Data Review and Analysis	0	4	0	0	0	2	8	28	8
600	Environmental Planning	0	0	0	0	10	12	0	0	0
700	Cultural Resources	0	0	0	0	0	0	0	0	0
800	Preliminary Design	0	32	0	0	12	12	164	237	60
900	Final Design	0	128	0	0	36	0	790	208	87
1000	ROW Services	0	0	0	0	0	0	0	0	0
1100	Third Party Coordination	0	0	0	0	0	0	0	0	0
1200	Bid Support Services	0	4	0	0	14	0	8	24	8
Task Total Hours		776.00	762.00	15.00	15.00	92.00	26.00	976.00	523.00	169.00
Task Total Fee		\$ 193,092.08	\$ 203,560.68	\$ 4,039.65	\$ 5,741.70	\$ 10,198.20	\$ 3,746.60	\$ 191,862.08	\$ 65,369.77	\$ 36,331.62

CAD	Environmental Permitting	Cultural Resources	Pumps OC	Sr. Electrical Engineer	ROW PM	WW MSL	Project Accountant	Utility Engineer	Environmental Permitting	EIT	ROW Tech	ROW Acquisition Agent
Kendall, Dennis J Jr	Boeholt, Ann Grace	Ferris, Jennifer M	Allaben, Charles C	Kirmeyer, Lance G	Prossick, James F	Nolan, Laura Anne	Descalso, Joseph Michael (Joe)	Sannon, Jenson Sterling	Lien, Kern P.	Lee, Kali Ae-Jin	Wu, Tong	Gunderson, Rita M
2	1.5	2	0	2	2	0	60	0	1.5	0	0	0
0	0	0	0	0	0	0	0	2	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	20	10	0	0	8	0	0	0	12	20	0	0
0	2	0	0	0	0	1	0	0	2	0	0	0
0	16	0	0	0	0	0	0	0	34	0	0	0
0	0	25	0	0	0	0	0	0	0	0	0	0
220	0	0	8	50	0	28	0	0	0	0	0	0
1416	0	0	36	255	0	12	0	0	0	0	0	0
0	0	0	0	0	202	0	0	0	0	0	510	466
0	0	0	0	0	0	0	0	40	0	140	0	0
32	0	0	0	24	0	0	0	0	0	0	0	0
1670.00	39.50	37.00	44.00	331.00	212.00	41.00	60.00	42.00	49.50	160.00	510.00	466.00
\$ 283,232.00	\$ 6,668.79	\$ 7,884.33	\$ 16,648.28	\$ 95,549.77	\$ 64,583.68	\$ 11,733.38	\$ 6,528.00	\$ 5,980.80	\$ 9,519.84	\$ 18,969.60	\$ 59,190.60	\$ 71,847.88

Traffic Engineer	Senior Geotechnical Review	ROW Acquisition Agent	ROW Acquisition Agent	ROW PM	Environmental Scientist	Environmental Scientist	Planner/Permitting Support	Planner/Permitting Support	Permitting Support	GIS	Biologist	Planner/Cultural Resources Specialist
Keyes, Justin D	White, Patrick H	LeCavalier, Susan E	Rude, Lea Michelle (Michelle)	Weaver, Teresa Ann	Story, Tobin M	Farrell, Anna Kathryn	Eickelberg, Brendan Patrick	Bails, Jamie Lynn	Cody, Sandy R	Smith, Eleanor Seiko	Welch, Ian D	Robison-Mathes, Anna Lee
0	0	0	0	0	1.5	1.5	1.5	1.5	0	1.5	1.5	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	12	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	24	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	28	44	0	0	0	0	0	0
0	0	0	0	0	92	100	89	108	60	4	12	0
0	0	0	0	0	0	0	0	0	0	0	0	78
0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0
0	0	361	361	92	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
100.00	12.00	361.00	361.00	92.00	121.50	145.50	90.50	109.50	60.00	29.50	13.50	78.00
\$ 19,091.00	\$ 3,444.12	\$ 74,546.50	\$ 48,633.92	\$ 20,422.16	\$ 18,250.52	\$ 16,840.17	\$ 10,136.00	\$ 15,616.89	\$ 7,747.20	\$ 4,243.28	\$ 2,460.65	\$ 8,995.74

Cultural Resources Specialist II/Archaeologist	Cultural Resources Specialist II/Archaeological Historian	GIS Analyst	Tech Editor	Cultural Resources	QC Review	Sr. Project Accountant	Sr. Structural Engineer	Structural EIT	Hydraulic Modler	Electrical EIT	Electrical System Designer	Electrical QC
Limberg, Caitlin Paige	Desimone, Sarah Marie	Silberman, Zachary Reese (Zach)	Adair, Tina M	Gratreak, Leesa M	Applegate, Daniel W	Raclawski, Matthew R	Hijazi, Mohamad H	Rastogi, Astha	Tamura, Lisa Y	Santiago, Ian Paulo Rodrigo	Pilapil, Edwin F	Rincon, Isabel C
0	0	1.5	0	0	0	12	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	24	0	0	0	0	0	0	0	0	0	0
0	0	106	26	0	0	0	0	0	0	0	0	0
120	102	33	6	14	0	0	0	0	0	0	0	0
0	0	0	0	0	36	0	5	0	48	50	0	5
0	0	0	0	0	68	0	15	20	0	305	0	20
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	24	12	0
120.00	102.00	164.50	32.00	14.00	104.00	12.00	20.00	20.00	48.00	379.00	12.00	25.00
\$ 15,141.60	\$ 10,287.72	\$ 18,739.84	\$ 5,328.00	\$ 2,206.82	\$ 32,021.60	\$ 2,080.92	\$ 6,180.40	\$ 3,114.80	\$ 11,679.84	\$ 49,262.42	\$ 2,010.96	\$ 7,827.25

Structural CAD	Structural QC	Structural Engineer	ESA QC	Total Hours	4.5% Escalation for Year 2 hours	
Peruchini, John P	Prindle, Douglas J	Wang, Jun	Garufi, Kate	Projecting 55% of hours in Year 2		
0	0	0	0	1479.5	\$ 9,085.00	\$ 367,068.84
0	0	0	0	10	\$ 48.00	\$ 1,931.04
0	0	0	0	12	\$ 85.00	\$ 3,444.12
0	0	0	0	158	\$ 728.00	\$ 29,394.98
0	0	0	0	151	\$ 524.00	\$ 21,189.96
0	0	0	6	675	\$ 2,265.00	\$ 91,519.38
0	0	0	0	378	\$ 1,156.00	\$ 46,717.49
6	2	4	0	979	\$ 4,551.00	\$ 183,878.96
29	6	11	0	3542	\$ 16,628.00	\$ 671,824.78
0	0	0	0	1992	\$ 8,320.00	\$ 336,178.34
0	0	0	0	180	\$ 552.00	\$ 22,294.40
0	0	0	0	150	\$ 653.00	\$ 26,398.46
35.00	8.00	15.00	6.00	9706.50		
\$ 7,179.20	\$ 1,712.64	\$ 2,596.35	\$ 1,762.92		\$ 44,595.00	\$ 1,846,435.76

OTHER DIRECT COSTS												
	Express Mail	HDR Owned Vehicle	Field	Trimble	Meals/day	Lodging/day	Miscellaneous	Mileage/mile (IRS	EDR	Total ODC	ODC Mark up	Total ODC Mark +
	Office Expenses	Mileage/mile	Supplies	Unit/day	Travel	Travel	US	starting 7/1/22)				
		Travel	Field Equipment	Field Equipment	Travel	Travel	Miscellaneous	Travel				
	Each	Each	Each	Each	Each	Each	Each	Each	Each			
100	Unit Cost	\$25,000	\$0.750	\$26,000	\$71,000	\$159,000	\$75,000	\$0.625	\$500,000		5.00%	
	Quantity	20	0	0	0	0	0	0	0			
	Task Total	\$500.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$500.00	\$25.00	\$525.00
400	Public Outreach											
	Quantity	0	0	0	6	6	0	1200	0			
	Task Total	\$0.00	\$0.00	\$0.00	\$426.00	\$954.00	\$0.00	\$750.00	\$0.00	\$2,130.00	\$106.50	\$2,236.50
500	Data Review and Analysis											
	Quantity	0	240	2	2	0	0	0	0			
	Task Total	\$0.00	\$180.00	\$52.00	\$142.00	\$0.00	\$0.00	\$0.00	\$0.00	\$474.00	\$23.70	\$497.70
600	Environmental Planning											
	Quantity	0	444	6	7	4	0	0	1			
	Task Total	\$0.00	\$333.00	\$156.00	\$497.00	\$636.00	\$0.00	\$0.00	\$500.00	\$2,422.00	\$121.10	\$2,543.10
700	Cultural Resources											
	Quantity	0	500	0	0	0	6	0	0			
	Task Total	\$0.00	\$375.00	\$0.00	\$0.00	\$0.00	\$450.00	\$0.00	\$0.00	\$825.00	\$41.25	\$866.25
800	Preliminary Design											
	Quantity	0	500	0	10	4	0	1000	0			
	Task Total	\$0.00	\$375.00	\$0.00	\$710.00	\$636.00	\$0.00	\$625.00	\$0.00	\$2,346.00	\$117.30	\$2,463.30
900	Final Design											
	Quantity	0	0	0	0	0	0	1000	0			
	Task Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$625.00	\$0.00	\$625.00	\$31.25	\$656.25
1000	ROW Services											
	Quantity	80	11925	0	0	0	0	0	0			
	Task Total	\$2,000.00	\$8,943.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10,943.75	\$547.19	\$11,490.94
Total ODC		\$ 2,500.00	\$ 10,206.75	\$ 400.00	\$ 208.00	\$ 1,775.00	\$ 2,226.00	\$ 450.00	\$ 500.00	\$20,265.75	\$1,013.29	\$21,279.04

EXHIBIT C
SUB-CONSULTANT FEE

SUBCONSULTANTS		M2Coast	The Beckett Group	Landau	KennedyJenks	Biohabitats	Total Subconsultants	Sub Markup	Total Subconsultants + Markup
200	Survey							5.00%	
	Task Total	\$127,676.00	\$0.00	\$0.00	\$0.00	\$0.00	\$127,676.00	\$6,383.80	\$134,059.80
300	Geotechnical								
	Task Total	\$0.00	\$0.00	\$366,210.00	\$0.00	\$0.00	\$366,210.00	\$18,310.50	\$384,520.50
400	Public Outreach								
	Task Total	\$0.00	\$35,120.00	\$0.00	\$0.00	\$0.00	\$35,120.00	\$1,756.00	\$36,876.00
500	Data Review and Analysis								
	Task Total	\$0.00	\$0.00	\$0.00	\$23,348.00	\$15,000.00	\$38,348.00	\$1,917.40	\$40,265.40
800	Preliminary Design								
	Task Total	\$0.00	\$0.00	\$0.00	\$452,333.00	\$95,000.00	\$547,333.00	\$27,366.65	\$574,699.65
900	Final Design								
	Task Total	\$0.00	\$0.00	\$0.00	\$722,810.00	\$136,000.00	\$858,810.00	\$42,940.50	\$901,750.50
1000	ROW Services								
	Task Total	\$10,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10,000.00	\$500.00	\$10,500.00
1200	Bid Support Services								
	Task Total	\$0.00	\$0.00	\$0.00	\$24,908.00	\$10,000.00	\$34,908.00	\$1,745.40	\$36,653.40
Total Subconsultants		\$ 137,676.00	\$ 35,120.00	\$ 366,210.00	\$ 1,223,399.00	\$ 256,000.00	\$ 2,018,405.00	\$ 100,920.25	\$ 2,119,325.25