



DAN JOHNSON
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD OREGON CITY, OR 97045

Board of County Commissioners
Clackamas County

Members of the Board:

Approval of a Contract with Quincy Engineering, Incorporated, for Design Services for the Molalla River (Knights Bridge Rd) Rehabilitation Project. Total value is \$531,900.83. Funding through State Funded Local Project Program Funds and County Road Fund. County General Funds are not involved.

Purpose/Outcome	The contract will provide design services for the Molalla River (Knights Bridge Rd) Bridge Rehabilitation Project.
Dollar Amount and Fiscal Impact	Contract total \$531,900.83
Funding Source	State Funded Local Project Program (SFLP) Funds and County Road Fund.
Duration	Contract Execution through December 31, 2023.
Previous Board Action/Review	09/26/17: Approval to apply for the grant through the Oregon Department of Transportation – Local Bridge Program for the Molalla River (Knights Bridge Rd) Bridge #06520 4/20/21: Discussion item at issues 04/29/21: Approval of a Local Agency Agreement No.34356 with Oregon Department of Transportation for the Knights Bridge Road: Molalla River Bridge #06520 05/03/22: Discussion item at issues
Strategic Plan Alignment	1. This item supports the DTD Strategic Focus on Safe Roads and Strategic Result of “Travelers on Clackamas County roads will experience safe roads in good condition.” 2. This project will “Build a strong infrastructure” and “Ensure safe, healthy and secure communities” by rehabilitating a structurally deficient bridge.
Counsel Review	Counsel Date: April 18, 2022 Counsel Initials: AN
Procurement Review	Was this project processed through Procurement? Yes.
Contact Person	Stan Monte, Technical Services Specialist 503-742-4678
Contract No.	4998

BACKGROUND: The existing bridge on Knights Bridge Road spanning the Molalla River near the City of Canby, was built in 1964 and is showing extensive signs of decay as a result of its age and heavy truck traffic. The bridge has a sufficiency rating of 38.5 and requires load and weight restrictions to be placed on the bridge.

The proposed rehabilitation will include a Phase 1 seismic retrofit of the superstructure, painting of the steel girders, patching and sealing of the deck with a full overlay, repair concrete spalling of

abutments and columns and in-water-work for scour repairs at bents, 3, 4, and 5. The proposed improvements are expected to remove the load and weight restrictions on the bridge.

The consultant will provide design services consisting of project management, survey, environmental documentation and permitting services, utility coordination, geotechnical, traffic engineering, public outreach assistance, and the development of both preliminary design criteria and final Plans, Specifications and Estimates, right-of-way services, and bid assistance for the Molalla River (Knights Bridge Rd) Bridge Rehabilitation project.

Intergovernmental agreement with the Oregon Department of Transportation, Clackamas County secured funding from the State Funded Local Projects Fund, which will provide 89.73 percent of the cost of the project, limited to \$3,231,254. County Road Fund will provide, as a match, the remaining 10.27 percent cost of the project, estimated to be \$369,832. The project's total estimated cost is \$3,601,086.

PROCUREMENT PROCESS: This project was advertised in accordance with ORS and LCRB Rules on September 29, 2021. Proposals were publicly opened on November 2, 2021. The County received three (3) responses: David Evans & Associates, KPFF, and Quincy Engineering Incorporated. An evaluation committee of DTD personnel evaluated the proposals. The evaluation committee scored Quincy Engineering the highest. Following the intent to award, the scope of work and project designs fees were negotiated and finalized.

RECOMMENDATION: Staff respectfully recommends that the Board approve and sign this Design services contract with Quincy Engineering, Incorporated, for the Molalla River (Knights Bridge Rd) Bridge Rehabilitation Project.

Sincerely,

Stan Monte

Stan Monte,
Technical Services Specialist,
Department of Transportation and Development

Placed on the BCC Agenda _____ by Procurement



**CLACKAMAS COUNTY
PERSONAL SERVICES CONTRACT
Contract #4998**

This Personal Services Contract (this “Contract”) is entered into between **Quincy Engineering, Incorporated** (“Contractor” or “Consultant”), and Clackamas County, a political subdivision of the State of Oregon (“County”) on behalf of Department of Transportation and Development.

ARTICLE I.

- 1. Effective Date and Duration.** This Contract shall become effective upon signature of both parties. Unless earlier terminated or extended, this Contract shall expire on **December 31, 2023**.

- 2. Scope of Work.** Contractor shall provide the following personal services: Design services for the Knight’s Bridge Rehab project (“Work”), further described in **Exhibit A**. The Work authorized by this Contract is limited to the preliminary design phase work described in Exhibit A. If County requests performance of construction engineering, inspection and construction contract administration phase work, it will do so by issuing an amendment to this Contract on terms acceptable to both parties.

- 3. Consideration.** The County agrees to pay Contractor, from available and authorized funds, a sum not to exceed **Five Hundred and Thirty One Thousand Nine Hundred dollars and Eighty Three cents (\$531,900.83)**, for accomplishing the Work required by this Contract. Consideration rates are on a time and materials basis in accordance with the rates and costs specified in Exhibit B. If any interim payments to Contractor are made, such payments shall be made only in accordance with the schedule and requirements in Exhibit B. “The Contract’s maximum not-to-exceed amount includes the total of all allowable and reimbursable costs and expenses (and Contingency Tasks). Contingency Tasks shall not be performed, unless upon the written approval of the County.”

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

Invoices shall reference the above Contract Number and be submitted to: Stan Monte at StanMon@clackamas.us

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

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

7. Contractor and County Contacts.

Contractor Administrator: Jeff Olson, PE Phone: 503-763-9955 Email: jeffo@quincyeng.com	County Administrator: Stan Monte Phone: 503- 742-4678 Email: StanMon@clackamas.us
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Payment information will be reported to the Internal Revenue Service (“IRS”) under the name and taxpayer ID number submitted. (See I.R.S. 1099 for additional instructions regarding taxpayer ID numbers.) Information not matching IRS records will subject Contractor payments to backup withholding.

ARTICLE II.

- 1. ACCESS TO RECORDS.** Contractor shall maintain books, records, documents, and other evidence, in accordance with generally accepted accounting procedures and practices, sufficient to reflect properly all costs of whatever nature claimed to have been incurred and anticipated to be incurred in the performance of this Contract. County and their duly authorized representatives shall have access to the books, documents, papers, and records of Contractor, which are directly pertinent to this Contract for the purpose of making audit, examination, excerpts, and transcripts. Contractor shall maintain such books and records for a minimum of six (6) years, or such longer period as may be required by applicable law, following final payment and termination of this Contract, or until the conclusion of any audit, controversy or litigation arising out of or related to this Contract, whichever date is later.
- 2. AVAILABILITY OF FUTURE FUNDS.** Any continuation or extension of this Contract after the end of the fiscal period in which it is written is contingent on a new appropriation for each succeeding fiscal period sufficient to continue to make payments under this Contract, as determined by the County in its sole administrative discretion.
- 3. CAPTIONS.** The captions or headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any provisions of this Contract.
- 4. COMPLIANCE WITH APPLICABLE LAW.** Contractor shall comply with all applicable federal, state and local laws, regulations, executive orders, and ordinances, as such may be amended from time to time.
- 5. COUNTERPARTS.** This Contract may be executed in several counterparts (electronic or otherwise), each of which shall be an original, all of which shall constitute the same instrument.
- 6. GOVERNING LAW.** This Contract, and all rights, obligations, and disputes arising out of it, shall be governed and construed in accordance with the laws of the State of Oregon and the ordinances of Clackamas County without regard to principles of conflicts of law. Any claim, action, or suit between County and Contractor that arises out of or relates to the performance of this Contract shall be brought and conducted solely and exclusively within the Circuit Court for Clackamas County, for the State of Oregon. Provided, however, that if any such claim, action, or suit may be brought in a federal forum, it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this section be construed as a waiver by the County of any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court. Contractor, by execution of this Contract, hereby consents to the personal jurisdiction of the courts referenced in this section.

- 7. RESPONSIBILITY FOR DAMAGES; INDEMNITY.** Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay which may be caused by, or result from, the conduct of Work, or from any act, omission, or neglect of Contractor, its subcontractors, agents, or employees. The Contractor agrees to indemnify, hold harmless and defend the County, and its officers, elected officials, agents and employees from and against all claims and actions, and all expenses incidental to the investigation and defense thereof, arising out of or based upon damage or injuries to persons or property caused by the errors, omissions, fault or negligence of the Contractor or the Contractor's employees, subcontractors, or agents. However, neither Contractor nor any attorney engaged by Contractor shall defend the claim in the name of County or any department of County, nor purport to act as legal representative of County or any of its departments, without first receiving from the Clackamas County Counsel's Office authority to act as legal counsel for County, nor shall Contractor settle any claim on behalf of County without the approval of the Clackamas County Counsel's Office. County may, at its election and expense, assume its own defense and settlement.
- 8. INDEPENDENT CONTRACTOR STATUS.** The service(s) to be rendered under this Contract are those of an independent contractor. Although the County reserves the right to determine (and modify) the delivery schedule for the Work to be performed and to evaluate the quality of the completed performance, County cannot and will not control the means or manner of Contractor's performance. Contractor is responsible for determining the appropriate means and manner of performing the Work. Contractor is not to be considered an agent or employee of County for any purpose, including, but not limited to: (A) The Contractor will be solely responsible for payment of any Federal or State taxes required as a result of this Contract; and (B) This Contract is not intended to entitle the Contractor to any benefits generally granted to County employees, including, but not limited to, vacation, holiday and sick leave, other leaves with pay, tenure, medical and dental coverage, life and disability insurance, overtime, Social Security, Workers' Compensation, unemployment compensation, or retirement benefits.
- 9. INSURANCE.** Contractor shall secure at its own expense and keep in effect during the term of the performance under this Contract the insurance required and minimum coverage indicated below. The insurance requirement outlined below do not in any way limit the amount of scope of liability of Contractor under this Contract. Contractor shall provide proof of said insurance and name the County as an additional insured on all required liability policies. Proof of insurance and notice of any material change should be submitted to the following address: Clackamas County Procurement Division, 2051 Kaen Road, Oregon City, OR 97045 or procurement@clackamas.us.

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

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

- 10. LIMITATION OF LIABILITIES.** This Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provisions herein which would conflict with law are deemed inoperative to that extent. Except for liability arising under or related to Article II, Section 13 or Section 20 neither party shall be liable for (i) any indirect, incidental, consequential or special damages under this Contract or (ii) any damages of any sort arising solely from the termination of this Contract in accordance with its terms.
- 11. NOTICES.** Except as otherwise provided in this Contract, any required notices between the parties shall be given in writing by personal delivery, email, or mailing the same, to the Contract Administrators identified in Article 1, Section 6. If notice is sent to County, a copy shall also be sent to: Clackamas County Procurement, 2051 Kaen Road, Oregon City, OR 97045, or procurement@clackamas.us. Any communication or notice so addressed and mailed shall be deemed to be given five (5) days after mailing, and immediately upon personal delivery, or within 2 hours after the email is sent during County's normal business hours (Monday – Thursday, 7:00 a.m. to 6:00 p.m.) (as recorded on the device from which the sender sent the email), unless the sender receives an automated message or other indication that the email has not been delivered.
- 12. OWNERSHIP OF WORK PRODUCT.** All work product of Contractor that results from this Contract (the "Work Product") is the exclusive property of County. County and Contractor intend that such Work Product be deemed "work made for hire" of which County shall be deemed the author. If for any reason the Work Product is not deemed "work made for hire," Contractor hereby irrevocably assigns to County all of its right, title, and interest in and to any and all of the Work Product, whether arising from copyright, patent, trademark or trade secret, or any other state or federal intellectual property law or doctrine. Contractor shall execute such further documents and instruments as County may reasonably request in order to fully vest such rights in County. Contractor forever waives any and all rights relating to the Work Product, including without limitation, any and all rights arising under 17 USC § 106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use or subsequent modifications. Notwithstanding the above, County shall have no rights in any pre-existing Contractor intellectual property provided to County by Contractor in the performance of this Contract except to copy, use and re-use any such Contractor intellectual property for County use only.
- 13. REPRESENTATIONS AND WARRANTIES.** Contractor represents and warrants to County that (A) Contractor has the power and authority to enter into and perform this Contract; (B) this Contract, when executed and delivered, shall be a valid and binding obligation of Contractor enforceable in accordance with its terms; (C) Contractor shall at all times during the term of this Contract, be qualified, professionally competent, and duly licensed to perform the Work; (D) Contractor is an independent contractor as defined in ORS 670.600; and (E) the Work under this Contract shall be performed in the same professional skill, care, diligence and standards as other professionals performing similar services under similar conditions. The warranties set forth in this section are in addition to, and not in lieu of, any other warranties provided. The Contractor shall be responsible for the technical accuracy of its services and documents resulting therefrom, and District shall not be responsible for discovering deficiencies therein. The Contractor shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in information furnished by the County.
- 14. SURVIVAL.** All rights and obligations shall cease upon termination or expiration of this Contract, except for the rights and obligations set forth in Article II, Sections 1, 6, 7, 10, 12, 13, 14, 15, 17, 20, 21, 25, 27, and 29 and all other rights and obligations which by their context are intended to survive. However, such expiration shall not extinguish or prejudice the County's right to enforce this Contract with respect to: (a) any breach of a Contractor warranty; or (b) any default or defect in Contractor performance that has not been cured.

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

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

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

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

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

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

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

21. NO THIRD PARTY BENEFICIARIES. County and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.

- 22. TIME IS OF THE ESSENCE.** Contractor agrees that time is of the essence in the performance this Contract.
- 23. FOREIGN CONTRACTOR.** If the Contractor is not domiciled in or registered to do business in the State of Oregon, Contractor shall promptly provide to the Oregon Department of Revenue and the Secretary of State, Corporate Division, all information required by those agencies relative to this Contract. The Contractor shall demonstrate its legal capacity to perform these services in the State of Oregon prior to entering into this Contract.
- 24. FORCE MAJEURE.** Neither County nor Contractor shall be held responsible for delay or default caused by events outside the County or Contractor's reasonable control including, but not limited to, fire, terrorism, riot, acts of God, or war. However, Contractor shall make all reasonable efforts to remove or eliminate such a cause of delay or default and shall upon the cessation of the cause, diligently pursue performance of its obligations under this Contract.
- 25. WAIVER.** The failure of County to enforce any provision of this Contract shall not constitute a waiver by County of that or any other provision.
- 26. PUBLIC CONTRACTING REQUIREMENTS.** Pursuant to the public contracting requirements contained in Oregon Revised Statutes ("ORS") Chapter 279B.220 through 279B.235, Contractor shall:
- a. Make payments promptly, as due, to all persons supplying to Contractor labor or materials for the prosecution of the work provided for in the Contract.
 - b. Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or subcontractor incurred in the performance of the Contract.
 - c. Not permit any lien or claim to be filed or prosecuted against County on account of any labor or material furnished.
 - d. Pay the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.
 - e. As applicable, the Contractor shall pay employees for work in accordance with ORS 279B.235, which is incorporated herein by this reference. The Contractor shall comply with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract, and failure to comply is a breach entitling County to terminate this Contract for cause.
 - f. If the Work involves lawn and landscape maintenance, Contractor shall salvage, recycle, compost, or mulch yard waste material at an approved site, if feasible and cost effective.
- 27. NO ATTORNEY FEES.** In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Contract, each party shall be responsible for its own attorneys' fees and expenses.
- 28. KEY PERSONS.** Contractor acknowledges and agrees that a significant reason the County is entering into this Contract is because of the special qualifications of certain Key Persons set forth in the contract. Under this Contract, the County is engaging the expertise, experience, judgment, and personal attention of such Key Persons. Neither Contractor nor any of the Key Persons shall delegate performance of the management powers and responsibilities each such Key Person is required to provide under this Contract to any other employee or agent of the Contractor unless the County provides prior written consent to such delegation. Contractor shall not reassign or transfer a Key Person to other duties or positions such that the Key Person is no longer available to provide the County with such Key Person's services unless the County provides prior written consent to such reassignment or transfer.

**EXHIBIT A
PERSONAL SERVICES CONTRACT
SCOPE OF WORK**

EXHIBIT A

PERSONAL SERVICES CONTRACT

SCOPE OF WORK

PROJECT UNDERSTANDING

The existing bridge, built in 1964, is 346 feet long, 31.5 feet wide and has a sufficiency rating of 38.5. The most recent inspection (2019) report identifies cracking of more than 50 percent in the decking; corrosion in steel girders, with the heaviest corrosion along the bottom flanges; spalling in several columns with exposed rebar in Bent 4; delamination in the pier caps; vertical cracking in the west abutment wall; and heavy abrasion below the waterline and scour in several of the footings.

Rehabilitation Scope – Minimum.

Rehabilitation of the existing bridge shall include: Phase 1 seismic retrofit (superstructure only); Paint steel girders of spans 1, 2, 4, 5, 6 to include spot removal of rust and flaking; Deck joint repair (all 7 bents); Deck repair at a minimum - Class II deck prep in spots, Class I for remainder and a Polymer Concrete overlay ¾" over entire bridge; Repair delamination's and concrete spalls of columns, abutments and pier caps; Perform column jacketing for scour protection at bents 3, 4 and 5 (6 columns total); Rip rap scour protection at Bents 2, 3, 4 and 5; Epoxy inject cracks in Bent 7 wall; Remove six H-pile in vicinity of Bents 3 and 4. (Work bridges are anticipated for the In-water work, H-pile removal, column jacketing and rip rap placement).

Environmental

In water work requiring permitting is anticipated, likely to include restoration of streambanks and worksite/ staging area. No permanent impacts to wetlands are anticipated.

Repair of concrete structures, preparation for and application of paint will require containment.

Franchise Utilities:

Relocation of utilities is not anticipated, but coordination with utilities is required.

Public Involvement/Outreach:

Public involvement will consist of mailed public information and a display board that can be used at a CPO meeting or community open house and posted on the County's website.

Right-of-Way (ROW):

It is assumed no additional permanent right of way is required for this project. One, possibly two Temporary Construction Easements for construction may be required. A contingency of two files is included in the scope of work.

Project Phasing:

The project is to be completed in two phases. The first phase is preliminary engineering and bidding for a construction contract. The second phase is construction. Construction phase services are not included in this scope of work and the County may request additional scope of work services at a later date for the second phase.

SCOPE OF SERVICES

3.1. SUMMARY OF WORK

“Consultant” shall provide services including project management, survey, environmental documentation and permitting services, utility coordination, geotechnical, traffic engineering, public outreach assistance, and the development of both preliminary design criteria and final PS&E (Plans, Specifications and Estimates) design, right-of-way services, and bid assistance up through bid award for this project based on the scope of services described herein.

- Task 1.0 Project Management and Project Coordination
- Task 2.0 Survey, Field Investigations and Mapping
- Task 3.0 Environmental Services
- Task 4.0 River Hydraulics Related Services
- Task 5.0 Utility Coordination
- Task 6.0 Geotechnical and Geologic Services
- Task 7.0 Traffic Engineering and Management
- Task 8.0 Preliminary Design (30%)
- Task 9.0 Public Involvement/Outreach Assistance
- Task 10.0 Final Design (60%, 90%, and 100% Bid Ready)
- Task 11.0 Right of Way [Contingency]
- Task 12.0 Bid and Award Assistance

The duration of the design of this project is assumed to be from February 2022 through March 2023 for the completion of design tasks. Bidding and Construction will occur between April 2023 and June 2023. This scope of services does not include construction engineering or construction support, which may be added at the discretion of the County towards the end of the design phase through a contract amendment.

SCOPE OF SERVICES

Task 1.0 Project Management and Project Coordination

Consultant shall provide management and coordination of services under this Scope of Work (SOW) for delivery of Tasks and Deliverables according to the agreed upon delivery schedule.

1.1 Administration & Record Keeping

Consultant shall:

- Prepare a Project design schedule using the Critical Path Method. The Project schedule must include all major authorized tasks as agreed upon by the Parties, Project design team meetings, and milestones (type and date) specified in this SOW and required to complete all services under this Contract. Updates to the Project schedule shall be made during the course of the Project if milestone dates are modified. For budgeting purposes, it is assumed that up to two (2) Project schedule updates will be necessary.
- Prepare invoices and progress reports. For budgeting purposes, it is assumed that up to fourteen (14) progress reports will be necessary. Each progress report must:
 - Include a summary of previous period's activities and the planned activities for the upcoming period;
 - Identify percentage completed of each Task/Deliverable;
 - Reconcile the budget with the actual amount billed to date;
 - Identify unresolved issues and concerns that may affect the SOW, schedule and/or budget for services.
- Develop and maintain a Project file to include engineering computations, assumptions, meeting agendas and minutes, working drawings, quality control and review documentation, correspondence, and memoranda.

Task 1.1 - Deliverables and Schedule

Consultant shall provide:

- *Project Design Schedule submitted within five (5) business days of Notice to Proceed (NTP). Submit electronically in PDF format and electronic file (MS Project) format to the County Project Manager (CPM).*
- *Updated Project Design Schedule, as necessary, via timeline agreed to by CPM.*
- *Progress reports and invoices submitted electronically to CPM no later than the 20th calendar day of the month following the reporting period.*

1.2 Coordination

Consultant shall:

- Coordinate with the CPM as the main point of contact for coordination and management of Consultant services under the Contract;
- Contact other County staff, and regulatory County staff, if necessary, throughout the Contract, to gather any additional information needed for the Project, Project site, regulations and guidance;

- Provide overall management, direction and coordination of staff (including sub-consultants, if any) to include any necessary internal Consultant staff meetings;
- Contact CPM via telephone on a biweekly basis to provide Project status information

Task 1.2 - Deliverables and Schedule

Consultant shall provide:

- *On-going coordination and communication as needed to appropriately manage the services under this Contract (no tangible deliverables for this task).*

1.3 Project Meetings

1.3.1 Project Kickoff Meeting and Site Visit

Consultant shall organize, conduct, prepare for and attend a Project kickoff meeting. The Project kickoff meeting will be held at the Department of Transportation offices of Clackamas County or via web-based platform with the CPM, the Consultant's PM and other necessary project stakeholders and Consultant staff in attendance. Consultant shall prepare the meeting agenda with input from the CPM. The purpose of the Project kickoff meeting is to review Project issues such as SOW; work products and deliverables; schedules; budgets; right of way; utility coordination/design; design criteria; guidance documents and standards, and quality control. Consultant shall schedule Project kickoff meeting within five (5) business days of (NTP). Consultant shall prepare draft meeting minutes for review. For budgeting purposes, it is assumed that up to eight (8) Consultant staff shall attend the two (2) hour Project kickoff meeting and subsequent two (2) hour site visit.

Following the kickoff meeting, the County and Consultant team will conduct a site visit to review existing conditions, discuss site constraints, potential consultant and contractor access and staging areas, and other project issues that could affect the project. The outcome of the site visit will be documented as part of the kickoff meeting notes

1.3.2 Project Development Team Meetings

Consultant shall organize, conduct, prepare for and attend up to four (4) in person or web-based Project Development Team (PDT) Meetings. Each in-person PDT meeting will be held at the Department of Transportation offices of Clackamas County or via web-based meeting platform with the CPM, the Consultant's PM and other necessary project stakeholders and Consultant staff in attendance. The Consultant shall prepare the meeting agenda with input from the CPM. Consultant shall prepare draft and final meeting minutes to be distributed to CPM and all other meeting participants. For budgeting purposes, it is assumed that up to two (2) Consultant staff shall attend each in-person two (2) hour PDT meeting.

Task 1.3 - Deliverables and Schedule

For each meeting, Consultant shall provide:

- *Meeting agenda submitted electronically to CPM and all other meeting participants two (2) business days prior to meeting.*
- *Draft meeting minutes submitted electronically to CPM and all other meeting participants within two (2) business days of meeting.*
- *Final meeting minutes submitted electronically to CPM and all other meeting participants within seven (7) business days of meeting.*

Task 2.0 Survey, Field Investigations and Mapping

Consultant shall survey this Project for the areas as described in Project understanding section of this SOW unless otherwise noted in specific tasks.

Specific to agency standards, Survey will follow Ground Confidence Point Analysis and Report standards as defined in the 2015 ODOT Survey Policy and Procedure Manual to ensure DTM accuracy along the entire project corridor.

Consultant shall provide notice to landowners as necessary to entry properties based on ORS 672.047.

All other project survey methods will adhere to Clackamas County Survey Standards and Procedures.

2.1 Research

Consultant shall:

- Obtain the research data for the area as described in Project Understanding section of this SOW. Consultant shall perform data research as necessary to prepare for and support Project activities, and to produce Project maps and reports as called for in subsequent tasks. The typical records required for research are, but not limited to; vesting deeds, land sales contracts, County assessor plats and road records, subdivision plats, General Land Office plats, ODOT ROW drawings, railroad maps, County surveys, road dedications and vacations.

2.1.1 Existing Vesting Deeds and Property Ownerships

Consultant shall:

- Obtain all necessary “Trio listing kits” (typically provided by a Title Company). Consultant shall identify property ownership within and adjacent to the Project site by investigating property deeds and County tax records. Consultant shall itemize and report property ownership and owner contact information to CPM. Consultant shall submit each deed in its own electronic file. Consultant shall include all vesting deeds referenced in the Property Vesting Deeds if needed to resolve the property boundary.

2.1.2 Existing Right of Way Records

Consultant shall:

- Research and obtain copies of surveys, subdivision plats, and land partition plats filed in the County surveyor’s office related to the properties potentially impacted by the Project. This information is used to find monuments that might be impacted from the Project and establish property lines for area calculations when new ROW is acquired.
- Consultant shall research and obtain copies of County assessor maps, General Land Office plats, and County road records related to the properties potentially impacted by the Project.
- Consultant shall research and obtain available data about Government Public Lands Survey Corners and their references in the Project area as defined in the SOW.

2.1.3 Existing Horizontal/Vertical Control Stations

Consultant shall

- Research and obtain data about horizontal and vertical control points as required for the Project area including GNSS stations, benchmarks, and prior Project control surveys from county, city, and other governmental agencies.

2.1.4 Existing Utility Records

Consultant shall

- Research and obtain available facility maps and as-built construction plan data pertaining to utilities in or near the Project area from the County, One-Call Service, County, city, or other governmental agencies and utility companies.

Task 2.1 - Deliverables and Schedule

Consultant shall provide:

- *Incorporate information from this task into the deliverables listed in Tasks 2.4, 2.5 and 11.1 as required for delivery of documents in subsequent tasks.*

2.2 Horizontal And Vertical Control Network

The purpose of this task is to provide the means by which the Project can be located relative to horizontal and vertical datum, map projection, and coordinate systems. Consultant shall establish a horizontal and vertical control network using the datum associated with the Project area or as approved by the County. Reference the network and all mapping to the County approved vertical datum. The Horizontal Datum to be NAD 83(2011) epoch 2010.00 utilizing the Oregon Real Time Network (ORGN PDX Zone). The Horizontal Network shall be resolved using differential Real Time Kinematic (RTK) GNSS observations along with Terrestrial ground measurements. The Vertical Datum shall be NAVD 88. A GNSS derived elevation shall be utilized using the Oregon Real Time Network. Closed loop differential level measurements shall run through all of the on-site Control.

Consultant shall establish horizontal control according to County standards using Terrestrial (Theodolite and EDM), GNSS (Static or Rapid Static) or a combination of both. Consultant shall set and adjust control points in conformance with County guidelines.

Consultant shall use 5/8" Rebar with plastic or brass caps, or other County approved control point, for the GNSS and network points. Consultant shall establish a minimum of 3 GNSS control points through the length of the survey.

Consultant shall establish vertical control using differential leveling. Consultant shall get County approval before using other methods such as trigonometric leveling and elevations derived from GNSS.

Task 2.2 - Deliverables and Schedule

Consultant shall provide:

- *Place control points in the ground at the Project location.*
- *Consultant shall incorporate the information listed below into the deliverables listed in Tasks 2.4 and 2.5 as required for delivery of documents in subsequent tasks.*
 - *An adjustment report for one or more of the following, Least Squares adjustment for networks, an approved traverse adjustment method for traverses and/or a GNSS adjustment report when using GNSS.*
 - *An ASCII file containing the coordinates for every network point set and found.*
 - *If the levels were electronically processed then one copy each of the following: original raw level file as collected in the field, ASCII file showing level closure data, ASCII file with elevations on all network points and/or an ASCII file showing the level rod readings.*

- *Original field notes for the control network and one scanned copy of the original field notes in “.pdf” format.*
- *An Autodesk Civil3D file containing all the set and tied control points to show elevations.*
- *An Autodesk Civil3D containing all vertical and horizontal control points stored as cogo points to show elevations.*

2.3 Monument Recovery (CONTINGENCY)

The purpose of this task is to address the requirements of ORS 209.150 and 209.155, and other survey related statutes for construction Projects.

Consultant shall survey for but not limited to: government corners, geodetic control stations, bench marks, ROW monuments, property boundary markers, and roadway alignment markers.

Identify, Search and Recover Monuments

Consultant shall recover existing monuments to preserve the locations of any monuments of record that may be endangered by any activity related to the Project and to resolve roadways and property lines. Consultant shall provide a record (field notes) of monuments searched for, the date of the search and the results of the search.

Field Survey of Recovered Monuments

Consultant shall locate, measure and document the location of survey markers and monuments of record for property boundaries and/or ROW needed within the areas.

Task 2.3 - Deliverables and Schedule

Consultant shall provide:

- *Incorporate the information gathered in this task including field notes into the deliverables listed in Tasks 2.4 and 2.5 as required for delivery of documents in subsequent tasks.*

2.4 Topographic Data, Detailed Base Map And Digital Terrain Model (DTM)

The purpose of this task is to collect the existing topographic features and create a detailed basemap and DTM for the Project.

2.4.1 Topographic Data Collection

Consultant shall:

- Collect topographic data between the boundaries described in the Project Understanding section of this SOW. Consultant shall collect and tie topographic data of man-made and/or natural features using a variety of County approved methods. These methods include but are not limited to: collecting the data using terrestrial (Theodolite and EDM), GNSS (RTK), 3D Laser Scanning, Drone Photo/Lidar, or station and offset.
- Consultant shall contact Oregon Utility Notification Center to request a pre-survey utility locates. Consultant shall keep the locate request number and ticket information within the Project file.
- Consultant shall record in the field notes the utility ownership when describing the line data points. Consultant shall record all visible utility identifications in the field notes, such as

numbers shown on power and/or telephone poles, vault tags, telephone pedestals (aka risers), cabinets, meters, fences or screened enclosures for gas regulators, and sanitary sewer pump stations. This data is needed for the County or Consultant to communicate where the facility may be in conflict with the Project.

- Consultant shall measure and record all utility facility structures (e.g. concrete pads, top slab of vaults, pump station housing, barrier screens or fenced enclosures). Consultant shall make a request to the utility owner to pull the cover whenever a manhole is found locked or bolted.
- Consultant shall tie improvements or vegetation including trees 6 inch diameter and greater at breast height within proposed easement boundaries or within close proximity of proposed easement boundaries when the proximity to the improvement has the potential to cause the improvement to suffer damage.
- Consultant shall tie wetland delineation flags
- Consultant shall survey river cross sections for use in hydraulic analysis
 - 2 cross sections upstream
 - 3 cross sections downstream

2.4.2 Detailed Basemap

Consultant shall:

- Take applicable topographic data collected in this subtask and create a detailed basemap file. A detailed basemap has all features drafted to County provided criteria.

2.4.3 Digital Terrain Model (DTM)

Consultant shall:

- Create a 3 dimensional digital terrain surface using all relevant topographical data collected in this subtask.
- Collect the topographical data to create points and break lines in adequate quantity and in proper placement, to accurately represent the surface of the ground. Consultant shall collect confidence points in the field and generate a confidence point report that conforms with the 2015 ODOT Survey Policy and Procedure Manual. The topographical data and confidence points must meet Agency Criteria. Consultant shall generate 1-foot minor contours and 5 foot major contours throughout the DTM for a QC analysis of the surface.

Task 2.4 - Deliverables and Schedule

Consultant shall provide the following deliverables and submit them electronically (.PDF) to CPM within 30 days of NTP 1 copy of field notes:

- *Copy of the Autodesk Civil3D CADD Files Detailed Base Map with Civil3D DTM*
- *All files for the network control points in (ASCII) format*
- *Files of listing kits*
- *Files of survey research*
- *Files of tax maps*
- *Control Point Worksheet with datum used and descriptions of control points found and set*

2.5 Existing Row & Boundary Resolution

The purpose of this task is to identify the location of the existing Centerline(s), ROW lines and property line(s) as necessary, to perpetuate the location of the monuments found, to document the control used for

this Project area, and establish property lines for area calculations when new ROW is acquired. This task addresses the requirements of ORS 209.150 and 209.155 and other survey related statutes.

2.5.1 Resolve ROW and Property Boundaries

Consultant shall:

- Resolve the location of the ROW within the present limits as described in this SOW.
- Resolve identified ROW centerlines alignments, ROW lines and property boundaries abutting the roadway and along the proposed route of construction, using accepted concepts and rationale methods of survey professional judgment. Consultant shall evaluate the available evidence for relevance, adequacy, and reliability; use professional judgment in determining the type and quantity of evidence available, and the influence given each factor; and determine a best-fit with the evidence and probable location of ROW alignments and property boundaries for the area as described. Consultant shall provide a detailed narrative of available evidence, desirable evidence not available, rationale for decisions made, and a summary of the conclusions in the establishment of the ROW centerline, ROW lines (including all jogs) and property boundary lines.

2.5.2 Control, Recovery, Retracement Record of Survey

If the Project will impact property or existing survey monuments, Consultant shall create a Record of Survey (ROS) which meets County and ORS requirements. The “Control” survey must consist of Geodetic and Terrestrial points set for the Project. The “Recovery” is the documentation of the monuments recovered for the Project. The “Retracement” is a record of resolved ROW centerlines, ROW lines and/or property boundaries. These surveys may be combined or separate surveys as directed by CPM.

Consultant shall:

- Submit a draft ROS to CPM for review. Consultant shall address comments received from the CPM and submit the final ROS for filing to the appropriate County in the format required.

Task 2.5 - Deliverables and Schedule

Consultant shall provide:

- *Draft ROS to CPM within 60 days of NTP.*
- *Final ROS to the County Surveyor’s Office for filing within 2 weeks of receipt of comments from County.*
- *Copy of Final ROS to CPM upon submittal to County for filing.*

2.6 Right of Way Engineering, Maps & Descriptions - [CONTINGENCY]

The purpose of this subtask is to prepare right of way engineering products used in the acquisition of property. For estimating purposes the estimated number of right of way files is two (2). These products are:

- Right of Way acquisition map
- AutoCAD CAD file used to prepare the acquisition map
- Right of Way legal descriptions and exhibits

The right of way acquisition map, exhibits and legal descriptions shall be prepared in accordance with Agency standards.

Consultant shall perform ROW data research as necessary to prepare for and support all Project activities. With information provided by the County, the Consultant will produce Project maps and reports as called for in subsequent tasks. Consultant shall review general Project background documentation, recorded surveys and conveyance documents provided by the Consultant.

Consultant shall develop and provide a centerline description from one end of the project limits to the other to be used by the County with their Resolution of Necessity for the project. County will review and provide feedback to Consultant if needed. Consultant will make any necessary changes and resubmit information to County.

For each file, Consultant shall prepare a ROW Impact Map, developed to County standards. ROW Impact Maps show property, right of way, and proposed easement lines and all improvements, fencing, landscaping, curbs, sidewalks, utilities, etc. located in those areas and within 20 feet of the dwelling. County will provide an example if needed. County will review and provide feedback to Consultant if needed. Consultant will make any necessary changes requested by County.

For each file, Consultant shall prepare ROW Engineering Maps and Descriptions based upon centerline stationing and in accordance with the current County standards. Consultant shall submit to County for review and make any necessary changes requested by County.

Task 2.6 - Deliverables and Schedule

Consultant shall provide:

- *Final Right of Way acquisition map in electronic (.PDF and CADD) format to the CPM.*
- *ROW Legal descriptions and exhibits, one set for each acquisition property in electronic (.PDF) format and hard copy to the CPM.*
- *ROW Impact Map(s), one for each acquisition property in electronic (.PDF) format to*

2.7 Staking - [CONTINGENCY]

Consultant shall place stakes during Project development to demarcate existing ROW, proposed ROW, and proposed easements to support Task 11 activities. A Notice to Proceed is required from the Agency to perform this task.

Task 2.7 - Deliverables and Schedule

Consultant shall provide:

- *Physically place stakes and/or paint marks, supported by:*
- *Original data collector printout field notes in .pdf format*
- *Text file of 'as-staked' points with associated exhibit map in .pdf format*
- *Provide staking services for up to 2 parcels.*

Task 3.0 Environmental Services: Documentation, Coordination and Permits

Consultant shall provide the County with professional consultation services to complete the environmental compliance documentation for the proposed repairs and updates to the Knights Bridge Road / Mollala River Bridge in Clackamas County, Oregon. It is assumed "In water work" will be required for foundation repairs and scour protection. The County will obtain Rights of Entry (ROE) for field reconnaissance work. The Consultant will provide list of properties requiring ROE's for research disciplines no less than five (5) weeks before such ROE's are required to perform work on private parcels.

3.1 Coordination, Accumulation, and Review of Information

Consultant Shall:

- Obtain and review existing information and participate in the project kickoff meeting (Task 1.3). Consultant shall coordinate and communicate with County regarding environmental tasks and assumptions, verify schedule, and estimate impacts of proposed repairs. Consultant shall identify tasks made in this SOW are valid and shall investigate any discovered data gaps.
- Organize, coordinate and participate in one (1) environmental meeting for the Project. The meeting is with the regulatory agencies to confirm the proposed permit strategy for the project. Consultant shall collaborate with County on the selection of regulatory agencies that will be invited to the meeting. The meeting will take place on-site if feasible.
- Consult with the County, NMFS, USFWS, and ODFW to obtain the most current information on the presence of all listed threatened and endangered species, and species proposed for listing.
- Investigate the presence or absence of any threatened or endangered species at the Project site through habitat evaluation, interviews with resource agencies as listed above, and database searches. Based upon the information obtained during the pre-field review, Consultant shall conduct a field visit to the Project site to assess general habitat conditions for listed and proposed species to determine site-specific general habitat conditions for aquatic and terrestrial species, and to assess the potential for impacts to riparian/aquatic habitat.
- Summarize the information review results, progress of environmental tasks, and estimated project impacts in the environmental section of the Preliminary (30%) Design Report.

Assumptions:

- *Consultant shall obtain ORBIC database information.*
- *The meeting is four (4) hours, including travel.*

Deliverables/Schedule:

- Provide a summary of the information collected in this task as part of Task 8 in the Preliminary (30% Design Report)

3.2 Wetland/OHW Field Investigation

Consultant shall conduct wetland/waters delineation fieldwork to identify the jurisdictional boundaries of any wetlands and/or waters that occur within the Project Study Area (PSA). Prior to the field investigation, Consultant will conduct a review of publicly available information necessary to determine the presence of wetlands onsite. This information includes National Wetland Inventory (NWI) data, NRCS county soil survey data, and aerial imagery. The field investigation will be performed to identify the extent of jurisdictional wetlands and waterways in the study area. Best professional judgement will be used to determine whether wetlands and/or waters are potentially jurisdictional at either the state level, or both the state and federal levels.

The boundaries of wetlands shall be delineated based on the presence of wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the “Routine On-site” determination methodologies of the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys,

and Coast Region (Version 2.0). The boundaries of waters will be delineated based on ordinary high water mark (OHWM) elevation in accordance with U.S. Army Corps of Engineers (Corps) and Oregon Department of State Lands (DSL) guidelines. All wetland and waters boundaries shall be flagged with pin flags and/or plastic flagging and labeled alpha-numerically in the field so they are clearly identifiable. Consultant will survey and review the wetland and waters points to create a CAD file of the wetland and waters boundaries for use by the design team. Representative photographs will be taken throughout the study area to support findings.

Following completion of the fieldwork, Consultant shall summarize the fieldwork findings in the environmental section of the Preliminary (30%) Design report. If there are wetlands within the potential impact area, the Consultant will coordinate with the County to determine if all impacts to wetlands can be avoided, or if not, then Consultant will advise the County of permitting implications during Preliminary Design as needed.

Task 3.2 - Assumptions

- *The County will provide site access prior to the field investigation;*
- *Study area boundaries will be clearly identified prior to the County's site visit to conduct a survey; and*
- *The Consultant will survey wetland and waters boundaries and will provide a CAD file of the survey points.*
- *Informal environmental coordination with County.*

Task 3.2 - Deliverables and Schedule

- *Provide a summary of the information collected in this task as part of Task 8 in the Preliminary (30%) Design Report*

3.3 Wetland Determination Memorandum

If wetlands are not located within the potential impact area, a wetland determination memorandum will be prepared by Consultant that describes the results of the field investigation. The memorandum shall include data collected on the soils, hydrology, and vegetation within the PSA. Graphics shall depict the topography, soil mapping, National and/or Local Wetland Inventory (N/LWI) mapping, aerial and ground level photographs, and the locations of the sample plots and surveyed wetland boundaries. A map(s) will be prepared that shows the study area, photo locations, and sample plot locations. The memorandum will include site descriptions, a photo log, and sample plot data forms.

Task 3.3 - Assumptions

- *County shall review the draft Wetland Determination Memorandum and shall provide comments to Consultant within two weeks of receipt of the draft. Consultant shall make appropriate modifications to the draft Wetland Determination Memorandum in response to the comments and shall prepare the final for submittal.*

Task 3.3 - Deliverables and Schedule

Consultant shall provide:

- *DRAFT Wetland Determination Memorandum to County for review.*
- *FINAL Wetland Determination Memorandum within two (2) weeks of receipt of comments.*

C3.4 Wetland and Waters Delineation Report [CONTINGENCY]

This task could possibly be required if it is determined that the proposed project will impact wetlands. The cost for this work is included as a contingency task should this work be required.

If impacts to wetlands are unavoidable, Consultant shall prepare draft and final Wetland and Waters Delineation Reports (Wetland Delineation Report) for the study area in accordance with the DSL technical requirements and standards (OAR 141-090-0030 through-0035). Consultant shall prepare the report in the DSL-approved format and prepare all required graphics to accompany the Wetland Delineation Report as required pursuant to OAR 141-090-0035. The Wetland Delineation Reports must include the necessary wetland delineation survey maps as prepared and finalized by Consultant in Task 3.3.

Consultant shall make appropriate modifications to the draft Wetland Delineation Report and figures in response to the County's comments on the draft documents.

Consultant shall complete the appropriate DSL cover form for submitting the Wetland Delineation Report to the DSL for review, approval, and concurrence. Consultant shall then submit the final Wetland Delineation Report to DSL on behalf of the County. A copy of the Wetland Delineation Report will be submitted to the Corps along with the Joint Permit Application prepared under Task 3.7.1.

Consultant shall be available to answer questions from DSL regarding the Wetland Delineation Report and be available for one field visit to the project site with the County and agency representatives after submittal of the Wetland Delineation Report. Consultant shall provide additional information, clarification, and/or documentation to facilitate DSL concurrence with the Wetland Delineation Report.

Task C3.4 - Assumptions

- *Consultant shall attend one field or office meeting with regulatory agencies if requested to facilitate review and approval of the Wetland Delineation Report. All subsequent communication with the regulatory agencies will be in the form of telephone calls and e-mail correspondence.*

Task C3.4 - Deliverables and Schedule

Consultant shall provide:

- *DRAFT Wetland Delineation Report to County for review.*
- *FINAL Wetland Delineation Report within two (2) weeks of receipt of comments.*

C3.5 Oregon Rapid Wetland Assessment Protocol (ORWAP) [CONTINGENCY]

This task could possibly be required if it is determined that the proposed project impacts wetlands. The cost for this work is included as a contingency task should this work be required. .

If wetlands will be impacted by the project a functional assessment will be required. Consultant will conduct the Oregon Rapid Wetland Assessment Protocol (ORWAP) on any wetlands where impacts are proposed. Conducting ORWAP on wetlands will require a mixture of office time and field time. An office data form (OF) will be filled in prior to the field analysis, at what point two field forms (F and S) will be filled out for each wetland proposed to be impacted. After returning to the office, the ORWAP Calculator

will be completed and any necessary adjustments to the data will be made to accurately reflect wetland functions and values.

Task C3.5 Deliverables and Schedule

Consultant shall provide:

- *DRAFT ORWAP Calculator Workbook (Excel spreadsheet) to County for review.*
- *FINAL ORWAP Calculator Workbook (Excel spreadsheet) within two (2) weeks of receipt of comments.*
- *FINAL ORWAP functional assessment to DSL and the USACE where regulated as part of the Joint Permit Application (JPA).*

3.6 Stream Functional Assessment Method (SFAM) for Oregon

Impacts below the OHW line are anticipated for this project. As a result, a stream functional assessment is required following the Stream Function Assessment Method (SFAM). Conducting SFAM will require a mixture of office time and field time. An office Cover Page will be filled in at the office prior to the field analysis, and then three field forms (Site Layout, PAA Field, and EAA) will be filled out for each segment of waterway proposed to be impacted. After returning to the office, the SFAM Workbook will be completed and any necessary adjustments to the data will be made to accurately reflect field-verified functions and values.

Task 3.6 - Assumptions

- *The location and type of impact will be understood prior to the field effort.*
- *SFAM to be conducted during the summer months when flows are low enough to allow for the river to be accessed on foot.*

Task 3.6 - Deliverables and Schedule

Consultant shall provide:

- *DRAFT SFAM Workbook (Excel spreadsheet) to County for review.*
- *FINAL SFAM Workbook (Excel spreadsheet) within two (2) weeks of receipt of comments.*
- *FINAL SFAM functional assessment to DSL and the USACE as part of the Joint Permit Application (JPA).*

3.7 Phase 2 Environmental Documentation and Permitting

It is assumed impacts below OHW are required during construction. As a result, environmental permit applications and potentially additional environmental documentation will/may be needed.

3.7.1 DSL/Corps Joint Permit Application

Once a project design alternative is selected (Task 8), Consultant shall prepare a Joint Permit Application (JPA) for a Corps Section 404 Nationwide Permit, Department of Environmental Quality (DEQ) Section 401 Water Quality Certification and a DSL General Permit (GP), to authorize work within jurisdictional waters and any wetlands to be impacted within the project area.

- Consultant shall provide pre-submittal coordination via email and/or phone correspondence with regulatory agencies to confirm permitting requirements and application procedures.
- Consultant shall prepare all required drawings, maps, project descriptions, and additional information as required to quantify and document wetland and waters impacts within the JPA.
- Consultant shall prepare all permitting documents for County signature and shall submit required application materials directly to the regulatory agencies.
- Consultant shall provide post-submittal coordination with the regulatory agencies in the form of phone calls and email correspondence to facilitate permit review and issuance.

Task 3.7.1 - Assumptions

- *County will pay all permitting fees*
- *Pre-submittal coordination will occur via email and/or phone correspondence.*
- *Any required mitigation will be fulfilled through riparian restoration within the project area.*

Task 3.7.1 - Deliverables/Schedule

Consultant shall:

- *Deliver to County a Draft JPA within twelve (12) weeks of receiving County comments on Preliminary (30%) Report (Task 8) in electronic copy (pdf and Word).*
- *Deliver to DSL and Corps the Final JPA within 2 weeks of receiving County comments on draft, in hard copy (One [1] copy to County).*

3.7.2 Programmatic Endangered Species Act (ESA) Compliance Documentation for Federally Listed Fish Species

The Molalla River provides habitat for several salmonid species listed as threatened under the Federal ESA. These species are regulated by the National Marine Fisheries Service (NMFS). Consultant shall document compliance with existing Programmatic biological opinions to cover potential impacts to listed fish species and critical habitat under the Federal ESA as well as essential fish habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Consultant shall:

- Evaluate the Project design, construction methods and conservation measures for inclusion in a Programmatic ESA Compliance Report for federally listed fish species. Consultant shall, if feasible, evaluate and pursue existing programmatic consultations such as the USACE's SLOPES V Biological Opinion from NMFS or the FHWA's Programmatic Biological Opinion.
- Coordinate with the County, USACE, NMFS, USFWS and ODFW as necessary to prepare the ESA Compliance Report.
- Coordinate with NMFS via email and/or phone conversation to develop appropriate measures for minimization and avoidance of impacts to the habitat of federally listed species.
- Coordinate with County staff to discuss and approve the conservation measures and mitigation opportunities that would be presented in the ESA Compliance Report to compensate for Project impacts to federally listed fish species.

Task 3.7.2 – Assumptions

- *NMFS will approve the use of a Programmatic ESA early in project development, and the preparation of a Biological Assessment for fish species will not be required*

Task 3.7.2 - Deliverables/Schedule

Consultant shall:

- *Submit ESA Compliance Report as part of the Corps JPA submittal in Task 3.7.1.*

The following three subtasks could possibly be required following preliminary design and coordination with the regulatory agencies. We do not anticipate that this will be the case at this time. The cost for this work is included as a contingency task should this work be required.

C3.7.3 Fish Passage Plan Application and Coordination [CONTINGENCY]

Consultant will provide conceptual project plans coordination with ODFW. Upon satisfactory resolution to any fish passage issues as determined by ODFW, Consultant will incorporate information into permit application documents, plans, and project specifications. Consultant will complete a final ODFW Fish Passage Plan Application.

Task C3.7.3 – Assumptions

- *ODFW will not require additional fish passage documentation other than the plans identified in the ODFW Fish Passage Plan.*

Task C3.7.3 - Deliverables and Schedule

Consultant shall provide:

- *Submit ODFW Fish Passage Plan following submittal of the JPA to DSL and Corps in Task 3.7.1.*

C3.7.4 No Effect Memorandum for ESA Species [CONTINGENCY]

Consultant shall research aerial photos to determine whether suitable habitat is present within a 0.25 mile radius to determine if project could disturb listed and candidate wildlife species. During Task 3.1, Consultant shall visit the Project area to document suitable habitat for any listed and candidate wildlife or plant species.

Consultant shall document avoidance of ESA listed plants and wildlife in a No Effect Memorandum. The Memorandum shall cover State and Federally listed and candidate species with potential presence at or near the Project.

Task C3.7.4 – Assumptions

- *Project impacts will not affect State or Federally listed plant or wildlife species, and the preparation of a Biological Assessment will not be required.*

Task C3.7.4 - Deliverables/Schedule

Consultant shall:

- *Deliver to County a Draft No Effect Memo within twelve (12) weeks of receiving County comments on Preliminary (30%) Report (Task 10.6) in electronic copy (pdf and Word).*
- *Deliver to County the Final No Effect Memo within 2 weeks of receiving County comments on draft, in hard copy (One [1] copy to County).*
- *Submit No Effect Memorandum with the Corps JPA under Task 3.7.1.*

C3.7.5 Oregon Department of Environmental Quality (DEQ) 1200-C Permit Application [CONTINGENCY]

Projects which disturb one or more acres require a DEQ 1200-C Permit Application. This task includes completing the 1200-C permit application package, which includes the application form, Land Use Compatibility Statement, and a full-size Erosion and Sediment Control Plan (these plans would be created under Task 10) which would be provided to the County for submittal to DEQ.

Task C3.7.5 - Assumptions

- *The County would pay all required permit fees to DEQ.*

Task C3.7.5 - Deliverables and Schedule

Consultant shall provide:

- *Draft 1200-C Permit Application to County for review.*
- *Final 1200-C Permit Application to County within two (2) weeks of receipt of comments.*

3.8 Hazardous Material Survey

Consultant shall conduct a Hazardous Materials Survey (HMS) to identify asbestos-containing materials (ACM) and lead-containing paint (LCP). Consultant shall be certified as an Asbestos Building Inspector pursuant to the Asbestos Hazard Emergency Response Act (AHERA), experienced with the U.S. Environmental Protection Agency's (EPA's) LCP sampling procedures, and complete all work in accordance with the appropriate local, state, and federal regulations.

Field Work and Analysis

Consultant shall conduct visual reconnaissance of the bridge to identify suspect ACM and LCP and collect representative samples for laboratory analyses. Consultant shall document sampling locations and take photographs of selected sampling locations and other pertinent features. Consultant shall collect up to 20 suspect ACM and 10 suspect LCP samples for analyses. Samples shall be submitted to a qualified laboratory for analyses.

The collected paint samples will be shipped to NVL Labs in Seattle, Washington to be analyzed for the following:

- **Paint Samples - Total lead, cadmium, and chromium according to Environmental Protection Agency (EPA) Test Method 6020**

- Suspect ACM samples – Polarized Light Microscopy (PLM) with dispersion staining by EPA Method 600/R-93/116. Point count follow-ups will be conducted on samples when concentrations of asbestos are between 1 and 3 percent.

If a paint sample's total metal concentration exceeds its toxicity trigger value, follow-up analysis for the metal using Toxicity Characteristic Leaching Procedure (TCLP) by EPA Methods 1311/6020A will be conducted.

NVL Labs will provide sampling containers free of charge. Consultant shall submit the collected samples using the State chain of custody form, indicating the laboratory must bill the Consultant directly and requesting a turn-around time of 10 business days. Consultant shall be responsible for shipping samples under chain-of-custody procedures, such that the samples arrive at the laboratory undamaged.

HMS Report

Consultant shall prepare a HMS memorandum summarizing the findings from the field work and laboratory analyses. At a minimum, the memorandum shall include drawings indicating the sampling locations relative to site features, describe field methodology, and present laboratory analytical results. Consultant shall submit an initial draft memorandum to the County for review, make edits based on comments to the draft report, and submit a final report.

Task 3.8 Assumptions:

- *County will supply design and as-built historic and current drawings of the bridge to the Consultant for review.*
- *One day of CMS field work will be performed during the weekday hours of 8 am and 4 pm.*
- *Traffic control will not be needed. Consultant will set up a self-regulating traffic control using signs and cones County is responsible for obtaining all necessary permits.*
- *All sampling areas will be accessible from ground or deck elevation; ladders will not be required for sampling.*
- *No confined space work is required for sampling.*
- *Sampled areas will be repaired with non-structural patches or not at all.*
- *This proposed scope of work does not include the preparation of abatement specification sections or drawings.*

Task 3.8 Deliverables/Schedule:

Consultant shall :

- Submit one (1) electronic Draft HMS Memorandum four (4) weeks after receipt of final analytical results.
- Submit one (1) electronic copy of the Final HMS Memorandum within two (2) weeks of receiving review comments from the County.

Task 4 Bridge Hydraulics Related Services

It is assumed as no additional impervious surfaces are to be added and no Stormwater conveyance analysis, detention, and/ or water quality facilities will be needed.

4.1 Hydraulic Site Investigation

The purpose of this subtask is to identify existing information and field conditions.

Consultant shall:

- Obtain the Flood Insurance Study (“FIS”) report and if available the Flood Insurance Rate Map using the Federal Emergency Management Agency (“FEMA”) web site.
- Review local floodplain ordinances to determine if there are any applicable to this water body.
- Determine if applicable stream gauge records exist, and obtain them, if possible.
- Locate and obtain existing topographic maps of the tributary drainage basin.
- Visit the bridge/culvert Project site to observe site conditions, physical properties, and collect data needed to perform a thorough hydraulic study.
- Evaluate the site and determine survey data requirements for hydraulic analysis.
- Conduct a pebble count at two locations or collect 2 streambed sediment samples in the vicinity of the bridge for grain size analysis.
- Determine channel and floodplain hydraulic roughness values (document with photographs).
- Record observations with respect to the following:
 - Lateral channel stability.
 - Stream channel hydraulic roughness.
 - Aggradation or degradation of bed material.
 - Existing evidence of scour and/or erosion.

4.2 Hydrologic Analysis

The purpose of this subtask is to perform hydrologic analysis to determine appropriate flow rates for design of various Project elements.

Consultant shall:

- Review the ODOT Hydraulic Manual and available hydrologic data sources to determine the most appropriate 2-, 10-, 25-, 50-, 100-, and 500-year design flow for the proposed bridge.
- Analyze available stream gauge records to calculate flood frequency and flow duration values to support hydraulic analysis and design.
- In the absence of stream specific data, Consultant shall delineate the tributary drainage basin utilizing available topographic maps and utilize the regional regression equations described in the U.S. Geological Survey (“USGS”) magnitude and frequency of floods in Western Oregon to predict design flows.
- Determine the temporary water management discharge estimates for the portion of the year when construction will take place to be used in temporary water management design recommendations and included in the technical specifications for the Project.
- Determine the fish passage high flow and fish passage low flow

4.3 Hydraulic Analysis

The purpose of this subtask is to perform a variety of hydraulic analysis in support of design, and provide hydraulic design recommendations related to bridge, culvert, scour, and open channel.

Consultant shall:

- Simulate hydraulic conditions of the stream using Hydrologic Engineering Centers (“HEC”)-River Analysis System (“RAS”) (version 6.1 or later) software.
- Create a model to simulate “Existing Conditions” at the proposed bridge site to determine current water surface profiles, velocities, depths, and flow area for the various design flows.
- Create a model to simulate “Natural Conditions” at the proposed bridge site to determine natural water surface profiles, velocities, depths, and flow area for the various design flows when there was not a bridge or culvert.
- Create a model for up to 3 alternatives to simulate “Proposed Conditions” at water way crossing to determine water surface profiles, velocities, depths, and flow area for the various design flows.
- Prepare Hydraulic data table.

4.4 Scour Analysis

Consultant shall:

- Evaluate up to 3 bridge scour alternatives following ODOT guidelines and the methods as described in the Federal Highway Administration (“FHWA”) publication HEC-18, Evaluating Scour at Bridges, and HEC-23, Bridge Scour and Stream Instability Countermeasures.
- Review past bridge inspection reports that might include evidence of past scour problems.
- Conduct a scour analysis using results from the hydraulic analysis including evaluation of pier scour and contraction scour.
- Provide scour countermeasure design recommendations.
- Conduct supporting design calculations (e.g. riprap size calculations).
- Coordinate with bridge engineer on countermeasure design details.

4.5 Hydraulics Report

The purpose of this subtask is to summarize the findings of the hydraulic related services and document the design recommendations.

- Consultant shall prepare a draft version of the Project Hydraulics Report per Agency ODOT Hydraulics Manual guidelines containing preliminary design recommendations for the hydraulic related services.
- Consultant shall prepare a final Hydraulics Report to reflect County’s review comments and to include changes to hydraulic related design recommendations that need to be modified due to advancement of the overall Project design.

Task 4.0 Deliverables and Schedule:

Consultant shall provide:

- *A*.ZIP file containing HEC-RAS model files for Existing Conditions, Natural Conditions, and Proposed Conditions to the APM within 10 days following submittal of the Final Hydraulics Report.*
- *Draft Hydraulics Report in PDF file format, along with an MS Word file containing the report narrative, due with the Preliminary (30%) Design Submittal.*
- *Final Hydraulics Report, PDF file of complete report, due with the Final Plans.*

Task 5 Utility Coordination

5.1 Utility Coordination

Consultant shall initiate coordination with utilities and incorporate utility provided relocation plans into the design documents. The locations and elevations of existing utilities and options for resolving conflicts shall be investigated. This work shall include working with the County and utility companies to “pothole” crossings and other areas to identify and eliminate conflicts if needed. It is expected that potholing shall be provided by the utility companies. Once “potholing” data is obtained and mapped, the Consultant shall incorporate the data into any plan changes.

Consultant shall:

- Prepare a Utility Conflict Spreadsheet and send utility conflict letters using County boilerplate utility notices to the affected utility companies describing the conflicts that exist, and the required adjustment to eliminate the conflict. A spreadsheet of centerline reference points and elevations shall be provided to utility companies for use in excavating existing utilities (potholing) at points of potential conflicts. Consultant shall also provide the conflict list to an independent potholing service who shall provide quotes to the utilities and coordinate with the Project team to aid in gathering pothole data. The schedule for making the necessary adjustment ahead of the beginning of road construction shall be identified.
- Prepare a Utility Relocation Letter using County boilerplate utility notice of conflict for each utility notifying them of unavoidable conflicts with a mandatory relocation date.
- Perform ongoing coordination with utilities to resolve utility conflicts finalize utility relocation requirements as appropriate.
- Provide a final notice using County boilerplate utility final notice to utilities of contract dates and project status.

Task 5.1 - Deliverables and Schedule

Consultant shall provide:

- *Utility Conflict Spreadsheet(s) and Letter(s)*
- *The final utility relocation plan(s) submitted to the County Project Manager (CPM) within 10 days after acceptance.*
- *Final Notice Letter(s) submitted to each utility and CPM 20 business days after submittal of Advance Plans to County.*

Task 6 Geotechnical and Geologic Services

6.1 Data Review and Site Reconnaissance

The Consultant shall review available existing information to evaluate the geologic conditions at the project site for purpose of estimating seismic site classification. Consultant shall review available information from the following sources (as applicable):

- Existing geologic maps and reports, and published and unpublished literature from Agency records;
- Previous geology and geotechnical reports from Agency, other state agencies, federal, city, county or other officials, consultants, group or individuals pertinent to the Project;
- As-built bridge records, including pile driving records, and roadway plans (if available); and
- Well logs from the Oregon Water Resources Department.

Consultant shall perform a site reconnaissance to observe surface conditions indicative of subsurface conditions and obtain two (2) bulk samples of the stream bed material for the purpose of determining the grain size distribution for scour analysis.

Task 6.1 - Deliverables and Schedule

Consultant shall provide:

- *Deliverables for this task are detailed in the Geotechnical Design Parameters Memorandum, Task 6.3.*

6.2 Laboratory Testing

Consultant shall perform two (2) gradation tests on the stream bed samples for establishing particle size for scour calculations. Results will be provided on a grain-size distribution (GSD) curve.

Task 6.2 - Deliverables and Schedule

Consultant shall provide:

- *Deliverables for this task are detailed in the Geotechnical Design Parameters Memorandum, Task 6.3.*

6.3 Geotechnical Design Parameters

The Consultant will provide parameters for seismic and scour evaluation of the bridge including site classification and accelerations, and GSD curve for use in scour analysis.

Task 6.3 - Deliverables and Schedule

Consultant shall provide:

- *Geotechnical Design Parameters Memorandum*
- *Memorandum will be due with the Preliminary (30%) Design Submittal.*

Task 7 Traffic Engineering and Management

7.1 Temporary Traffic Control Plans

Consultant shall:

- Create temporary traffic control plans. Traffic control plans are used to describe how the existing roadway area is divided up between live traffic and the construction site. Plan sheets also identify the type, quantity, and location for temporary traffic control devices. Plans must include, but are not limited to the following information: staging plans, lane shifts, lane and shoulder widths, lane closures, road closures, temporary detour, temporary diversions, temporary striping, temporary signing, cutting sections at critical areas with dimensions and other relevant information.

Plans must meet the requirements of section 290 of the Clackamas Roadway Standards, Oregon Standard Drawings, The ODOT Traffic Control Plans Design Manual, The Oregon Temporary Traffic Control Handbook, and the Manual on Uniform Traffic Control Devices (MUTCD).

Task 7.1 - Deliverables and Schedule

Consultant shall provide:

- *One (1) detour plan sheet incorporated into 60%, 90%, and 100% plans.*

7.2 Signing & Pavement Marking Plans

Consultant shall:

- Prepare combined plans, specifications, and construction cost estimates for the permanent signing and pavement markings associated with the proposed improvements. The design must be completed in accordance with applicable MUTCD and County standards.

Task 7.2 - Deliverables and Schedule

Consultant shall provide:

- *Temporary traffic control plans incorporated into 60%, 90%, and 100% plans.*
- *Signing & Striping plans incorporated into 60%, 90%, and 100% plans.*

Task 8 Preliminary Design (30%)

- Consultant shall prepare a draft and final design criteria for review and discussion with the County.
- Consultant shall perform a bridge condition inspection to determine the locations and extent of rehabilitation need.
- Preliminary (30%) Design Report and Plan and Elevations sheets summarizing:
 - bridge deficiencies requiring rehabilitation including
 - bent footing scour,
 - deck and column cracking and spalling,
 - bent crossbeam spalling and cracking,
 - abutment wall cracking,
 - joint seal failures
 - paint condition
 - seismic deficiencies
 - proposed rehabilitation concepts
 - proposed Phase I seismic upgrades.
- Consultant shall review the existing load ratings to and evaluate whether refinements or minor repairs can significantly improve the rating.
- Identified Right of Way conflicts and proposed assess solutions.
- Utility Identification and conflict assessments
- Anticipated environmental documentation and permits that will be required for the project including information regarding permit application submittal requirements, typical timelines, and potential mitigation requirements.
- *30% Cost Estimate*
- *Within the Preliminary (30%) Design Report summarizing alternatives considered and recommended alternatives and for the following items that may be added to the project.*
 - *Addition of sidewalks to the bridge*
 - *Load Rating upgrade*

Task 8.0 - Deliverables and Schedule

Consultant shall provide:

- *Draft design criteria electronically (one electronic copy in PDF form)*
- *Final design criteria electronically (one electronic copy in PDF form)*
- *Conceptual Design Strip Maps for (2) alternatives (one electronic copy in PDF form)*
- *30% Strip Map of Preferred Alternative (one electronic copy in PDF form)*

Task 9 Public Involvement/Outreach Assistance

The Consultant will provide support to the County's community relations specialist with preparation of documents to be distributed or made available to the general public.

Consultant shall:

- Provide project information in narrative format for County to incorporate into project website and / or project flyers.
- Provide a graphically formatted aerial map, showing the project footprint for inclusion on the County's website and for County use in public outreach.

Task 9.0 - Assumptions

- *County staff will be responsible for final production of mailers and or information boards and for making presentations to the public and other stakeholder organizations.*
- *Consultant staff will not attend community open house events.*

Task 9.0 - Deliverables and Schedule

Consultant shall provide:

- *Narrative in Word format for County incorporation into information shared with the public.*
- *One draft and final aerial map graphic in PDF form*

Task 10 Final Design (60%, 90% and 100% Bid Ready) -Plans, Specifications, and Estimate, (PS&E)

The Consultant will advance the recommended alternative from the Preliminary Design (30% design) stage to the 100% complete stage.

Consultant shall:

- Conduct strategy work sessions both in person and on the telephone to keep the project team informed about issues, decisions, and impacts.
- Conduct 60% and 90% design work sessions with County staff.
- Complete engineering drawings for submittal to the County at 60%, 90%, and 100% milestones and perform quality assurance and in-house independent design checks and plan review of all drawings and related quantities. All plans will be drafted with the latest version of AutoCAD Civil 3D version 2015 or newer software and the final CAD drawings provided through an FTP site or on a CD.
- Provide relevant plan drawings that include at a minimum title, typical sections, erosion control plans, construction staging, temporary traffic control, plan and profile and details, standard details, and other required drawings for submittal to County for review.
- Calculate quantities and develop an engineer's construction cost estimate for submittal at each plan development milestone (60%, 90%, and 100%).

- Provide a construction schedule at 90% and 100% milestone submittals.
- Prepare relevant technical sections of specifications based on the 2021 Oregon Standard Specifications for Construction. Produce special provisions for the project using standard ODOT special provisions. County will prepare boilerplate special provisions to the specifications in Part 00100 – General Requirements, and will combine with technical specifications
 - At 60%, submit a list of anticipated special provisions
 - At 90% and 100%, provide edited Special Provisions
- Revise and submit final Special Provisions based on comments received during County reviews.
- Provide responses to comment/response logs for 60%, 90% and 100% milestones on PS&E documents.
- Make corrections as required by County and submit final plans to County (both documents and electronic copies).

Task 10.0 - Deliverables and Schedule

Consultant shall provide:

- *60%, 90%, and 100% Engineering Drawings (11"X17"), 90% and 100% Specifications and Bid Schedule, documentation of 60%, 90% and 100% review comments, Engineer's Estimate, final technical reports, changes to documents for Addenda (up to two), if any.*
- *100% Engineering drawing in Autodesk Civil 3D format, version 2019 to 2021 acceptable*

Task 11 Right-of-Way Research, Descriptions, Appraisals and Acquisitions [CONTINGENCY]

It is assumed no permanent additional Right-of Way will be required for this project. However, at least one temporary construction easement is expected. The county may request no right of way tasks, some right of way tasks, or all of the right of way tasks.

Consultant shall conduct the ROW activities for all properties in accordance with the most current version of the following:

- Right of Way Services Agreement specific to the Project
- ORS 35, with reference to the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act)
- Uniform Standards of Professional Appraisal Practice (USPAP)
- County ROW acquisition policies and procedures (which are guided by the ODOT ROW Manual)

The recommended approach to ROW coordination with the County is to:

- Designate a ROW PM to communicate directly with the County ROW PM or Designee
- The Consultant ROW PM should disseminate information and provide direction to the rest of the ROW team
- Hold an initial ROW coordination meeting with County and Consultant ROW staff to discuss County policy and procedure and ROW acquisition strategy.

Consultant shall use County versions of all forms, spreadsheets, brochures and pamphlets referenced in the "ODOT Right of Way Manual" and needed to complete work associated with Task 11.0. These forms, spreadsheets, brochures and pamphlets shall not be altered without written permission from the County. They may be obtained through the County Right-of-Way Manager or Designee.

Consultant shall track status for all ROW files to be acquired for the project in the Excel spreadsheet format provided by County. Consultant should coordinate the details of this process with the County Right-of-Way Manager or Designee at the ROW Coordination meeting.

Consultant shall provide ROW acquisition services, following County policies and procedures. It is assumed a total of one (1) acquisition is required for the project for maps and descriptions, General Information Notice (GIN) letters, appraisals and reviews, acquisition/negotiation services, and closing assistance will be needed.

It is assumed that the temporary acquisitions shall be acquired in the County's name and that there will be no displaced persons.

11.1 Title Reports and Document Requests

Consultant shall prepare and assemble all title documents, including vesting deeds, necessary to accomplish acquisition of ROW to Agency and/or ODOT standards for each impacted property.

Consultant shall obtain Trios to include vesting documents for each impacted property, up to one (1) in total under Task 2.1.1. Consultant shall obtain all Trios from one Title Company.

Task 11.1 - Deliverables and Schedule

Consultant shall provide:

- *Digital copies of Trios and Title Documents per the schedule developed in Task 1 Project Management.*

11.2 Right-of-Way Research

Consultant shall perform ROW data research as necessary to prepare for and support all Project activities. All research necessary to acquire the needed right of way (including permanent and temporary easements) to County standards, policies and procedures will be done by consultant. This effort is included in Task 11.1

11.3 Right-of-Way Strip Map

A right of way strip map showing the limits of the project from one end to the other, outlining the acquisition files, showing stationing, and other identifying information markers will be provided with the descriptions and exhibits provided by Task 2.6.

Task 11.3 – Deliverables and Schedule

Consultant shall provide:

- *Right of Way strip map*

11.4 Right-of-Way Descriptions & Exhibit Maps

Note: Work under this task to be done under Task 2.6 Right of Way Engineering, Maps & Descriptions.

11.5 Right-of-Way Staking

Note: Work under this task to be done under Task 2.7 Staking.

11.6 Preliminary Activities

Upon receipt of authorization to proceed with ROW Acquisition, Consultant shall set up ROW parcel files and prepare to deliver a General Information Notice (GIN), acquisition and relocation brochures, and a copy of the applicable portion of the ROW Exhibit "B" map (marked Preliminary and showing the parcel(s) to be purchased) to all owners and occupants of affected properties. Consultant shall use County GIN form. Consultant shall send GIN's via regular mail with tracking approximately 3 to 4 weeks prior to 15-Day Appraisal Notification Letters, if possible. Consultant shall email a copy of each GIN as a separate file to the County ROW Program Manager or Designee.

If the project team agrees it to be appropriate, Consultant shall arrange pre-negotiation contacts with property owners to identify property and project issues that could affect design. A County ROW Agent or Designee shall be present for all such meetings.

Consultant shall prepare and maintain a Diary of Personal Contact (Diary) for each file. The Diary must include the date and means of delivery for all letters and notices and the date and place of all contact with owners and parties with legal interest in the property to be acquired and/or their representatives. Diary entries shall contain appropriate detail including name and date of persons contacted, a summary of important information discussed, a list or name of any supplemental maps, brochures, and diagrams given, and a record of other activities conducted.

Task 11.6 - Deliverables and Schedule

Consultant shall provide:

- *GINs, 1 hard copy to each property owner and 1 electronic copy each to County.*
- *Written summary of any pre-right of way contact meetings with property owners, 1 electronic copy each to County within 2 weeks of meeting.*

11.7 Appraisal and Appraisal Review

Consultant shall use appraisers who are licensed in the State of Oregon, experienced and competent in eminent domain appraising, and on ODOT's Qualified Appraisers List. Appraisals for this purpose shall be made in accordance with ORS Chapter 35. One appraisal and appraisal review for each type of property. Appraisal and Appraisal Review shall be made by different appraisers. It is assumed that appraisals will be taking and damage appraisal formats. It is assumed that appraisal reviews will include a desk review of subject and sales used in the valuation process. Special Benefits, if any, must be quantified by the appraiser whether or not there are any compensable damages to the property. Tenant owned improvements included in the acquisition must be identified and segregated in the appraisal.

Task 11.7 - Deliverables and Schedule

Consultant shall provide:

- *1 hard copy and 1 digital copy of each appraisal and 1 digital copy of each appraisal review to the County for review. The County shall recommend Just Compensation based on the reviewed appraisal. Just Compensation shall be no less than the reviewed appraisal amount. The*

consultant shall also provide 2 hard copies of each appraisal to the ROW Acquisition Agent for use in Task 11.8.

11.8 ROW Acquisition

All right of way shall be acquired in the name of Clackamas County as easement. Consultant shall conduct negotiations, on behalf of the County in good faith and in compliance with all federal and state laws and regulations and County policies and procedures. Consultant shall make an offer to acquire the real property rights based on Just Compensation issued by the County, and the appraisal.

Consultant shall discuss taking title subject to one or more outstanding interests with County ROW Program Manager or Designee prior to making the offer. Consultant shall be responsible for discussing title encumbrances identified on the Preliminary Title Report with the Property Owner and documenting that conversation in the Diary of Personal Contact. Fee owners' and contract purchasers' ownership interests must be identified and offers made appropriately. When impacted by the taking, lessees' interests must also be cleared.

Consultants shall prepare and present to the County a draft Offer Packet for review before any offers are made. All offers will be made by consultant as County's Buyer's Agent. All offers will be made on County letterhead and forms, and will include County contact information. These Offer Packets shall include, but are not limited to, acquisition and relocation brochures, offer-benefit letter, acquisition and relocation summary statements, Terms of the Offer or County Obligations Agreement if applicable, copy of appraisal or appraisal waiver, plan sheet or map of the acquisition, instruments of conveyance, Title VI survey, and W-9 form (if money is exchanged).

If possible, Consultant shall make offers in person, especially where the acquisition involves either a major impact to the property or the displacement of persons occupying the property. If this is deemed not possible, Consultant shall send offers via certified mail with return receipt request and tracking. Consultant shall make reasonable efforts to make contact with property owners before mailing offers. Factors leading to the decision to send by mail and proof of delivery must be documented in the Report of Personal Contact (Diary) and file. Delivery is to be periodically tracked to ensure there are no problems and such efforts are to be documented in the Diary.

Consultant shall make every reasonable effort to acquire the ROW expeditiously by negotiation. Consultant shall give property owners reasonable opportunity to consider the offer (statutorily 40 calendar days). Consultant shall attempt to make contact with the property owner as appropriate to demonstrate attentive and good faith negotiations. Counter offers from the property owner should be accompanied by supportive information the owner believes is relevant to determining the value of the property. Such information shall be reviewed with the County Right of Way Program Manager promptly. Consultant shall attempt to negotiate an approved administrative settlement, but shall not take any coercive action in order to induce an agreement on the price to be paid for the property (49 CFR 24.102(h)). Consultant shall notify County ROW Program Manager or Designee as soon as possible if the property owner retains legal counsel.

Language changes to the documents should be discouraged to the greatest extent possible. Any requested language changes to the documents shall be made in track changes and submitted to the County Right of Way PM for review and approval/rejection. If language changes are approved, consultant shall review and verify no other changes were made to the executed documents and include a brief summary of the language changes in the Final Report.

- IF the OFFER is ACCEPTED, Consultant shall present a Final Report Packet covering the acquisition of ROW to the County for final approval, payment, conveyance of title and recording.

The Final Report Packet shall include County's Final Report form and all other documentation associated with the ROW activities conducted for the file. Consultant shall include satisfactory documentation of signer's authority to sign if Grantor is a Trust, Corporation, Partnership, or Non-Profit. If granting parties agree that payment is to be made to less than all vested parties, Consultant shall have the granting parties sign a County form, "Assignment of Sale Proceeds". Consultant shall mail or deliver the Final Report Package and email a digital scan of the Package to the County Right of Way Program Manager or Designee in a reasonable amount of time after all signed offer documents have been received by Consultant.

- IF a COUNTER OFFER is received, Consultant shall submit the proposed COUNTER OFFER (exceeding the estimate of just compensation) with a justification letter and owner supplied supporting documentation to the County for approval. If accepted see above.
- IF an acceptable agreement is not reached within the timeframe set by County, Consultant shall prepare and submit a Recommendation for Condemnation (RC) Packet. The RC Packet shall include County's RC form and all other documentation associated with the ROW activities conducted for the file. Consultant shall mail or deliver the packet and email a digital scan of the packet to the County Right of Way Program Manager or Designee within a reasonable amount of time after County's request for RC of the file. Consultant shall also provide to the County the editable versions of any and all documents upon request (e.g. Diary, Obligations Agreement, Conveyance Documents, Offer Letter, Acquisition and Relocation Summaries).

Consultant shall continue documenting the Diary for each file until such time the file is turned into the County ROW PM with the Final Report or the RC.

Task 11.8 - Deliverables and Schedule

Consultant shall provide:

- *Draft Offer Packet for one file to County ROW PM for review*
- *Final Offer Packet for one file to County ROW PM for review and approval*
- *Final Offer Packet sent certified mail or delivered in person for each file.*
- *Final Report Packet for each file to the County – hard copy delivered or mailed and a scan of packet emailed.*
- *If applicable, proposed counter offers with justification information to County ROW PM.*
- *If applicable, Recommendation for Condemnation to County ROW PM - hard copy delivered or mailed and a scan of packet emailed.*
- *Editible copies of offer packet documents upon request,*

Task 12 Bid and Award Assistance

This task includes the preparation of addenda, as needed, and responding to questions during the bidding phase. Consultant shall respond to questions from County and Construction Contractors about the plans and specifications during the bidding process.

12.1 Questions During Bidding

Consultant's Project Manager, or Consultant's designee(s) approved by County, shall assist County with questions regarding the bid documents and bid process. Consultant shall respond to all questions in writing within 3 day(s) to the CPM.

Consultant shall, during the bidding process, assist the County in responding to Construction Contractors and suppliers questions. Consultant shall not have any separate communications with Construction Contractors and suppliers to assure that no Construction Contractor or supplier is provided with information not in the bidding documents and that could provide a bidding advantage or disadvantage. Consultant shall prepare answers in addenda format and provided to CPM.

It is assumed for the purpose of developing this proposal that a pre-bid meeting will not be conducted.

Consultant shall provide plans and/or specification edits during bid for incorporation into bid addenda. An allowance for one bid addenda is to be provided for.

Task 12.1 – Deliverables and Schedule

Consultant shall provide:

- *Written log of conversations, questions and answers, provided to the CPM upon request.*

ASSUMPTIONS

The following additional assumptions related to this project are:

1. All permits and application fees shall be paid by Clackamas County, or as a reimbursable expense at cost.
2. Major access management improvements (i.e. parking lot recirculation plans, frontage road designs, etc.) are not included at this time.

**EXHIBIT B
FEE SCHEDULE**

Project Name: Molalla River (Knights Bridge Road) Bridge Rehabilitation Project
 Project Number:
 Date: 3/3/2022

Direct Labor:	<u>\$93,332.07</u>
Overhead (1.751):	<u>\$163,424.45</u>
Project Escalation	<u>\$0.00</u>
<i>Subtotal:</i>	<u><u>\$256,756.52</u></u>

Subconsultant Costs:	
(1). AKS Engineering:	<u>\$73,050.00</u>
(1). WEST Consultants:	<u>\$16,364.00</u>
(1). Murraysmith:	<u>\$14,994.00</u>
(1). Shannon & Wilson:	<u>\$20,616.00</u>
(1). Ott-Sakai:	<u>\$49,949.00</u>
(1). Commonstreet: see Contingencies below	<u>\$0.00</u>
(1). Consor:	<u>\$16,872.00</u>
(1). David Evans and Associates:	<u>\$8,688.55</u>
<i>Subconsultant Subtotal:</i>	<u><u>\$200,533.55</u></u>

Other Direct Costs:			
Plotter/Computer	0.0hrs	@ \$10.0	<u>\$0.00</u>
Travel	400	@ \$0.585 per mi.	<u>\$234.00</u>
Phone/Fax			<u>\$0.00</u>
Delivery			<u>\$0.00</u>
Printing: Black Line			<u>\$0.00</u>
Mylar			<u>\$0.00</u>
8 1/2 X 11			<u>\$0.00</u>
11 X 17			<u>\$0.00</u>

Misc.	<u>\$0.00</u>
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<i>Direct Cost Subtotal:</i>	<u><u>\$234.00</u></u>
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A =	<u>\$256,756.52</u>
<i>Fixed Fee (10.0%):</i>	<u>\$25,675.65</u>
B+C =	<u>\$200,767.55</u>
<i>Fee (0.0%):</i>	<u>\$0.00</u>

TOTAL NOT TO EXCEED = \$483,199.73

Project Name: Molalla River (Knights Bridge Road) Bridge Rehabilitation Project
 Project Number:
 Date: 3/3/2022

Contingencies

Task 2 - Survey, Field Investigations and Mapping

Monument Recovery	\$6,400.00
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Task 3 - Environmental Services

Wetland and Waters Delineation Report	\$7,467.20
Oregon Rapid Wetland Assessment Protocol (ORWAP)	\$3,588.60
Fish Passage Plan Application and Coordination	\$2,937.20
No Effect Memorandum for ESA Species	\$3,437.20
DEQ 1200-C Permit Application	\$1,390.00

Task 11.0 - Right-of-Way

Title Reports	\$416.45
Right of Way Research	\$0.00
Right of Way Strip Map	\$440.90
Right of Way Descriptions & Exhibit Maps	\$7,035.30
Right of Way Staking	\$4,405.90
Preliminary Activities	\$1,016.00
Appraisal and Appraisal Review	\$5,846.45
Right of Way Acquisition	\$4,319.90
	\$23,480.91
Right of Way Total	\$23,480.91

CONTINGENCIES TOTAL NOT TO EXCEED = \$48,701.10

**NOTE: Labor costs to be invoiced based on actual hourly rate plus overhead plus fee.
 Subconsultants and Other Direct Costs to be invoiced at actual costs.**

TASKS	Initial	JD	DM	CH	JS	AH	SC	RN	KT	DAOC	Quincy Total Hours	Quincy Cost	Quincy Total Cost (including overhead and fee)	AMS Engineering	West Consultants	MurraySmith	Shannon & Wilson	On-Site	CommStreet	Corner	David Evans and Associates, Inc.	Other Direct Costs	Total Task Cost	
																								Ready/Res
All Phases																								
Task 1 - Project Management and Coordination																								
1.1 Administration and Record Keeping											44	\$6,103.68	\$18,470.39										\$18,470.39	
1.2 Coordination											56	\$5,346.72	\$16,161.05										\$16,161.05	
1.3 Project Meetings																								
1.3.1 Kickoff Meeting and Site Visit											6	\$1,622.20	\$4,006.43	\$1,460.00	\$900.00							\$58.50	\$6,822.83	
1.3.2 OJ meetings											15	\$2,151.47	\$6,510.56	\$7,200.00									\$175.50	\$7,416.26
Task 2 - Survey, Field Investigations and Mapping																								
2.1 Research																								\$1,850.00
2.2 Historical and Vertical Control Network																								\$20,000.00
2.3 Monument Recovery																								\$1,850.00
2.4 Geographic Data, Base Map, and DTM											4	\$29,140	\$88,811	\$17,580.00										\$16,831.81
2.5 Existing Right-of-Way and Easement Resolution																								\$8,780.00
2.6 Right-of-Way Engineering Maps & Descriptions																								\$8,780.00
2.7 Easement																								\$8,780.00
Task 3 - Environmental Services																								
3.1 Coordination, Accumulation, and Review of Information																								\$2,780.00
3.2 Wetland/DNR Field Investigation																								\$2,800.00
3.3 Wetland Determination Memorandum											1	\$56.37	\$280.00	\$280.00										\$4,668.00
3.4 Wetland and Waters Delimitation Report																								\$5,648.00
3.5 Stream Functional Assessment Protocol (SFRWAP)																								\$15,712.00
3.6 Stream Functional Assessment Method											1	\$95.37	\$280.00	\$5,360.00										\$5,648.00
3.7.1 EIS/CEQA and Permit Application											2	\$316.43	\$957.29	\$14,760.00										\$15,712.00
3.7.2 Programming ESA Compliance Documentation											2	\$190.74	\$577.20	\$2,500.00										\$5,077.20
3.7.3 Fish Passage Plan Application and coordination																								\$5,077.20
3.7.4 No Effect Memorandum for ESA Species																								\$5,077.20
3.7.5 EIS/CEQA Permit Application																								\$5,077.20
3.8 Resource Mitigation Survey											2	\$190.74	\$577.20											\$11,386.20
Task 4 - River Hydraulics Related Services																								
4.1 EIS/CEQA Site Investigation																								\$2,287.00
4.2 Hydraulic Analysis											2	\$107.38	\$324.84	\$2,033.00										\$7,033.00
4.3 Hydraulic Analysis											2	\$107.38	\$324.84	\$2,287.00										\$8,320.00
4.4 Scour Analysis											2	\$107.38	\$324.84	\$1,916.00										\$2,142.84
4.5 Hydraulics Report											2	\$298.12	\$902.14	\$4,123.00										\$5,025.14
Task 5 - Utility Coordination																								
5.1 Utility Coordination											4	\$367.40	\$1,154.40											\$16,142.00
Task 6 - Geotechnical and Geologic Services																								
6.1 Site Review and RMR Reconnaissance																								\$12,116.00
6.2 Laboratory Testing																								\$9,900.00
6.3 Geotechnical Design Parameters											2	\$107.38	\$324.84	\$6,050.00										\$6,374.84
Task 7 - Traffic Engineering and Management																								
7.1 Temporary Traffic Control Plan											16	\$754.12	\$2,403.09											\$2,403.09
7.2 Signing & Pavement Marking Plans											8	\$387.06	\$1,201.54											\$1,201.54
Task 8 - Preliminary Design (30%)																								
8.1 Design Criteria											9	\$992.76	\$3,132.24											\$3,132.24
8.2 Bridge Condition Inspection											9	\$459.20	\$1,299.77											\$1,299.77
8.3 Load Rating Review											5	\$316.11	\$938.46											\$938.46
8.4 Wetlands Analysis																								\$1,299.77
8.5 Sidewalks											8	\$429.20	\$1,299.77											\$1,299.77
8.6 Load Rating Deficiency Upgrades											10	\$1,049.70	\$3,149.74											\$3,149.74
8.7 Preliminary 30% Design Report											9	\$2,456.82	\$7,370.31											\$7,370.31
8.8 Cost Estimate											10	\$620.20	\$1,860.67											\$1,860.67
Task 9 - Public Involvement/Outreach Assistance																								
9.1 Provide Information and Support											4	\$387.40	\$1,154.40											\$1,154.40
9.2 Graphics											16	\$754.12	\$2,403.09											\$2,403.09
Task 10 - Final Design (60%, 90%, and 100% Bid Ready)																								
10.1 60% Design											40	\$337.75	\$1,351.00	\$5,530.00										\$11,411.00
10.2 90% Design											8	\$67.55	\$270.20	\$1,116.44										\$2,786.64
10.3 Independent Check											200	\$107.38	\$21,476.00											\$22,622.00
10.4 Specs & Estimate											8	\$20.40	\$163.20	\$42,019.70										\$42,182.90
10.5 100% Design											8	\$24.40	\$195.20	\$1,860.67										\$1,860.67
Task 11 - Right of way (Contingency)																								
Task 12 - Bid and Award Support																								
12.1 Questions During Bidding											8	\$408.80	\$1,226.40											\$1,226.40
12.2 Awards											4	\$163.60	\$490.80											\$490.80

Cost Proposal Project Name: Molalla River (Knights Bridge Road) Bridge Rehabilitation Project

TASKS	PM & Lead Bridge Engineer	Senior Bridge Engineer	Associate Engineer	Assistant Engineer	Assistant Engineer	CAD Technician	Lead Roadway Engineer	DA/DC	Quincy Total Hours	Quincy Cost	Quincy Total Cost (including overhead and fee)	AMS Engineering	West Consultants	Manningsmith	Shannon & Wilson	Orbital	Commstreet	Concor	David Evans and Associates, Inc.	Other Direct Costs	Total Task Cost	
																						JD
Contingency Tasks																						
Hourly Rate: \$55.37 \$77.53 \$53.09 \$30.76 \$31.42 \$38.50 \$72.85 \$55.37																						
Task 2 - Survey, Field Investigations and Mapping																						
2.3	Monument Recovery																				\$6,400.00	
2.6	Right of Way Engineering, Maps & Descriptions																				See Task 11.4	
2.7	Staking																				See Task 11.5	
Total Contingency Task 2 Cost =																					Task Subtotal	\$6,400.00
Task 3 - Environmental Services																						
3.4	Wetland and Waters Delineation Report	2						2	\$190.74	\$577.20	\$8,850.00										\$7,467.20	
3.5	Oregon Rapid Wetland Assessment Protocol (ORWAP)	1						1	\$95.37	\$288.60	\$3,300.00										\$3,588.60	
3.7.3	Fish Passage Plan Application and Coordination	2						2	\$190.74	\$577.20	\$2,360.00										\$2,937.20	
3.7.4	No Effect Memorandum for ESA Species	2						2	\$190.74	\$577.20	\$2,360.00										\$3,437.20	
3.7.5	DEQ 1200-C Permit Application										\$1,390.00										\$1,390.00	
Total Contingency Task 3 Cost =																					Task Subtotal	\$18,832.00
Task 11.0 - Right-of-Way																						
11.1	Title Reports							1													\$416.45	
11.2	Right of Way Research							1	\$72.85	\$220.45							\$196.00					
11.3	Right of Way Strip Map							2	\$145.70	\$440.90											\$440.90	
11.4	Right of Way Descriptions & Exhibit Maps							2	\$527.10	\$1,586.50											\$7,385.30	
11.5	Right of Way Staking							2	\$145.70	\$440.90											\$3,625.00	
11.6	Preliminary Activities																				\$1,016.00	
11.7	Appraisal and Appraisal Review							1	\$72.85	\$220.45											\$5,626.00	
11.8	Right of Way Acquisition							2	\$145.70	\$440.90											\$4,319.90	
Total Contingency Task 11 Cost =																					Task Subtotal	\$23,480.91
Total - All Contingency Tasks Cost =																						\$48,701.10



PROJECT COST ESTIMATE
 Knights Bridge Road - Bridge Rehabilitation
 Clackamas County

PROJECT TASK AND SUBTASK ELEMENTS	ESTIMATED SURVEY PERSONNEL TASK HOURS							TOTAL TASK HOURS	TOTAL COST		
	Project Manager/Principal	Project Surveyor	Survey Tech	2 Person Survey Crew	Clerical						
Task 1 - Project Meetings											
1.3.1 Project Kickoff Meeting	4							4	\$760		
1.3.2 Project Development Team Meetings	2							2	\$360		
Task 2 - Survey, Field Investigations and Mapping											
2.1 Research		3	7		4			14	\$1,550		
2.2 Horizontal and Vertical Control Network		3	7	8				18	\$3,010		
2.3 Topographic Data, Detailed Issue Map & Digital Terrain Model (DTM)	4	7	45	45				101	\$16,750		
2.5 Existing Row & Boundary Resolution	3	7	45	5				68	\$8,750		
PERSONNEL TASK HOURS SUBTOTAL	13	20	104	61	9						
PERSONNEL COST SUBTOTAL	\$2,535	\$3,200	\$11,440	\$13,420	\$675				\$31,270		
TOTAL REIMBURSABLE EXPENSES (AT COST) Mileage, Survey Fee									\$800		
Time & Materials Total Base Task Cost:									\$32,070		
Task 2 - Survey Contingency Tasks											
2.3 Monument Recovery		5	20	15				40	\$6,300		
2.6 Right of Way Engineering, Maps & Descriptions (assumes 2 ROW files)	2	10	30		2			44	\$5,440		
2.7 Staking	1	2	10	10	2			25	\$3,965		
PERSONNEL CONTINGENCY TASK HOURS SUBTOTAL	3	17	60	25	4						
PERSONNEL CONTINGENCY TASK COST SUBTOTAL	\$585	\$2,720	\$6,600	\$5,500	\$300				\$15,705		
TOTAL REIMBURSABLE EXPENSES (AT COST) Mileage									\$100		
Time & Materials Total Contingency Task Cost:									\$15,805		
PROJECT TASK AND SUBTASK ELEMENTS	ESTIMATED NATURAL RESOURCES PERSONNEL TASK HOURS									TOTAL TASK HOURS	TOTAL COST
	Sr. Natural Resources Manager	Natural Resources Specialist	Natural Resources Technician	CAD Technician	Sr. Landscape Architect	Landscape Architect	Project Engineer	Clerical	Technical Editor		
Task 1 - Project Meetings											
1.3.1 Project Kickoff Meeting	4									4	\$690
1.3.2 Project Development Team Meetings	2									2	\$340
Task 3 - Environmental Services											
3.1 Coordination, Accumulation, and Review of Information	8		12						1	21	\$2,780
3.2 Wetland/OHW Field Investigation	10		10							20	\$2,800
3.3 Wetland Determination Memorandum (including figures and map)	2		18	10					2	32	\$3,770
3.6 Stream Functional Assessment Method (SFAM) for Oregon (Pre- and Post-Condition Assessments)	16		24							40	\$5,360
3.7.1 DSL/Corps Joint Permit Application (AKS background figures and Riparian Restoration Plan/Quincy Site Plans, Cross-sections, etc.)	25	40	16	24				2	4	111	\$14,760
3.7.2 ESA Compliance Documentation for Federally Listed Fish Species	4	14								18	\$2,500
Task 10 - Final Design (60%, 90%, and 100%) - PS&E											
10 PS&E (Landscape Plans and Estimates)	4				10	30	30			74	\$5,530
10 PS&E (Special Provisions)	6				6					12	\$1,860
PERSONNEL TASK HOURS SUBTOTAL	81	54	80	34	16	30	30	2	7		
PERSONNEL COST SUBTOTAL	\$13,770	\$7,020	\$8,800	\$4,250	\$2,240	\$3,450	\$4,500	\$150	\$700		\$40,380
TOTAL REIMBURSABLE EXPENSES (AT COST) Mileage, ORBC Fee											\$600
Time & Materials Total Base Task Cost:											\$40,980
Task 3 - Environmental Contingency Tasks											
3.4 Wetland and Water Delineation Report (includes site visit)	6		32	16					2	56	\$6,740
3.5 Oregon Rapid Wetland Assessment Protocol (ORWAP) (includes site visit)	2	16	8							26	\$3,300
3.7.3 Fish Passage Plan Application & Coordination	10		8							18	\$2,300
3.7.4 No Effect Memorandum for ESA Species	4		18						2	24	\$2,860
3.7.5 DEQ 1200-C Permit Application (Quincy to prepare ESCP)	2						6	2		10	\$1,350
PERSONNEL CONTINGENCY TASK HOURS SUBTOTAL	24	16	64	16	0	0	6	2	4		
PERSONNEL CONTINGENCY TASK COST SUBTOTAL	\$4,080	\$2,080	\$7,040	\$2,000	\$0	\$0	\$900	\$150	\$400		\$10,650
TOTAL REIMBURSABLE EXPENSES (AT COST) Mileage											\$150
Time & Materials Total Contingency Task Cost:											\$16,800

WEST Consultants

Knights Bridge Rd Scour Mitigation (Molalla River)		PIC/QC	PM/SR ENG.	SR. ENG.	STAFF ENG.	GIS ANALYST	GIS/CAD TECH	ADMIN	Total Task Hours	Total Task Amount
Task No.	Description									
1.3	Meetings		4						4	\$ 900
4.1	Hydraulic Site Investigation		5	6				1	12	\$ 2,233
4.2	Hydrologic Analysis		1	4		1			6	\$ 1,033
4.3	Hydraulic Analysis	1	2	32					35	\$ 6,203
4.4	Scour Analysis		2	8					10	\$ 1,818
4.5	Hydraulics Report	1	4	16		1		1	23	\$ 4,123
									0	\$ -
									0	\$ -
									0	\$ -
TOTAL HOURS		2	18	66	0	2	0	2	90	\$ 16,310

HOURLY RATES	\$ 281.00	\$ 225.00	\$ 171.00	\$ 133.00	\$ 124.00	\$ 107.00	\$ 82.00		
TOTAL ESTIMATE	\$ 562	\$ 4,050	\$ 11,286	\$ -	\$ 248	\$ -	\$ 164		\$ 16,310

Other Costs

Mileage for Reconnaissance (75 miles at \$0.585/mi)	\$ 44
5-gal buckets for sediment samples (2 at \$5/ea)	\$ 10
	\$ -

Total	\$ 16,364
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**KNIGHTS BRIDGE REHABILITATION
CLACKAMAS COUNTY
PROPOSED FEE ESTIMATE**

	Hide Columns										
	Estimated Fees										
	Principal Engineer VI	Professional Engineer VIII	Professional Engineer III	Administrative I	Hours	Cost	Labor	Expenses	CADD Units \$18/hr	GIS Units \$10/hr	Total
Average Billing Rate Estimated per Classification/Staff	\$292	\$218	\$169	\$94							
Staff Name	Thelin	Bugingo	Ebbighausen	Gillis							
Task 1 - Project Management and Project Coordination											
Task 1.1 - Contract Administration, Invoicing, and Progress Reports	2	4		8	14		\$ 2,208	\$ -	\$ -	\$ -	\$ 2,208
Task 1 Subtotal	2	4	0	8	14		\$ 2,208	\$ -	\$ -	\$ -	\$ 2,208
Task 5 - Utilities											
Task 5.1 - Utility Location and Coordination		4	24		30		\$ 5,320	\$ -	\$ -	\$ -	\$ 5,320
Task 5.2 - Utility Coordination Meetings (assume no meetings anticipated)					0		\$ -	\$ -	\$ -	\$ -	\$ -
Task 5.2 - Utility Conflict Analysis and Conflict Notification (based on Preliminary Plans only)		1	20		21		\$ 3,598	\$ -	\$ -	\$ -	\$ 3,598
Task 5.4 - Utility Relocation Plan Review and Coordination		1	8		19		\$ 3,530	\$ -	\$ -	\$ -	\$ 3,530
Task 5.5 - Coordinate Utility Test Hole Activities			2		2		\$ 338	\$ -	\$ -	\$ -	\$ 338
Task 5 Subtotal	0	6	54	0	72		\$ 12,786	\$ -	\$ -	\$ -	\$ 12,786
TOTAL - ALL TASKS	2	10	54	8	86		\$ 3,910	\$ 14,994	\$ -	\$ -	\$ 14,994

SHANNON & WILSON, INC.
PORTLAND BRANCH

TABLE 1: ESTIMATED COST OF SERVICES BREAKDOWN

Clackamas Co Molalla River (Knights Bridge Rd) Quincy Engineering, Inc. 108002-P														February 28, 2022 Shannon & Wilson, Inc. Prepared by ecp			
Attn: Jeff Olson, PE																	
TASK	VP	Sr. Assoc.	Assoc.	Sr. Prof. III	Sr. Prof. II	Sr. Prof. I	Prof. IV	Prof. III	Prof. II	Sr. Office Svcs	Office Svcs IV	Office Svcs III	Office Svcs II	TOTAL HOURS	TOTAL LABOR	TOTAL DIRECT COSTS	TOTAL TASK AMOUNT
3.8 Hazardous Material Survey	6					40	16			2	6			70	\$10,350	\$470.55	\$10,821
	\$1,470					\$5,800	\$2,160			\$260	\$660						
6.1 Data Review and Site Reconnaissance			4		10		4			2				20	\$3,180	\$35.10	\$3,215
			\$780		\$1,600		\$540			\$260						\$530.00	\$530
6.2 Laboratory Testing																	\$530
6.3 Geotechnical Design Parameters	2		6	2	6		16			2	6			40	\$6,050		\$6,050
	\$480		\$1,170	\$350	\$960		\$2,160			\$260	\$660						
TOTALS	8	10	2	16	40	36				6	12						
AVERAGE HOURLY RATES	\$245	\$225	\$195	\$175	\$160	\$145	\$135	\$125	\$110	\$130	\$110	\$100	\$90				
TOTAL LABOR ESTIMATE	\$1,960		\$1,950	\$350	\$2,560	\$5,800	\$4,860			\$780	\$1,320			130	\$19,580	\$1,036	
TOTAL ESTIMATED FEES AND LABOR															\$20,616		

DIRECT COSTS (ODC) BY TASK	3.8	6.1	6.2	6.3												TOTAL
Travel Vehl-ins & Per Diem	17.55	35.10														\$52.65
Office: Reproduction & Software Licenses																
Drilling																428.00
Subcontractors Traffic Control & Utility Check																25.00
Field Equipment Rentals																530.00
Laboratory Testing																530.00
Total	470.55	35.10	530.00													1,035.65

Quincy Engineering- Molalla River (Knights Bridge Road) Bridge Rehabilitation

OTT-SAKAI

Task	Work Element	Principal- Kevin Sakai	Senior Construction Specialist- Brett Schneider	Construction Specialist- Bing Ma	Contracts Admin- Janiece Christian	TOTAL HOURS
	Direct Labor Rate	\$0.00	\$0.00	\$0.00	\$0.00	
	Loaded Labor Rate Rate	\$241.26	\$241.26	\$227.04	\$169.77	
TASK -Project Management						
	PM	2				2
	Attend meetings	0	12			12
	Site Visits		4			4
	Invoicing				6	6
	Subtotal Hours	2	16	0	6	24
	Subtotal Cost	\$ 483	\$ 3,860	\$ -	\$ 1,019	\$ 5,361
TASK - Cost Estimating, Construction Scheduling, and Constructability Review						
	30% -Design-Cost Estimating Support	4	8	40		52
	30%-Constructability Review/Schedule		24			24
	60% Design-Cost Estimating	4	8	24		36
	60%-Constructability Review/Schedule		24			24
	90% Design-Cost Estimating	4	8	24		36
	90%-Constructability Review/Schedule		12			12
	Bid Ready Design-Cost Estimating		2	8		10
	Bid Ready-Constructability Review		4			4
	Subtotal Hours	12	90	88	0	198
	Subtotal Cost	\$ 2,895	\$ 21,713	\$ 19,980	\$ -	\$ 44,588
	TOTAL HOURS	14	106	88	6	222
	TOTAL LABOR COST	\$ 3,378	\$ 25,574	\$ 19,980	\$ 1,019	\$ 49,949

Expenses

Item	Description	Cost

TOTAL LABOR COST	\$ 49,949
TOTAL EXPENSES	\$ -
TOTAL	\$ 49,949

Commonstreet Consulting, LLC Quincy: Knight's Bridge Replacement Project		Exhibit A								TOTAL FEE	
		Kari Lowe (Sr Project Manager)	Tina Thorson (Sr Right of Way Agent)	Samri Laney (Project Support Specialist)	Hours	Labor	Title Reports	Mileage + Postage	Appraisal Subs		Total Expenses
		\$ 189.00	\$ 98.00	\$ 45.00							
Task 11.1 Title Reports and Document Request											
	Title Reports (Trios)		2		2	\$ 196				\$ -	\$ 196
					0	\$ -				\$ -	\$ -
	Sub-total	0	2	0	2	\$ 196	\$ -	\$ -	\$ -	\$ -	\$ 196
Task 11.2 Right of Way Research											
	Right of Way Research				0	\$ -				\$ -	\$ -
					0	\$ -				\$ -	\$ -
	Sub-total	0	0	0	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 11.6 Preliminary Activities											
	GIN		1	2	3	\$ 188		\$ 20		\$ 20	\$ 208
	Prenegotiation contacts		6		6	\$ 588		\$ 220		\$ 220	\$ 808
	Sub-total	0	7	2	9	\$ 776	\$ -	\$ 240	\$ -	\$ 240	\$ 1,016
Task 11.7 Appraisal and Appraisal Review											
	Appraisal		1	2	3	\$ 188		\$ 4,000		\$ 4,000	\$ 4,188
	Appraisal Review		1	2	3	\$ 188		\$ 1,250		\$ 1,250	\$ 1,438
	Sub-total	0	1	4	6	\$ 376	\$ -	\$ -	\$ 5,250	\$ 5,250	\$ 5,626
Task 11.8 ROW Acquisition											
	Negotiations	1	30	10	41	\$ 3,579		\$ 300		\$ 300	\$ 3,879
	Sub-total	1	30	10	41	\$ 3,579	\$ -	\$ 300	\$ -	\$ 300	\$ 3,879
Hours		1	40	16	58						
Fee		\$ 189	\$ 3,920	\$ 720		4,927	\$ -	\$ 540	\$ 5,250	\$ 5,790	
										\$ 10,717	

Molalla River Bridge Inspection & Scour Damage Assessment
CONSOR Engineers, LLC - Fee Estimate

Tasks	Project Resource	Principal-in-Charge	Project Manager/Sr. Bridge Insp	Bridge Inspector	Bridge Inspector	Labor Hours	Labor Dollars	Traffic Control	Access Equipment Rental (UBIT)	Travel/Mileage/Equipment Rental	Total Labor, Escalation & Expenses
	Bill Rate		\$229.50	\$136.20	\$138.30						
1.0 Project Management											
1.1 Project Management & Administration			6			6	\$ 1,377			\$ -	\$ 1,377
1.2 Subprovider coordination			4	2		6	\$ 1,190				\$ 1,190
1.3 Quality Reviews			2			2	\$ 459			\$ -	\$ 459
Subtotal		0	12	2	0	14	\$ 3,026		\$ -	\$ -	\$ 3,026
2.0 Bridge Inspection											
2.1 Field Inspection											
Access Plan and Safety Documentation				1.5		1.5	\$ 204			\$ -	\$ 204
Equipment loadout and field notes prep				2	2	4	\$ 549				\$ 549
Detailed Visual/Tactile Inspections											
Mollala River Bridge - Superstructure and caps (UBIT)			10	10		20	\$ 3,657	\$ 2,431	\$ 3,400		\$ 9,488
Mollala River Bridge - In-water pier scour investigation (waders)					8	8	\$ 1,106				\$ 1,106
Travel to/from Canby from Portland/Vancouver (2 hr RT x 3 pax)			2	2	2	6	\$ 1,008			\$ 113	\$ 1,121
											\$ -
2.2 Inspection Report Documents											
Molalla River Bridge											
Inspection Report Memorandum			2	4	8	14	\$ 2,110				\$ 2,110
Inspection Photograph Documentation			2	3	6	11	\$ 1,697				\$ 1,697
Subtotal		0	16	22.5	26	64.5	\$ 10,332		\$ 3,400	\$ 113	\$ 16,276
	Total Hours	0	28	24.5	26	78.5					
	Total Dollars	\$0.00	\$6,426.00	\$3,336.90	\$3,595.80		\$ 13,359		\$ 3,400	\$ 113	
	TOTAL ESTIMATE	\$0.00	\$6,426.00	\$3,336.90	\$3,595.80		\$ 13,359		\$ 3,400	\$ 113	\$ 16,872

**KNIGHTS BRIDGE LOAD RATING SUPPORT
ESTIMATE OF PROFESSIONAL SERVICES
For Quincy Engineering Inc.
David Evans and Associates, Inc.**

Rate	\$117.24	\$178.72	\$118.91	\$154.89	\$228.64	\$80.42			
Task	Project Manager I	Engineer IV	Engineering Designer II	Engineer IV	Project Manager IV	Project Coordinator II	Total Hours	Expenses	Total Costs
	Michelle	Brett	Antonio	Laura	Joel	Stephanie			
1.1	Project Management and Administration								
1.1	Project Set-up, Coordination, Project Management	2.0	2.0			2.0	6.0		\$752.76
1.2	Invoicing (3 Assumed)	1.0				2.0	3.0		\$278.08
	Total Hours	3.0	2.0	0.0	0.0	4.0	9.0		
	Total Cost This Task	\$351.72	\$357.44	\$0.00	\$0.00	\$0.00	\$321.68	\$0.00	\$1,030.84
2.0	Load Rating Deficiency Analysis								
2.1	Evaluate Potential Load Rating Refinements		8.0	16.0	3.0	1.0	28.0		\$4,025.63
2.2	Evaluate Strengthening Alternatives		12.0	8.0			20.0		\$3,095.92
2.3	Prepare Alternatives Memo		3.0				3.0		\$536.16
	Total Hours	0.0	23.0	24.0	3.0	1.0	0.0	51.0	
	Total Cost This Task	\$0.00	\$4,110.56	\$2,853.84	\$464.67	\$228.64	\$0.00	\$0.00	\$7,657.71
PROJECT SUMMARY									
	Total Project Hours	3	25	24	3	1	4	60	
	Total Salary Cost	\$351.72	\$4,468.00	\$2,853.84	\$464.67	\$228.64	\$321.68	\$8,688.55	\$0.00
PROJECT TOTAL									
							TOTAL ESTIMATE		\$8,688.55
							ROUNDED ESTIMATE		\$8,700.00