



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 Kittelson & Associates, Inc., for the
Amisigger Road at OR 224 Intersection Improvements Project.
Total value is \$663,500.26. Funding through Community Road Fund.
County General Funds are not involved.**

Purpose/Outcome	The contract will provide project management, survey, environmental studies and permitting services, stormwater and hydraulic services, utility coordination, geotechnical, traffic engineering, public outreach, and the development of both preliminary design criteria and final PS&E (Plans, Specifications and Estimates) design, right-of-way services, and bid assistance for the "Amisigger Rd at OR 224 Intersection Improvements Project"
Dollar Amount and Fiscal Impact	\$663,500.26
Funding Source	Community Road Fund
Duration	Contract Execution through December 31, 2025.
Previous Board Action/Review	None.
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 item aligns with "Ensure safe, healthy and secure communities" by reducing delay times on Amisigger Road, which will reduce driver frustration and impulsive, dangerous maneuvers.
Counsel Review	Counsel Date: April 7, 2022 Counsel Initials: AN
Procurement Review	Was this project processed through Procurement? Yes.
Contact Person	Mike Ward, Civil Engineering 503-742-4688
Contract No.	5262

BACKGROUND: The intersection of Amisigger Road with OR 224 has been identified through the Community Road Committee process as a high priority improvement. Vehicles entering OR 224 from Amisigger Road experience significant delays at peak travel periods. The County has secured Community Road Funds to assess the installation of a traffic signal or roundabout at this intersection. In addition to reducing travel times, the intersection improvements are also expected to

increase safety by reducing accidents. Coordination with the Oregon Department of Transportation through the design acceptance process will be required as part of the design process, as OR 224 is a state facility.

PROCUREMENT PROCESS: This project was advertised in accordance with ORS and LCRB Rules on May 13, 2021. Proposals were publicly opened on June 17, 2021. The County received four (4) responses: Century West Engineering Corporation, HDR, Kittelson & Associates, Inc., and Murraysmith. An evaluation committee of DTD personnel evaluated the proposals and scored HDR's proposal the highest. Negotiations with HDR came to an impasse over the total compensation of the negotiated scope of work, and staff recommended to move to the second highest proposer, Kittelson & Associates, Inc. Following the intent to award to move to Kittelson & Associates, Inc., the scope of work and project designs fees were negotiated and finalized.

RECOMMENDATION: Staff respectfully recommends that the Board approve and sign this professional services contract with Kittelson & Associates, Inc., for the Amisigger Road at OR 224 Intersection Improvements Project.

Sincerely,

Mike Ward

Mike Ward,
Civil Engineer
Department of Transportation and Development

Placed on the BCC Agenda _____ by Procurement



**CLACKAMAS COUNTY
PERSONAL SERVICES CONTRACT
Contract #5262**

This Personal Services Contract (this “Contract”) is entered into between **Kittelson & Associates, Inc.** (“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, 2025**.
- 2. Scope of Work.** Contractor shall provide the following personal services: design criteria a bid assistance for the Amisigger Rd at Hwy 224 Intersection Improvements Project (“Work”), further described in **Exhibit A**.
- 3. Consideration.** The County agrees to pay Contractor, from available and authorized funds, a sum not to exceed **Six Hundred Sixty Three Five Hundred dollars and Twenty Six Cents (\$663,500.26)**, 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 (including potential Contingency Tasks, as described in Exhibit A). Contingency Tasks shall not be performed except 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: MWard@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: Hermanus Steyn Phone: 503-535-7455 Email: hsteyn@kittelson.com	County Administrator: Mike Ward Phone: 503-557-4688 Email: MWard@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. INDEMNITY, RESPONSIBILITY FOR DAMAGES. To the extent Contractor is negligent, 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, any act, omission, or neglect of Contractor, its subcontractors, agents, or employees. The Contractor agrees to indemnify and defend the County, and its officers, elected officials, agents, and employees, from and against all claims, actions, losses, liabilities, including reasonable attorney and accounting fees, and all expenses incidental to the investigation and defense thereof, arising out of or based upon Contractor’s negligent acts or omissions in performing under this Contract.

However, neither Contractor nor any attorney engaged by Contractor shall defend the claim in the name of County, purport to act as legal representative of County, or settle any claim on behalf of County, without the approval of the Clackamas County Counsel’s Office. County may assume its own defense and settlement at its election and expense.

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 with the exception of professional liability. 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 SCOPE OF WORK

The intersection of Amisigger Road with OR224 has been identified through the Community Road Committee process as a high-priority improvement. Vehicles entering OR224 from Amisigger Road experience significant delays at times. There is a transition in the speed limit between 45 mph and 55 mph immediately east of the intersection. The intersection improvements are also expected to increase safety.

The County has secured Community Road Funds to install a traffic signal or roundabout at this intersection. Coordination with ODOT through an early-options analysis will be required as part of the design process, as OR224 is a state facility.

PROJECT UNDERSTANDING

This project will improve Amisigger Rd and OR224 by adding signal poles and turns lanes on each leg of the intersection, accommodating the adjacent stream, and lighting the intersection, as needed. A roundabout option will be investigated during the Intersection Control Evaluation phase, and if selected as the preferred alternative, contingency tasks will be authorized.

Project Limits:

Fifteen hundred (1,500) feet in each direction from the intersection of OR224 (Clackamas River Highway) and Amisigger Road.

Lane Configuration and Geometry:

Generally, each leg of the intersection will have three lanes, one receiving and one for each direction of travel.

Storm Water Management:

Best Management Practices (BMP's) and Low Impact Development Approaches (LIDA) to be utilized per Water Environment Services (WES) design standards as adopted and modified by Clackamas County Department of Transportation and Development.

Signals:

New signal at the Amisigger Rd and OR224 intersection. If selected, roundabout design to be developed in place of signal.

Lighting:

Lighting of the intersection will utilize available utility poles to the extent possible. If a roundabout is selected, additional illumination may be required as a contingency task.

Franchise Utilities:

Utilities will be relocated without reimbursement for overhead and underground conflicts. No utility undergrounding is anticipated.

Natural Resources:

Environmental review and permits may be required related to the existing salmon-bearing culvert immediately north of the intersection on Amisigger Rd. It is assumed that all design options will avoid impact to the culvert and will not require permitting. A wetland delineation will be prepared for concurrence by Army Corps of Engineers and Department of State Lands.

Landscaping:

Bark mulch or grass seed will be shown to match existing landscaping beyond improvements. Trees and shrubs may be needed for Storm Water management facilities.

If a roundabout is selected, native, drought tolerant plantings will be designed for the medians.

Public Involvement and Outreach:

Public involvement will consist of providing information for county's website, developing a flyer to be mailed, developing an on-line open house, and attending a community open house or Community Planning Organization meeting to be noticed and coordinated by the County.

Right of Way (ROW):

It is assumed that six (6) files for ROW and easement acquisitions will be required (all parcels are assumed to require ROW and easements). Additional fees will be necessary if the project requires additional files.

SPECIFIC SCOPE OF SERVICES

SUMMARY OF WORK

Project management, survey, environmental and Storm Water/hydraulic services, utility coordination, geotechnical, traffic engineering, public outreach, 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 Reconnaissance and Permitting

Task 4.0 Storm Water / 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 Options Analysis and ODOT Coordination

Task 9.0 Preliminary Design (30%)

Task 10.0 Public Involvement/Outreach

Task 11.0 Final Design (60%, 90%, and 100% Bid Ready)

Task 12.0 Right of Way Research, Descriptions, Appraisals and Acquisitions

Task 13.0 Bid and Award Assistance

The duration of the design of this project is assumed to be from February 2022 through January 2024 for the completion of design and right of way tasks. Bidding for construction will occur between January 2024 and February 2024 with construction assumed to begin in the spring of 2024. This scope of services does not include construction engineering or construction support but may be added at the discretion of the County towards the end of the design phase through a contract amendment.

Task 1.0 Project Management and Project Coordination

1.1 Project Management

Consultant shall:

- Prepare and maintain a contract and task decision log documenting proposed changes to the project (i.e., change orders and notices to proceed) as well as the proposed schedules and deliverables.
- Complete Subconsultant management tasks as defined in the attached Subconsultant scope of services.

- Prepare monthly invoices and progress reports. Consultant assumes a 24-month timeframe for the project to be designed and bid for construction.

1.2 Project Coordination

The proposed approach to project coordination during design is to hold project meetings with key project team members and representatives from the County. The Consultant Project Manager shall direct meetings and provide direction to the rest of the team as the project progresses.

1.2.1 Project Kickoff Meeting

Consultant shall organize, conduct, prepare for and attend a Project kickoff meeting. The Project kickoff meeting will be held virtually with Agency, Consultant's PM and other necessary Consultant staff in attendance. Consultant shall prepare the meeting agenda with input from the Agency. 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 10 business days of Notice to Proceed (NTP). Consultant shall prepare draft meeting minutes for review. For budgeting purposes, it is assumed that up to four (4) Consultant staff shall attend the two-hour Project kickoff meeting.

1.2.2 Quarterly Team Meetings

Consultant shall organize, conduct, prepare for and attend up to six (6) Project Development Team ("PDT") Meetings. Each PDT meeting will be held virtually with the Agency, Consultant's PM, and other necessary Consultant staff in attendance. Consultant shall prepare the meeting agenda with input from the Agency. Consultant shall prepare draft and final meeting minutes to be distributed to the Agency and all other meeting participants. For budgeting purposes, it is assumed that up to four (4) Consultant staff shall attend each 2-hour virtual PDT meeting.

1.2.3 Bi-Weekly Coordination Meeting

A total of up to 36 regularly scheduled (bi-weekly) telephone/web conference calls with the Project Team (1 hour each) will be held during the design phase. Up to four (4) Consultant personnel are expected to connect into each meeting.

1.3 Project Scheduling

Consultant will prepare a project schedule at the on-set of design. Quarterly updates will be provided.

Task 1.0 Deliverables:

- *Contract/Task Decision Log*
- *Monthly Invoices and Progress Reports*
- *Initial Project Schedule with Quarterly Updates*
- *Meeting Agendas & Meeting Minutes for Quarterly Coordination Meetings*

Task 2.0 Survey, Field Investigations and Mapping

2.1 Topographic Survey

Consultant shall collect topographic data between the boundaries described below. Consultant shall collect and tie topographic data of man-made and/or natural features using a variety of Agency approved methods. These methods include but are not limited to: collecting the data using terrestrial (Total Station), GNSS, 3D Laser Scanning, 3D Laser Scanning, or UAV/Drone imagery/LiDAR.

- Consultant shall contact Oregon Utility Notification Center to request a pre-survey utility locates of the public rights-of-way. Consultant shall keep the locate request number and ticket information within the Project file.
- Features to be shown include trees four inches or more in diameter (dbh), ornamental trees, utilities, utility poles (including pole #), overhead wires (including height to power neutral line at poles and mid-span), fences, wetland delineations & ordinary high water line flagging, area lights, culverts, driveways (including width and length), walks, crown line of streets, edge of pavement, ditches, traffic and other permanent signs, and structures as accessible.
- Underground features such as utility line sizes, rim elevations, invert elevations, above ground fuel tanks and visible tank lids, wells, visible septic tanks, and drain fields shall be shown as indicated by surface features and other information including as-built drawings and utility company data. Consultant assumes County shall vacuum clean all structures prior to survey field work.
- Existing striping shall be located where needed to design the project striping.
- All significant features within 50 feet of the existing ROW (or up to the face of building, whichever is closer) shall be tied. Additional topographic survey will be provided at the intersection, extending radially 200 feet south of the intersection centerlines.
- Photos of site conditions shall also be taken. Aerial imagery from the ortho-rectified photogrammetric survey will be provided.
- The Horizontal Datum to be NAD 83(2011) epoch 2010.00 Oregon Coordinate Reference System (OCRS), Portland Zone, utilizing the Oregon Real Time Network. The Horizontal Network shall be resolved using differential Real Time Kinematic (RTK) GPS observations along with terrestrial ground measurements. The Vertical Datum shall be NAVD 88. Closed loop differential level measurements shall run through all of the on-site Control.
- The field topographic data will be incorporated into an English (International Feet) topographic survey base map and digital terrain model utilizing AutoCAD Civil 3D 2019 or newer.

The project limits shall include:

- Clackamas Highway (OR224) 1,500 to the northwest and southeast of the intersection with Amisigger Road (full 25' sections to approximately 1,000 ft northwest and southwest)
- Amisigger Rd 1,000 north of the intersection with Clackamas Highway (full 25' sections to approximately 500 ft)

2.2 Horizontal Control, Monument Recovery, and Pre-Construction Record-of-Survey

Consultant shall:

- Retrace existing ROW within the project corridor. Consultant shall search survey records on file with Clackamas County, to resolve existing centerlines of each ROW.
- Research highway files, deeds and Record Surveys, including but not limited to all property surveys, county road surveys, original county road resolutions, public land corner surveys, and Donation Land Claim (DLC) surveys.
- Keep all copies of the research data collected, including but not limited to highway files, surveys, deeds, assessors' maps, county road maps, government corner surveys, and horizontal and vertical control data sheets Consultant's Project file. Consultant shall provide all project-related data and records to the County at the end of the project.

- Survey found right of way and property corners, property line fences and the existing edges of pavement to establish existing road centerlines and rights-of-way. Consultant shall tie at least one (1) Public Land Survey System (PLSS) corner as necessary to show a relationship to the road centerlines. Consultant shall provide at least one (1) PLSS corner tie for ROW descriptions and the filing of a Record Survey.
- Show adjacent property lines and existing ROW on the Project Base Map using Consultant's ROW retracement. Consultant shall prepare and file a Pre-Construction Record of Survey conforming to all applicable County standards with the County Surveyor's office. To perpetuate monument locations as required under ORS 209.155. Scale for survey map shall be 1"=40', or as approved.
- Prepare a ROW survey AutoCAD Civil 3D 2019 or newer drawing file for Clackamas Highway and Amisigger Road. Show the project centerline and existing centerlines, property owner's name, tax lot numbers, existing and proposed ROW lines, and proposed permanent and temporary easement lines.

Task 2.0 Deliverables:

- *Base maps drawings in AutoCAD and PDF*

Task 3.0 Environmental Reconnaissance and Permitting

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. Consultant shall provide County with an exhibit map for each property showing the approximate location of the invasive test sites on the property, e.g. anything more than minor shovel sampling, test pits, etc.

The following tasks will be completed by the Consultant to identify issues and compliance with the regulating agencies:

3.1 Wetland Delineation & Ordinary High Water Determination:

Perform wetland and waters determination for the project corridor and provide design team with limits of GPS data reflecting the potentially jurisdictional waters found within the Study Area. Develop a formal wetland delineation to provide design team with location of adjacent wetlands and waters for submittal to the Oregon Department of State Lands for concurrence. It is assumed all project options will avoid environmental impacts. If impacts are anticipated to potentially jurisdictional waters a new scope and fee will be necessary for that task.

3.2 Level 1 Hazardous Materials Corridor Assessment (CONTINGENCY)

Consultant shall prepare a Hazardous Materials Corridor Assessment (HMCA) of the Amisigger Rd at OR224 Intersection Improvements Project on behalf of The Clackamas County Department of Transportation and Development (The County) and the Oregon Department of Transportation (ODOT). The HMCA will identify potential sources of contamination that could impact the Project. The HMCA will review the records listed below and make conclusions based on the data. Consultant's work conducted for the HMCA must be performed within the Project API (Area of Potential Impact) and according to generally accepted environmental procedures as outlined below:

- "Hazardous Waste Guide for Project Development" (1990), by the American Association of State Highway and Transportation Officials (AASHTO) Special Committee on Environment, Archaeology and Historic Preservation.
- "ODOT Hazmat Program Procedures Guidebook," 2010, Oregon Department of Transportation.

- “Level 1 Corridor Study” report template, Oregon Department of Transportation.

Consultant shall review available federal and State environmental databases to identify sites that could potentially impact the project, using the minimum search radii listed below.

Environmental Database	Search Radius
State-Equivalent NPL List (ECSIS)	1.0 mile
Oregon Permitted Landfill List	0.5 mile
State Leaking (L)UST List	0.25 mile
Federal RCRA Generators List	0.25 mile
State Fire Marshal’s Spill Response List	Site and Adjoining
State Certified UST List	Site and Adjoining

Consultant shall prepare a HMCA report summarizing the information obtained through the following tasks:

- **Physical Setting Sources.** The physical setting sources must include (when available) a current U.S. Geological Survey (USGS) 7.5-minute topographic map and geologic, hydrologic, and soil information.
- **Historical Research.** The resource (or combination of resources) selected will, if possible, provide historic information regarding land use for at least the past 50 years and include one or more of the following resources: Sanborn Fire Insurance Maps, historical aerial photographs, reverse city directories, historic property ownership/occupancy records, or building permits.
- **Environmental Database Search.** Review previous environmental reports and available federal and state environmental records for hazardous waste generators, documented leaking or permitted underground storage tanks (USTs), sites with known or suspected releases, landfill sites, and Superfund sites using government web-based databases or using a commercial database search report.
- **Site Reconnaissance.** Conduct a visual reconnaissance from public rights-of-way and other areas accessible to the general public; consultant is not allowed to enter private property or contact the property owners without a permit of entry supplied, signed, and approved by the Agency.
- **HMCA Report.** Prepare a Draft HMCA report summarizing the information obtained through the scope of services defined above; the HMCA report must include a description of field observations, information from state and federal environmental databases, historic land use, a scaled map showing the location of identified potential sources of contamination, copies of historic data, copies of state and federal databases, and other relevant documentation. It must include opinions and conclusions about the conditions observed in and adjacent to the API, prepare an Initial Site Assessment Checklist according to AASHTO and ODOT guidelines; provide photographs documenting Project Corridor observations, and include recommendations for additional studies or investigations if appropriate. The report must include conclusions that identify specific sources of contamination that could impact the Project or the proposed construction work. The final report must be developed based upon the Client’s review comments.

Consultant shall assess if soil sampling is necessary to determine if soil excavated from the project corridor shall meet DEQ clean fill screening levels for contaminants-of-concern including pesticides, herbicides, metals, polynuclear aromatic hydrocarbons, petroleum hydrocarbons, and solid waste.

Consultant shall prepare a HMCA report summarizing the information obtained through the activities listed above, using ODOT's Corridor Report Template available at https://www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/Pages/guidance_resources.aspx. The report shall include photographs documenting project corridor observations. The report must include conclusions that identify specific sources of contamination that could impact project construction and recommendations for further investigation, if needed.

Deliverables/Schedule: The following deliverables shall be submitted:

- Draft HMCA report to the County within eight (8) weeks following Notice to Proceed (NTP).
- Final HMCA report within one (1) week following receipt of the County's comments.

Assumptions:

This scope of services assumes the following:

- This HMCA is neither an evaluation of site conditions for the presence of wetlands nor a geotechnical engineering study.
- The Project corridor can be treated as a single property.
- The HMCA will not include sampling of soil, water, air, or other media; laboratory analysis of any material; inspection for asbestos, lead-based paint, or other hazardous building materials; evaluation for the presence of radon gas; or a chain of title.

3.3 Shoulder Material Investigation (Contingency Task)

Consultant shall collect surface soil samples within the limits of the project corridor along Amisigger Rd and OR224 for laboratory analysis. The results of those analyses will be compared with Oregon Department of Environmental Quality (DEQ) guidelines to determine if surface soil excavated for project construction can be handled and disposed as clean fill.

Consultant shall prepare a Shoulder Material Investigation Work Plan and HASP describing how samples shall be collected. The Work Plan shall describe sample collection methods, sampling equipment, equipment decontamination, and handling and shipment of samples. The HASP shall be completed in accordance with 29 CFR 1910.120, OAR 437-02-100 et seq., and other state and Federal worker health and safety regulations applicable. The HASP should reflect the sampling and characterization activities described in the Work Plan. The HASP should cover the activities of Consultant, sub-consultant, and Agency employees. The HASP should include a traffic control plan, if needed.

Consultant shall submit the draft Work Plan/HASP to the County for review and comment. No field work activities shall proceed until after the Consultant has received written authorization (e-mail) from the County.

Consultant shall collect surface soil samples from up to 22 locations. The Consultant anticipates this work shall include two (2) days of road shoulder soil sampling on-site. At each location, samples will be collected within 10 feet of edge of pavement. Soil samples shall be obtained from 0 to 0.5 feet and 1 to 1.5 feet below ground surface. Consultant shall mark the proposed sample locations in white paint and obtain utility locates for locations. Consultant shall provide flagging and traffic control as needed to complete sample collection. Sample locations shall be backfilled with excavation spoils. There shall be no investigation derived waste (IDW). Equipment decontamination water can be disposed on-site.

The samples shall be shipped to Pace National in Mt. Juliet, TN where they will be composited into as many as 6 groups based on depth and direction from the intersection. The composite samples will be analyzed for the following:

- NWTPH-Gx, NWTPH-Dx, Method 8270 SIM PAHs, Method 8151 herbicides, Method 8081 pesticides, Method 8082 PCBs, and total metals according to Methods 6020 and 7471A.
- Total metals analyses will include antimony, arsenic, barium, cadmium, chromium, copper, lead, selenium, silver, zinc, and mercury.

Consultant shall submit samples using the State chain of custody form, indicating the laboratory must bill ODOT directly and requesting a turn-around time of five (5) business days. Consultant shall be responsible for shipping samples under chain-of-custody procedures, such that the samples arrive at the laboratory undamaged. County and/or ODOT will pay all shipping costs directly to the laboratory.

Consultant shall prepare a Preliminary Site Investigation (PSI) report summarizing the results of shoulder material investigation. The report shall include the following:

- Field observations, photographs, description of sampling methods, laboratory reports, and tables summarizing the analytical results.
- Evaluation of the laboratory results compared to DEQ's clean fill screening levels.
- Conclusions that identify specific sources of contamination that could impact project construction.
- Recommendations for handling and disposal of contaminated surface soil generated during construction.

Deliverables/Schedule: The following deliverables shall be submitted:

- Draft Work Plan/HASP to the Agency within four (4) weeks following NTP.
- Final Work Plan/HASP within one (1) week following receipt of Agency comments.
- Draft PSI report within six (6) weeks following submittal of Final Work Plan/HASP.
- Final PSI report within one (1) week following receipt of the County's comments.

Task 3.0 – Deliverables:

- *Meeting summaries; wetland and waters determination memo; Level One Hazardous Materials Corridor Assessment (contingency task); Level Two Hazardous Materials Shoulder Assessment (contingency task).*

Task 4.0 Storm Water / Hydraulics Related Services

4.1 Storm Water Management Design

Storm Sewer Conveyance

The purpose of this subtask is to provide design of Storm Water conveyance facilities that collect and carry highway runoff in conformance with: 1) ODOT's Federal Aid Highway Program Programmatic Biological Opinion and 2) any Agency requirements that are stricter than the Federal standards.

Consultant shall:

- Determine the locations of flow entering and leaving the Project right of way (ROW).

- Review existing conditions downstream of locations where flow is leaving the Project ROW for deficiencies and document observations.
- Delineate on-site drainage basins, calculate peak flow rates for design, model the proposed pipe network, and calculate hydraulic grade line to check that proper freeboard design requirements are being met.
- Check inlet capacity and inlet spacing, calculate gutter flow to check spread, and provide design recommendations for inlet locations.
- Provide design recommendations for pipe network, associated pipe sizes, pipe material recommendations, and manhole access design recommendations (i.e. -spacing, location within a travel lane, etc.).
- Provide manhole diameter design recommendations based upon analysis of pipe connections at each manhole.
- Compare pipe network against known utilities in the Project area and provide design recommendations to minimize utility conflicts or to adjust existing utilities.
- Provide Storm Water Outfall design and energy dissipator design recommendations in compliance with applicable Project permits.

Roadside Channel Conveyance

Consultant shall model ditches to calculate water surface elevation, depth, and velocity and provide channel lining design recommendations per HEC-15, Design of Roadside Channels with Flexible Linings.

Storm Water Quality Design

The purpose of this subtask is to provide design of Storm Water management facilities that provide water quality treatment of highway runoff per Agency standards and/or Federal Aid Highway Program Programmatic Biological Opinion, whichever standard is most strict.

Consultant shall:

- Define Contributing Impervious area.
- Delineate on-site drainage subbasins.
- Identify treatment Best Management Practice (“BMP”) types applicable for the site.
- Identify potential locations to site facilities within and outside the existing ROW.
- Estimate facility size, type and space needs at each of the potential locations.
- Evaluate constraints to siting a Storm Water facility (i.e.-drainage area, adjacent grades, roadway safety, presence of existing utilities, protected resource areas, etc.)
- Prepare up to 2 Storm Water management strategies that combine potential Storm Water facilities into a comprehensive solution for meeting the needs of the Project.
- Compare alternative Storm Water management strategies and recommend a preferred strategy.

Storm Water Quantity Design

The purpose of this subtask is to provide design of Storm Water management facilities that control quantity and flow rate of highway runoff per Agency standards.

Consultant shall:

- Define Contributing Impervious Area (“CIA”).
- Delineate on-site drainage subbasins.
- Identify potential locations to site facilities within and outside the existing ROW.
- Estimate facility size, type and space needs at each of the potential locations.

- Evaluate constraints to siting a Storm Water facility (i.e. drainage area, adjacent grades, roadway safety, presence of existing utilities, protected resource areas, etc.).
- Prepare up to 2 Storm Water management strategies that combine potential Storm Water facilities into a comprehensive solution for meeting the needs of the Project.
- Compare alternative Storm Water management strategies and recommend a preferred strategy.
- Provide written design recommendations in the Storm Water Design report (Task 7.6) for:
 - Pipe network and associated pipe sizes
 - Manhole diameter
 - Pipe material recommendations
 - Channel Lining
 - Storm Water outfall
 - Energy dissipator
- Provide documentation in the Concept Storm Water Design Plan (Task 4.2) for up to 3 Storm Water management strategies and include a recommended preferred strategy.

4.1 Deliverables and Schedule:

Information from this task shall be incorporated into deliverables for Task 4.3

4.2 Concept Storm Water Management Plan

Consultant shall:

- Prepare a high-level concept Storm Water management plan that includes options for Storm Water collection and conveyance to existing and proposed systems.
- Evaluate up to three (3) Storm Water management alternatives to develop a conceptual cost estimate comparison between a Low Impact Development Approaches (LIDA) facility for water quality and detention and other similar BMP alternatives.

4.3 Storm Water Design Documentation

4.3.1 Preliminary Storm Water Memorandum

Consultant shall prepare a preliminary Storm Water concept and memorandum for the selected intersection option that shall be submitted with the 30% draft plans. The purpose of this memorandum is to develop the general recommendations of the basic Storm Water conveyance system layout, pipe/culvert outfall locations, treatment, and storage concepts. These recommendations do not contain full facility designs. Consultant shall prepare the Preliminary Storm Water Memorandum following the outline below:

- **Introduction and Title** – This section shall list Project name, road name, beginning and ending mile points, and date of the report. The introduction will include the names of the engineering staff who prepared the recommendations, the purpose of the report, a brief description of the Project, and a summary of treatment/storage concepts and recommendations on their use.
- **Existing and Proposed Conditions Narrative** – The introduction will be followed by a narrative that describes the proposed changes to the existing conditions. The Storm Water management triggers and requirements will also be included in the narrative.
- **Proposed Storm Water Management Plan**– This section will include a brief generic discussion of proposed alternatives considered. The topics addressed will include location, removal efficiency, storage capacity, constructability, maintenance, and cost. A comparison of LIDA facilities for water quality and detention and other similar BMP alternatives will be evaluated and listed. Also

included will be a discussion of the proposed Storm Water management plan highlighting facility dependability, construction, maintenance, cost, and appearance.

4.3.2 Final Storm Water Design Report

Consultant shall prepare an update to the Preliminary Storm Water Memorandum at the 60% and 90% submittals summarizing revisions to the Storm Water approach and design since the previous submittal. Consultant shall prepare a Storm Water design report for the project that shall be submitted as Draft prior to 100% plans and as a Final Storm Water Design Report with the 100% plans. The purpose of this report is to develop design documentation for final Storm Water designs. Significant facilities include, but are not limited to, the following:

- Storm drain conveyance ditches
- Storm drain systems with pipes 12 inches or larger in diameter,
- Storm Water quality facilities, and
- Storm Water control facilities (detention, retention, infiltration, split-flow structures, etc.)

Storm Water design report will describe in detail the facilities following approval of the Preliminary Storm Water Memorandum. This report provides facility design information such as the type, size, location, critical dimensions, and features. The Storm Water Design Report shall be completed after the 90% plans and updated concurrently with the preparation of the final plans.

Consultant shall prepare a Final Storm Water Design Report in accordance with the Clackamas County Roadway Standards. The facility design(s) incorporated in the final plans should comply with the information in the Storm Water report unless approval for change has been obtained from the engineer of record for the Storm Water Design Report. The report is expected to have the following sections:

- 1) **Cover Sheet and Index** - The report cover sheet includes the title, the Project name, the roadway name and number, the beginning and ending mile points. This information will match with the data provided on the title sheet for the plans. The cover sheet will carry the seal of the engineer of record.
- 2) **Project Overview** - including the following:
 - a. Project description, including the overall Project scope, including the need for the Project.
 - b. Purpose of the study, including a brief description of the facility design objectives, including the source of the objectives (i.e. environmental regulations, local drainage requirements such as drainage master plans, liability concerns, etc.). This topic will be discussed in more detail in the body of the report. This discussion also includes the following.
 - i. Statement that the design objectives have been met.
 - ii. Explanation about why design objectives have not been met, if this is the case.
 - c. Key issues affecting Project scope, need, or design.
 - d. Summary of the results, as would be desired by a casual reader of the report, including abbreviated tables of pipe sizes and other facilities for quick reference.
- 3) **Background Information** - including information about the existing conditions and factors influencing the design. It includes the following.
 - a. Watershed characteristics, both pre-construction, post-construction, and at the level of buildout expected at the end of the facility design life. Topics to be

- discussed are drainage area sizes, land uses, and other characteristics affecting drainage.
- b. Project area characteristics, with emphasis on the drainage systems.
 - i. Pre-construction conditions.
 - ii. Description of the existing drainage facilities.
 - iii. Description of existing drainage problems if present.
 - iv. Condition of the existing system.
 - v. Post-construction conditions, including a description of the proposed facilities.
 - c. The outfall, including the following.
 - i. Description of the outfall, including condition.
 - ii. Discharges expected at the outfall in the pre-construction, post-construction, and buildout at end of design life land use conditions.
 - iii. Discussion of the ability of the outfall to satisfactorily convey the three previously listed discharges.
 - d. Utilities, including the following.
 - i. Summary of the utility location information available and used in the design. Mention the limitations of the utility location data. Mention if utilities are present, there may be conflicts, and the utility locations are not known.
 - ii. Description of utilities that affected the design, their effects, and how the effects were addressed in the design.
 - e. Investigations, including the following.
 - i. Research/previous studies used in the design should also be referenced.
 - ii. Site reconnaissance used to collect design data should be mentioned.
- 4) **Design** - including detailed design information.
- a. Design criteria, mentioning criteria used in the design. References are made to published material available externally, and also to correspondence and other material retained in the supporting data file.
 - b. Analysis methods used in the design, including the following.
 - i. Hydrology, including method used, with assumptions.
 - ii. Hydraulics, including method used, with assumptions.
 - c. Narrative and calculations used in the design. Summary of the design calculations will be included in this section, and references are made to detailed information in the supporting data. Include a separate subsection for each facility or system.
- 5) **Recommended Maintenance Summary** - Maintenance is addressed in a "Maintenance Summary Memorandum".

4.4 Storm Water Operation and Maintenance Manual

Consultant shall develop a facility operation and maintenance manual (Storm Water O&M Manual) for each water quality and flow control Storm Water facility. The Storm Water O&M Manual will be developed following the County standards.

Task 4.0 Deliverables:

- *Concept Storm Water Management Exhibits with Cost Estimate Comparison (submitted with Options Analysis (Task 8.0))*
- *Concept Storm Water Drainage Narrative (included in the Options Analysis memo (Task 8.0))*
- *Preliminary Storm Water Memorandum (submitted with the Preliminary Design (30%) (Task 9.0))*
- *Storm Water Memorandum Updates and Revisions Memo (submitted with 60% and 90% deliverables)*
- *Draft and Final Storm Water Design Report (submitted with 100% deliverable (Task 11.0))*

- *Draft and Final Storm Water O&M Manual (submitted with 100% deliverable (Task 11.0))*

Task 5.0 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. 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 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.
- Review pothole data provided by the utilities and make recommendations to the project design to minimize utility relocation.
- Prepare a Utility Relocation Letter 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 to utilities of contract dates and project status.

Task 5.0 Deliverables:

- *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 6.0 Geotechnical and Geologic Services

Consultant shall perform preliminary geotechnical design for the proposed improvements at the OR224 and Amisigger Road intersection. This scope includes geotechnical investigations and design for proposed pavement, signal pole, and Storm Water facilities. Tasks related to geotechnical design will include subsurface investigations, laboratory testing, geotechnical analysis, pavement analysis, and geotechnical report. Consultant shall perform the preliminary geotechnical design in accordance with the AASHTO LRFD Bridge Design Specifications and the ODOT Geotechnical Design Manual.

6.1 Data Collection & Review

6.1.1 Site Reconnaissance and Pavement Condition Assessment

Consultant shall conduct a reconnaissance of the site. Consultant shall identify the geologic conditions at the project site, any geologic hazards present, and their impacts to the proposed project elements. Consultant shall locate the borings in the field during the reconnaissance.

The site reconnaissance shall include the following work:

- Observe surface conditions indicative of subsurface conditions as well as past or ongoing geologic processes (e.g., areas of seeps or springs, erosion, unstable slopes, shallow groundwater, roadway settlement, offsets and depressions, existing earthwork performance, exposed soil and bedrock units).
- Identify site constraints, staging concerns (for exploration and construction), and environmental issues (including wetland locations).
- Perform visual pavement assessment.
- Identify potential exploration and/or monitoring locations.

The site reconnaissance shall facilitate understanding of the site constraints for field explorations, construction, and traffic staging. Proposed boring locations will be staked or painted on the ground during this site visit and locates will be requested through the one-call utility notification center.

Consultant shall perform visual pavement assessment in accordance with ODOT's Good-Fair-Poor (GFP) Pavement Condition Rating Manual and Distress Survey Manual. The primary goal shall be to identify and map areas of severely distressed existing pavement to determine the cause of the distresses and to determine potential mitigation strategies. Mapping will identify surface manifestation of weak, poor, or failing subgrade, and locations of pavement failure such as longitudinal cracking or raveling; in addition, subsurface drainage conditions shall be assessed. The mapped locations shall be identified using a measuring wheel.

6.1.2 Data Review

Consultant shall review available existing information to evaluate the geologic and subsurface conditions, construction, and maintenance history of the pavement and culvert. Consultant shall review available information provided by the County/ODOT from the following sources (as applicable):

- Existing published and unpublished literature from county records;
- Previous pavement and geotechnical reports from federal, city, county, or other officials, Consultants, groups, or individuals pertinent to the project;
- As-built roadway plans (as available);
- Maintenance records.

6.1.3 Permitting and Traffic Control

Consultant shall prepare the permit application for the geotechnical exploration within the County and ODOT right of way (ROW). Consultant will develop an exploration plan and traffic control plan in preparation for obtaining a permits from the County and ODOT, as required.

6.1.4 Subsurface Investigation

The Consultant shall complete two borings to a depth of ± 20 feet. The boring locations will be as close as possible to the proposed improvements and within the County or ODOT ROW. The borings will be drilled using a truck-mounted drill rig and will be advanced using mud rotary drilling techniques. All of the borings will core the existing pavement and Dynamic Cone Penetration (DCP) testing will be performed on the base rock and subgrade

for evaluation of the pavement section design. The boring will be logged by a geologist or engineer during drilling.

The consultant shall complete infiltration testing for Storm Water facilities at the project site.

Two infiltration tests at a depth of up to 5 feet will be completed. Infiltration testing will be in conformance with the Clackamas County Storm Water Standards, Appendix E. The Encased Falling Head method will be used.

Table 1: Boring Summary

Boring	Purpose	Anticipated Depth (feet)	Day/Night	Traffic Control
B-1	Signal Pole/Pavement	20	Day	Single lane closure
B-2	Signal Pole/Pavement	20	Day	Single lane closure
I-1	Infiltration Facility	5	Day	Shoulder closure
I-2	Infiltration Facility	5	Day	Shoulder closure

Disturbed soil samples will be taken with a split-spoon sampler as part of the Standard Penetration Test (SPT). Relatively undisturbed specimens will be obtained with thin-walled Shelby tubes, if fine-grained soils are encountered. The contractor will collect samples at 2.5-foot intervals to a depth of 20 feet. The samples will be retained for possible laboratory testing. The boreholes will be backfilled in conformance with Oregon Water Resources Department guidelines and the surface will be restored to match the existing ground surface or pavement. Boreholes will be drilled at night between the hours of 9pm and 5am. A vibrating wire piezometer and data logger will be installed in one of the signal pole borings to measure the groundwater elevation.

6.1.5 Laboratory Testing

Consultant shall perform laboratory tests on disturbed and undisturbed samples obtained from the explorations to characterize the subsurface materials, develop engineering soil parameters, to assist with determining engineering geologic unit boundaries, and to check field soil identification and description of the materials encountered. The laboratory testing program shall consist of some or all of the following tests:

- Up to 15 natural moisture content determinations (ASTM D2216);
- Up to 2 undisturbed sample moisture and density determinations (ASTM D2937);
- Up to 2 particle size analyses (ASTM D422);
- Up to 3 fines content determinations (ASTM D1140);
- Up to 3 plasticity index determinations (ASTM D4318); and

6.2 Preliminary Geotechnical Engineering Evaluations and Design.

Consultant shall complete a geotechnical study and provide design recommendations and construction considerations for the Project. The engineering evaluation and analyses must be performed in accordance with the AASHTO LRFD Bridge Design Specifications and the ODOT Geotechnical Design Manual.

Consultant shall:

- Provide recommendations for earthwork including site preparation, excavation, cut and fill slopes, structural fill material, fill placement, compaction, and wet weather construction.
- Provide recommendation for signal pole foundation, if existing agency standard foundation will apply or if a site specific design is necessary.

6.2.1 Pavement Analysis and Design

Consultant shall develop a pavement design criteria, design parameters, and pavement sections for an acceptable pavement design to be used in this application. It is assumed that up to two (2) pavement sections will be designed full-depth reconstruction sections for existing roadway travel lanes. Also, preliminary pavement design recommendations will be provided for the widening sections based upon the borings located on the existing roadway. The preliminary pavement design recommendations will use geotechnical borings. Pavement section design will be performed in accordance with the current ODOT Pavement Design Guide, AASHTO Guide for Design of Pavement Structures, and applicable county requirements. Life cycle cost analysis is not included. Pavement design shall include and/or consider the following items:

- Evaluate subsurface conditions including groundwater level.
- Develop pavement design parameters. DCP results shall be used to correlate to existing subgrade resilient modulus.
- Identify “design areas” that include areas of similar pavement condition and/or pavement rehabilitation requirements.
- Develop flexible pavement section recommendations for reconstruction with a design life of 20 years. If a roundabout is chosen, a PCC Pavement section will be developed as a contingency task.
- Develop preliminary flexible pavement section recommendations for roadway widening sections with a design life of 20 years.
- Recommendations for subgrade preparation for pavement reconstruction (both winter and summer construction).

Assumptions:

- Life cycle cost analysis is not included.
- Consultant will use provided traffic counts and traffic growth rate to compute the equivalent 18-kip single axle loads (ESALs) within the project limits as required for the pavement design analysis.
- Environmental permitting shall not be required for the field work.
- The drill cuttings are not contaminated and may be disposed of off-site by our drilling subcontractor. If the drill cuttings appear to be contaminated, the County shall be informed immediately, and the driller shall take necessary action upon authorization.
- Flagging and traffic control for drilling shall be subcontracted.
- All fees associated with Right of Entry’s and permits shall be provided by the County.

6.2.2 Geotechnical Report

Consultant shall prepare a draft and final Geotechnical Report according to the ODOT Geotechnical Design Manual. The Report must:

- Summarize design and construction recommendations.
- Summarize laboratory testing and test results.
- Summarize the results of the geotechnical engineering evaluation and design.
- Summarize pavement evaluation and design.

Consultant shall prepare up to one Geotechnical Data Sheet (“GDS”) for the signal poles.

6.3 Plans and Specifications Review

Consultant shall review and provide comments to geotechnical related plans and special provisions.

Task 6.0 Deliverables:

- *Draft and Final Geotechnical Report.*
- *Up to one Geotechnical Data Sheets.*

Task 7.0 Traffic Engineering and Management**7.1 Traffic Data Collection**

Consultant shall:

- Obtain or collect weekday AM and PM peak hour traffic counts at the intersections of Clackamas Highway (OR224) and Amisigger Rd.
- Obtain or collect weekday 24-hour traffic counts for vehicle speed and classification along the Clackamas Highway and Amisigger Road.
- Obtain and review travel demand forecasts within the project area from the County. Estimate future year weekday AM and PM peak hour traffic volumes at the intersections of Clackamas Highway and Amisigger Rd.

7.2 Traffic Alternatives Analysis

Consultant shall prepare a traffic analysis to support the County's selection of intersection control for the Project.

- Conduct analysis of Manual on Uniform Traffic Control Devices (MUTCD) signal warrants based on current traffic conditions.
- Conduct a level-of-service and queuing analysis of future weekday AM and PM peak hour conditions to determine recommended lane configuration, signal phasing, and storage length needs at the intersection for the following alternatives:
 - Traffic Signal (signal warrant and capacity analysis)
 - SB Stop Controlled with turn lanes
 - Roundabout Alternative
 - Continuous green tee (CGT)
- Compile information needed for the Intersection Control Evaluation. (Deliverable in Task 8)
- Prepare a summary technical memorandum describing the key findings and recommendations.

Capacity analysis must be based on current Highway Capacity Manual ("HCM") methodology.

7.3 Alternatives Preliminary Design

Consultant shall prepare preliminary plans in AutoCAD and construction cost estimates for the traffic signal, roundabout, and CGT alternatives. It is assumed that the physical footprint for a signalized scenario and stop-controlled scenario would match.

7.3.1 Intersection Concept Design

Consultant shall develop each alternative to concept-level design sufficient to establish construction limits, quantities, and major construction activities. Each alternative shall have horizontal and vertical alignment developed that meets minimum design standards. Consultant shall prepare a drawing stamped "preliminary" in AutoCAD for each alternative. Geometric design elements that do not meet design standards shall be identified as needing a design exception.

7.3.2 Intersection Performance Analysis

Consultant shall analyze each alternative and determine the potential benefits and impacts associated with construction of the proposed alternative. Potential benefits and impacts to be considered include but are not limited to: right of way, intersection capacity, access, safety, pedestrian crossing treatments, bicycle treatments, utilities, permitting, and environmental impacts.

7.3.3 Intersection Construction Estimates

Consultant shall prepare a planning-level construction cost estimate for each alternative that includes the major construction items and quantities that can be identified at this level of design detail.

Consultant shall analyze the lifecycle cost/benefit ratio for each alternative including comparison of predicted safety using the Highway Safety Manual crash prediction models.

7.3.4 Alternatives Report

Consultant shall summarize the results of analysis for each alternative in the Traffic Alternatives Analysis Technical Memorandum developed in Task 7.2. The memorandum must include a summary of the identified impacts and cost estimate associated with each alternative to allow the County to determine which alternative to move forward to design and permitting.

Task 7.0 Deliverables:

- *Draft and final traffic analysis data and technical analysis memorandum, summarizing findings.*
- *Safety Performance Intersection Control Evaluation (SPICE) report, draft and final (.pdf)*
- *Concept Drawing Strip Maps (3) (.pdf)*

Task 8.0 ODOT Coordination

Consultant shall provide concept-level coordination with Clackamas County and ODOT regarding the project and the impacts on ODOT right of way along OR224. This work shall include a conceptual options analysis (completed in task 7), meetings with ODOT personnel to review the project analysis, determine what approvals and permits are necessary, determine the preferred intersection configuration, and to acquire the permits on behalf of the project. At the completion of this task, the preferred alternative for the project intersection will be determined and will inform the subsequent design development. As this project will require the approval of the State Traffic Roadway Engineer, if project approval is unable to be attained the project may be paused pending additional funding or terminated. ODOT Mobility Advisory Committee preparation and presentations are completed by the County if required.

- Meet with County Staff and refine the draft options analysis based on County comments for subsequent ODOT coordination and Intersection Control Evaluation. One (1), one-hour meeting is assumed with up to three (3) consultant staff in attendance.
- Meet with ODOT and County personnel to review project scope, permits required and approval processes. One (1), two-hour “Early Guidance” meeting is assumed with up to three (3) consultant staff in attendance.
- Develop a draft and final Right of Way Permit application for County and ODOT review to acquire permits identified by ODOT (Contingency).
- Develop draft and final Signal Request Form

8.0 Consultant Deliverables and Schedule

Consultant shall provide to Agency:

- *A summary of permits identified by ODOT personnel.*
- *Meeting minutes from ODOT coordination, calls and meetings*
- *Draft and Final ODOT ROW Permit Applications (Contingency)*

Task 9.0 Preliminary Design (30%)

Consultant will take the results of the ODOT coordination and options analysis and continue the design to a 30% level for the preferred alternative. The primary goal of the 30% design

is to establish design criteria, project footprint, and horizontal alignment to inform 60% through to Final Design.

9.1 Design Criteria

Consultant shall prepare draft and final list of design criteria. Design criteria shall be consistent with AASHTO's *A Policy on Geometric Design of Highways and Streets*, the Clackamas County Transportation System Plan (TSP), and Clackamas County Roadway Standards. Consultant shall present the design criteria in a table or matrix format listing conditions, assumptions, and minimum standards for the roadway design elements of the Project. This includes the following:

- Determine design speed
- Determine sight distance considerations
- Determine cross slope, horizontal curves, and super-elevation
- Determine maximum grade, vertical curves
- Determine cross section elements:
 - Number and width of travel lanes
 - Shoulders
 - Bikeways
 - Guardrail criteria and length of need
 - Illumination criteria
 - Retaining wall types and design parameters
 - Culvert types and design parameters
 - Stream preservation/restoration criteria
- Results of Intersection Control Evaluation

9.2 Storm Water Management Concept Alignment (30% submittal)

Based on the storm drainage report, the Consultant shall develop conceptual drainage layout for the preferred conveyance, water quality, and detention alternative. This will validate the Storm Water conveyance locations of the storm system. Elevations and grades will be vetted for feasibility of conceptual Storm Water approach and to flag major utility conflicts.

9.3 Construction Estimate

Consultant shall provide updated quantities and 30% construction cost estimate for the preferred alternative.

9.4 Design Memorandum

Consultant shall provide a brief 30% draft and final design memorandum, summarizing alternatives considered during the options analysis and the recommended alternative for final design tasks.

9.5 Design Exceptions

Consultant shall develop draft and final design exception memorandums for deviations in the design not meeting the design criteria. Consultant shall use County's template design exception form. It is assumed that up to three (3) design exceptions will be required.

Task 9.0 Deliverables:

- *Draft design criteria electronically (one electronic copy in PDF form)*
- *Final design criteria electronically (one electronic copy in PDF form)*

- *Cost Estimate (one electronic copy in PDF form and one copy in Excel form)*
- *Draft and Final Design Memorandum (one electronic copy in PDF form)*
- *Draft and Final Design Exceptions*
- *30% roadway plans (general construction and Storm Water concept only) on County title block (one electronic copy in PDF form)*

Task 10.0 Public Involvement/Outreach

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

Tasks related to public involvement include coordinating with the County's community relations specialist, County and County staff.

10.1 Virtual Open House

Consultant will develop an online open house including:

- Develop a webpage designed to lead the viewer through the project with the ability to jump ahead or navigate back to the start. The webpage shall be designed to allow the user to scroll from top to bottom versus using button links to other pages as this helps lead the viewer through the project versus wandering from page to page. The virtual open house page will contain the following features:
 - Title Screen – The webpage will contain a title screen containing project branding, title, and any contact information.
 - Background – This page will contain text and/or graphics to provide project background.
 - Project Design – Page containing design graphics and visual simulations.
 - Public Feedback – Viewers will be able to view the different improvement features and provide feedback by clicking on the map and entering comments and other details in a form.
 - Feedback Trends – Create a live infographic page providing summary details from public comments. This page will show the different trends based on the comments made in the map.
 - Contacts – This page will contain contact information if viewers had additional questions.
- The Online Virtual Open House service will be created on and maintained using Kittelson's web services.

10.2 3D Visualization

Consultant proposes to create a variety of project design visualizations used for communicating the design to the public. The following scope outlines the different visualization products we expect to create to develop a comprehensive project visualization.

10.2.1 3D Modeling and Textures

3D modeling is the foundation for a variety of visualization products. For this project, we will create an existing conditions 3D model and 3 alternative models using a design CAD model. The 3D model will include detailed information along the corridor and up to the neighboring

buildings/structures. All 3D modeling beyond the neighboring buildings will be generic shapes used to fill in the background. The 3D model will include the following:

1. Terrain
2. Roadway Surface, Medians, Curb, Gutter, and Sidewalk
3. Neighboring Buildings (buildings will be semi-detailed shapes to represent the building type)
4. Background buildings and terrain (generic shapes)
5. Vegetation/Landscape (realistic trees, bushes, and plants along corridor)
6. Background Trees (generic shapes)
7. Road Signs
8. Streetlights
9. Pedestrians, Bicyclists, and Autos

All 3D features will have detailed textures except for buildings and structures. The buildings and structures will be a gray color to ensure the project focus will be the different project improvements.

10.2.2 Photo Simulation and Animation

The finished 3D model will be used to create a variety of “Before and After” photo simulations at key locations along the corridor. Kittelson will utilize oblique images from a drone to illustrate existing conditions and overlay of the different alternatives. We expect to produce up to 3 separate photo simulation locations for each scenario. The locations will be consistent for each scenario to easily compare the different alternatives.

Animation will be used to demonstrate the project design and activity along the corridor. We will create a 2 to 3 minute video showing automobiles, pedestrians, and bicyclists in motion and properly interacting along the corridor or at intersections. The camera view will start overhead showing the project extents and fly towards one of the intersections and begin a low flight over the corridor to the ending intersection. Depending on the agreed story and message for the video, the camera may slow or pause at locations to demonstrate key improvements, safety, and other alternative benefits.

10.2.3 Video Production

Consultant will develop a final video for public consumption containing the animation, drone footage, information graphics, and narration. The video will be saved in a common video format that supports web technology.

10.3 Outreach & Presentations

Consultant will prepare for and attend up to four (4) special interest/private citizen meetings to present the current design of the project.

Task 10.0 Deliverables:

- *Up to 2 Flyers*
- *1 Flyer (in English and one other language) with 1 revision*
- *Up to 4 public meeting information boards (in English and one other language) with 1 revision*
- *Project graphics and information for County project website (in English and one other language)*
- *Project Corridor Fly-thru animation in HD format (1920 x 1080)*
- *Hosted website for an Online Virtual Open House*

Task 11 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 work sessions (per Task 1) with County staff.
- Complete engineering drawings for submittal to the County at 60%, 90%, and Final milestones and perform quality assurance and in-house independent design checks and plan review of all drawings and related quantities including constructability reviews. Plans will be drafted with the latest version of AutoCAD software and the final CAD drawings provided through an FTP site or on a CD.
- Provide relevant plan drawings per the anticipated sheet list farther below for submittal to County for review. Drawings shall include sufficient information for review and bidding including alignments, elevations, etc. with the assumption that more detailed staking and layout information necessary for construction will be provided electronically to the Contractor after notice of intent to award. Standard details and drawings will be attached at the end of the plan set without the need for a title block. Additional specific plan sheet requirements include:
 - Index of Drawings: Provide a list of the standard details and drawings utilized with a link to the location where they can be found.
 - Roadway Plan and Profile: Consultant shall prepare roadway construction plans in accordance with County design standards, AASHTO, and APWA Oregon Standard Specifications for Construction.
 - Roadway Cross Sections: Assumes cross sections prepared at intervals and/or at locations of interest for the proposed improvements. Sections will be prepared to display the existing ground, finish grade, subgrade, retaining walls, and right of way.
 - Driveway Details: Assumes up to 6 driveway plans with grading per sheet.
 - ADA Ramp/Intersection Details: Assumes 1 intersection corner per sheet.
 - Drainage, Utilities & Grading Plans: Consultant shall prepare grading and drainage plans in accordance with County design standards. Drainage profiles will accompany the same sheet as the juxtaposed plan. Franchise utility (water, sewer, gas, communication, power) relocation designs are excluded from the utility plans, no fiber optic connections are anticipated.
 - Culvert: No work is anticipated with the existing culvert.
 - Erosion Control: Consultant shall prepare erosion control plans in accordance with the 1200-CA permit.
 - Traffic Control: Consultant shall prepare traffic control plans in accordance with County design standards, the MUTCD, and APWA Oregon Standard Specifications for Construction. Plans are anticipated to include staging plans, lane shifts, lane and shoulder widths, temporary barriers, delineation, and signing.
 - Landscaping: no landscaping plans will be required; erosion control seeding & mulching will be utilized to stabilize the disturbed soils.
 - Signing/Striping: Consultant shall prepare signing and striping plans per County and MUTCD standards. A sign inventory will be completed to evaluate existing sign conditions and verify compliance with current MUTCD standards.
 - Traffic Plans: If the traffic signal alternative is selected, Consultant shall prepare traffic signal plans for the intersection. Plans will include a layout of the traffic

signal poles, signal heads, traffic signal controller cabinet, and vehicle detection. The design shall meet County and MUTCD standards.

- Consultant shall complete a detailed photometric analysis for the intersection using AGI32 software. Light pole and luminaire types (not on the signal poles) will be from the PGE approved equipment list. The lighting analysis results will be shown on the plan sheets. Based on the light pole layout from the analysis, individual street lighting plans will be developed for the roundabout alternative and shown on the traffic signal plans for the signal alternative.
- Calculate quantities and develop an engineer's construction cost estimate for submittal at each plan development milestone (60%, 90%, Final).
- Develop an anticipated construction schedule (90%, Final)
- Prepare relevant sections of specifications based on the current Oregon Standard Specifications for Construction. Produce special provisions for the project using standard ODOT boilerplate special provisions and County boilerplate special provisions to the specifications in Part 00100 – General Requirements. At 60%, a specification outline will be prepared.
- Revise and submit final Special Provisions based on comments received during County reviews.
- Make corrections as required by County and submit final plans to County (both documents and electronic copies).

The anticipated sheet count is as follows:

Name of Sheet	Estimate d # of Sheets	60% PS& E	90% PS& E	Final PS& E
Title Sheet	1	X	X	X
Index of Drawings, Legend & Abbreviations	1	X	X	X
Horizontal Control	1	X	X	X
Typical Sections	2	X	X	X
Roadway/Storm Details	10		X	X
Roadway & Drainage Plan and Profile (1"=40' 1/2-size)	8	X	X	X
Roadway Cross Sections	4	X	X	X
Driveway Details	2	X	X	X
ADA Ramp/Intersection Details	6		X	X
Erosion Control Cover & Notes	1	X	X	X
Grading & Erosion Control Plan (1"=30' full-size)	4	X	X	X
Erosion Control Details	4	X	X	X
Geotechnical Data Sheets	2		X	X
Temporary Traffic Control Plans (1"=50' full-size, stacked)	12	X	X	X
Temporary Traffic Control Details	4		X	X
Signing and Striping Plans (1"=50' full-size, stacked)	3	X	X	X

Signing and Striping Details	3	X	X	X
Sign and Post Data Table	1		X	X
Traffic Signal Legend	1	X	X	X
Traffic Signal Plans	2	X	X	X
Traffic Signal Details	3		X	X
Total Estimated Sheet Count	63			

Consultant will provide services for each deliverable per the following subtasks:

11.1 60% Design

Provide 60% complete plans and estimate as described above.

11.2 90% Design

Provide 90% complete plans, specifications, estimate, and construction schedule as described above.

11.3 Final Design

Provide Final plans, specifications, estimate, and construction schedule as described above.

11.4 Roundabout Design (Contingency)

If the roundabout alternative is selected, Consultant shall eliminate the signal design elements and instead develop designs to support the roundabout. The change in sheets associated with this option include:

Name of Sheet	Estimated # of Sheets	60% PS&E	90% PS&E	Final PS&E
Curb Line Plan and Profiles (1"=30' full-size)	5	X	X	X
Sidewalk and Grading Plan (1"=30' full-size)	4	X	X	X
Concrete Jointing Plan (1"=10' full-size)	5	X	X	X
Roundabout Details	3	X	X	X
Additional Traffic Control Plans	4	X	X	X
Additional Signing and Striping Sheets	2	X	X	X
Illumination Legend & Details	2	X	X	X
Illumination Plans (1"=30' full-size)	2	X	X	X
Eliminate Traffic Signal Legend	-1	X	X	X
Eliminate Traffic Signal Plans	-2	X	X	X
Eliminate Traffic Signal Details	-3	X	X	X
Net Additional Sheets	21			

Task 11.0 Deliverables:

- 60%, 90%, and Final Engineering Drawings (11"X17")

- *90% and Final Construction Schedule*
- *90% and Final Specifications and Bid Schedule*
- *Documentation of 60% and 90% review comments*
- *60%, 90%, and Final Engineer's Estimate*
- *Roundabout Design (contingency) design documentation figures (11"x17") detailing associated truck turning templates, intersection sight distance and fastest path analysis according to NCHRP 672, 2nd Ed. at 60%, 90%, and Final.*

Task 12 Right of Way Research, Descriptions, Appraisals and Acquisitions

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

- ORS 35, with reference to the "Uniform Appraisal Standards for Federal Land Acquisitions"
- Uniform Act
- 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 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 6 acquisitions are required for the project for which title reports for all permanent easements will be needed (title reports provided by County) in addition to maps and descriptions, General Information Notice (GIN) letters (to be completed by County), limited appraisals and reviews, and acquisition and closing assistance (closing and certification to be completed by County) will be needed.

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

12.1 Right of Way Research

Consultant shall complete ROW research as needed to locate and identify existing easements and property ownership. Preliminary Title Reports will be necessary for each

property from which a Permanent Easement will be required (Title reports provided by County).

12.2 Right of Way Strip Map and Impact Maps

Consultant shall develop a ROW strip map and impact maps showing existing and proposed Right of Way lines and permanent and temporary easement lines. ROW maps are to be provided to the ROW staff upon delivery of 60% construction plans. ROW impact maps shall be updated as construction plans are updated and produced. File numbering for the acquisitions will be reviewed and approved by County Right of Way Manager or Designee.

- Scale for the ROW maps, shall be in English units, the scale is to be an appropriate Engineering scale such as 1"=20', 1"=40', 1"=60', 1"=100'.
- For each parcel, show map and tax lot number, site address, vested owner name and deed number, and file number.
 - Major improvements within the easement areas and within 20 feet of the outer most area of acquisition shall be shown. If no acquisition is being acquired for a particular parcel, then show major improvements 20 feet from the existing ROW line. (Examples of major improvements to be shown on the ROW map are: houses, outbuildings, driveways, fences and other miscellaneous features needed for determining Just Compensation.)

12.3 Right of Way Descriptions & Exhibit Maps

Consultant shall:

- assemble all provided title documents, including vesting deeds and preliminary title reports for each impacted property.
- Consultant shall develop and provide a centerline description from one end of the project limits to the other to be used by County with their Resolution of Necessity for the project. 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.
- Prepare ROW Maps and Descriptions (Exhibits A and B) according to the guidelines and example provided by the County. County will review and provide feedback to Consultant if needed. Consultant will make any necessary changes requested by County. Maps and descriptions will be made on 8 1/2" x 11" paper. Written legal description should be referenced as "Exhibit A" and the map as "Exhibit B". Each description will include the following:
 - Descriptions shall be dated and stamped by a professional land surveyor licensed in the State of Oregon.
 - Descriptions for the properties shall reference the last recorded deed by type of deed, owner's name, book and page, and date recorded. This information is to be taken from the last vesting deed.
 - Descriptions shall reference easements as "Permanent" i.e. (Permanent Right of Way for Road Purposes Easement, Permanent Slope Easement, Permanent Public Utilities Easement, Etc.) or as "Temporary" i.e. (Temporary Construction Easement, Temporary Mitigation Easement, Etc.).
 - Descriptions shall reference ROW easements as Parcel 1 and other easements as subsequently numbered parcels. Multiple easements per Parcel are acceptable (e.g. Parcel 2- Permanent Slope and Public Utilities Easement, Parcel 3 - Temporary Construction Easement).
 - Descriptions shall reference centerline stations on the map. Show the distance from the centerline to existing ROW line and from centerline to proposed ROW and/or easement line(s) on the parcel map.

- On each parcel map provide a legend showing with a hatch, the areas being acquired. Give the areas for each parcel in square feet. Note: Legend should be consistent from file to file. For example, a hatch used for a permanent slope easement would be the same for all files on the project.
- Show north arrow, appropriate scale, project name, County project number and date exhibit was prepared.
- Feet are to be shown on all distances in “Exhibit B” (excluding centerline).

12.4 Right of Way Staking

Consultant shall:

Stake proposed and existing ROW and easements for appraisals and acquisition process. Staking is limited to 2 consecutive field days to stake all properties on the same day.

12.5 Preliminary Activities

Upon receipt of authorization to proceed with ROW Acquisition, Consultant shall set up ROW parcel files and deliver a General Information Notice (GIN), acquisition and relocation brochures, and a copy of the applicable portion of the ROW Acquisition map (marked Preliminary and showing the right of way to be acquired) to all owners and occupants of affected properties. Consultant shall mail GINs via regular mail. Consultant shall use County approved GIN form. Consultant shall email a copy of each GIN as a separate file to the Consultant ROW Program Manager or Designee.

Consultant shall prepare and maintain a Diary of Personal Contact for each file. The Diary of Personal Contact must include dates associated with the mailing of the GIN in addition to the date, place of contact, parties contacted, what was delivered and explained, and a summary of what was discussed, for all contact with affected property owners and/or their representatives.

12.6 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 will be conducted for each property . One appraisal review for a property acquisition exceeding \$10,000 is assumed. 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 field 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.

Consultant shall provide one (1) hard copy and one (1) digital copy of each appraisal and appraisal review to the County for review. The County shall recommend Just Compensation based on the appraisal. Just Compensation shall be no less than the reviewed appraisal amount.

12.6 Appraisal Review (CONTINGENCY)

Consultant shall conduct additional Appraisal Reviews as required by the County, a total of 5 additional Appraisal Reviews are included as a contingency task.

12.7 ROW Acquisition

All ROW shall be acquired in the name of the County as easement. Consultant shall conduct negotiations, on behalf of the County, in good faith and in compliance with all state laws and regulations and County policies and procedures. Consultant shall conduct negotiations for acquisition of real property based on Just Compensation issued by County. Consultant shall use Acquisition Agents who are licensed in the State of Oregon to conduct real estate transactions, experienced and competent in negotiating and acquiring real property rights under the rules and regulations related to the power of eminent domain.

Consultant shall consult with County to determine the extent to which County will be responsible for clearing title encumbrances identified on the Preliminary Title Report or making the offer subject to clearing title encumbrances. Consultant shall discuss the condition of the title with the property owner at the offer presentation or as soon as possible after the offer is mailed. The discussion will address the County's intention to clear the lender's interest in the acquisition, if any. Consultant shall present any requests for taking title subject to one or more outstanding interests to County for approval. Fee owners' and contract purchasers' ownership interests must be addressed. Lender's interests must be addressed. When impacted by the taking, lessees' interests must also be addressed.

Consultants shall prepare and present to 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. These Offer Packets shall include, but are not limited to, acquisition and relocation brochures, offer-benefit letter, acquisition and relocation summary statements, County's Obligations Agreement if appropriate, copy of appraisal or ADJC, map of acquisition, instruments of conveyance and W-9 form (if money is exchanged). Offers will be made to all owners and all negotiations shall be conducted with all owners unless all owners have designated a representative in writing or are represented by legal counsel. Consultant shall notify County as soon as possible when legal counsel enters the acquisition process.

To the reasonable extent 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 via certified mail with return receipt request. Dates of delivery and an accounting of the events leading to the decision to mail the offer must be documented in the Diary of Personal Contact and the file. It is recommended that delivery be periodically tracked to identify issues or problems.

Consultant shall make a reasonable effort to acquire the ROW expeditiously by negotiation. Consultant shall give property owners reasonable opportunity to consider the offer (statutorily 40 calendar days). Counter offers from the owner should be accompanied by information the owner believes is relevant to determining the value of the property and reviewed with the County Right of Way PM 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)).

- IF the OFFER is ACCEPTED, Consultant shall present a Final Report Packet covering the acquisition of ROW to County for final approval, acceptance, payment, conveyance of title and recording. The Final Report Packet shall include County's Final Report and Transmittal of Documents form and all other documentation associated with the ROW activities conducted for this file. Consultant shall include satisfactory documentation of signer's authority to sign if Grantor is a Trust, Corporation, Partnership, or Non-Profit. Consultant shall mail or deliver the Final Report Package and email a digital scan of the Final Report 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 written justification and owner supplied supporting documentation to 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 this 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 in a reasonable amount of time after the decision to RC the file is made. Consultant shall also provide to County the Microsoft Word (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 of Personal Contact for each file until the file is transmitted to the County. The Diary of Personal Contact must include a dated record in chronological order of all contact with property owners and or their representatives and all occupants and or their representatives, including but not limited to the means by which the communication took place (email, fax, telephone, in person, etc.), the location of the contact, efforts to achieve amicable settlements, owners' suggestions for changes in plans, responses to owners' counterproposals, etc.

No communications with property owners or occupants and or their representatives are to be made via text. The County is to be notified as soon as possible upon engagement with a property owner's legal representation.

Task 12.0 Deliverables:

- *Right of Way Impact Maps (6 impact maps and one overall strip map)*
- *Right of Way Descriptions (6 permanent acquisitions, 6 temporary acquisitions)*
- *Right of Way Staking (6 files)*
- *General Information Notices (up to 12 letters to owner & residents)*
- *Appraisals and Appraisal Reviews (6 appraisals and 1 appraisal reviews)*
- *Appraisal Review (5 reviews)[Contingency]*
- *Acquisition/Negotiation/RC files (6 files)*

Task 13 Bid and Award Assistance

This task includes the preparation of addenda, up to 6, 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.

13.1 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 days to the CPM.

Consultant shall, during the bidding process, assist the County with the communications with Construction Contractors and suppliers in a manner that assures 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 a written log to document conversations and questions asked by construction contractors or suppliers and

the answers provided to the County. Consultant shall maintain the written log in the project file and provide upon request of the CPM.

Task 13.1 - Consultant Deliverables

Written log of conversations, questions, and answers will be provided to the CPM upon request.

REIMBURSABLE EXPENSES

The reimbursable budget estimate is based on our experience with this project type and the governing agencies. It is an estimate only. Additional budget may be necessary to complete the project.

Customary reimbursable expenses mean the actual expense incurred in direct connection with the project. Vehicle mileage is reimbursed at the current Internal Revenue Service (IRS) rate for project related travel.

The following project related expenses are reimbursed at cost:

- External Reproduction Services
- Travel Expenses, other than private vehicle mileage
- Express Postage
- Other Direct Expenses (survey filing fees; project specific supplies, etc.)

ASSUMPTIONS

The Consultant has made the following additional assumptions related to this project.

1. All permits and application fees shall be paid by Clackamas County, or as a reimbursable expense at cost.

COUNTY'S RESPONSIBILITIES

The County will:

1. Coordinate the relationship with adjacent property owners and with the general public.
2. Provide County standard drawings and details when possible.
3. Provide as-built CAD files of recent construction projects.
4. Assist in utilities coordination and facilitate the timely receipt of utility data from the private utility companies.
5. Maintain and manage the public involvement mailing list and project press releases.
6. Distribute Consultant deliverables to other County staff as needed for review and compile all County review comments.

It is assumed for the purpose of developing this proposal that a pre-bid meeting will not be conducted. An allowance for two bid addenda is to be provided for.

**EXHIBIT B
FEE SCHEDULE**

Amisigger Road & Hwy 224 Intersection Improvements
Clackamas County
PROFESSIONAL SERVICES - HOURLY BREAKDOWN
12/28/2021
Kittelson & Associates
Fee Summary

Task	KAI Totals	Stantec See attached breakdown	S&W See attached breakdown	S&F See attached breakdown	Universal Field Services See attached breakdown	Total
Task 1.0 Project Management, Project Coordination, and Project Scheduling						
1.1	Project Management	\$12,850.32				\$12,850.32
1.2	Project Coordination					
1.2.1	Project Kickoff meeting	\$1,440.84		\$650.00		\$2,090.84
1.2.2	Quarterly Team Meetings	\$9,036.98	\$350.00	\$350.00	\$145.00	\$10,289.98
1.2.3	Bi-Weekly Coordination Meetings	\$23,726.42	\$175.00	\$525.00	\$435.00	\$25,473.42
1.3	Project Scheduling	\$1,706.02				\$1,706.02
	Total Hours	279.00	3.00	5.00	8.00	305.00
	Labor Cost	\$48,760.58	\$525.00	\$875.00	\$1,230.00	\$52,410.58
	Total Cost This Task	\$48,760.58	\$525.00	\$875.00	\$1,230.00	\$52,410.58
Task 2.0 Field Investigations, Reports, and Studies						
2.1	Topographic Survey	\$644.17		\$19,618.00		\$20,262.17
2.2	Horizontal Control, Monument Rec., and Pre-Con. ROS	\$0.00		\$13,136.00		\$13,136.00
	Total Hours	4.50		292.00		296.50
	Labor Cost	\$644.17	\$0.00	\$32,754.00	\$0.00	\$33,398.17
	Total Cost This Task	\$644.17	\$0.00	\$32,754.00	\$0.00	\$33,398.17
Task 3.0 Environmental Reconnaissance & Permitting						
3.1	Wetland Delineation & OHW Determination	\$246.40	\$10,325.00			\$10,571.40
3.2	Level 1 Hazardous Materials Corridor Assessment	\$113.81		\$6,640.00		\$6,753.81
	Total Hours	2.00	75.00	46.00		123.00
	Labor Cost	\$360.21	\$10,325.00	\$6,640.00	\$0.00	\$17,325.21
	Total Cost This Task	\$360.21	\$10,325.00	\$6,640.00	\$0.00	\$17,325.21
Task 4.0 Storm Water/Hydraulics Related Services						
4.1	Storm Water Management Design	\$16,633.48				\$16,633.48
4.2	Concept Stormwater Management Plan	\$9,701.24				\$9,701.24
4.3	Stormwater Design Documentation					
4.3.1	Preliminary Stormwater Memorandum	\$4,547.88				\$4,547.88
4.3.2	Final Storm Water Design Report	\$5,986.46				\$5,986.46
4.4	Storm Water Operations & Maintenance Manual	\$1,288.34				\$1,288.34
	Total Hours	267.00				267.00
	Labor Cost	\$38,157.40	\$0.00	\$0.00	\$0.00	\$38,157.40
	Total Cost This Task	\$38,157.40	\$0.00	\$0.00	\$0.00	\$38,157.40
Task 5.0 Utility Coordination						
5.1	Utility Coordination	\$4,838.88				\$4,838.88
	Total Hours	40.00				40.00
	Labor Cost	\$4,838.88	\$0.00	\$0.00	\$0.00	\$4,838.88
	Total Cost This Task	\$4,838.88	\$0.00	\$0.00	\$0.00	\$4,838.88
Task 6.0 Geotechnical and Geologic Services						
6.1	Data Collection & Review	\$113.81		\$7,770.00		\$7,883.81
6.2	Preliminary Geotechnical Engineering Evaluations & Design	\$246.40		\$8,720.00		\$8,966.40
6.3	Plans and Specifications Review	\$0.00		\$1,540.00		\$1,540.00
	Total Hours	2.00		112.00		114.00
	Labor Cost	\$360.21	\$0.00	\$18,030.00	\$0.00	\$18,390.21
	Total Cost This Task	\$360.21	\$0.00	\$18,030.00	\$0.00	\$18,390.21
Task 7.0 Traffic Engineering & Management						
7.1	Traffic Data Collection	\$985.60				\$985.60
7.2	Traffic Alternatives Analysis	\$11,827.20				\$11,827.20
7.3	Alternatives Preliminary Design					
7.3.1	Intersection Concept Design	\$12,248.88				\$12,248.88
7.3.2	Intersection Performance Analysis	\$17,891.04				\$17,891.04
7.3.3	Intersection Construction Estimates	\$4,786.16				\$4,786.16
7.3.4	Alternatives Report	\$5,608.60				\$5,608.60
	Total Hours	348.00				348.00
	Labor Cost	\$53,347.48	\$0.00	\$0.00	\$0.00	\$53,347.48
	Total Cost This Task	\$53,347.48	\$0.00	\$0.00	\$0.00	\$53,347.48
Task 8.0 ODOT Coordination						
8.0	ODOT Coordination	\$10,466.00				\$10,466.00
	Total Hours	56.00				56.00
	Labor Cost	\$10,466.00	\$0.00	\$0.00	\$0.00	\$10,466.00
	Total Cost This Task	\$10,466.00	\$0.00	\$0.00	\$0.00	\$10,466.00
Task 9.0 Preliminary Design						
9.1	Design Criteria	\$2,707.06				\$2,707.06
9.2	Storm Water Management Concept Alignment	\$13,698.32				\$13,698.32
9.3	Construction Estimate	\$2,501.56				\$2,501.56
9.4	Design Memorandum	\$5,863.56				\$5,863.56
9.5	Design Exceptions	\$5,960.28				\$5,960.28
	Total Hours	214.00				214.00
	Labor Cost	\$30,730.78	\$0.00	\$0.00	\$0.00	\$30,730.78
	Total Cost This Task	\$30,730.78	\$0.00	\$0.00	\$0.00	\$30,730.78
Task 10 Public Involvement/Outreach						
10.1	Virtual Open House	\$8,618.24				\$8,618.24
10.2	3D Visualization	\$12,900.00				\$12,900.00
10.3	Outreach & Presentations	\$9,104.80				\$9,104.80
	Total Hours	204.00				204.00
	Labor Cost	\$30,623.04	\$0.00	\$0.00	\$0.00	\$30,623.04
	Total Cost This Task	\$30,623.04	\$0.00	\$0.00	\$0.00	\$30,623.04
Task 11 Final Design (60%, 90% and 100% Bid Ready) Plans, Specifications, and Estimate (PS&E)						

Task	KAI Totals	Stantec	S&W	S&F	Universal Field Services	Total
		See attached breakdown	See attached breakdown	See attached breakdown	See attached breakdown	
TOTALS						
11.1	60% Design					
11.1.1	Roadway Construction Plans					
a	Cover Page, Legend	\$698.42				\$698.42
b	Typical Sections	\$1,434.40				\$1,434.40
c	Details	\$3,171.54				\$3,171.54
d	Grading & Erosion Control Plan	\$10,273.40				\$10,273.40
e	Detailed Grading	\$12,330.36				\$12,330.36
f	Roadway Plan & Profile	\$33,718.64				\$33,718.64
g	Storm Design	\$11,449.46				\$11,449.46
h	Landscape Design	\$3,091.88				\$3,091.88
i	Illumination Plans (w/ photometrics)	\$7,634.48				\$7,634.48
11.1.2	Signing & Striping Plans	\$14,735.56				\$14,735.56
11.1.3	Signal Plans	\$12,862.16				\$12,862.16
11.1.4	Construction Staging Plans	\$12,220.84				\$12,220.84
11.1.5	Erosion Control Permit	\$2,339.66				\$2,339.66
11.1.6	Earthwork Cross Sections & AMG Model Preparation	\$3,637.40				\$3,637.40
11.1.7	Construction Specification Outline	\$682.86				\$682.86
11.1.8	Construction Estimates	\$2,923.44				\$2,923.44
11.1.9	Construction Schedule	\$2,731.44				\$2,731.44
11.2	90% Design					
11.2.1	Update Roadway & Storm Plans	\$28,400.91				\$28,400.91
11.2.2	Update Traffic Plans	\$11,122.60				\$11,122.60
11.2.3	Draft Specifications	\$4,805.92				\$4,805.92
11.2.4	Update Cost Estimate & Const. Schedule	\$1,674.73				\$1,674.73
11.3	Final Design	\$0.00				\$0.00
11.3.1	Update Roadway & Storm Plans	\$9,035.12				\$9,035.12
11.3.2	Update Traffic Plans	\$2,104.46				\$2,104.46
11.3.3	Update Specifications	\$1,285.30				\$1,285.30
11.3.4	Update Cost Estimate & Const. Schedule	\$830.06				\$830.06
	Total Hours	1,446.00				1,446.00
	Labor Cost	\$195,195.04	\$0.00	\$0.00	\$0.00	\$195,195.04
	Total Cost This Task	\$195,195.04	\$0.00	\$0.00	\$0.00	\$195,195.04
Task 12	ROW Acquisition					
12.1	ROW Research	\$0.00			\$2,124.00	\$2,124.00
12.2	Right-of-Way Map & Impact Maps	\$5,150.52				\$5,150.52
12.3	Right-of-Way Descriptions & Exhibit Maps	\$0.00		\$9,036.00		\$9,036.00
12.4	ROW Staking	\$0.00		\$5,428.00		\$5,428.00
12.5	Preliminary Activities	\$0.00			\$1,824.00	\$1,824.00
12.6	Appraisal & Appraisal Review	\$1,365.72			\$1,326.00	\$2,691.72
12.7	ROW Acquisition	\$5,462.88			\$23,796.00	\$29,258.88
	Total Hours	68.00		125.00	373.00	566.00
	Labor Cost	\$11,979.12	\$0.00	\$0.00	\$14,464.00	\$29,070.00
	Total Cost This Task	\$11,979.12	\$0.00	\$0.00	\$14,464.00	\$29,070.00
Task 13	Bid and Award Assistance					
13.1	Bidding Support	\$9,875.53				\$9,875.53
	Total Hours	65.00				65.00
	Labor Cost	\$9,875.53	\$0.00	\$0.00	\$0.00	\$9,875.53
	Total Cost This Task	\$9,875.53	\$0.00	\$0.00	\$0.00	\$9,875.53
PROJECT SUMMARY						
	Total Project Hours	2,995.5	28.0	163.0	425.0	383.0
	Total Salary Cost	\$435,338.44	\$10,850.00	\$25,545.00	\$48,448.00	\$30,090.00
	Reimbursables Subtotal	\$3,982.90	\$520.20	\$12,530.18	\$600.00	\$32,092.40
	Total Fee	\$439,321.34	\$11,370.20	\$38,075.18	\$49,048.00	\$62,182.40
PROJECT TOTAL						\$599,997.12
	Kittelson Subtotal		Stantec Subtotal	S&W Subtotal	S&F Subtotal	UFS Subtotal
Contingency Tasks						
Task 3.3	Shoulder Material Investigation	\$0.00		\$15,650.00		\$15,650.00
Task 11.4	Roundabout Design					\$0.00
b	Typical Sections	\$1,754.24				\$1,754.24
d-	Grading & Erosion Control Plan	-\$10,273.40				-\$10,273.40
d+	Roundabout Grading	\$25,401.76				\$25,401.76
f-	Roadway Plan & Profile	-\$36,665.21				-\$36,665.21
f+	Roundabout Plan & Profile	\$63,897.98				\$63,897.98
h-	Landscape Design (signal)	-\$3,898.62				-\$3,898.62
h+	Landscape Design (roundabout)	\$13,560.80				\$13,560.80
11.1.3	Signal Plans	-\$12,862.16				-\$12,862.16
Task 12.	Appraisal Review	\$0.00			\$510.00	\$510.00
	Total Hours	280.00				280.00
	Labor Cost	\$40,915.39	\$0.00	\$15,650.00	\$0.00	\$510.00
	Total Cost This Task	\$40,915.39	\$0.00	\$15,650.00	\$0.00	\$510.00
	Reimbursables Subtotal		\$0.00	\$177.75	\$0.00	\$6,250.00
	Total Fee	\$40,915.39	\$0.00	\$15,827.75	\$0.00	\$6,760.00
						\$63,503.14