



INFORMATIONAL MEMORANDUM

TO: **Transportation and Infrastructure Committee**
FROM: **Bob Giberson, Public Works Director** *BG*
BY: **Robin Tischmak, City Engineer**
CC: **Mayor Ekberg**
DATE: **September 8, 2017**
SUBJECT: **Strander Boulevard Extension Phase 3**
Project No. 98610403
Consultant Selection, Contract, Scope of Work, and Fee

ISSUE

Execute a consultant contract with Berger ABAM to provide design services for the Strander Boulevard Extension Phase 3 Project.

BACKGROUND

The City of Renton completed Phase 1 of the Strander Blvd/SW 27th St (Oakdale Ave to Naches Ave) in 2008 and Phase 2 in 2014 (from Naches to the new Sounder Commuter Rail Station parking lot, between BNSF and UPRR). Phase 3 is being led by the City of Tukwila. Tukwila received Federal grant funding for the preliminary engineering and right-of-way phases and is proceeding with the design process as part of the preliminary engineering phase.

ANALYSIS

A Request for Qualifications (RFQ) was advertised on June 28 and July 5, 2017 inviting interested consulting firms to submit proposals for preliminary engineering design of Strander Boulevard Phase 3. Two engineering firms submitted proposals and both met the criteria required for consideration. Both firms were interviewed and scored by a selection panel that was unanimous in selecting Berger ABAM as the successful candidate (scoring matrix attached). A contract, scope of work, and fee estimate have been negotiated and are attached for consideration.

FISCAL IMPACT

The negotiated contract amount for Berger ABAM's scope and fee outlined in Exhibit A is \$4,147,328.00 to provide final design services. The budget for Strander Boulevard Phase 3 is currently \$4,500,000.00.

RECOMMENDATION

Council is being asked to approve the agreement with Berger ABAM for design services for the Strander Boulevard Extension Phase 3 Project in the amount of \$4,147,328.00 and consider this item on the Consent Agenda at the September 18, 2017 Regular Meeting.

Attachments: Page 13, 2017-2022 CIP
Interview Scoring Summary
Consultant Contract, Scope of Work and Fee

CITY OF TUKWILA CAPITAL PROJECT SUMMARY

2017 to 2022

PROJECT: Strander Blvd Extension Phase 3

Project No. 98610403

DESCRIPTION: Design and construct arterial improvements for a new roadway extending Strander Blvd/SW 27th St from West Valley Highway to Oaksdale Ave in the City of Renton.

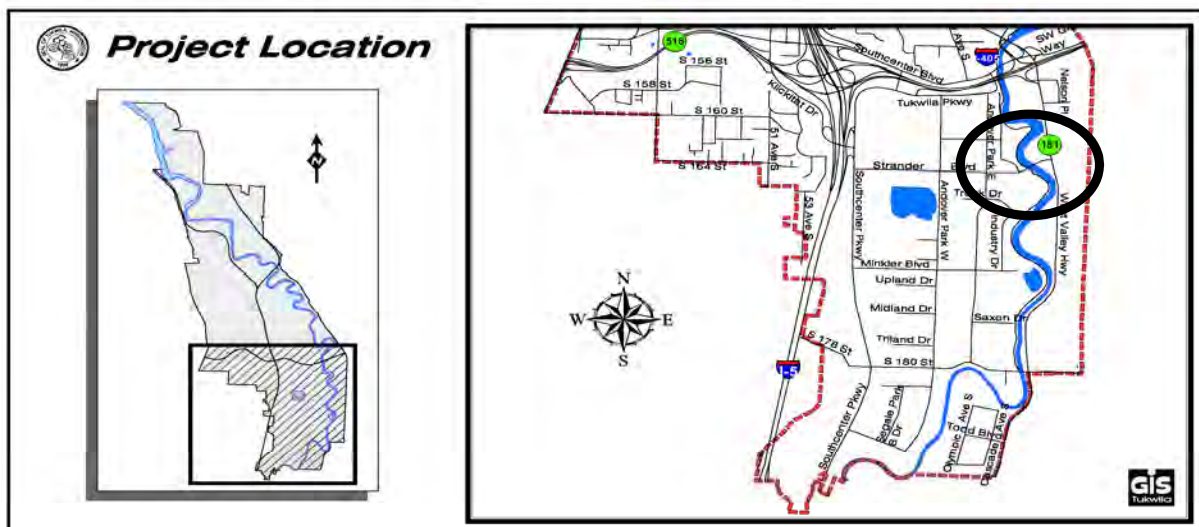
JUSTIFICATION: East/west capacity between I-405 and S 180 St is needed to serve Tukwila and Renton access.

STATUS: Project segregated into three phases. Phase I extended Stander Blvd/SW 27th St from Oaksdale Ave to Naches Ave SW. Phase II constructed a 2 lane road from Naches to the Sounder Train's Tukwila Longacres Station's parking lot. Paid Renton \$1m for Phase I & II. Phase III will construct the undercrossing of the UPRR and complete the 4 lane roadway from West Valley Hwy in Tukwila to Naches Ave SW in Renton.

MAINT. IMPACT: New street.

COMMENT: Project partners include the City of Renton, Boeing, WSDOT, FMSIB, Sound Transit, Metro, Amtrak, and BNSF and UP Railroads. Funds in 2015-16 are for updated cost estimates and grant applications. STP (PSRC), FAST Lane, and TIGER grants were submitted in 2016.

FINANCIAL (in \$000's)	Through		Estimated							
	2015	2016	2017	2018	2019	2020	2021	2022	BEYOND	TOTAL
EXPENSES										
Design	58	440	2,500	2,000						4,998
Land (R/W)	104		450	1,000						1,554
Wetland Mitigation			50		500					550
Const. Mgmt.					2,800	2,000				4,800
Construction					15,000	12,200				27,200
TOTAL EXPENSES	162	440	3,000	3,000	18,300	14,200	0	0	0	39,102
FUND SOURCES										
Awarded STP Grant			2,551	2,595						5,146
Proposed TIGER Grant					7,900	5,894				13,794
Proposed State TIB Grant					2,500	2,500				5,000
Proposed FMSIB Grant					2,500	2,500				5,000
Proposed STP Grant					5,000	3,000				8,000
City Oper. Revenue	162	440	449	405	400	306	0	0	0	2,162
TOTAL SOURCES	162	440	3,000	3,000	18,300	14,200	0	0	0	33,956



Strander Blvd Ext Ph 3 - Interview Scoring Summary Sheet

Firm	Cumulative Score	Avg Score	Rank
Berger ABAM	289	96.3	1
KPFF	258	86	2
Individual Scores will not be released			

Notes: Top two scoring candidates were chosen from this interview. Berger ABAM was the top scoring candidate and city will begin contract negotiations with this firm.

Local Agency A&E Professional Services Cost Plus Fixed Fee Consultant Agreement

Agreement Number:

Firm/Organization Legal Name (do not use dba's): BergerABAM Inc.		
Address 33301 Ninth Ave S Ste 300, Federal Way, WA 98003	Federal Aid Number STPUL-1276(007)	
UBI Number 601110595	Federal TIN or SSN Number 91-1422812	
Execution Date	Completion Date 12/31/2020	
1099 Form Required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Federal Participation <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Project Title Strander Boulevard/Southwest 27 Street Extension		
Description of Work Provide preliminary engineering design and right-of-way services to construct a grade separated crossing under a freight rail line and an extension of Strander Blvd. from SR 181 to SW 27th Street. For additional description of the scope of work, see Exhibit A.		
<input checked="" type="checkbox"/> Yes 9% <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No DBE Participation <input checked="" type="checkbox"/> No MBE Participation <input checked="" type="checkbox"/> No WBE Participation <input checked="" type="checkbox"/> No SBE Participation	Total Amount Authorized: \$4,047,328.00 Management Reserve Fund: \$100,000.00 Maximum Amount Payable: \$4,147,328.00

Index of Exhibits

- Exhibit A Scope of Work
- Exhibit B DBE Participation
- Exhibit C Preparation and Delivery of Electronic Engineering and Other Data
- Exhibit D Prime Consultant Cost Computations
- Exhibit E Sub-consultant Cost Computations
- Exhibit F Title VI Assurances
- Exhibit G Certification Documents
- Exhibit H Liability Insurance Increase
- Exhibit I Alleged Consultant Design Error Procedures
- Exhibit J Consultant Claim Procedures

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THIS AGREEMENT, made and entered into as shown in the "Execution Date" box on page one (1) of this AGREEMENT, between the City of Tukwila hereinafter called the "AGENCY," and the "Firm / Organization Name" referenced on page one (1) of this AGREEMENT, hereinafter called the "CONSULTANT."

WHEREAS, the AGENCY desires to accomplish the work referenced in "Description of Work" on page one (1) of this AGREEMENT and hereafter called the "SERVICES;" and does not have sufficient staff to meet the required commitment and therefore deems it advisable and desirable to engage the assistance of a CONSULTANT to provide the necessary SERVICES; and

WHEREAS, the CONSULTANT represents that they comply with the Washington State Statutes relating to professional registration, if applicable, and has signified a willingness to furnish consulting services to the AGENCY.

NOW, THEREFORE, in consideration of the terms, conditions, covenants, and performance contained herein, or attached and incorporated and made a part hereof, the parties hereto agree as follows:

I. General Description of Work

The work under this AGREEMENT shall consist of the above-described SERVICES as herein defined, and necessary to accomplish the completed work for this project. The CONSULTANT shall furnish all services, labor, and related equipment and, if applicable, sub-consultants and subcontractors necessary to conduct and complete the SERVICES as designated elsewhere in this AGREEMENT.

II. General Scope of Work

The Scope of Work and projected level of effort required for these SERVICES is described in Exhibit "A" attached hereto and by this reference made a part of this AGREEMENT. The General Scope of Work was developed utilizing performance based contracting methodologies.

III. General Requirements

All aspects of coordination of the work of this AGREEMENT with outside agencies, groups, or individuals shall receive advance approval by the AGENCY. Necessary contacts and meetings with agencies, groups, and/or individuals shall be coordinated through the AGENCY. The CONSULTANT shall attend coordination, progress, and presentation meetings with the AGENCY and/or such State, Federal, Community, City, or County officials, groups or individuals as may be requested by the AGENCY. The AGENCY will provide the CONSULTANT sufficient notice prior to meetings requiring CONSULTANT participation. The minimum required hours or days' notice shall be agreed to between the AGENCY and the CONSULTANT and shown in Exhibit "A."

The CONSULTANT shall prepare a monthly progress report, in a form approved by the AGENCY, which will outline in written and graphical form the various phases and the order of performance of the SERVICES in sufficient detail so that the progress of the SERVICES can easily be evaluated.

The CONSULTANT, any sub-consultants, and the AGENCY shall comply with all Federal, State, and local laws, rules, codes, regulations, and all AGENCY policies and directives, applicable to the work to be performed under this AGREEMENT. This AGREEMENT shall be interpreted and construed in accordance with the laws of the State of Washington.

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Participation for Disadvantaged Business Enterprises (DBE) or Small Business Enterprises (SBE), if required, per 49 CFR Part 26, shall be shown on the heading of this AGREEMENT. If DBE firms are utilized at the commencement of this AGREEMENT, the amounts authorized to each firm and their certification number will be shown on Exhibit "B" attached hereto and by this reference made part of this AGREEMENT. If the Prime CONSULTANT is a DBE certified firm they must comply with the Commercial Useful Function (CUF) regulation outlined in the AGENCY's "DBE Program Participation Plan" and perform a minimum of 30% of the total amount of this AGREEMENT. It is recommended, but not required, that non-DBE Prime CONSULTANTS perform a minimum of 30% of the total amount of this AGREEMENT.

The CONSULTANT, on a monthly basis, is required to submit DBE Participation of the amounts paid to all DBE firms invoiced for this AGREEMENT.

All Reports, PS&E materials, and other data furnished to the CONSULTANT by the AGENCY shall be returned. All electronic files, prepared by the CONSULTANT, must meet the requirements as outlined in Exhibit "C – Preparation and Delivery of Electronic Engineering and other Data."

All designs, drawings, specifications, documents, and other work products, including all electronic files, prepared by the CONSULTANT prior to completion or termination of this AGREEMENT are instruments of service for these SERVICES, and are the property of the AGENCY. Reuse by the AGENCY or by others, acting through or on behalf of the AGENCY of any such instruments of service, not occurring as a part of this SERVICE, shall be without liability or legal exposure to the CONSULTANT.

Any and all notices or requests required under this AGREEMENT shall be made in writing and sent to the other party by (i) certified mail, return receipt requested, or (ii) by email or facsimile, to the address set forth below:

If to AGENCY:

Name: Steve Carstens
Agency: City of Tukwila
Address: 6300 Southcenter Blvd., Suite 100
City: Tukwila State: WA Zip: 98188
Email: steve.carstens@tukwilawa.gov
Phone: 206-431-2446 x. 1646
Facsimile:

If to CONSULTANT:

Name: Robert L. Fernandes
Agency: BergerABAM Inc.
Address: 33301 Ninth Avenue S., Suite 300
City: Federal Way State: WA Zip: 98003
Email: bob.fernandes@abam.com
Phone: 206-431-2333
Facsimile: 206-431-2250

IV. Time for Beginning and Completion

The CONSULTANT shall not begin any work under the terms of this AGREEMENT until authorized in writing by the AGENCY. All work under this AGREEMENT shall be completed by the date shown in the heading of this AGREEMENT titled "Completion Date."

The established completion time shall not be extended because of any delays attributable to the CONSULTANT, but may be extended by the AGENCY in the event of a delay attributable to the AGENCY, or because of unavoidable delays caused by an act of GOD, governmental actions, or other conditions beyond the control of the CONSULTANT. A prior supplemental AGREEMENT issued by the AGENCY is required to extend the established completion time.

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V. Payment Provisions

The CONSULTANT shall be paid by the AGENCY for completed SERVICES rendered under this AGREEMENT as provided hereinafter. Such payment shall be full compensation for SERVICES performed or SERVICES rendered and for all labor, materials, supplies, equipment, and incidentals necessary to complete SERVICES, specified in Section II, "Scope of Work". The CONSULTANT shall conform to all applicable portions of 48 CFR Part 31 (www.ecfr.gov). The estimate in support of the Cost Plus Fixed Fee amount is attached hereto as Exhibits "D" and "E" and by this reference made part of this AGREEMENT.

- A. Actual Costs: Payment for all consulting services for this PROJECT shall be on the basis of the CONSULTANT'S actual cost plus a fixed fee. The actual cost shall include direct salary cost, indirect cost rate, and direct non-salary costs.
1. Direct (RAW) Labor Costs: The Direct (RAW) Labor Cost is the direct salary paid to principals, professional, technical, and clerical personnel for the time they are productively engaged in work necessary to fulfill the terms of this AGREEMENT. The CONSULTANT shall maintain support data to verify the direct salary costs billed to the AGENCY.
 2. Indirect Cost Rate (ICR) Costs: ICR Costs are those costs, other than direct costs, which are included as such on the books of the CONSULTANT in the normal everyday keeping of its books. Progress payments shall be made at the ICR rates shown in attached Exhibits "D" and "E" of this AGREEMENT. Total ICR payment shall be based on Actual Costs. The AGENCY agrees to reimburse the CONSULTANT the actual ICR costs verified by audit, up to the Maximum Total Amount Payable, authorized under this AGREEMENT, when accumulated with all other Actual Costs.

A summary of the CONSULTANT'S cost estimate and the ICR percentage is shown in Exhibits "D" and "E", attached hereto and by this reference made part of this AGREEMENT. The CONSULTANT (prime and all sub-consultants) will submit to the AGENCY within six (6) months after the end of each firm's fiscal year, an ICR schedule in the format required by the AGENCY (cost category, dollar expenditures, etc.) for the purpose of adjusting the ICR rate for billings received and paid during the fiscal year represented by the ICR schedule. It shall also be used for the computation of progress payments during the following year and for retroactively adjusting the previous year's ICR cost to reflect the actual rate. The ICR schedule will be sent to Email: ConsultantRates@wsdot.wa.gov.

Failure to supply this information by either the prime CONSULTANT or any of their sub-consultants shall cause the AGENCY to withhold payment of the billed ICR costs until such time as the required information is received and an overhead rate for billing purposes is approved.

The AGENCY's Project Manager and/or the Federal Government may perform an audit of the CONSULTANT'S books and records at any time during regular business hours to determine the actual ICR rate, if they so desire.

3. Direct Non-Salary Costs: Direct Non-Salary Costs will be reimbursed at the Actual Cost to the CONSULTANT. These charges may include, but are not limited to, the following items: travel, printing, long distance telephone, supplies, computer charges and fees of sub-consultants. Air or train travel will be reimbursed only to economy class levels unless otherwise approved by the AGENCY. The CONSULTANT shall comply with the rules and regulations regarding travel costs (excluding air, train, and rental car costs) in accordance with WSDOT's Accounting Manual M 13-82, Chapter 10 – Travel Rules and Procedures, and revisions thereto. Air, train, and rental car costs shall be reimbursed in accordance with 48 Code of Federal Regulations (CFR) Part 31.205-46 "Travel Costs." The billing for Direct Non-Salary Costs shall include an itemized listing of the charges directly identifiable with the PROJECT. The CONSULTANT shall maintain the original supporting documents in their office. Copies of the original supporting documents shall be supplied to the AGENCY upon request. All above charges must be necessary for the services provided under this AGREEMENT.

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4. **Fixed Fee:** The Fixed Fee, which represents the CONSULTANT'S profit, is shown in attached Exhibits "D" and "E" of this AGREEMENT. This fee is based on the Scope of Work defined in this AGREEMENT and the estimated person-hours required to perform the stated Scope of Work. In the event the CONSULTANT enters into a supplemental AGREEMENT for additional work, the supplemental AGREEMENT may include provisions for the added costs and an appropriate additional fee. The Fixed Fee will be prorated and paid monthly in proportion to the percentage of work completed by the CONSULTANT and reported in the Monthly Progress Reports accompanying the billings. Any portion of the Fixed Fee earned but not previously paid in the progress payments will be covered in the final payment, subject to the provisions of Section IX entitled "Termination of Agreement."
 5. **Management Reserve Fund (MRF):** The AGENCY may desire to establish MRF to provide the Agreement Administrator with the flexibility to authorize additional funds to the AGREEMENT for allowable unforeseen costs, or reimbursing the CONSULTANT for additional work beyond that already defined in this AGREEMENT. Such authorization(s) shall be in writing and shall not exceed the lesser of \$100,000 or 10% of the Total Amount Authorized as shown in the heading of this AGREEMENT. The amount included for the MRF is shown in the heading of this AGREEMENT. This fund may not be replenished. Any changes requiring additional costs in excess of the MRF shall be made in accordance with Section XIII, "Extra Work."
 6. **Maximum Total Amount Payable:** The Maximum Total Amount Payable by the AGENCY to the CONSULTANT under this AGREEMENT shall not exceed the amount shown in the heading of this AGREEMENT. The Maximum Total Amount Payable is comprised of the Total Amount Authorized, and the MRF. The Maximum Total Amount Payable does not include payment for Extra Work as stipulated in Section XIII, "Extra Work." No minimum amount payable is guaranteed under this AGREEMENT.
- B. **Monthly Progress Payments:** The CONSULTANT may submit billings to the AGENCY for reimbursement of Actual Costs plus the ICR and calculated fee on a monthly basis during the progress of the work. Such billings shall be in a format approved by the AGENCY and accompanied by the monthly progress reports required under Section III, "General Requirements" of this AGREEMENT. The billings will be supported by an itemized listing for each item including Direct (RAW) Labor, Direct Non-Salary, and allowable ICR Costs to which will be added the prorated Fixed Fee. To provide a means of verifying the billed Direct (RAW) Labor costs for CONSULTANT employees, the AGENCY may conduct employee interviews. These interviews may consist of recording the names, titles, Direct (RAW) Labor rates, and present duties of those employees performing work on the PROJECT at the time of the interview.
- C. **Final Payment:** Final Payment of any balance due the CONSULTANT of the gross amount earned will be made promptly upon its verification by the AGENCY after the completion of the work under this AGREEMENT, contingent, if applicable, upon receipt of all PS&E, plans, maps, notes, reports, electronic data and other related documents which are required to be furnished under this AGREEMENT. Acceptance of such Final Payment by the CONSULTANT shall constitute a release of all claims for payment, which the CONSULTANT may have against the AGENCY unless such claims are specifically reserved in writing and transmitted to the AGENCY by the CONSULTANT prior to its acceptance. Said Final Payment shall not, however, be a bar to any claims that the AGENCY may have against the CONSULTANT or to any remedies the AGENCY may pursue with respect to such claims.

The payment of any billing will not constitute agreement as to the appropriateness of any item and at the time of final audit; all required adjustments will be made and reflected in a final payment. In the event that such final audit reveals an overpayment to the CONSULTANT, the CONSULTANT will refund such overpayment to the AGENCY within thirty (30) calendar days of notice of the overpayment. Such refund shall not constitute a waiver by the CONSULTANT for any claims relating to the validity of a finding by the AGENCY of overpayment. The CONSULTANT has twenty (20) working days after receipt of the final POST AUDIT to begin the appeal process to the AGENCY for audit findings.

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D. Inspection of Cost Records: The CONSULTANT and their sub-consultants shall keep available for inspection by representatives of the AGENCY and the United States, for a period of six (6) years after receipt of final payment, the cost records and accounts pertaining to this AGREEMENT and all items related to or bearing upon these records with the following exception: if any litigation, claim or audit arising out of, in connection with, or related to this AGREEMENT is initiated before the expiration of the six (6) year period, the cost records and accounts shall be retained until such litigation, claim, or audit involving the records is completed.

An interim or post audit may be performed on this AGREEMENT. The audit, if any, will be performed by the State Auditor, WSDOT's Internal Audit Office and/or at the request of the AGENCY's Project Manager.

VI. Sub-Contracting

The AGENCY permits subcontracts for those items of SERVICES as shown in Exhibit "A" attached hereto and by this reference made part of this AGREEMENT.

The CONSULTANT shall not subcontract for the performance of any SERVICE under this AGREEMENT without prior written permission of the AGENCY. No permission for subcontracting shall create, between the AGENCY and sub-consultant, any contract or any other relationship.

Compensation for this sub-consultant SERVICES shall be based on the cost factors shown on Exhibit "E" attached hereto and by this reference made part of this AGREEMENT.

The SERVICES of the sub-consultant shall not exceed its maximum amount payable identified in each sub-consultant cost estimate unless a prior written approval has been issued by the AGENCY.

All reimbursable direct labor, indirect cost rate, direct non-salary costs and fixed fee costs for the sub-consultant shall be negotiated and substantiated in accordance with section V "Payment Provisions" herein and shall be memorialized in a final written acknowledgement between the parties.

All subcontracts shall contain all applicable provisions of this AGREEMENT, and the CONSULTANT shall require each sub-consultant or subcontractor, of any tier, to abide by the terms and conditions of this AGREEMENT. With respect to sub-consultant payment, the CONSULTANT shall comply with all applicable sections of the STATE's Prompt Payment laws as set forth in RCW 39.04.250 and RCW 39.76.011.

The CONSULTANT, sub-recipient, or sub-consultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this AGREEMENT. The CONSULTANT shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the CONSULTANT to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the recipient deems appropriate.

VII. Employment and Organizational Conflict of Interest

The CONSULTANT warrants that they have not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warrant, the AGENCY shall have the right to annul this AGREEMENT without liability or, in its discretion, to deduct from this AGREEMENT price or consideration or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

Any and all employees of the CONSULTANT or other persons while engaged in the performance of any work or services required of the CONSULTANT under this AGREEMENT, shall be considered employees of the CONSULTANT only and not of the AGENCY, and any and all claims that may arise under any Workmen's

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Compensation Act on behalf of said employees or other persons while so engaged, and any and all claims made by a third party as a consequence of any act or omission on the part of the CONSULTANT's employees or other persons while so engaged on any of the work or services provided to be rendered herein, shall be the sole obligation and responsibility of the CONSULTANT.

The CONSULTANT shall not engage, on a full- or part-time basis, or other basis, during the period of this AGREEMENT, any professional or technical personnel who are, or have been, at any time during the period of this AGREEMENT, in the employ of the United States Department of Transportation or the AGENCY, except regularly retired employees, without written consent of the public employer of such person if he/she will be working on this AGREEMENT for the CONSULTANT.

VIII. Nondiscrimination

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees, sub-consultants, subcontractors and successors in interest, agrees to comply with the following laws and regulations:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. Chapter 21 Subchapter V § 2000d through 2000d-4a)
- Federal-aid Highway Act of 1973 (23 U.S.C. Chapter 3 § 324)
- Rehabilitation Act of 1973 (29 U.S.C. Chapter 16 Subchapter V § 794)
- Age Discrimination Act of 1975 (42 U.S.C. Chapter 76 § 6101 *et. seq.*)
- Civil Rights Restoration Act of 1987 (Public Law 100-259)
- American with Disabilities Act of 1990 (42 U.S.C. Chapter 126 § 12101 *et. seq.*)
- 23 CFR Part 200
- 49 CFR Part 21
- 49 CFR Part 26
- RCW 49.60.180

In relation to Title VI of the Civil Rights Act of 1964, the CONSULTANT is bound by the provisions of Exhibit "F" attached hereto and by this reference made part of this AGREEMENT, and shall include the attached Exhibit "F" in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

IX. Termination of Agreement

The right is reserved by the AGENCY to terminate this AGREEMENT at any time with or without cause upon ten (10) days written notice to the CONSULTANT.

In the event this AGREEMENT is terminated by the AGENCY, other than for default on the part of the CONSULTANT, a final payment shall be made to the CONSULTANT for actual hours charged and any appropriate fixed fee percentage at the time of termination of this AGREEMENT, plus any direct non-salary costs incurred up to the time of termination of this AGREEMENT.

No payment shall be made for any SERVICES completed after ten (10) days following receipt by the CONSULTANT of the notice to terminate. If the accumulated payment made to the CONSULTANT prior to Notice of Termination exceeds the total amount that would be due when computed as set forth in paragraph two (2) of this section, then no final payment shall be due and the CONSULTANT shall immediately reimburse the AGENCY for any excess paid.

If the services of the CONSULTANT are terminated by the AGENCY for default on the part of the CONSULTANT, the above formula for payment shall not apply.

In the event of a termination for default, the amount to be paid to the CONSULTANT shall be determined by the AGENCY with consideration given to the actual costs incurred by the CONSULTANT in performing SERVICES to the date of termination, the amount of SERVICES originally required which was satisfactorily completed to

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date of termination, whether that SERVICE is in a form or a type which is usable to the AGENCY at the time of termination, the cost to the AGENCY of employing another firm to complete the SERVICES required and the time which may be required to do so, and other factors which affect the value to the AGENCY of the SERVICES performed at the time of termination. Under no circumstances shall payment made under this subsection exceed the amount, which would have been made using the formula set forth in paragraph two (2) of this section.

If it is determined for any reason that the CONSULTANT was not in default or that the CONSULTANT's failure to perform is without the CONSULTANT's or its employee's fault or negligence, the termination shall be deemed to be a termination for the convenience of the AGENCY. In such an event, the CONSULTANT would be reimbursed for actual costs and appropriate fixed fee percentage in accordance with the termination for other than default clauses listed previously.

The CONSULTANT shall, within 15 days, notify the AGENCY in writing, in the event of the death of any member, partner, or officer of the CONSULTANT or the death or change of any of the CONSULTANT's supervisory and/or other key personnel assigned to the project or disaffiliation of any principally involved CONSULTANT employee. The CONSULTANT shall also notify the AGENCY, in writing, in the event of the sale or transfer of 50% or more of the beneficial ownership of the CONSULTANT within 15 days of such sale or transfer occurring. The CONSULTANT shall continue to be obligated to complete the SERVICES under the terms of this AGREEMENT unless the AGENCY chooses to terminate this AGREEMENT for convenience or chooses to renegotiate any term(s) of this AGREEMENT. If termination for convenience occurs, final payment will be made to the CONSULTANT as set forth in the second and third paragraphs of this section.

Payment for any part of the SERVICES by the AGENCY shall not constitute a waiver by the AGENCY of any remedies of any type it may have against the CONSULTANT for any breach of this AGREEMENT by the CONSULTANT, or for failure of the CONSULTANT to perform SERVICES required of it by the AGENCY. Forbearance of any rights under the AGREEMENT will not constitute waiver of entitlement to exercise those rights with respect to any future act or omission by the CONSULTANT.

X. Changes of Work

The CONSULTANT shall make such changes and revisions in the completed work of this AGREEMENT as necessary to correct errors appearing therein, without additional compensation thereof. Should the AGENCY find it desirable for its own purposes to have previously satisfactorily completed SERVICES or parts thereof changed or revised, the CONSULTANT shall make such revisions as directed by the AGENCY. This work shall be considered as Extra Work and will be paid for as herein provided under section XIII "Extra Work."

XI. Disputes

Any disputed issue not resolved pursuant to the terms of this AGREEMENT shall be submitted in writing within 10 days to the Director of Public Works or AGENCY Engineer, whose decision in the matter shall be final and binding on the parties of this AGREEMENT; provided however, that if an action is brought challenging the Director of Public Works or AGENCY Engineer's decision, that decision shall be subject to judicial review. If the parties to this AGREEMENT mutually agree, disputes concerning alleged design errors will be conducted under the procedures found in Exhibit "J". In the event that either party deem it necessary to institute legal action or proceeding to enforce any right or obligation under this AGREEMENT, this action shall be initiated in the Superior Court of the State of Washington, situated in the county in which the AGENCY is located. The parties hereto agree that all questions shall be resolved by application of Washington law and that the parties have the right of appeal from such decisions of the Superior Court in accordance with the laws of the State of Washington. The CONSULTANT hereby consents to the personal jurisdiction of the Superior Court of the State of Washington, situated in the county in which the AGENCY is located.

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XII. Legal Relations

The CONSULTANT, any sub-consultants, and the AGENCY shall comply with all Federal, State, and local laws, rules, codes, regulations and all AGENCY policies and directives, applicable to the work to be performed under this AGREEMENT. This AGREEMENT shall be interpreted and construed in accordance with the laws of the State of Washington.

The CONSULTANT shall defend, indemnify, and hold The State of Washington (STATE) and the AGENCY and their officers and employees harmless from all claims, demands, or suits at law or equity arising in whole or in part from the negligence of, or the breach of any obligation under this AGREEMENT by, the CONSULTANT or the CONSULTANT's agents, employees, sub consultants, subcontractors or vendors, of any tier, or any other persons for whom the CONSULTANT may be legally liable; provided that nothing herein shall require a CONSULTANT to defend or indemnify the STATE and the AGENCY and their officers and employees against and hold harmless the STATE and the AGENCY and their officers and employees from claims, demands or suits based solely upon the negligence of, or breach of any obligation under this AGREEMENT by the STATE and the AGENCY, their agents, officers, employees, sub-consultants, subcontractors or vendors, of any tier, or any other persons for whom the STATE and/or the AGENCY may be legally liable; and provided further that if the claims or suits are caused by or result from the concurrent negligence of (a) the CONSULTANT or the CONSULTANT's agents, employees, sub-consultants, subcontractors or vendors, of any tier, or any other persons for whom the CONSULTANT is legally liable, and (b) the STATE and/or AGENCY, their agents, officers, employees, sub-consultants, subcontractors and or vendors, of any tier, or any other persons for whom the STATE and or AGENCY may be legally liable, the defense and indemnity obligation shall be valid and enforceable only to the extent of the CONSULTANT's negligence or the negligence of the CONSULTANT's agents, employees, sub-consultants, subcontractors or vendors, of any tier, or any other persons for whom the CONSULTANT may be legally liable. This provision shall be included in any AGREEMENT between CONSULTANT and any sub-consultant, subcontractor and vendor, of any tier.

The CONSULTANT shall also defend, indemnify, and hold the STATE and the AGENCY and their officers and employees harmless from all claims, demands, or suits at law or equity arising in whole or in part from the alleged patent or copyright infringement or other allegedly improper appropriation or use of trade secrets, patents, proprietary information, know-how, copyright rights or inventions by the CONSULTANT or the CONSULTANT's agents, employees, sub-consultants, subcontractors or vendors, of any tier, or any other persons for whom the CONSULTANT may be legally liable, in performance of the Work under this AGREEMENT or arising out of any use in connection with the AGREEMENT of methods, processes, designs, information or other items furnished or communicated to STATE and/or the AGENCY, their agents, officers and employees pursuant to the AGREEMENT; provided that this indemnity shall not apply to any alleged patent or copyright infringement or other allegedly improper appropriation or use of trade secrets, patents, proprietary information, know-how, copyright rights or inventions resulting from STATE and/or AGENCY's, their agents', officers' and employees' failure to comply with specific written instructions regarding use provided to STATE and/or AGENCY, their agents, officers and employees by the CONSULTANT, its agents, employees, sub-consultants, subcontractors or vendors, of any tier, or any other persons for whom the CONSULTANT may be legally liable.

The CONSULTANT's relation to the AGENCY shall be at all times as an independent contractor.

Notwithstanding any determination by the Executive Ethics Board or other tribunal, the AGENCY may, in its sole discretion, by written notice to the CONSULTANT terminate this AGREEMENT if it is found after due notice and examination by the AGENCY that there is a violation of the Ethics in Public Service Act, Chapter 42.52 RCW; or any similar statute involving the CONSULTANT in the procurement of, or performance under, this AGREEMENT.

The CONSULTANT specifically assumes potential liability for actions brought by the CONSULTANT's own employees or its agents against the STATE and /or the AGENCY and, solely for the purpose of this indemnification and defense, the CONSULTANT specifically waives any immunity under the state industrial insurance law, Title 51 RCW. This waiver has been mutually negotiated between the Parties.

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Unless otherwise specified in this AGREEMENT, the AGENCY shall be responsible for administration of construction contracts, if any, on the project. Subject to the processing of a new sole source, or an acceptable supplemental AGREEMENT, the CONSULTANT shall provide On-Call assistance to the AGENCY during contract administration. By providing such assistance, the CONSULTANT shall assume no responsibility for: proper construction techniques, job site safety, or any construction contractor's failure to perform its work in accordance with the contract documents.

The CONSULTANT shall obtain and keep in force during the terms of this AGREEMENT, or as otherwise required, the following insurance with companies or through sources approved by the State Insurance Commissioner pursuant to Title 48 RCW.

Insurance Coverage

- A. Worker's compensation and employer's liability insurance as required by the STATE.
- B. Commercial general liability insurance written under ISO Form CG 00 01 12 04 or its equivalent with minimum limits of one million dollars (\$1,000,000.00) per occurrence and two million dollars (\$2,000,000.00) in the aggregate for each policy period.
- C. Business auto liability insurance written under ISO Form CG 00 01 10 01 or equivalent providing coverage for any "Auto" (Symbol 1) used in an amount not less than a one million dollar (\$1,000,000.00) combined single limit for each occurrence.

Excepting the Worker's Compensation Insurance and any Professional Liability Insurance, the STATE and AGENCY, their officers, employees, and agents will be named on all policies of CONSULTANT and any sub-consultant and/or subcontractor as an additional insured (the "AIs"), with no restrictions or limitations concerning products and completed operations coverage. This coverage shall be primary coverage and non-contributory and any coverage maintained by the AIs shall be excess over, and shall not contribute with, the additional insured coverage required hereunder. The CONSULTANT's and the sub-consultant's and/or subcontractor's insurer shall waive any and all rights of subrogation against the AIs. The CONSULTANT shall furnish the AGENCY with verification of insurance and endorsements required by this AGREEMENT. The AGENCY reserves the right to require complete, certified copies of all required insurance policies at any time.

All insurance shall be obtained from an insurance company authorized to do business in the State of Washington. The CONSULTANT shall submit a verification of insurance as outlined above within fourteen (14) days of the execution of this AGREEMENT to:

Name: Steve Carstens
Agency: City of Tukwila
Address: 6300 Southcentler Blvd., Suite 100
City: Tukwila State: WA Zip: 98188
Email: steve.carstens@tukwilawa.gov
Phone: 205-431-2446 x. 1646
Facsimile:

No cancellation of the foregoing policies shall be effective without thirty (30) days prior notice to the AGENCY.

The CONSULTANT's professional liability to the AGENCY, including that which may arise in reference to section IX "Termination of Agreement" of this AGREEMENT, shall be limited to the accumulative amount of the authorized AGREEMENT amount or one million dollars (\$1,000,000.00), whichever is greater, unless the limit of liability is increased by the AGENCY pursuant to Exhibit H. In no case shall the CONSULTANT's professional liability to third parties be limited in any way.

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The parties enter into this AGREEMENT for the sole benefit of the parties, and to the exclusion of any third party, and no third party beneficiary is intended or created by the execution of this AGREEMENT.

The AGENCY will pay no progress payments under section V "Payment Provisions" until the CONSULTANT has fully complied with this section. This remedy is not exclusive; and the AGENCY may take such other action as is available to it under other provisions of this AGREEMENT, or otherwise in law.

XIII. Extra Work

- A. The AGENCY may at any time, by written order, make changes within the general scope of this AGREEMENT in the SERVICES to be performed.
- B. If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the SERVICES under this AGREEMENT, whether or not changed by the order, or otherwise affects any other terms and conditions of this AGREEMENT, the AGENCY shall make an equitable adjustment in the: (1) maximum amount payable; (2) delivery or completion schedule, or both; and (3) other affected terms and shall modify this AGREEMENT accordingly.
- C. The CONSULTANT must submit any "request for equitable adjustment," hereafter referred to as "CLAIM," under this clause within thirty (30) days from the date of receipt of the written order. However, if the AGENCY decides that the facts justify it, the AGENCY may receive and act upon a CLAIM submitted before final payment of this AGREEMENT.
- D. Failure to agree to any adjustment shall be a dispute under the section XI "Disputes" clause. However, nothing in this clause shall excuse the CONSULTANT from proceeding with the AGREEMENT as changed.
- E. Notwithstanding the terms and conditions of paragraphs (A.) and (B.) above, the maximum amount payable for this AGREEMENT, shall not be increased or considered to be increased except by specific written supplement to this AGREEMENT.

XIV. Endorsement of Plans

If applicable, the CONSULTANT shall place their endorsement on all plans, estimates, or any other engineering data furnished by them.

XV. Federal Review

The Federal Highway Administration shall have the right to participate in the review or examination of the SERVICES in progress.

XVI. Certification of the Consultant and the Agency

Attached hereto as Exhibit "G-1(a and b)" are the Certifications of the CONSULTANT and the AGENCY, Exhibit "G-2" Certification Regarding Debarment, Suspension and Other Responsibility Matters - Primary Covered Transactions, Exhibit "G-3" Certification Regarding the Restrictions of the Use of Federal Funds for Lobbying and Exhibit "G-4" Certificate of Current Cost or Pricing Data. Exhibit "G-3" is required only in AGREEMENT's over one hundred thousand dollars (\$100,000.00) and Exhibit "G-4" is required only in AGREEMENT's over five hundred thousand dollars (\$500,000.00.) These Exhibits must be executed by the CONSULTANT, and submitted with the master AGREEMENT, and returned to the AGENCY at the address listed in section III "General Requirements" prior to its performance of any SERVICES under this AGREEMENT.

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XVII. Complete Agreement

This document and referenced attachments contain all covenants, stipulations, and provisions agreed upon by the parties. No agent, or representative of either party has authority to make, and the parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein. No changes, amendments, or modifications of the terms hereof shall be valid unless reduced to writing and signed by the parties as a supplement to this AGREEMENT.

XVIII. Execution and Acceptance

This AGREEMENT may be simultaneously executed in several counterparts, each of which shall be deemed to be an original having identical legal effect. The CONSULTANT does hereby ratify and adopt all statements, representations, warranties, covenants, and AGREEMENT's contained in the proposal, and the supporting material submitted by the CONSULTANT, and does hereby accept this AGREEMENT and agrees to all of the terms and conditions thereof.

XIX. Protection of Confidential Information

The CONSULTANT acknowledges that some of the material and information that may come into its possession or knowledge in connection with this AGREEMENT or its performance may consist of information that is exempt from disclosure to the public or other unauthorized persons under either chapter 42.56 RCW or other local, state or federal statutes ("State's Confidential Information"). The "State's Confidential Information" includes, but is not limited to, names, addresses, Social Security numbers, e-mail addresses, telephone numbers, financial profiles, credit card information, driver's license numbers, medical data, law enforcement records (or any other information identifiable to an individual), STATE and AGENCY source code or object code, STATE and AGENCY security data, non-public Specifications, STATE and AGENCY non-publicly available data, proprietary software, State security data, or information which may jeopardize any part of the project that relates to any of these types of information. The CONSULTANT agrees to hold the State's Confidential Information in strictest confidence and not to make use of the State's Confidential Information for any purpose other than the performance of this AGREEMENT, to release it only to authorized employees, sub-consultants or subcontractors requiring such information for the purposes of carrying out this AGREEMENT, and not to release, divulge, publish, transfer, sell, disclose, or otherwise make it known to any other party without the AGENCY's express written consent or as provided by law. The CONSULTANT agrees to release such information or material only to employees, sub-consultants or subcontractors who have signed a nondisclosure AGREEMENT, the terms of which have been previously approved by the AGENCY. The CONSULTANT agrees to implement physical, electronic, and managerial safeguards to prevent unauthorized access to the State's Confidential Information.

Immediately upon expiration or termination of this AGREEMENT, the CONSULTANT shall, at the AGENCY's option: (i) certify to the AGENCY that the CONSULTANT has destroyed all of the State's Confidential Information; or (ii) returned all of the State's Confidential Information to the AGENCY; or (iii) take whatever other steps the AGENCY requires of the CONSULTANT to protect the State's Confidential Information.

As required under Executive Order 00-03, the CONSULTANT shall maintain a log documenting the following: the State's Confidential Information received in the performance of this AGREEMENT; the purpose(s) for which the State's Confidential Information was received; who received, maintained and used the State's Confidential Information; and the final disposition of the State's Confidential Information. The CONSULTANT's records shall be subject to inspection, review, or audit upon reasonable notice from the AGENCY.

The AGENCY reserves the right to monitor, audit, or investigate the use of the State's Confidential Information collected, used, or acquired by the CONSULTANT through this AGREEMENT. The monitoring, auditing, or investigating may include, but is not limited to, salting databases.

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Violation of this section by the CONSULTANT or its sub-consultants or subcontractors may result in termination of this AGREEMENT and demand for return of all State's Confidential Information, monetary damages, or penalties.

It is understood and acknowledged that the CONSULTANT may provide the AGENCY with information which is proprietary and/or confidential during the term of this AGREEMENT. The parties agree to maintain the confidentiality of such information during the term of this AGREEMENT and afterwards. All materials containing such proprietary and/or confidential information shall be clearly identified and marked as "Confidential" and shall be returned to the disclosing party at the conclusion of the SERVICES under this AGREEMENT.

The CONSULTANT shall provide the AGENCY with a list of all information and materials it considers confidential and/or proprietary in nature: (a) at the commencement of the term of this AGREEMENT; or (b) as soon as such confidential or proprietary material is developed. "Proprietary and/or confidential information" is not meant to include any information which, at the time of its disclosure: (i) is already known to the other party; (ii) is rightfully disclosed to one of the parties by a third party that is not acting as an agent or representative for the other party; (iii) is independently developed by or for the other party; (iv) is publicly known; or (v) is generally utilized by unaffiliated third parties engaged in the same business or businesses as the CONSULTANT.

The parties also acknowledge that the AGENCY is subject to Washington State and federal public disclosure laws. As such, the AGENCY shall maintain the confidentiality of all such information marked proprietary and/or confidential or otherwise exempt, unless such disclosure is required under applicable state or federal law. If a public disclosure request is made to view materials identified as "Proprietary and/or confidential information" or otherwise exempt information, the AGENCY will notify the CONSULTANT of the request and of the date that such records will be released to the requester unless the CONSULTANT obtains a court order from a court of competent jurisdiction enjoining that disclosure. If the CONSULTANT fails to obtain the court order enjoining disclosure, the AGENCY will release the requested information on the date specified.

The CONSULTANT agrees to notify the sub-consultant of any AGENCY communication regarding disclosure that may include a sub-consultant's proprietary and/or confidential information. The CONSULTANT notification to the sub-consultant will include the date that such records will be released by the AGENCY to the requester and state that unless the sub-consultant obtains a court order from a court of competent jurisdiction enjoining that disclosure the AGENCY will release the requested information. If the CONSULTANT and/or sub-consultant fail to obtain a court order or other judicial relief enjoining the AGENCY by the release date, the CONSULTANT shall waive and release and shall hold harmless and indemnify the AGENCY from all claims of actual or alleged damages, liabilities, or costs associated with the AGENCY's said disclosure of sub-consultants' information.

XX. Records Maintenance

During the progress of the Work and SERVICES provided hereunder and for a period of not less than six (6) years from the date of final payment to the CONSULTANT, the CONSULTANT shall keep, retain and maintain all "documents" pertaining to the SERVICES provided pursuant to this AGREEMENT. Copies of all "documents" pertaining to the SERVICES provided hereunder shall be made available for review at the CONSULTANT's place of business during normal working hours. If any litigation, claim or audit is commenced, the CONSULTANT shall cooperate with AGENCY and assist in the production of all such documents. "Documents" shall be retained until all litigation, claims or audit findings have been resolved even though such litigation, claim or audit continues past the six (6) year retention period.

For purposes of this AGREEMENT, "documents" means every writing or record of every type and description, including electronically stored information ("ESI"), that is in the possession, control, or custody of the CONSULTANT, including, without limitation, any and all correspondences, contracts, AGREEMENT 's, appraisals, plans, designs, data, surveys, maps, spreadsheets, memoranda, stenographic or handwritten notes, reports, records, telegrams, schedules, diaries, notebooks, logbooks, invoices, accounting records, work sheets, charts, notes, drafts, scribbings, recordings, visual displays, photographs, minutes of meetings,

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tabulations, computations, summaries, inventories, and writings regarding conferences, conversations or telephone conversations, and any and all other taped, recorded, written, printed or typed matters of any kind or description; every copy of the foregoing whether or not the original is in the possession, custody, or control of the CONSULTANT, and every copy of any of the foregoing, whether or not such copy is a copy identical to an original, or whether or not such copy contains any commentary or notation whatsoever that does not appear on the original.

For purposes of this AGREEMENT, "ESI" means any and all computer data or electronic recorded media of any kind, including "Native Files", that are stored in any medium from which it can be retrieved and examined, either directly or after translation into a reasonably useable form. ESI may include information and/or documentation stored in various software programs such as: Email, Outlook, Word, Excel, Access, Publisher, PowerPoint, Adobe Acrobat, SQL databases, or any other software or electronic communication programs or databases that the CONSULTANT may use in the performance of its operations. ESI may be located on network servers, backup tapes, smart phones, thumb drives, CDs, DVDs, floppy disks, work computers, cell phones, laptops or any other electronic device that CONSULTANT uses in the performance of its Work or SERVICES hereunder, including any personal devices used by the CONSULTANT or any sub-consultant at home.

"Native files" are a subset of ESI and refer to the electronic format of the application in which such ESI is normally created, viewed, and /or modified.

The CONSULTANT shall include this section XX "Records Maintenance" in every subcontract it enters into in relation to this AGREEMENT and bind the sub-consultant to its terms, unless expressly agreed to otherwise in writing by the AGENCY prior to the execution of such subcontract.

In witness whereof, the parties hereto have executed this AGREEMENT as of the day and year shown in the "Execution Date" box on page one (1) of this AGREEMENT.

Signature

Date

Signature

Date

Any modification, change, or reformation of this AGREEMENT shall require approval as to form by the Office of the Attorney General.

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Exhibit A
Scope of Work

Project No.

See attached Exhibit A-1.

Agreement Number:

**EXHIBIT A-1 – SCOPE OF WORK FOR PRELIMINARY DESIGN, ENVIRONMENTAL DOCUMENTATION, AND RIGHT-OF-WAY PLANNING
CITY OF TUKWILA STRANDER BOULEVARD/SOUTHWEST 27TH STREET EXTENSION**

PROJECT BACKGROUND

The cities of Renton and Tukwila have been working in partnership to complete a connection of Strander Boulevard in the City of Tukwila with Southwest 27th Street in the City of Renton. As lead agency for the first two phases of the project, the City of Renton completed an undercrossing of the BNSF Railway in 2014, connecting Southwest 27th Street with the Tukwila Sound Transit Station. The City of Tukwila will complete Phase 3 of the project as shown in Figure 1.

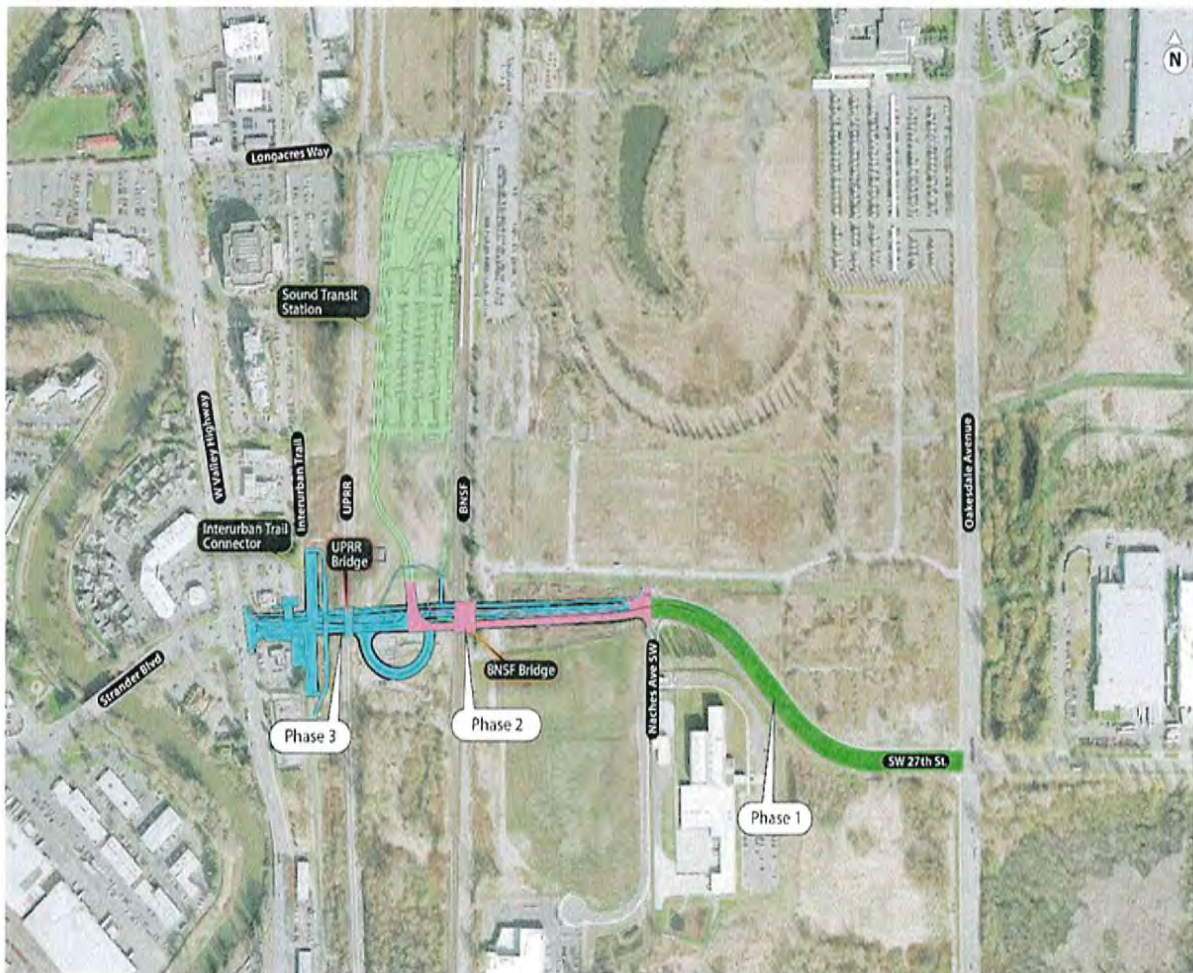


Figure 1 – Project Phasing

In order to reduce the cost of the first two phases of the project, the BNSF undercrossing was completed by installing a pump station to pump both stormwater and groundwater entering the roadway excavation from the surrounding area. This was envisioned as an interim condition until construction of a full, four-lane arterial connection of Strander to Southwest 27th. The full build-out was anticipated to require the construction of watertight walls and a bottom seal for the underpasses.

PROJECT IMPLEMENTATION

This scope of work defines the effort required to complete the design of Phase 3, as described above. It also defines the effort required to reevaluate and update the project's National Environmental Protection Agency (NEPA) document, acquire right-of-way (ROW), and secure approvals from both BNSF and Union Pacific Railroad (UPRR) for temporary and permanent modifications to their facilities. Construction phase services are not included in this scope of work, but will be provided as supplemental services when required.

PROPOSED BASIS OF DESIGN

Phase 3 of the Strander Grade Separation Project will place Strander Boulevard beneath the UPRR tracks by extending the excavation for the BNSF underpass to the west and under the UPRR. The undercrossing will utilize the pumping system constructed in Phase 2 of the project to pump stormwater for the proposed Phase 3 extension to the existing pond. The existing pump station will need to be modified and the pond will need to be enlarged and modified to function in accordance with the latest water quality standards. Groundwater will be separated from the stormwater and an additional, new groundwater pumping system will be used to pump groundwater to an outfall in the Green River. The discharge location has yet to be determined. The roadway section will be established in consultation with the City of Tukwila (hereinafter referred to as CITY) and is anticipated to be similar to the roadway section established by the CITY during the planning of the project. Other features of the project include modifications to access several businesses located to the west of UPRR, and utility relocations, permanent or interim, and/or protection.

SCHEDULE

The target dates for completing all work are shown on the attached schedule. These target dates assume that the notice to proceed (NTP) for Phase 3 is provided on 26 September 2017.

SUBCONSULTANTS

The following subconsultants will participate in the delivery of this scope of work as follows.

- Fehr & Peers - Traffic Engineering
- Hanson Professional Services - Railroad Track Design
- Shannon & Wilson - Geotechnical Engineering
- 1 Alliance - Surveying
- Abeyta & Associates – Right-of-Way Services
- Bright Engineering – Structural Engineering
- R & W – Pump Station Electrical Engineering and Control Systems

- Widener & Associates - Environmental Documentation and Permitting

PROJECT ASSUMPTIONS

The following list is included to confirm the understanding between the CITY and BergerABAM (hereinafter referred to as CONSULTANT) and will be used to guide the work. Additional assumptions are provided with each specific project task.

1. Throughout this scope of work, it is understood that the CITY will provide the CONSULTANT with one set of consolidated review comments for each draft review round. The CONSULTANT will respond to the comments and incorporate the agreed-upon resolution into the final document(s).
2. It is anticipated that the roadway typical section will be a four-lane arterial and that the key design features will be based on the design report prepared by CONSULTANT for the City of Renton during the planning of the project and the *Stormwater System Conceptual Design Report* prepared by BergerABAM for the City of Tukwila, dated 7 April 2017.
3. The underpass will be watertight and it is assumed that the small amount of groundwater from the underpass can be combined with treated stormwater and discharged to the Green River through a new outfall.
4. UPRR may require a separate utility agreement for the new discharge line described above. The costs for obtaining this are not included in the scope of work.
5. It is assumed the City of Renton and the Washington State Department of Transportation (WSDOT) will allow the CITY to use the Springbrook Creek wetland mitigation bank constructed by the City of Renton and WSDOT.
6. Stormwater treatment will comply with the King County Surface Water Design Manual (KCSWDM), recently updated to be consistent with the 2014 Washington State Department of Ecology's (WDOE) Stormwater Management Manual for Western Washington.
7. The CITY will need to establish a preliminary engineering agreement with the Union Pacific Railroad (UPRR) and BNSF Railway (BNSF) to reimburse UPRR and BNSF for their review time.
8. It is assumed that CONSULTANT will design the new UPRR overpass, as well as the proposed shoofly. It is assumed that UPRR will provide comments to the CONSULTANT in a timely manner to facilitate the CONSULTANT's design of project.
9. It is assume the extension of the BNSF bridge foundations, to allow the existing bridge to be widened in the future, will be the same as the existing foundations. Widening of the superstructure is not in the scope of work.

10. Utility relocation and reconstruction plans for power, gas, and communication purveyors will be prepared by the respective utility. The CONSULTANT will coordinate directly with the utility companies and the CITY.
11. It is assumed that design for relocation of the King County sanitary sewer will be completed by King County and the plans incorporated into the construction contract for the Strander Boulevard/Southwest 27th Street Extension. The CONSULTANT will coordinate directly with King County and will provide assistance with routing the sewer through the project site.
12. It is assumed that enough monumentation still exists to determine the necessary boundaries for this project's efforts. If additional work, such as exhaustive title research and complete section breakdown work is required, a portion of that work may be needed to be completed as a supplemental service.
13. Public utility locating services provided by callbeforeyoudig.org will be utilized to do an initial location of utilities in the public ROW. A private utility locating company is included in this proposal, to provide complete information to verify the location of publicly and privately owned buried utilities (sanitary, storm, water, power, gas, telecommunications, etc.) with painted locate marks.
14. Additional support for vacations of existing ROW or boundary line adjustments (BLA) of resulting parcels is not included in this proposal as it cannot be determined until the design is finalized. If these services are required, those services will be provided as supplemental service.
15. The CITY will provide rights-of-entry onto private lands prior to field survey crew visitation, environmental explorations, and geotechnical investigations. The CONSULTANT will provide a list of private property access that will be required. The CITY will be responsible for making all initial contact and subsequent legal arrangements, if required, for rights-of-entry to private property. The CONSULTANT will subsequently be responsible for notifying both the CITY and the property owner regarding the timing of the work.
16. Coordinate mapping values will be based upon a "project datum" being a ground realization of state plane grid coordinates.
17. Preparing and recording a Record of Survey (ROS) is not included in this proposal. If additional work is required, this work will be provided as supplemental service.

SCOPE OF WORK AND LEVEL OF EFFORT

To facilitate management of the project in an efficient manner, Phase 3 work will be broken into the tasks listed below.

- Task 1.0 Project Management
- Task 2.0 Directed Services
- Task 3.0 Independent Constructability Review
- Task 4.0 Survey and Base Mapping
- Task 5.0 Utilities
- Task 6.0 Traffic Engineering, Illumination, and Signal Design
- Task 7.0 Right-of-Way
- Task 8.0 Environmental Documentation and Permitting
- Task 9.0 Railroad Engineering and Design
- Task 10.0 Structural Engineering
- Task 11.0 Geotechnical Engineering
- Task 12.0 Drainage Design
- Task 13.0 Pump Station Design
- Task 14.0 Roadway Design

The level of effort associated with providing these services is shown in Exhibits D and E. The estimated level of effort is based upon the assumptions and task descriptions provided below. Efforts to complete these tasks can vary from the effort assumed for the preparation of the level of effort shown in Exhibits D and E. Some budget items may cost more and others may cost less. The CONSULTANT shall monitor total costs expended under this agreement and shall notify the CITY if funds need to be reallocated between tasks.

TASK 1.0 PROJECT MANAGEMENT

Subtask 1.1 Project Coordination

BergerABAM (hereinafter referred to as CONSULTANT) shall provide project management and communications between the CONSULTANT team and the City of Tukwila (hereinafter referred to as CITY). The CONSULTANT shall perform project administration and management tasks as follows.

- Prepare and submit monthly invoices, including a tabulation of hours expended, broken down by each major task.
- Prepare monthly progress reports summarizing the status of the budget, identifying trends, and taking corrective actions if necessary.
- Prepare and update project schedule periodically as circumstances require or as requested by the CITY. The project schedule shall be developed using Microsoft Project.
- Prepare subconsultant agreements and perform ongoing subconsultant coordination.
- Maintain all contract-required documentation.
- It is anticipated that the Phase 3 effort will last approximately two years (24 months).

Subtask 1.2 Quality Assurance

The CONSULTANT shall provide quality assurance/quality control (QA/QC) for all design work in accordance with the CONSULTANT's QA/QC standards.

Subtask 1.3 Meetings

Project Team Meetings

The CONSULTANT shall facilitate biweekly internal project team coordination meetings during Phase 3. A total of 52 team meetings are anticipated over a period of two years. Meetings shall be approximately 1 hour in duration and shall be attended by an average of five CONSULTANT team members, including three of the CONSULTANT's project management and/or project engineering staff and two other CONSULTANT discipline specialists.

Progress Meetings with CITY Staff

The CONSULTANT shall facilitate monthly progress/project meetings with CITY staff. A total of 24 CITY meetings are anticipated over a period of two years. Meetings shall be approximately 4 hours in duration, including preparation and travel time and shall be attended by an average of four CONSULTANT team members, including two of the CONSULTANT's project management and/or project engineering staff and two other CONSULTANT discipline specialists.

Deliverable(s)

- Monthly progress report and invoice (one copy)

- Updated project schedules if required (one copy)
- Updated contract forms and certifications
- Meeting notes for all meetings
- QA/QC documentation for all design work will be made available to the CITY upon request

TASK 2.0 DIRECTED SERVICES

This task is intended to cover project activities that are likely to be required, but for which the scope and level of effort cannot accurately be defined. These activities are currently not included in the scope of services but will be provided as a supplemental service if required.

Subtask 2.1 Public Involvement

If requested by the CITY, the CONSULTANT shall conduct two public open houses during the design of the project. The purpose of these open houses would be to provide the general public information about the status of the project. This information is expected to include the purpose and need for the project, provide responses to frequently asked questions, and provide information about the funding status and schedule for the project. It is anticipated that the CITY will receive input on the project at these meeting and that the input will generally be supportive of the project. Up to two CONSULTANT technical staff will attend to answer questions about the project. It is anticipated that one open house will be held early in the design and the second would be held when it becomes clear that the project is in a position to move into construction. Written responses to comments received are not anticipated, but can be provided as a supplementary service. Additional stakeholder involvement in the planning of the project is included in other project tasks where necessary.

Deliverable(s)

- Up to five exhibits
- One hundred notices for mailing
- Written summary of comments received

Subtask 2.2 Value Engineering

If requested by the CITY, the CONSULTANT shall participate in a value engineering (VE) review of the project. The CITY may elect to contract directly with a VE workshop facilitator or may request the CONSULTANT provide this service. Other services to be provided by the CONSULTANT include the preparation of the presentation to the VE workshop participants, a written response to VE team recommendations, and modifications to the project's design required to implement VE team suggestions that are acceptable to the CITY. It is assumed that the VE workshop would be conducted at the 30 percent design level so that any recommendations to be incorporated in the project can be implemented early in the design, when the effort to incorporate them is minimal and can be accomplished as part the submittal review process.

Deliverable(s)

- An initial presentation of the project to the VE team
- Review and response to the VE team recommendations
- VE recommendations accepted by the CITY will be incorporated in future design submittals

Subtask 2.3 Ad, Bid, and Award Services

The CONSULTANT shall provide additional bid period engineering services for the Strander Boulevard/Southwest 27th Street Extension - Phase 3 project. The CONSULTANT shall answer

questions from bidders that are forwarded through the CITY. The answers shall be returned to the CITY for distribution by the CITY to respective parties.

Subconsultant Coordination

The CONSULTANT will coordinate with internal resources, including the project geotechnical and environmental engineers, as required, to assist in answering bidder questions. This may involve coordinating resources to draft revised special provisions and/or plan sheets.

Plan Modifications, Addendums, and Clarifications

The CONSULTANT will furnish technical input to the CITY in response to bidder requests for clarification of bid documents. If warranted, the CONSULTANT will provide technical assistance necessary for preparing addendums that may include revised plan sheets and/or revised special provisions. Assume up to 25 unique requests averaging 2 hours of response time for each request. Assume up to three addenda and up to 16 hours of preparation for each addendum.

Deliverable(s)

- Email responses to CITY for bidder questions
- One electronic copy of new special provisions or revised special provisions for each addendum in Microsoft Word format
- One electronic copy of revised bid quantities for each addendum
- One half sized (11x17) print of revised plan sheets for each addendum

TASK 3.0 INDEPENDENT CONSTRUCTABILITY REVIEW

Ott-Sakai (hereinafter referred to as SUBCONSULTANT), under a separate subconsultant agreement with CONSULTANT, shall facilitate an independent constructability review of the project. This effort shall be completed at the 30 percent design level so that any recommendations to be incorporated in the project can be implemented early in the design, when the effort to incorporate them is minimal and can be accomplished as part the submittal review process. It is assumed that this review will require a minimum of three constructability workshops/meetings. SUBCONSULTANT will also provide an independent construction cost estimate at the 30 and 60 percent design levels.

The proposed constructability review is anticipated to focus primarily on the development of alternative methods of constructing the bottom seal. The alternative methods are not well-defined, but are anticipated to include use of tremie methods, in combination with some dewatering. The goal is to minimize the amount of dewatering. The CONSULTANT will develop preliminary design concepts and submit/present to SUBCONSULTANT for review and comment. A memorandum will be written to summarize the alternative bottom seal work access needs, including temporary walls to facilitate construction. SUBCONSULTANT will use plan sheets provided by CONSULTANT and superimpose the equipment locations, crane size, and pick radius needed for the work. The work will also include formulating a conceptual level cost estimate and a review of the construction schedule provided by the CONSULTANT.

Deliverable(s)

- An initial presentation of the project to SUBCONSULTANT
- SUBCONSULTANT will prepare a draft and final memorandum of the work described above
- Up to two other meetings, with meeting minutes, to discuss and resolve issues identified by the review
- An independent review of the construction cost at the 30 and 60 percent design submittals

TASK 4.0 SURVEY AND BASE MAPPING

One Alliance (hereinafter referred to as SUBCONSULTANT), under a subconsultant agreement with the CONSULTANT, will provide existing site condition data in addition to the preparation of existing condition documents for this project's design. This will include existing conditions topographical survey and ROW, and parcel boundary document research, field work and base mapping preparation, including any traffic control and or safety compliance requirements. Surveying services shall be performed under the direction of a professional land surveying licensed to practice in the state of Washington.

Subtask 4.1 Record Research and Survey Control

The SUBCONSULTANT shall provide geodetic survey control to support the project. Surveying services shall be performed under the direction of a professional land surveyor licensed to practice in the state of Washington. The survey control network will be based on CITY and other jurisdictions' published control, as well as survey control established in previous phases of this project.

Horizontal and vertical datums will conform to the datums established by Phase 1 of the Strander Boulevard Extension Project.

Horizontal Datum - NAD83/91 Washington State Planes, North Zone, US Survey Feet

Vertical Datum - North American Vertical Datum of 1988 (NAVD 88), US Survey Feet

Survey control will be set out of the expected project extents to ensure a good basis for this project's future construction.

Cadastral monumentation local to the site, as available, will be tied into this survey, to aid in resolution of the ROW in the project area.

Subtask 4.2 Topographic Survey

The mapping provided, as shown in Figure 2, will be in support of the design of improvements to design the roadway extension of Southwest 27th Avenue to Strander Boulevard, and the associated sidewalks, utilities, and underpass beneath the existing railroad tracks.

The topographic mapping will cover approximately 39 acres and will include the following.

- Locate overhead utilities, including "sag" locations/elevations of all overhead lines crossing the proposed Strander extension. All utility poles, including transmission poles north and south of the proposed Strander extension, will also be located.
- Topo for United Pacific Railroad (UPRR) embankment and tracks, with elevations of top of both rails, for 1,000 feet north of, and 1,000 feet south of, the crossing of Strander. Track survey shall be at 50-foot intervals in curves and 100-foot intervals in tangent track.

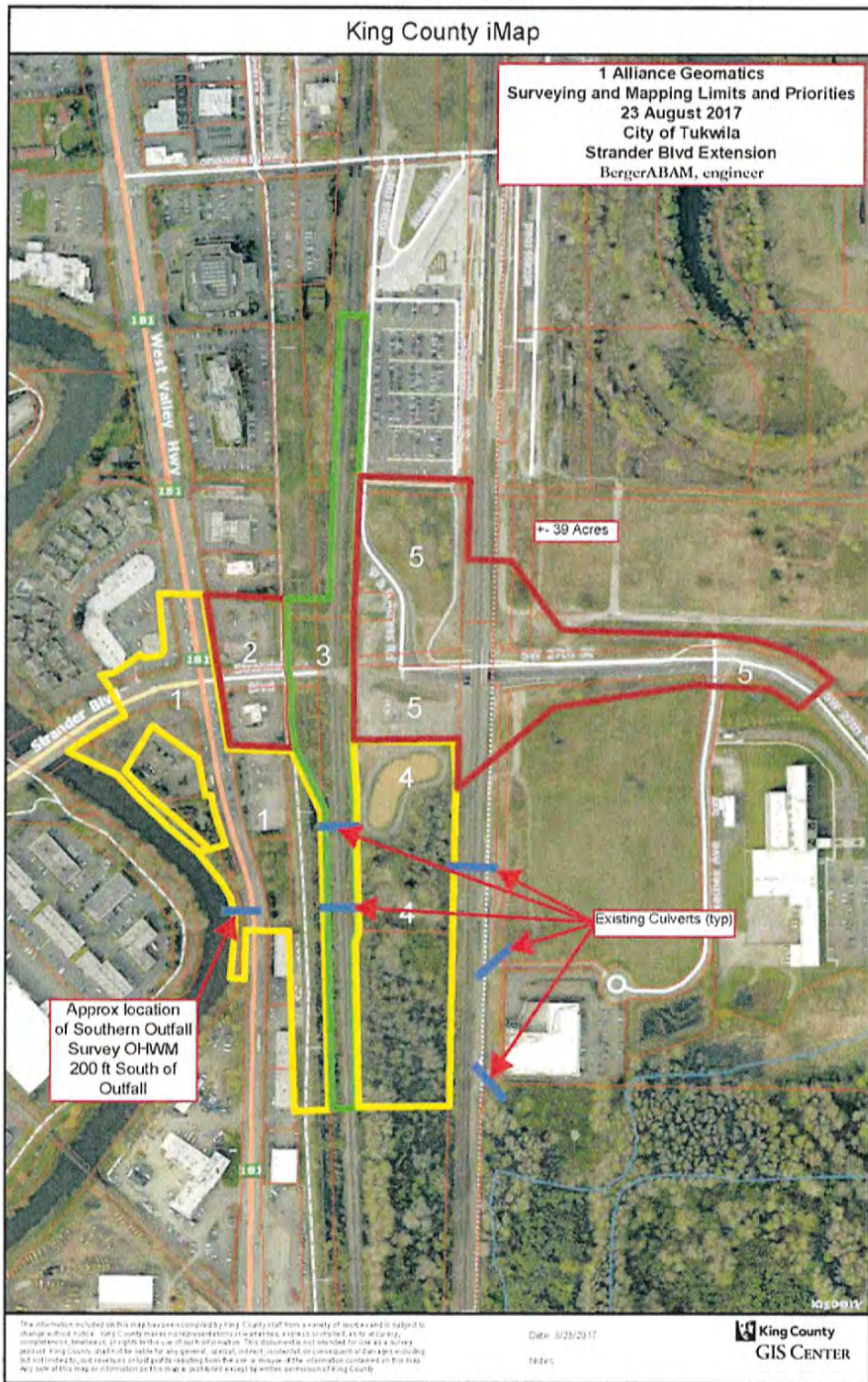


Figure 2.

- Topo BNSF Railway(BNSF) undercrossing, (abutments, low chord, top of track, and roadway features below), as well as embankment and top of both rails for 100 feet north and 100 feet south of undercrossing.
- Buildings and structure envelopes and fence envelopes for areas secured by fencing.
- Striping and channelization for existing roadways. West Valley Highway and businesses with limits shown in Figure 2.
- Concrete, asphalt, gravel, curbs, paths.
- Drainage courses, swales.
- Inlet and outlet of found culverts, including those shown in Figure 2.
- Visible utilities and painted underground utility locations marked by a utility location company.
- Up to 40 potholes (20 by APS and 20 by Olympic Pipeline).
- Ground elevations and all breaklines sufficient to create 1-foot contours,
- Trees 6 inches DBH and larger.
- Pipe invert elevations and descriptions of storm/sanitary sewer structures.
- Locate Ordinary High Water Mark along the Green River from Strander Boulevard to 200 feet south of the southern outfall.
- SUBCONSULTANT will apply for a UPRR "PERMIT TO BE ON RAILROAD PROPERTY FOR NONINTRUSIVE CIVIL ENGINEERING SURVEY." CITY will assist, if necessary, in obtaining this permit.
- SUBCONSULTANT will obtain UPRR and BNSF badges, as well as obtain adequate railroad insurance prior to entering railroad property.

Subtask 4.3 Utility Locate Services

The SUBCONSULTANT will provide underground utility location information on existing site condition documents. A private utility locating company will be utilized to initiate utility marking with 811 Utility Locate Services and to mark utilities not covered by the 811 service.

All utility marks will be located as part of the topographic survey.

Subtask 4.4 Right-of-Way and Parcel Resolution

SUBCONSULTANT will resolve existing ROW and adjacent parcel boundaries and existing easements on the adjacent parcels within the project area. It is estimated that 22 title reports will

be needed to determine the CITY's ROW boundaries, as well as determine potential ROW acquisition areas, easements, and permits.

ROW and boundary resolution that was performed for previous phases of the project will be utilized and expanded upon to generate a ROW base map for the project.

Subtask 4.5 Easements and Exhibits

SUBCONSULTANT will prepare and deliver legal descriptions and exhibits for up to 22 parcels (ownerships) for ROW takes and easements. Up to 40 easements (temporary or permanent) and exhibits will be prepared with up to three revisions per parcel.

Subtask 4.6 Wetlands and Pond

SUBCONSULTANT will map the detention pond and adjoining wetlands as shown as area 4 in Figure 2. Mapping will include two days of a three-person crew (or three days of a two-person crew), for locating wetland flags as set by others.

Assumption(s)

- SUBCONSULTANT shall obtain title reports with underlying documents for up to 22 parcels.
- SUBCONSULTANT shall obtain right-of-entry (ROE) for UPRR and BNSF properties.
- SUBCONSULTANT will coordinate access and entry onto railroad properties.
- SUBCONSULTANT cannot warranty that adequate access to any properties will be granted and will notify the CITY if problems with access are experienced.
- ROE to 22 adjacent properties will be required and obtained by the CITY. SUBCONSULTANT will coordinate and schedule work with the client and CITY to ensure proper notification of property owners.
- Traffic control, if required, to be provided by SUBCONSULTANT.
- Tree tags and driplines are not a part of the scope of services.
- Wetland and OHWM flags to be set by others. Sketched maps of the wetland and OHWM flag locations will be provided to SUBCONSULTANT prior to the wetland mapping. The estimate for wetland flag locating is for three 8-hour days for normal two-person crew.
- Estimate for potholes is an estimate only and may change based on actual costs, including potholing OPL pipelines. SUBCONSULTANT has no control over this work or the price for this work and does not warranty either the price or the quality of the work itself.
- Estimate for underground utility locates is subject to change. SUBCONSULTANT has no control over this work or the price for this work and does not warranty either the price of the quality of the work itself.

- Price for title reports is an estimate only. SUBCONSUTLANT has no control over this price. It may be higher.

Deliverable(s)

- Topographic survey and ROW base map (electronic copy), 1-foot contour intervals
- AutoCAD surfaces (DTM Files) (electronic copy)
- Copy of field survey books (electronic copy)
- ASCII file of control points
- Construction control plans

TASK 5.0 UTILITIES

The CONSULTANT shall coordinate with the utility companies during the conceptual design process in order to determine the necessary impacts to their systems, staging alternatives, upgrades to utilities, and to assess any utility relocation costs.

Subtask 5.1 Existing Utility Data

The CONSULTANT shall contact all utilities within the corridor to obtain and review available as-builts and construction record drawings for the existing utilities. A private utility locate service will determine the location of all the underground utilities. This work is included in Task 4 - Surveying and Base Mapping. As-built information and other information obtained from the utility companies will be incorporated into the project base map. The CONSULTANT shall provide the CITY with an APWA color-coded Existing Utility Map Exhibit. Utilities known to exist in the project area, and anticipated to be affected by construction of the project include the following.

- Olympic Pipe petroleum gas lines (12-inch and 14-inch)
- PSE overhead power (transmission and distribution)
- PSE substation
- Fiber optic (AT&T, Level 3, and Sprint located in UPRR ROW)
- King County sanitary sewer
- Sixty-inch Seattle Public Utilities (SPU) waterline to the north, perpendicular to UPRR. Affected by shoofly
- Utilities in vicinity of West Valley, including PSE gas communications, and water, sewer, and power services, all of which may or may not be affected
- City of Renton lighting system installed August 2017 (located along north side of sidewalk from BNSF to intersection of Naches Avenue)

The CONSULTANT shall identify options for maintaining sewer service during the project and for relocating or replacing the permanent utilities. The following research work will need to be completed for this task.

- Collect and review available paper and electronic as-builts and construction record drawings for the existing utilities and associated equipment, including valves, structures, and other features.
- Collect and review available sanitary system masterplan, hydraulic model, and any reports from King County, with an emphasis on the design criteria used for the existing sanitary force main line.

Deliverable(s)

- Draft existing utility map exhibit (color 34x22 roll plot)

Subtask 5.2 Preliminary Coordination with Utilities

The CONSULTANT will facilitate the coordination efforts with both the public and private utilities within the corridor. The CONSULTANT will coordinate directly with the utility companies.

The CONSULTANT shall attend a utility kick-off coordination meeting with each of the utility companies, which will be held at the CITY. The CONSULTANT will endeavor to reduce the number of meetings by meeting with more than one at a time. The purpose of the kick-off meeting is to inform them of the project, discuss impacts to the utilities based on the preliminary conceptual construction staging, discuss utility upgrades, determine existing utility easements, and to get initial feedback on the utilities' concerns and their anticipated level of effort for the project.

Based on utility company feedback from the utility coordination meeting, the CONSULTANT shall develop utility construction staging and relocation concepts. The concepts will be incorporated into the draft utility relocation/protection conceptual design for CITY and utility review. All comments will be consolidated into a single set of comments by the CONSULTANT.

As part of the effort described above, the CONSULTANT will facilitate one additional coordination meeting with each of the utility companies, which will be held at the CITY. The purpose of this coordination meeting is to present the proposed utility relocation plan and to get final feedback on the utilities' concerns and their anticipated level of effort for the project.

Because it may not be possible to have all the utilities present at one time, an allowance has been made for at least one separate meeting with each utility.

It is assumed the respective utility owners will provide timely concurrence on relocation plans for all utilities and will provide design of the relocation to the CITY and CONSULTANT in subsequent phases of the project. The CONSULTANT shall assist the CITY in preparing any necessary agreements by providing a memorandum documenting proposed relocation plans and including meeting minutes and other correspondence generated by the utility coordination effort.

Assumptions(s)

- Final utility relocation/protection conceptual design will be used by the CITY in their Utility Memorandum of Understanding.

Deliverable(s)

- Draft utility relocation/protection conceptual design (11x17 electronic copies)
 - Construction phase relocation/protection
 - Final condition relocation/protection

- Consolidated comments (Excel electronic format)
- Final utility relocation/protection conceptual design (11x17 electronic copies)
 - Construction phase relocation/protection
 - Final condition relocation/protection

Subtask 5.3 Coordination with Utilities for Final Design

The CONSULTANT shall attend two meetings with utility representatives and the CITY, one before and one after the preliminary design (30 percent PS&E) submittal. Decisions from these meetings will be documented in the meeting minutes and incorporated into the plans. The CONSULTANT will provide exhibits and the minutes for these meetings. Meetings for the water main and sanitary sewer force main will be held separately and are included under Subtask 5.3.

Assumptions(s)

- Two utility coordination meetings.
- One round of comments from CITY and utilities on the preliminary design submittal.
- CONSULTANT will compile comments from utilities into the utility coordination log.

Deliverable(s)

- Consolidated set of utility comments for the preliminary design submittal in MS Excel format
- Meeting minutes in MS Word electronic format
- Hard copy of plans (11x17) for each individual utility at each meeting and a full-size set for use in discussions at each meeting
- Hard copy roll plot (22x34) depicting all utility relocations will be provided to each utility at a 30 percent design level

Subtask 5.4 SPU Waterline Monitoring Plan

The CONSULTANT shall propose a plan to the CITY to monitor SPU's waterline for settlement or other movement.

Deliverable(s)

- One PDF of a draft waterline monitoring plan
- One round of comments from King County and CITY on the preliminary design submittal
- CONSULTANT will compile comments from CITY and King County into the utility coordination log
- If applicable, the CONSULTANT will coordinate and obtain written concurrences from the County on any requested deviation from the County's standards prior to the beginning of construction of the Interceptor Adjustment Work

Deliverable(s)

- Consolidated set of sanitary sewer comments for the preliminary design submittal in MS Excel format
- Meeting minutes in MS Word electronic format

Subtask 5.5 King County Sanitary Sewer Relocation

A new sanitary sewer pump station will be required to divert flow from a portion of a King County owned sanitary sewer trunk line that will be impacted by this project. The CONSULTANT shall present options to relocate the King County sanitary sewer interceptor (between existing County Manhole No. R-18-16 located at the northwest corner of the Tukwila property and intersection of Southwest 27th Street/Naches Avenue). The CONSULTANT shall coordinate with King County on the route and document decisions agreed to in meeting minutes. It is assumed King County will design the relocation and provide final plans, specifications, and estimates to the CONSULTANT to include in the construction contract for the Strander Boulevard/Southwest 27th Street Extension project.

Key components of the relocation design will include duplex submersible solids handling pumps, wet well, valves, valve vault, discharge piping, controls, CMU block building to house the controls, and standby generator. The wet well and valve vault will be precast concrete. It is assumed that King County will evaluate the need for odor and corrosion mitigation and incorporate required mitigation into the design if deemed necessary.

Deliverable(s)

- Meeting minutes documenting design coordination with King County

TASK 6.0 TRAFFIC ANALYSIS AND ILLUMINATION (SUBCONSULTANT)

Subtask 6.1 Develop Assumptions and Methods for Traffic Analysis

SUBCONSULTANT (hereinafter referred to as SUBCONSULTANT), under a separate subconsultant agreement with CONSULTANT, will collect, review, evaluate, and synthesize prior traffic analyses prepared for the Strander Boulevard extension and other projects in the study area (Northwest Arena DEIS, Southcenter Subarea Plan EIS, Transportation Element Update, etc.). In addition, SUBCONSULTANT will coordinate with partner agencies/jurisdictions to understand expectations for the project. The primary purpose of this task will be to gather additional background information required to complete the traffic analysis and design of the extension project.

Specific tasks include the following.

- Coordinate with WSDOT, Renton, and Tukwila to obtain and review relevant traffic studies.
- Review the analyzed scenarios, including traffic forecasts and horizon years associated with phasing the project.
- Coordinate with the CITY to determine the roadway cross section and active transportation access needs to analyze in Phase 3 and the appropriate horizon years to analyze.

Deliverable(s)

- Summary of prior reports/studies
- Preliminary construction cost estimates for anticipated signal modifications

Subtask 6.2 Traffic Study/Operation Analysis for Environmental Documentation and 30 Percent Design

SUBCONSULTANT will prepare a traffic study to verify the intersection/roadway geometrics that satisfies environmental documentation requirements. This process will consist of the following.

Data Collection

PM peak period traffic counts and traffic signal timing plans will be collected within the study area that will be defined as part of Phase 3. For the purpose of budgeting, it is assumed that the following intersections will be analyzed.

- Strander Boulevard and West Valley Highway
- South 180th Street and West Valley Highway
- Southwest Grady Way and West Valley Highway
- Strander Boulevard and Andover Park West
- Longacres Way and West Valley Highway
- South 156th Street and West Valley Highway
- Fort Dent Way and Interurban Avenue South
- Strander Boulevard. and Naches Avenue SW
- Strander Boulevard./Southwest 27th Street and Oakesdale Avenue SW

Relatively recent traffic counts during the PM peak hour may have been collected as part of the Northwest Arena EIS project. To the extent that relevant traffic counts are available, those counts will be used.

Twenty-four-hour tube counts with vehicle classification and average speed for up to 20 locations will also be collected for the noise and air quality analysis.

The rationale behind the relatively large study area is to understand how traffic patterns will shift with the completion of the Strander Boulevard extension, understand if any traffic signal timing modifications are warranted at nearby intersections, and to fully capture the potential environmental impacts of the new traffic pattern.

Traffic Operations Analysis

PM peak hour intersection level of service will be evaluated for the above intersections according to the Highway Capacity Manual 2010 standards. Traffic operations will be evaluated using Synchro/SimTraffic software. Scenarios evaluated include existing conditions, the design concept, and future no-action scenarios. A field visit during the peak hours will be conducted to verify model results.

Operations will be evaluated for existing conditions, year of opening, and a horizon year determined through coordination with CITY staff. The build and no-build scenarios will be evaluated for the opening and horizon year. One option for the horizon year analysis is to increase traffic volumes until the interim design begins to experience level of service degradation. Based on growth rates from the City of Tukwila Travel Demand Forecasting model, a "year of failure" can be identified to determine at which point the full widening project would be warranted. Traffic signal warrants will be prepared for the Strander Boulevard/Tukwila Station Access Road loop ramp intersection for submittal with the traffic signal permit. SUBCONSULTANT will complete the traffic signal permit and submit to WSDOT for review. They will address WSDOT comments and process the permit for approval.

SUBCONSULTANT will prepare a traffic signal warrant analysis in accordance with the procedures stated in the WSDOT Design Manual, July 2017, and the current MUTCD.

The future no-action scenario is included for environmental documentation purposes. As an optional task, additional scenarios can also be evaluated to determine potential design modifications to accommodate events at the Northwest Arena.

The new traffic operations analysis and findings will be incorporated into an update of the Technical Transportation Discipline (TDR) report completed in 2004. The TDR update will utilize the Traffic Study Report and will only include the build alternative and no-build alternative at opening and horizon year. Minimal budget and effort are included. The scope and budget include reforecasted future traffic volumes and growth rates using data from the

Traffic Study Report. SUBCONSULTANT will also refine impacts to rail, transit, trail, and freight.

Additional data will be documented for the build and no-build scenarios to support the noise and air quality analysis. This includes documenting assumed roadway characteristics, vehicle speeds, vehicle classification, traffic volumes, and traffic signal characteristics.

Recognizing that this project will seek competitive grant funding, SUBCONSULTANT will also propose a greenhouse gas (GHG) emissions/vehicle-miles of travel analysis. This type of analysis can demonstrate how reduced congestion and less circuitous vehicle circulation can reduce vehicle emissions and improve area connectivity.

Deliverable(s)

- Memo describing the traffic analysis methods and assumptions
- Traffic Study Report
- Intersection/signal/channelization design recommendations
- Coordination to incorporate traffic analysis into environmental noise and air quality analysis
- Focused updated Transportation Technical Discipline Report
- WSDOT traffic signal permit
- WSDOT/MUTCD signal warrant analysis

Subtask 6.3 Preliminary Illumination and Signal Design (30 percent PS&E)

SUBCONSULTANT will prepare 30 percent design plans and construction cost estimates for illumination within the project area, a traffic signal modification at the Strander Boulevard/West Valley Highway intersection, and traffic signal installation at the Strander Boulevard/Tukwila Station Access Road loop ramp intersection. It is assumed that others will provide the as-built design plans and geometric base drawings. As part of the design process, a site visit will be conducted to verify existing conditions, including observable utility locations, sight lines, traffic detection infrastructure, and existing signal and illumination equipment. The 30 percent plans will identify required changes to signal phasing, existing traffic signal equipment, and proposed signal and lighting equipment locations. The plans will also help to identify potential impacts to ROW and to determine if other design measures are needed to accommodate the project. SUBCONSULTANT will develop construction cost estimates based on the 30 percent design plans. SUBCONSULTANT will address one round of comments from the CITY and submit revised 30 percent plans and estimates.

Deliverable(s)

- Thirty percent plans and construction cost estimates for signal modification at Strander Boulevard/West Valley Highway, signal installation at Strander Boulevard/Tukwila Station Access Road loop ramp intersection, traffic signal installation at Strander Boulevard/Naches Avenue, and illumination within the study area (on Strander Boulevard between West Valley Highway and Naches Avenue, the new pedestrian bridge, the new vehicular bridge over Strander Boulevard, and the UPRR bridge)

Subtask 6.4 Final Illumination and Signal Design (60, 90, and 100 percent PS&E)

SUBCONSULTANT will prepare final plans, specifications, and construction cost estimates for illumination within the project area, a traffic signal modification at the Strander Boulevard/West Valley Highway intersection, and traffic signal installation at the Strander Boulevard/Tukwila Station Access Road loop ramp intersection. The design will also include traffic signal interconnect on Strander Boulevard from West Valley Highway to Naches Avenue. It is assumed that the soil bearing pressure for traffic signal foundation designs will be provided to SUBCONSULTANT by others. It is anticipated that submittals will be required at 60, 90, and 100 percent completion levels. The construction cost estimates will be updated for each submittal. SUBCONSULTANT will address one round of comments from the CITY for each submittal.

SUBCONSULTANT will prepare a Public Interest Finding (PIF) Form if proprietary traffic signal or illumination equipment is required. They will submit the PIF to WSDOT for approval.

Deliverable(s)

- Sixty, 90, and 100 percent plans, specifications, and construction cost estimates for a signal modification at Strander Boulevard/West Valley Highway, signal installation at Strander Boulevard/Tukwila Station Access Road loop ramp intersection, and traffic signal at Strander Boulevard/Naches Avenue, and illumination within the study area (on Strander Boulevard between West Valley Highway and Naches Avenue, the new pedestrian bridge, the new vehicular bridge over Strander Boulevard, and the UPRR bridge)
- Public Interest Finding (PIF) Form for WSDOT approval of proprietary signal and illumination equipment

Anticipated drawing list:

- Traffic signal plans for the three intersections described above – 5 sheets/each for a total of 15 sheets
 - Traffic Signal Plan
 - Traffic Signal Wiring Schedule and Breaker Schedule
 - Traffic Signal Wiring Diagram
 - Traffic Signal Standard Detail Chart
 - Traffic Signal Input File Layout

Illumination Plan – 1 sheet

TASK 7.0 RIGHT-OF-WAY PLANNING AND PROJECT FUNDING ESTIMATE

Subtask 7.1 Local Business Access Design

This task involves engineering, design, and coordination required to reconfigure access to the Taco Bell and Jack-in-the-Box restaurants located at the intersection of Strander Boulevard and West Valley Highway. This work may involve potential revisions to the parking configuration at a conceptual design level. The level of effort for this task assumes up to three meetings each with these businesses; one to confirm operations, a second to present potential solutions, and a third follow-up meeting, if required, to be determined in consultation with the CITY. This work is to be completed in coordination with the roadway design effort described in Task 14.

Assumptions(s)

- One round of CITY review comments

Deliverable(s)

- Preliminary conceptual design of revised access to Taco Bell and Jack-in-the-Box, required modifications to parking, and other changes as may be agreed to with each business
- Conceptual design to be included in the 30 percent plans

Subtask 7.2 Right-of-Way Plan

ROW required for the project has not yet been determined. For the purpose of budgeting this task, the CONSULTANT has assumed a minimal level of effort for coordinating with potential affected property owners. It is assumed that any significant effort required to address property owner concerns, as required to facilitate the acquisition process, would be provided as supplemental service during the ROW acquisition phase of the project. It is assumed that ROW plans will not be required to support the preparation of the Project Funding Estimate (PFE). It is assumed that up five ROW drawings/exhibits will need to be prepared, in WSDOT required format, to illustrate the project's ROW needs and impacts.

Deliverable(s)

- Coordination meeting minutes
- ROW drawings/exhibits as required to support the preparation of the PFE

Subtask 7.3 Project Funding Estimate

The CONSULTANT will identify real property rights (permanent and temporary) required for the project and evaluate the potential acquisition impacts as they may relate to preliminary ROW acquisition costs and timeline to complete the ROW acquisition process. Based on the work described above, the CONSULTANT shall prepare a Project Funding Estimate (PFE) to be used to obligate ROW funds.

BID PROPOSAL

Abeyta (hereinafter referred to as SUBCONSULTANT), under a subconsultant agreement with CONSULTANT, shall perform the following services.

This scope of work entails Pre-acquisition services for the construction of the Strander Grade Separation Intersection Project. These services will be furnished in accordance with city, state and federal guidelines and regulations, including the policies and procedures of the Uniform Relocation Act.

The overall ROW acquisition objectives are

- Prepare a PFE report
- Provide support to CONSULTANT and the CITY in preliminary evaluation of property acquisition impacts

A specific list of performance objectives is outlined in the following paragraphs.

Specific Objectives

The key objectives for this project include the following.

1. Inspect and prepare a preliminary survey report for each parcel (22 parcels)
2. Provide a PFE/AOS report with WSDOT approval – a total of 22 parcels
3. Provide support to CONSULTANT to evaluate schedule, financial, and risk estimates for obtaining real property acquisitions, including appraisal and valuations for possible property acquisitions to support cost estimates – a maximum of 20 hours

Assumption(s)

- ROW needs will be provided by CONSULTANT
- CONSULTANT will provide direction that defines the level of effort for requested support
- CONSULTANT will coordinate property research with SUBCONSULTANT

Deliverable(s)

- PFE (draft and final)
- Electronic versions of all documents as compiled PDFs and two hard copies

Deliverable(s)

- Preliminary cost estimates for anticipated ROW acquisitions and easements. Input to the project schedule regarding the timeline for completing and certifying the project ROW
- PFE for completing the ROW acquisition

Subtask 7.4 Right-of-Way Acquisition

These services are not included in the scope of work.

TASK 8.0 ENVIRONMENTAL DOCUMENTATION AND PERMITTING (Widener & Associates)

Currently, the project has approved NEPA and SEPA documentation. However, this documentation needs updating, and the project's NEPA and SEPA determinations need to be updated, prior to the next federal action.

Widener & Associates (hereinafter referred to as SUBCONSULTANT), under a separate subconsultant agreement with CONSULTANT, will provide design assistance and early agency coordination during Phase 3 of the project. Early input into the formation of project alternatives will be provided to ensure each alternative includes provisions to minimize impacts to the surrounding environment. This coordination within the various design elements of the project will identify and incorporate minimization measures early in the alternative development phase of the project and will ensure that an appropriate range of stormwater and groundwater management alternatives are developed prior to agency coordination.

Task 8 requires the following tasks to document the reevaluation of the project's currently approved NEPA and SEPA documents. Depending on the outcome of updated traffic modeling, amendments/supplements to existing environmental documentation will be required for noise, air, Section 106, wetlands and wetland bank use, hazardous materials, and CITY permits. New documents are required for the biological assessment (BA), the Joint Aquatic Resource Permit Application (JARPA), and environmental justice.

Subtask 8.1 Design Assistance and Early Agency Coordination

The CONSULTANT, with assistance from SUBCONSULTANT, will assist the CITY in presenting the alternatives to both the state and federal permitting agencies to identify the regulatory issues associated with each alternative. Potential minimization measures for each alternative will also be identified during the coordination with agency representatives. All permitting issues and the recommended permitting process for the preferred alternative will be documented in the project design report. It is assumed that this effort will be accomplished with graphics and design drawings required to complete the design report and to conduct the open houses, and that no other special presentation materials are required.

Deliverable(s)

- SUBCONSULTANT will prepare meeting minutes and memoranda documenting the coordination activities with state and federal agencies, as required

Subtask 8.2 Prepare the Area of Potential Effect (APE)

The CONSULTANT will coordinate with SUBCONSULTANT and provide support for updating the APE if required.

Deliverable(s)

- Draft APE for the project

Subtask 8.3 Section 106 Report (Cultural and Historic Resources)

This work would include the preparation of the Section 106 report amendment in accordance with the State Historic Preservation Office standards and guidelines for any new areas that maybe impacted. The work will include the following.

1. Pertinent literature on the archaeology, ethnography, and history of the project area will be reviewed to determine the existence of archaeological sites and to refine the probability of archaeological resources and traditional cultural places in the project areas.
2. The SUBCONSULTANT will maintain contact with the local tribes for any information on historic Indian use of the project area.
3. A systematic field reconnaissance will be conducted to identify previously recorded and/or unrecorded archaeological sites for the proposed project where ground-disturbing activities are expected to take place. Field reconnaissance will consist of the traverse of pedestrian transects at varying intervals, depending on terrain throughout the proposed project area. Shovel probes (digging a hole with a shovel) will be excavated, as deep as feasible, and in areas expected to have a high probability for cultural resources. Shovel probes will be augmented through auger probes to explore the deepest possible deposits. Shovel probes will be screened in highly probable areas and in soil matrixes too dense to identify small chipping debris.
4. All new sites will be mapped, photographed, and recorded on Washington State Archeological Inventory forms and submitted to the state Office of Archeological and Historic Preservation (OAHP) for Smithsonian numbers. Every effort will be made to include Tribal cultural resources personnel in assisting the field effort. Rights-of-entry will be provided by the CITY.

Deliverable(s)

- Three copies of a draft Section 106 Report will be prepared to describe cultural resources identified in the project area to meet state and federal standards for reporting as outlined in the guidelines provided by the OAHP. The report will include summary background information appropriate to a cultural resources assessment of the project area, including environment, previous cultural resources studies, ethnography/ethno history, and history. A discussion of agency and Tribal consultation, methodology, the results of the investigation, and a map of located archaeological sites will be provided. Recommendations will also be extended to any cultural resources that may be significant. Monitoring of construction excavation recommendations may also be included. The historic structures inventory form and/or archaeological site inventory form will be attached to the report as an appendix
- Three copies of a revised draft Section 106 report incorporating CITY comments
- Three copies of a final Section 106 report incorporating WSDOT comments

Subtask 8.4 Noise Study

The SUBCONSULTANT will prepare a traffic noise report to evaluate traffic noise levels at sensitive receptors near the project that would be potentially affected by traffic noise and to identify potential mitigation measures. The traffic noise report will be developed in accordance with WSDOT's Environmental Procedures Manual.

Sound Level Measurements

After review of the proposed project alternatives, the SUBCONSULTANT shall visit the project area to identify potentially sensitive noise receivers and to take measurements of existing sound levels. The SUBCONSULTANT will measure existing noise levels during the peak hours to be used in calibrating the noise model. Measurements will be undertaken in accordance with WSDOT and Federal Highway Administration (FHWA) guidelines, and will be made with a Type 1 sound level meter. During these measurements, sources of existing noise and topographical features will be noted and traffic speeds and vehicle numbers and mix will be noted.

Construction Noise Impact Evaluation

The noise analysis will evaluate potential short-term impacts of noise from construction activities. Construction noise on nearby sensitive receptors will be evaluated based on estimates published by the U.S. Environmental Protection Agency (EPA) of maximum noise levels of typical construction equipment in conjunction with simple distance attenuation. Computer modeling of construction noise levels will not be performed.

Traffic Noise Impact Evaluation

The SUBCONSULTANT will evaluate traffic noise impacts using the FHWA Traffic Noise Model (TNM) to estimate future traffic noise levels for the worst-case build alternative. The worst-case scenario will be selected from among the build alternatives, and will be chosen based on expected future traffic volumes and the location of the alignment relative to sensitive receivers. The noise modeling will predict PM peak-hour Leq noise levels from traffic at a maximum of 15 receptor locations that could be affected by the proposed project and will consider existing conditions and design year conditions. Modeling to calculate noise contour lines is not included.

Mitigation Analysis

The SUBCONSULTANT will identify mitigation measures to reduce noise levels during construction. If predicted long-term traffic noise levels from operation of the project would cause noise impacts, mitigation measures will be developed in cooperation with the lead agency and design engineers. Mitigation analysis, if required, will include evaluation of the effectiveness and general size and location of natural and man-made noise barriers using the TNM model.

Deliverable(s)

- Three copies of a draft traffic noise analysis report for review by CITY with accompanying draft special provisions if required

- Three copies of a draft traffic noise analysis report, incorporating the CITY's comments, for submittal to FHWA/WSDOT
- Three copies of a revised draft traffic noise analysis report, incorporating comments by FHWA/WSDOT, for submittal for approval

Subtask 8.5 Hazardous Material Memorandum

The SUBCONSULTANT will prepare a hazardous materials memo to evaluate the presence, or likely presence, of potential hazardous substances within the physical limits of the project that would have an effect on the overcrossing project. Sites with potential for environmental issues/impacts include those that indicate current or past uses as service stations, battery shops, dry cleaners, chemical storage, or manufacturing facilities; sites with fuel or chemical storage tanks or drums present; or those with strong pungent or noxious odors. The scope of services for this study will include

1. A review of the results of a federal, state, and local environmental database search provided by an outside environmental data service for listings of known or suspected environmental problems at the sites or nearby properties within the search distances specified by WSDOT.
2. A review of historical aerial photographs, fire insurance maps, city directories, chain-of-title reports, and tax assessor records, as available and appropriate, to identify past development history on the parcels relative to the possible use, generation, storage, release, or disposal of hazardous substances. An attempt to identify uses of the sites from the present to the time that records show no apparent development of the site, or to 1940, whichever is earlier.
3. Conduct of a visual reconnaissance of the parcels and adjacent properties to identify visible evidence of potential sources of contamination.
4. A letter report that will summarize the results of this study. The letter report will briefly discuss the project activities and include a table ranking the parcels (low, moderate, high) by their potential for contamination from either on-site or off-site sources. A draft letter report will be provided for review and comment. Upon receiving comments, the letter will be modified as appropriate and made final.

Deliverable(s)

- Three copies of the draft hazmat memo will be provided
- Three copies of the hazmat memo will be provided incorporating CITY comments
- Three copies of the final hazmat memo will be provided incorporating WSDOT/FHWA comments if required. It is assumed that WSDOT/FHWA comments will not alter the basic conclusion of the documentation or require further alternative studies

Subtask 8.6 Biological Assessment (BA)

A BA (NO EFFECT LETTER) will be prepared for the preferred alternative in accordance with WSDOT guidelines. The following subtasks will be undertaken in preparation of the project BA (NO EFFECT LETTER).

1. Collect available documentation concerning the project activities and pertinent biological information. Biological information will include priority habitat and species data from the Washington State Department of Fish and Wildlife, along with rare plant and high-quality ecosystem data from Washington State Department of Natural Resources (WDNR). This information will be reviewed and a consultation strategy will be developed.
2. Check with United States Fish and Wildlife Service (USFWS) and National Oceanographic and Atmospheric Administration (NOAA) Fisheries to verify lists of endangered, threatened, proposed, and candidate species.
3. Conduct a field reconnaissance to investigate on-site habitat conditions.
4. Make telephone contact with the appropriate resource agency staff for input on species occurrence, habitat use, and potential project impacts.
5. Prepare a draft BA (NO EFFECT LETTER) addressing listed species, proposed species, candidate species, species of concern, and critical habitat. The BA (NO EFFECT LETTER) will include a project description, a list of species, a description of the species and their habitat, an analysis of project effects, and mitigation recommendations.
6. Provide the draft BA (NO EFFECT LETTER) to the CITY for review and approval.
7. Revise the BA (NO EFFECT LETTER), as appropriate, and submit the final BA (NO EFFECT LETTER) to WSDOT for their approval.

Deliverable(s)

- One electronic copy of a draft BA (NO EFFECT LETTER) for review by CITY
- One electronic copy of a draft BA (NO EFFECT LETTER), incorporating the CITY's comments, for submittal to WSDOT
- Three copies of a final BA (NO EFFECT LETTER) that incorporates WSDOT comments

Subtask 8.7 Air Quality Analysis

The purpose of the air quality report is to identify any significant impacts and necessary mitigation measures, and to determine conformity with pertinent air quality rules. The air quality modeling assessment will meet the requirements of federal and state conformity regulations and the procedures in EPA's Guidelines for Modeling Carbon Monoxide from Roadway Intersections (1992), and will provide a project-level conformity determination for the project.

1. After review of the proposed project alternatives and the results of the traffic analysis, the SUBCONSULTANT will select intersections for project-level air quality modeling. The SUBCONSULTANT will visit the project area to assess the presence of potentially sensitive receivers and to measure the physical parameters of the selected intersections.
2. Traffic Impact Evaluation: The SUBCONSULTANT will conduct an air quality impact analysis using approved regulatory models and modeling techniques. This analysis will include use of the latest MOBILE series emission factor prediction model and Version 2 of the CAL3QHC dispersion model. In this process, the SUBCONSULTANT will coordinate as necessary with the appropriate regulatory agencies. The modeling will calculate carbon monoxide (CO) concentrations near each intersection for the following scenarios: (1) existing conditions; (2) opening and design year no action; and (3) opening and design of the build alternative.
3. Mitigation Analysis: In the event the impact analysis modeling indicates the project would cause significant air quality impacts, it will be necessary to quantitatively consider mitigation measures for each of the intersections where impacts are expected. For purposes of estimating a budget, the SUBCONSULTANT will assume modeling mitigation measures are necessary at all four affected intersections for the worst-case of the build alternatives, and will allow one day for the iterative process of WASIT or CAL3QHC and available traffic modeling.
4. Air Quality Technical Study: The SUBCONSULTANT will prepare a draft technical air quality report to document the methods and the results of the impact and mitigation analyses, and to provide a conformity statement for the project. The CITY will review the draft report and prepare consolidated comments. The SUBCONSULTANT will incorporate the CITY's comments into a final technical report

Deliverable(s)

- Three copies of the draft will be provided
- Three copies of the final air conformity analysis report will be provided to WSDOT/FHWA incorporating CITY comments
- Three copies of the final air conformity will be incorporating WSDOT/FHWA comments

Subtask 8.8 NEPA Environmental Classification Summary Update

Services will be provided to prepare the ECS form by reviewing technical reports related to the project, applying project-specific data to the form and coordinating approval for the project by both WSDOT.

Deliverable(s)

- Three copies of the draft ECS will be provided

- Three copies of the final ECS documentation will be provided incorporating CITY comments
- Three copies of the final ECS documentation will be provided incorporating WSDOT/FHWA comments if required. It is assumed that WSDOT/FHWA comments will not alter the basic conclusion of the documentation or require further alternative studies

Subtask 8.9 Wetland and Critical Areas Study

The purpose of this report is to identify jurisdictional wetland within the project corridor and critical areas, as well as provide mitigation if necessary. The SUBCONSULTANT will develop, implement, and complete field surveys to identify and delineate wetlands in the project area using the appropriate methods described in the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory, 1987), Wetlands Research, Technical Report Y-87-1, January 1987. The SUBCONSULTANT will delineate wetlands within 200 feet of the project area.

The SUBCONSULTANT will prepare a comprehensive report that includes detailed wetland maps, documentation of survey methods, results, potential impacts from project actions, and recommendations for wetland protection and mitigation. The report also will contain appropriate forms for wetland identification, delineation, and function assessment required by USACE. The information in this report is intended for use in compliance with Section 404 of the Clean Water Act. The final report and associated documents will be in a format acceptable to USACE.

Delineated wetland boundaries will be identified on the ground with flagging. The delineated wetland boundaries will be mapped with accuracy acceptable to USACE.

Deliverable(s)

- An electronic copy of a draft wetland delineation for review by the CITY with accompanying critical areas provisions if required
- An electronic copy of a draft wetland delineation, incorporating the CITY's comments, for submittal to USACE and DOE
- An electronic copy of a final wetland delineation, incorporating comments by USACE and DOE

Subtask 8.10 Wetland Mitigation Use Plan

A wetland mitigation plan will be prepared for the development of the CITY owned properties. The plan will be completed to meet the requirements of USACE and DOE. The following subtasks will be undertaken in preparation for the project mitigation use plan.

1. Condition assessment of the proposed mitigation site.

2. Analysis of the proposed impacts and the proposed mitigation site to show how the mitigation site comply with USACE and DOE regulations.
3. Complete a draft of the wetland mitigation use plan which will include a narrative describing the proposed mitigation site, a vicinity map, a plan view and/or detail maps of the proposed mitigation and other informational maps as required by the permitting agencies.
4. Revise the plan based on agency comments

Deliverable(s)

- Three copies of a draft mitigation use plan for review by the CITY with accompanying draft special provisions if required
- Three copies of a draft mitigation use plan, incorporating the CITY's comments, for submittal to USACE and DOE
- Three copies of a revised draft mitigation plan, incorporating comments by USACE and DOE

Subtask 8.11 SEPA

The SUBCONSULTANT shall complete appropriate SEPA documentation, including all needed studies, modeling, and analysis in accordance with State Environmental Policy Act (RCW 43.21C) and SEPA Rules (WAC 197-11). The SUBCONSULTANT will coordinate with the CITY to address comments on the SEPA Checklist and provide support for the SEPA process.

Deliverable(s)

- SEPA Checklist

Subtask 8.12 State and Federal Permits

SUBCONSULTANT will assemble and organize all necessary environmental permit applications to a standard acceptable by the permitting agencies. Anticipated permits include the following.

- Section 404 Permit
- Section 401 Permit
- Shorelines Permit

Permit applications shall include all requested information, such as application forms, all necessary permit drawings, an attachment describing project location, project purpose and need, alternatives considered, and a summary of project impacts. The SUBCONSULTANT shall also provide a draft transmittal letter for submittal of the application by the CITY. Draft applications, including supporting information, shall be submitted to the CITY for review and comment. Revised permit applications shall be provided to the CITY for signature and submittal to permitting agencies. The SUBCONSULTANT shall perform the necessary coordination to obtain the permits.

Deliverable(s)

- Three copies of the draft JARPA for review by the CITY
- Three copies of the revised draft JARPA incorporating CITY comments
- Three copies of the final JARPA will be prepared incorporating agency comments

Subtask 8.13 CITY Permits

SUBCONSULTANT will assemble and organize all necessary environmental permit applications to a standard acceptable by the permitting agencies. Anticipated permits include the following.

- Critical Area Permit
- Fill and Grade permit

Permit applications shall include all requested information, such as application forms, all necessary permit drawings, an attachment describing project location, project purpose and need, alternatives considered, and a summary of project impacts. The SUBCONSULTANT shall also provide a draft transmittal letter for submittal of the application by the CITY. Draft applications, including supporting information, shall be submitted to the CITY for review and comment. Revised permit applications shall be provided to the CITY for signature and submittal to permitting agencies. The SUBCONSULTANT shall perform the necessary coordination to obtain the permits.

Deliverable(s)

- Two draft copies of the permit applications
- Two final copies of the permit applications

TASK 9.0 RAILROAD ENGINEERING AND DESIGN (Hanson Professional Services)

Hanson Professional Services (hereinafter referred to as SUBCONSULTANT), under a separate subconsultant agreement with CONSULTANT, will provide the following tasks.

Subtask 9.1 Project Coordination

Deliverable(s)

- None. SUBCONSULTANT will manage/administer Task 9.0 and coordinate with others as appropriate for the various project phases.

Subtask 9.2 10 Percent Railroad Shoofly Plan

1. Conduct a site review concurrent with the topographic survey and prepare a one-page field technical memorandum of rail weight, tie type, rail weight transitions, insulated joints, culvert locations, and general observations. The purpose of this item is to collect required track and tie information and to provide the track designers with first-hand knowledge of the project site. Topographic survey to be provided by others.
2. Prepare 10 percent shoofly track plans suitable for developing an opinion of probable cost of construction (OPCC), per the requirements stated in the checklist contained in the UPRR 'Public Projects – Plan Submittal Guidelines', Rev. 8/04/2017 (available upon request).
 - 10 percent plans will be based on the previous Strander Boulevard project base mapping
3. An OPCC will be developed using current industry track costs and civil costs from WSDOT unit bid prices. See Limitations and Assumptions.

Deliverable(s)

- Brief field technical memorandum of rail weight, tie type, transitions, photos, and observations
- 10 percent shoofly design plans (11x17) PDF format
- OPCC of construction for 10 percent track plans

Subtask 9.3 25 Percent Railroad Shoofly and Phasing Plan

1. Further the 10 percent shoofly horizontal and vertical design to 25 percent per the requirements stated in the checklist contained in the UPRR 'Public Projects – Plan Submittal Guidelines', Rev. 8/04/2017 (available upon request). The approximate tasks and plan list to be developed from the UPRR requirements are as follows:
 - Plans will include responses to the UPRR 10 percent design comments.
 - Plans will be updated with new base mapping (by others). See Limitations and Assumptions.

- Prepare a phasing plan schematic - (no scale 11x17 – up to two sheets) and prepare a brief phasing narrative technical memorandum. See Limitations and Assumptions.
 - Shoofly plan and profile sheets (three sheets) to cover at least 200 feet beyond the end of the shoofly (1"=100' ½ Size 11x17).
 - Shoofly typical section sheets (four sheets) to include continuous stationing and potential embankment pre-loading (no scale 11x17).
 - Curve data sheet with shoofly coordinates (one sheet) (no scale 11x17).
 - Prepare civil/track detail sheet (two sheets) (no scale 11x17).
 - Earthwork model (Civil 3D 2017) by phases in Civil 3D based on UPRR standards and geotechnical report recommendations.
 - Shoofly cross section sheets (minimal annotation) by phase (12 sheets) (1"=20' ½ Size 11x17).
 - Review geotechnical report for subgrade and slope recommendations.
 - Provide utility review for UPRR guideline conformance. Utility casing and extension design is not included in the scope of services. See Limitations and Assumptions.
 - Design shoofly track to accommodate positive railway drainage. Hydraulic and hydrologic (H&H) analysis and report are not included in this scope of services. See Limitations and Assumptions.
 - Prepare quantity summary table directly on the plan sheets to delineate those quantity items by contractor and UPRR.
 - Prepare an engineering design technical memorandum to record design methodologies, decisions, and assumptions.
 - Start preparations of track specifications – UPRR standard construction specifications will be considered the primary specifications for the track construction; however, other technical specifications will be developed as necessary.
2. Update the OPCC for track and embankment to 25 percent level.
 3. Prepare PDFs for submittal.
 4. Schedule and attend a site visit with a UPRR project representative.

Deliverable(s)

- Updated phasing plan – schematic format with phasing narrative

- Twenty-five percent shoofly design plan set
- Opinion of probable cost of construction for 25 percent track plans
- Draft 25 percent engineering design technical memorandum

Subtask 9.4 30 Percent Railroad Shoofly Plans

Update the 25 percent shoofly design plans to 30 percent per the requirements stated in the checklist contained in the UPRR 'Public Projects – Plan Submittal Guidelines', Rev. 8/04/2017 (available upon request). This phase will consist primarily of updating the shoofly design plan set from commentary provided by UPRR on the 25 percent submittal and the subsequent UPRR site visit.

Deliverable(s)

- Updated phasing plan – schematic format with phasing narrative
- Thirty percent shoofly design plan set
- OPCC for 30 percent track plans
- Thirty percent draft engineering design technical memorandum

Subtask 9.5 60 Percent Railroad Shoofly Plans – Only Required at UPRR's Request

Updating the 30 percent shoofly design plans to 60 percent could be required by UPRR. As this is typically only required due to unusually complicated site conditions, this task is not currently included in this scope.

Deliverable(s)

- None

Subtask 9.6 90 Percent Railroad Shoofly Plans

Update the 30 percent shoofly design plans to 90 percent per the requirements stated in the checklist contained in the UPRR 'Public Projects – Plan Submittal Guidelines', Rev. 8/04/2017 (available upon request). This phase will consist primarily of updating the shoofly design plan set from the 30 percent submittal. The 90 percent consists generally of updates driven by railway signal needs, and general site grading as follows.

- Addition of cut and fill lines to the track plans to account for railway walkways, signal pads, etc. See Limitations and Assumptions.
- Schedule and attend a site visit with a UPRR project representative

Deliverable(s)

- Updated phasing plan – schematic format with phasing narrative
- Ninety percent shoofly design plan set
- OPCC for 90 percent track plans
- Specifications
- Ninety percent draft engineering design technical memorandum

Subtask 9.7 100 Percent Railroad Shoofly Plans – Including Bid Support through Contractor Award

Update the 90 percent shoofly design plans to 100 percent per the requirements stated in the checklist contained in the UPRR 'Public Projects – Plan Submittal Guidelines', Rev. 8/04/2017 (available upon request). This phase will consist primarily of updating the shoofly design plan set from commentary provided by UPRR on the 90 percent submittal and the UPRR site visit.

Review and add text as necessary to the final construction project handbook (construction project handbook by others).

- Verify bid item list pertaining to the shoofly track to be provided by the contractor.
- Respond to contractor and CITY RFIs. See Limitations and Assumptions.
- Attend prebid meeting (one meeting). See Limitations and Assumptions.

Deliverable(s)

- Updated phasing plan – schematic forma with phasing narrative
- One hundred percent shoofly design plan set
- OPCC for 100 percent track plans
- Finalized specifications and bid item list
- Final engineering design technical memorandum
- Responses to Contractor and CITY RFIs (up to six)

Limitations and Assumptions

- *CADD work in this scope of services will be in AutoCAD/Civil 3D 2017 with line-styles, symbols, etc. conforming to UPRR CADD Standards. Conversion to other CADD platforms is not in this scope of services. Should CADD conversion be required, it would be considered as an additional service.*
- *Base mapping updates (by others) to be in AutoCAD/Civil 3D 2017 at a compatible datum with previous Strander Boulevard design efforts.*
- *General shoofly plan development is per UPRR 'Public Projects – Plan Submittal Guidelines', Rev. 8/04/2017*
- *UPRR's disposition towards this grade separation project will be more clearly known after the submittal of the preliminary engineering agreement. It is assumed that should significant changes be required they would be considered as an additional service(s).*
- *Separate H&H analysis and report for the shoofly is not included in this scope of services.*
- *UPRR utility casing extension design, and review of non-UPRR utility design is not included in this scope of services.*
- *Bidding support is included in 100 percent phase through contractor award. Construction management (CM) is not included in this scope of services.*
- *OPCC costs will use current railway industry and WSDOT cost data. Final construction cost for UPRR supplied labor and materials to be provided by UPRR with C&M Agreement.*
- *The design process will employ the Hanson Professional Services Inc. QC Review process.*
- *Should a 60 percent submittal be required by UPRR, a supplemental scope and fee will be submitted at that time.*

- *Railway signal additions by UPRR, including signal berms are not anticipated. Significant signal grading improvements beyond track walkways including a separate grading plan are not included in this proposal and will be considered as an additional service.*
- *Railway parallel railroad maintenance and access roads deemed necessary by UPRR are not anticipated, because there are none in the existing condition. Parallel railroad maintenance and access track access road design is not included in this proposal and will be considered as an additional service. Submitting a list of construction materials to the CITY for separate analysis and assistance with that analysis effort is not included in this scope of services and will be considered as an additional service.*
- *It is assumed the specifications provided in this scope of services are for the shoofly track construction, shoofly bid items, and language linking the railway specifications to the 'front end'. The 'front end' sections of bid documents are by others.*

TASK 10.0 STRUCTURAL ENGINEERING

This task includes the structural engineering required to develop conceptual layouts, coordinate design efforts, and complete construction documents for structural elements identified herein for the Strander undercrossing of the BNSF and UPRR railroad tracks.

The following design codes will be used to conduct the design and analyses.

1. WSDOT Bridge Design Manual LRFD, version M 23-50.17, June 2017
2. AASHTO LRFD Bridge Design Specifications, 7th Edition, and interims
3. AASHTO Guide Specifications for LRFD Seismic Bridge Design 2nd Edition (2011)
4. WSDOT Standard Specifications for Road, Bridge, and Municipal Construction (2016)
5. BNSF-UPRR Guidelines for Railroad Grade Separation Projects (1/24/2007)
6. AREMA Manual for Railway Engineering (2017)

Assumption(s)

- Shoofly for UPRR Railroad tracks will be constructed to the east. A temporary shoring wall will be designed and included in the contract to accommodate the construction of the UPRR bridge. A temporary shoring wall will not be required to extend the BNSF bridge foundation. The UPRR bridge undercrossing will be constructed adjacent to the temporary shoring wall and completed in one stage, including an extension of the bridge foundation to the west for a future track.
- Vehicular and pedestrian access to the existing Sound Transit Station, from Southwest 27th Street, will be closed during construction of the walls, seal, and bridges east of the UPRR tracks.
- Vehicular bridge for access to Sound Transit Station will be normal to undercrossing alignment, a single-span structure (no interior pier required), and the approach grading will accommodate alignment and profile effects. Sound Transit parking may be extended towards this structure and this access will be coordinated through the CITY, as required.
- Seal will be constructed with open excavation, coffer cell, and tremie placement of concrete. A structural seal and fascia wall elements will be incorporated to seal and strengthen the undercrossing. Temporary struts may be required during construction, but permanent struts are not assumed to be incorporated into the design.
- Sheet pile wall with walers and ground anchors will be used as the structural wall system, in place of secant pile wall designs.
- Dead-man (buried anchor) walls will be utilize to limit extension of permanent ground anchors (PGAs) along project, where possible.

Bridge Service and Strength Analysis

Service and strength load combination analyses of the proposed new bridge structures will be conducted to demonstrate that the proposed structure meets the performance requirements per AASHTO or AREMA, as applicable.

Bridge Extreme Analysis

Extreme load combination analysis of the proposed new bridge structure will be conducted to demonstrate that the proposed structure meets the performance requirements per AASHTO or AREMA, as applicable.

Bridge Capacity Analysis and Design

Component capacity calculations will be completed and designs will be prepared for the bridge components based on the controlling design forces as determined from the service, strength, and extreme analyses.

Wall Service, Strength, and Extreme Analysis

Analysis of the walls will be based on service, strength, and extreme load combinations to demonstrate that the proposed structures meet the performance requirements per AASHTO or AREMA, as applicable.

Subtask 10.1 BNSF Railroad Bridge and Walls

The CONSULTANT shall review the as-built drawings for the existing BNSF underpass structure, review geotechnical data, coordinate with geotechnical engineer, develop design parameters, design elements, meet with the CITY and BNSF, and prepare the following submittals to meet the requirements of Table 3-2 of the BNSF-UPRR Guidelines for Railroad Grade Separation Projects (1/24/2007).

1. Prepare bridge substructure extension concept design plans and pictures for the BNSF bridge over Strander and will be used in establishing a preliminary engineering agreement with BNSF. The bridge will be similar to existing BNSF substructure, which is a pile-supported footing extending full width of underpass with abutments and an interior pier wall.
2. Develop the applicant response to the BNSF comments to the conceptual design and prepare a type selection report (30 percent submittal), including design plans and construction phasing.
3. Integrate the bridge concept with adjacent permanent or temporary retaining wall designs, if necessary. Coordinate with the geotechnical engineer to design ground improvement procedures between the structure foundation and the seal.
4. Coordinate with the civil design for roadway section, drainage, and utilities within the underpass.
5. Develop the applicant response to the BNSF comments to the 30 percent submittal and prepare a 60 percent design submittal, including design plans and calculations;

geotechnical report (see Task 11); project specifications and special provisions (see Subtasks 10.9, 14.5 and 14.6); drainage report and plan (see Task 12); and construction phasing.

6. Develop the applicant response to the BNSF comments to the 60 percent submittal and prepare a final design submittal (CITY's 90 percent submittal), including design plans and calculations; geotechnical report (see Task 11); project specifications and special provisions (see Subtasks 10.9, 14.5 and 14.6); drainage report and plan (see Task 12); and construction phasing.

The CONSULTANT shall update and coordinate design efforts for contract documents based on WSDOT and CITY review of final design. See Subtasks 10.9, 14.5 and 14.6 for specials and estimate.

Deliverable(s)

- BNSF concept submittal (11x17 PDF format)
- BNSF 30 percent submittal (11x17 PDF format)
- BNSF 60 percent submittal (11x17 PDF format)
- BNSF final submittal (11x17 PDF format and 11x17 hard copy)
- CITY and WSDOT review package (11x17 PDF format)
- Contract documents (11x17 PDF format and 11x17 hard copy)

Subtask 10.2 Union Pacific Railway Bridge and Walls

The CONSULTANT shall review the site conditions for the existing UPRR underpass structure, review geotechnical data, coordinate with geotechnical engineer, develop design parameters, design elements, meet with the CITY and UPRR, and prepare the following submittals to meet the requirements of Table 3-2 of the BNSF-UPRR Guidelines for Railroad Grade Separation Projects (1/24/2007).

1. Prepare bridge superstructure and substructure concept design plans and pictures for UPRR bridge over Strander and will be used in establishing a preliminary engineering agreement with UPRR. Bridge to be similar to adjacent BNSF structure, which is steel plate girder with pile-supported footing extending full width of underpass with abutments and an interior pier wall.
2. Develop the applicant response to the UPRR comments to the conceptual design and prepare a type selection report (30 percent submittal), including design plans, construction phasing, and shoofly (see Task 9).
3. Prepare staging options at bridge. Integrate bridge concept with adjacent permanent or temporary retaining wall designs. Coordinate with the geotechnical engineer to design ground improvement procedures between the structure foundation and the seal. Coordinate track and ballast design with rail engineer. See Subtask 10.3 for temporary shoring wall design.

4. Prepare concepts for utility conduits on bridge and design components to integrate the utilities. Coordinate with the civil design for roadway section, drainage, and utilities within the underpass.
5. Develop the applicant response to the UPRR comments to the 30 percent submittal and prepare a 60 percent design submittal, including design plans and calculations; geotechnical report (see Task 11); project specifications and special provisions (see Subtasks 10.9, 14.5 and 14.6); drainage report and plan (see Task 12); shoofly design (see Task 9); and construction phasing.
6. Develop the applicant response to the UPRR comments to the 60 percent submittal and prepare a final design submittal (CITY's 90 percent submittal), including design plans and calculations; geotechnical report (see Task 11); project specifications and special provisions (see Subtasks 10.9, 14.5 and 14.6); drainage report and plan (see Task 12); shoofly design (see Task 9); and construction phasing.

The CONSULTANT shall update and coordinate design efforts for contract documents based on WSDOT and CITY review of final design. See Subtasks 10.9, 14.5 and 14.6 for specials and estimate.

Deliverable(s)

- UPRR concept submittal (11x17 PDF format)
- UPRR 30 percent submittal (11x17 PDF format)
- UPRR 60 percent submittal (11x17 PDF format)
- UPRR final submittal (11x17 PDF format and 11x17 hard copy)
- CITY and WSDOT review package (11x17 PDF format)
- Contract documents (11x17 PDF format and 11x17 hard copy)

Subtask 10.3 Union Pacific Railway Temporary Shoring Wall

The CONSULTANT shall prepare a concept and design of the temporary shoring wall required to stage construction between the shoofly and the UPRR bridge. This wall shall be included in the contract documents, reviewed, and approved by UPRR as part of the requirements of Table 3-2 of the BNSF-UPRR Guidelines for Railroad Grade Separation Projects (1/24/2007). The submittals will be incorporated into those listed in Task 10.2.

Subtask 10.4 Sound Transit Vehicular Bridge

The CONSULTANT shall prepare a concept and design of a vehicular bridge that connects the loop ramp intersection from the undercrossing to the Sound Transit Station as a single span precast-prestressed concrete girder bridge. The foundations will be constructed with a pile-supported footing and abutment walls, similar to the existing BNSF bridge. Retaining walls and shoring will be coordinated with the undercrossing structure and civil design. Ground improvements will be evaluated and designed, as required, at the interface of the foundation and the seal.

Special provisions, quantities, and estimates will be included in Subtask 10.9.

Deliverable(s)

- Thirty percent CITY submittal (11x17 PDF format)
- Sixty percent CITY submittal (11x17 PDF format)
- 90 percent CITY submittal (11x17 PDF format)
- WSDOT/CITY contract submittal (11x17 PDF format and 11x17 hard copy)

Subtask 10.5 Retaining Walls

The CONSULTANT shall prepare a concept and design of the permeant retaining walls for the undercrossing, maintenance access for local utilities, business access, and integration of pedestrian and vehicle traffic throughout the project. The retaining walls for the undercrossing will be constructed with a sheet pile wall system utilizing permanent ground anchors (PGA) and buried anchor (dead-man) walls. Cantilever soldier pile walls and cast-in-place walls will be integrated where applicable. Geosynthetic retaining walls and moment slabs will be required to grade up to the required profile for the pedestrian bridge, and possibly the vehicular bridge, spanning the undercrossing. See Figure 3 for preliminary retaining wall layout.



Figure 3 – Preliminary Retaining Wall Layout

Retaining wall and shoring staging will be coordinated with the adjacent structures and civil design. The structural seal is integrated with the undercrossing walls, but is separated out as Subtask 10.6. Special provisions, quantities, and estimates will be included in Subtask 10.9.

Deliverable(s)

- Thirty percent CITY submittal (11x17 PDF format)
- Sixty percent CITY submittal (11x17 PDF format)
- 90 percent CITY submittal (11x17 PDF format)
- WSDOT/CITY contract submittal (11x17 PDF format and 11x17 hard copy)

Subtask 10.6 Seal and Fascia Walls

The CONSULTANT shall prepare a concept and design of the undercrossing structural seal and fascia walls. The staging of the seal shall be coordinated with the construction of the shoofly and temporary shoring walls, and integrate the BNSF, vehicular, and UPRR bridge foundations.

The seal depth will vary along the length of the project to counter buoyancy effects of the permanent and temporary excavations. The seal, in conjunction with the reinforced concrete portion of the seal and fascia walls, the pile-supported structure foundations, ground improvement, and roadway section grading, will create a water resistant barrier and act integrally with the structural walls to create a boat for the undercrossing. Storm drainage and infiltration will be addressed in Tasks 12 and 13.

The seal will be constructed in stages and poured in segments to accommodate site conditions, such as high-water table, differing subsurface materials, staging of the corridor, utilities, and contractor means and methods. These impacts and staging of the seal will be evaluated as part of the seal design.

An edge beam and approach slab will be utilized at each transition of the seal to standard subsurface ground conditions.

Special provisions, quantities, and estimates will be included in Subtask 10.9.

Deliverable(s)

- Thirty percent CITY submittal (11x17 PDF format)
- Sixty percent CITY submittal (11x17 PDF format)
- Ninety percent CITY submittal (11x17 PDF format)
- WSDOT/CITY contract submittal (11x17 PDF format and 11x17 hard copy)

Subtask 10.7 Pedestrian Bridge

The CONSULTANT shall prepare a concept and design of a pedestrian bridge that connects the Interurban Trail over the undercrossing using a prefabricated bridge. The foundations will be constructed with spread footings and curtain walls that surcharge the structural walls of the undercrossing and will be incorporated into Subtask 10.5. Retaining walls will be constructed to raise the trail profile and meet ADA standards (see Subtask 10.5).

The CONSULTANT will coordinate the superstructure performance criteria with up to three prefabricated bridge suppliers. The superstructure will be acquired by the contractor based on performance criteria. The foundation and bearings will be design and incorporated into the contract documents, based on the superstructure performance criteria.

Special provisions, quantities, and estimates will be included in Subtask 10.9.

Deliverable(s)

- Thirty percent CITY submittal (11x17 PDF format)
- Sixty percent CITY submittal (11x17 PDF format)

- Ninety percent CITY submittal (11x17 PDF format)
- WSDOT/CITY contract submittal (11x17 PDF format and 11x17 hard copy)

Subtask 10.8 Miscellaneous Structures

The CONSULTANT shall prepare a design of the following miscellaneous structural elements.

- Limits of the structure excavation
- Luminaire brackets and details, incorporated into the undercrossing structure
- Signal bridge at intersection for loop ramp to Sound Transit Station
- Signal bridge foundations, integrated behind or into structural walls of undercrossing

The CONSULTANT will coordinate the design of these elements with the other structural and civil aspects of the project. Special provisions, quantities, and estimates will be included in Subtask 10.9.

Deliverable(s)

- Sixty percent CITY submittal (11x17 PDF format)
- Ninety percent CITY submittal (11x17 PDF format)
- WSDOT/CITY contract submittal (11x17 PDF format and 11x17 hard copy)

Subtask 10.9 Structural Special Provision and Estimate

The CONSULTANT shall prepare a conceptual estimate for the 30 percent submittal, a special provision outline, updated estimate for the 60 percent submittal, and a project estimate and special provisions for the 90 percent and final submittals.

Deliverable(s)

- Thirty percent CITY submittal – structural estimate (PDF format)
- Sixty percent CITY submittal – structural estimate (PDF format)
- Sixty percent CITY submittal – structural special provisions outline (PDF format)
- Ninety percent CITY submittal – structural estimate (PDF format)
- Ninety percent CITY submittal – structural special provisions (MS Word and PDF format)
- WSDOT/CITY contract submittal – structural estimate (PDF format)
- WSDOT/CITY contract submittal – structural special provisions (MS Word and PDF format)

Subtask 10.10 Wall Aesthetics

The CONSULTANT shall utilize standard WSDOT form liners for aesthetic treatments for the walls of the underpass. The CONSULTANT will participate in up to three 2- hour meetings with the CITY to discuss concepts. The preferred alternative will be incorporated into the project and no additional plan sheets will be included in the contract documents for architectural treatments.

TASK 10.0 STRUCTURAL ENGINEERING (Bright Engineering)

Bright Engineering Inc. (hereinafter referred to as SUBCONSULTANT), under a separate subconsultant agreement with CONSULTANT, will perform the following tasks.

Subtask 10.3 Union Pacific Railroad Temporary Shoring Wall

The SUBCONSULTANT shall prepare a concept and design of the temporary shoring wall required to stage construction between the shoofly and the UPRR bridge. This wall will be integral with undercrossing structural walls and will utilize PGAs underneath shoofly. PGA, Whaler, and other details to construct, maintain, and remove the temporary shoring wall will be included in this effort.

This wall shall be included in the contract documents, reviewed and approved by UPRR as part of the requirements of Table 3-2 of the BNSF-UPRR Guidelines for Railroad Grade Separation Projects (1/24/2007), to be performed by CONSULTANT.

Special provisions, quantities, and estimates will be generated by CONSULTANT

Subtask 10.4 Sound Transit Vehicular Bridge

The CONSULTANT shall prepare a concept and design of a vehicular bridge that connects the loop ramp intersection from the undercrossing to the Sound Transit Station as a single-span precast-prestressed concrete girder bridge. The superstructure will be a precast-prestressed concrete girder with integral concrete deck and diaphragms, per WSDOT standard practice. The bearings, expansion joints, barriers, and all other connections to the bridge superstructure are included in the superstructure design.

Typical 2 ~ 2-inch-diameter conduit with junction boxes will be included in the traffic barrier, but other conduits, utilities, luminaries, or miscellaneous items connected to the bridge will be designed by CONSULTANT.

The foundations will be constructed with pile-supported footing and abutment walls, similar to the existing BNSF bridge. Retaining walls and shoring will be coordinated with the undercrossing structure and civil design. Ground improvements will be evaluated and designed, as required, at the interface of the foundation and the seal. Walls, abutments, foundations, and other interactions with undercrossing structure will be designed by CONSULTANT.

Special provisions, quantities, and estimates will be generated by CONSULTANT.

Deliverable(s)

- Thirty percent CITY submittal (11x17 PDF format)
- Sixty percent CITY submittal (11x17 PDF format)
- Ninety percent CITY submittal (11x17 PDF format)
- WSDOT/CITY contract submittal (11x17 PDF format and 11x17 hard copy)

Subtask 10.8 Miscellaneous Structures

The SUBCONSULTANT shall prepare a design of the following miscellaneous structural elements.

- Signal bridge at intersection for loop ramp to Sound Transit Station. Structure will be rectangular sections, per WSDOT BDM Chapter 10, with bolted connections and baseplate with anchor bolts.
- Signal bridge foundations, integrated behind or into structural walls of undercrossing. Foundation will be drilled shafts placed an appropriate distance behind the structural walls (to be determined). Geotechnical engineers will provide allowable lateral bending capacities of soil. Design shall follow requirements of BDM Chapter 10.

The SUBCONSULTANT will coordinate the design of these elements with the other structural and civil aspects of the project.

Special provisions, quantities, and estimates will be generated by CONSULTANT.

Deliverable(s)

- Sixty percent CITY submittal (11x17 PDF format)
- Ninety percent CITY submittal (11x17 PDF format)
- WSDOT/CITY contract submittal (11x17 PDF format and 11x17 hard copy)

TASK 11.0 GEOTECHNICAL ENGINEERING SUPPORT (Shannon & Wilson)

Shannon & Wilson (hereinafter referred to as SUBCONSULTANT), under a separate subconsultant agreement with CONSULTANT, will evaluate the subsurface conditions at the project site based on available existing subsurface data and one *in situ* test, described below. Based on the subsurface conditions, the SUBCONSULTANT will provide geotechnical engineering recommendations for final design of the project. Recommendations would include foundations, walls, temporary shoring, settlement, stability, and seismic considerations. SUBCONSULTANT would assist in developing plans and specifications for the project bid package.

Subtask 11.1 *In Situ* Testing

Stormwater Pond Infiltration

The existing stormwater pond will be expanded as part of the project. The facility design depends partly on the infiltration rate of the subgrade. To improve the estimate of the infiltration rate, SUBCONSULTANT will perform a pilot infiltration test (PIT) near the existing stormwater pond. The PIT will require an excavator and water source; SUBCONSULTANT will retain an excavator subcontractor, and use an on-site water source to perform the PIT.

Assumption(s)

- The test will be located on public property, UPRR property, or PSE property. The CITY will contact property owners and arrange for ROE for the test(s). SUBCONSULTANT will notify the CONSULTANT, CITY, and property owner regarding the timing of the testing work.
- Water for the PIT will be available at the test location near the existing stormwater pond. A water truck or outside water source will not be required.
- The PIT excavation will be loosely backfilled with the excavated material. No site restoration will be performed.
- If street-use permits, traffic control, or railroad flaggers will be required to perform the test, the SUBCONSULTANT will plan, coordinate, and procure the required items.
- To locate utilities on public property, SUBCONSULTANT will call the One-Call Utility Locate number; any private utility location would be done by the CONSULTANT.
- The CONSULTANT or CITY will survey (provide plan coordinates and elevation of the ground surface) the test location.

Subtask 11.2 Geotechnical Engineering

SUBCONSULTANT will provide design recommendations in accordance with applicable standards, including CITY, WSDOT, UPRR, and BNSF Railway. Engineering services will include

Seismic Design Considerations.

SUBCONSULTANT would provide seismic design parameters for the project based on the seismic design level specified by the CITY. SUBCONSULTANT would perform liquefaction hazard analyses for the existing subsurface explorations in the footprint of the project, and include the results of those analyses in other engineering evaluations (e.g., earth pressures, stability).

Develop Bridge Foundation Recommendations

SUBCONSULTANT would provide LRFD axial and lateral resistances for deep foundations, or bearing and lateral resistance for shallow foundations, if applicable. If we recommend deep foundations, we would provide parameters for developing lateral resistance curves, but would not perform lateral resistance analyses (e.g., LPILE).

Develop Retaining Wall Recommendations

SUBCONSULTANT would provide LRFD bearing resistances, static earth pressures, and seismic earth pressures, as applicable, for temporary and permanent retaining walls. Wall types may include soldier piles with tieback/deadman anchors, cantilever, and structural earth walls. Evaluate settlement, global stability, and seismic displacement of walls, as applicable.

Develop Underpass Design Recommendations

Evaluate uplift forces and mitigation alternatives for the underpass structure. Mitigation alternatives could be tiedown anchors, gravity structure, etc.

Develop Shoofly Embankment Recommendations

Evaluate settlement and stability of the shoofly embankment. Develop recommendations to achieve required design standards for settlement and stability (e.g., base reinforcement, preloading).

Update Existing Groundwater Model

SUBCONSULTANT would continue reading existing dataloggers at the site (six piezometers and two stormwater pond stage loggers). SUBCONSULTANT would update the groundwater model calibration using the recorded groundwater and pond stage level.

Develop Recommendations for Utility Protection

SUBCONSULTANT would evaluate potential impacts to existing utilities from construction activities (e.g., vibrations, settlement), and develop mitigation alternatives.

Evaluate New Outfall Foundations

Evaluate foundation types and settlement of the new outfall. SUBCONSULTANT would estimate the soil conditions at the outfall location based on geologic maps and engineering judgment.

Evaluate Stormwater Infiltration Rates

Evaluate design infiltration rates based on PIT results.

Evaluate Construction Considerations

Evaluate construction considerations related to site preparation, earthwork, excavations, ground improvement, and temporary shoring.

Assumption(s)

- SUBCONSULTANT's hours estimate shows the assumed number of analyses/scenarios for each scope item.
- Approximately 75 percent of the analyses would be completed for the draft geotechnical report. The remaining analyses would be completed as part of the final report.

Deliverable(s)

- Draft (60 percent) geotechnical report
- Final geotechnical report

Subtask 11.3 Plans and Specifications

SUBCONSULTANT will review and comment on construction plans and specifications related to geotechnical components of the project.

TASK 12.0 DRAINAGE REPORT

The CONSULTANT shall prepare a drainage report and preliminary conveyance design for the project in sufficient detail to support the completion and approval of the environmental documentation for the project. The drainage report will be prepared per the criteria of the adopted 2016 King County Surface Water Design Manual (SWDM) and relevant policies of the City of Tukwila as appropriate. The drainage report shall include the following.

1. Project overview
2. Detailed project description
3. Tributary area exhibits
4. Runoff calculations
5. Gutter analysis including sag analysis
6. Detention calculations
7. Water quality computations
8. Stormwater conveyance calculations
9. Wetland hydro period analysis
10. Maintenance and operation of facilities

The drainage report and preliminary conveyance design will be based on the concept illustrated below, with the outfall location and discharge route to be determined after topographic survey information has been obtained. An outfall and discharge route memorandum will be provided to the CITY.

The CONSULTANT shall meet with the CITY and the environmental subconsultant to determine the wetland hydro period baseline.

Assumptions(s)

- Groundwater seeping into the underpass will not need to be treated.
- Storm water runoff from the roadway will be collected separately from the groundwater, treated and subsequently comingled with the groundwater and discharged to the Green River.
- The discharge route and outfall location will be selected based on the ability to gravity flow (or not) the treated storm water and untreated ground water. These decisions will be made in consultation with CITY staff and documented in a brief memorandum.
- The stormwater design process will include up to three meetings with the CITY and other involved parties to review and discuss options being considered. One additional meeting with the CITY will be required to review and discuss comments on the draft drainage report.
- The CONSULTANT shall provide PS&E for the projects storm water system, including submittal reviews with the CITY at the 30, 60, 90, and 100 percent completion levels.

Stormwater PS&E submittals, and the effort associated with them, are not included in this task, but will be incorporated in to the roadway design submittals as described in Task 14.

Deliverable(s)

- Meeting minutes
- Draft and final outfall and discharge route memorandum(one electronic and two hard copy)
- Draft and final drainage report (one electronic and two hard copy)

TASK 13.0 PUMP STATION

The pump stations and outfall configurations will be established based on the final discharge route. The existing pump system will be modified as described and shown in Figure 4. Existing pump station modifications will include the addition of a third pump and associated valves and controls, upsized power feed, and modifications to the existing pump layout and control system as necessary to accommodate the addition of the third pump. The need for a second standby generator will be assessed and incorporated in to the modification if deemed necessary.

If the discharge to the Green River cannot be routed via gravity flow, a new combined storm/groundwater pump station will be required to pump treated storm water and groundwater to the outfall. It is assumed this pump station will largely mirror the existing in configuration and layout. Key components will include duplex submersible pumps, wet well, valves, valve vault, discharge piping, controls, CMU block building to house the controls, and standby generator. The wet well and valve vault will be precast concrete. The associated work for this additional pump station system is included in Subtask 13.8 Outfall Pump Station Design.

A groundwater pump system will be required to pump collected groundwater to the discharge pipe or to the new combined storm/groundwater pump station. The new groundwater pumps will be duplex submersible and installed in an existing manhole that will be converted to a wet well. The controls will either be housed in an outdoor enclosure or inside the existing pump station building if there is room.

All of the new pump stations will have telemetry equipment and will be connected to the municipal Supervisory Control and Data Acquisitions (SCADA) system. If ownership of the existing pump station is transferred to the CITY, then the existing lift station telemetry and control panels will be replaced with the CITY's standard panels.

The current concept for the basic pump station improvements are shown in Figure 4 below. It is understood this may be refined during the initial design phase and, as noted in Subtask 13.8 below, there may be a need to provide an outfall pump station if the preferred discharge route cannot be gravity fed.

Subtask 13.1 Determine Criteria

The CONSULTANT shall meet with the CITY to confirm design criteria, determine pump sizes, and identify equipment brands that are acceptable to the CITY and, if possible, comply with "Buy American" provisions for this potentially federally funded project. Meeting minutes will be provided.

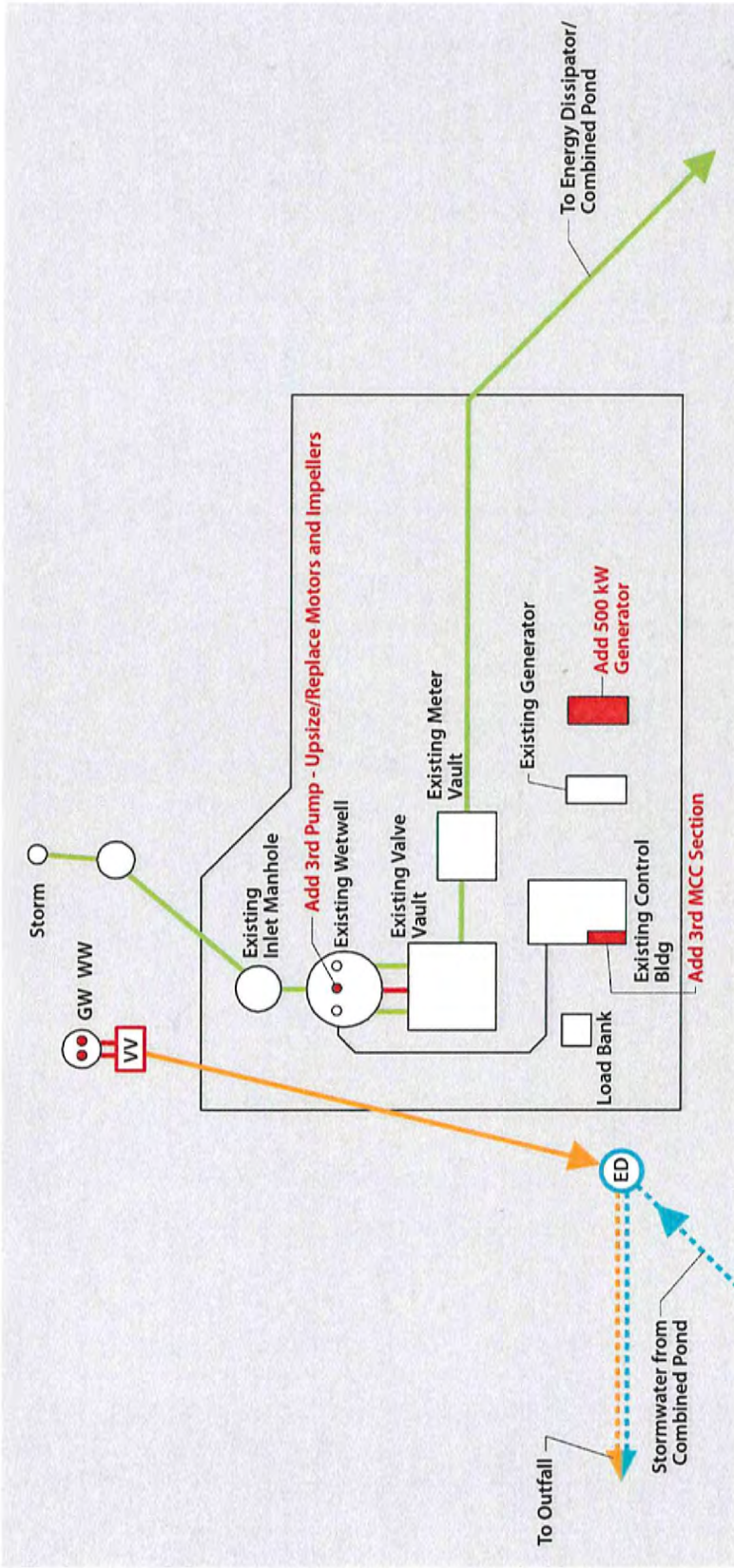


Figure 4.

Subtask 13.2 Draft Stormwater Pump Station Memorandum

Preliminary drawings, supporting calculations, equipment data, specifications, and cost estimates of construction for the stormwater pump station will be provided in a draft stormwater pump station memorandum for CITY review. The CITY will provide one set of consolidated review comments. The CONSULTANT and the CITY shall meet to review the comments and responses. Comments will be incorporated into a final stormwater pump station memorandum as part of Subtask 13.3. Meeting minutes will be provided.

Deliverable(s)

- Draft stormwater pump station memorandum

Subtask 13.3 Final Stormwater Pump Station Memorandum

Comments from the CITY on the draft stormwater pump station report will be incorporated into the final stormwater pump station memorandum.

Deliverable(s)

- Final stormwater pump station memorandum

Subtask 13.4 Public Interest Findings

Proprietary components of the pump station(s) will need an approved Public Information Finding (PIF) from WSDOT. It is assumed that there will be three components that will each need a separate PIF.

Deliverable(s)

- Three PIFs for WSDOT approval

Subtask 13.5 Stormwater Pump Station Plans

The CONSULTANT shall prepare the stormwater pump station plans in accordance with the drawing list included with the level of effort estimate.

Deliverable(s)

- Thirty percent permitting submittal
- Sixty Percent Submittal. This submittal shall incorporate comments from the CITY on the 30 percent submittal and shall represent a complete draft of the construction contract
- Ninety Percent Submittal. This submittal shall incorporate comments from the CITY on the 60 percent submittal and shall represent a complete draft of the construction contract
- Final Submittal. This submittal shall incorporate CITY comments on the 90 percent submittal and is intended for final review by WSDOT to obligate construction funds for the project

Subtask 13.6 Stormwater Pump Station Specifications

WSDOT Standard Specifications for Road, Bridge, and Municipal Construction (2018) will be the standard specifications for the work. The CONSULTANT will prepare the general special provisions and project-specific special provisions required for construction of the pump station.

Deliverable(s)

- Special provision submittals at 60 (outline), 90, and 100 percent level of completion

Subtask 13.7 Stormwater Pump Station Construction Cost Estimate

A construction cost estimate shall be prepared for the 60,100, and final submittals. This estimate will be used as the basis of review for the lowest responsive responsible bidder

Deliverable(s)

- Cost estimate submittals at 30, 60, 90, and 100 percent level of completion
- Three hard copies of the construction cost estimate
- One electronic copy (PDF) of the construction cost estimate
- One electronic copy (MS Excel) of the construction cost estimate

Subtask 13.8 Outfall Pump Station Design

A new combined storm/groundwater pump station will be required if the stormwater/groundwater cannot be discharged to the Green River via gravity flow. It is assumed this pump station will largely mirror the existing in configuration and layout. Key components will include duplex submersible pumps, wet well, valves, valve vault, discharge piping, controls, CMU block building to house the controls, and standby generator. The wet well and valve vault will be pre-cast concrete. This subtask includes the design of the additional combined storm/ground water pump station.

Deliverable(s)

- Pump station plan submittals at 30, 60, 90, and 100 percent level of completion
- Special provision submittals at 60 (outline), 90, and 100 percent level of completion
- Cost estimate submittals at 30, 60, 90, and 100 percent level of completion

Subtask 13.9 Stormwater Pump Station Electrical Engineering

R&W (hereinafter referred to as SUBCONSULTANT), under a separate subconsultant agreement with CONSULTANT, will provide electrical engineering and control systems design required for upgrades to the existing stormwater pump station, construction of a new 100 HP stormwater pump station, and if required construction of a new groundwater pump station. For each pump station, the SUBCONSULTANT shall perform the following tasks.

1. Meet with CONSULTANT and CITY to review the pump station design requirements.
2. Prepare electrical calculations for utility service, generator sizing, and electrical distribution based on pump station design criteria.
3. Coordinate electrical service requirements for provision of power to the upgraded pump station site. Meet with the local power company if required.

4. Attend one workshop with the project team to review the preliminary design documents and establish criteria for final design.
5. Prepare final electrical and control system drawings for construction. Drawing submittals shall be provided for 60, 90, and final completion stages. Anticipated drawings include
 - Legend and abbreviations
 - Site plan
 - Modified one-line diagram
 - Electrical building power, lighting and control
 - Vault power, lighting and control
 - Electrical distribution details
 - Circuit schedules and panel schedules
 - Pump starter schematic diagrams
 - Control system power schematic
 - Control system I/O diagrams
 - RTU interconnection diagrams
 - Control panel details
6. Prepare electrical and control system technical specifications based on standard specifications from the owner.
7. Prepare an engineering opinion of construction costs for the electrical and control systems.
8. Attend up to four design team review meetings.

TASK 14.0 ROADWAY DESIGN

This task involves engineering and design work for the roadway, trail, and project construction phasing.

Subtask 14.1 Roadway Geometry

The CONSULTANT shall prepare a preliminary layout of the roadway. The roadway shall meet sight distance requirements based on the roadway design speed, vehicle turning requirements based on the project design vehicle(s), the requirements of the current Americans with Disabilities Act (ADA), and other guidelines. The CONSULTANT shall prepare environmental documents to support the roadway design as needed.

Assumptions(s)

- One round of CITY review comments.

Deliverable(s)

- Preliminary design(s) of the roadway to be included in the 30 percent plans, including cross section and horizontal and vertical geometry.
- Environmental exhibits to support roadway design.

Subtask 14.2 Trail Layout

The existing interurban trail parallels the UPRR on the west side of the UPRR requires a pedestrian bridge over the grade separation, which affects the profile and length of the underpass. In order to bring Southwest 27th up to grade in the shortest distance, the trail will likely need to be rerouted to the west or the east. The CONSULTANT shall investigate up to three alternative routes and prepare a preliminary layout of the preferred trail route. The trail shall meet the requirements of the current ADA guidelines.

Assumptions(s)

- One round of CITY review comments
- The trail will require a prefabricated bridge over the grade separation.

Deliverable(s)

- Preliminary design(s) of the trail to be included in the 30 percent plans

Subtask 14.3 Project Construction Staging

The CONSULTANT will develop construction staging and phasing concepts for the project. The concepts will include all major construction activities and the sequencing of these activities.

Deliverable(s)

- Construction staging plans will be included in the roadway PS&E submittals described below

Subtask 14.4 Roadway Plans

The CONSULTANT shall prepare roadway plans in accordance with the drawing list included with the level of effort estimate.

Deliverable(s)

- Plan submittals at 30, 60, 90, and 100 percent level of completion

Subtask 14.5 Specifications

The underpass construction is not common and special provisions will be required to supplement the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction and the associated amendments and general special provisions. The CONSULTANT will prepare outline specifications identifying all anticipated payment items. Draft special provisions will be prepared where required. It is anticipated that there will be a special provision required for each of the following, among others.

- Secant pile walls
- Bottom seal construction
- Railroad construction
- Pump stations
- Utility work

Deliverable(s)

- Special provision submittals at 60 (outline), 90, and 100 percent level of completion

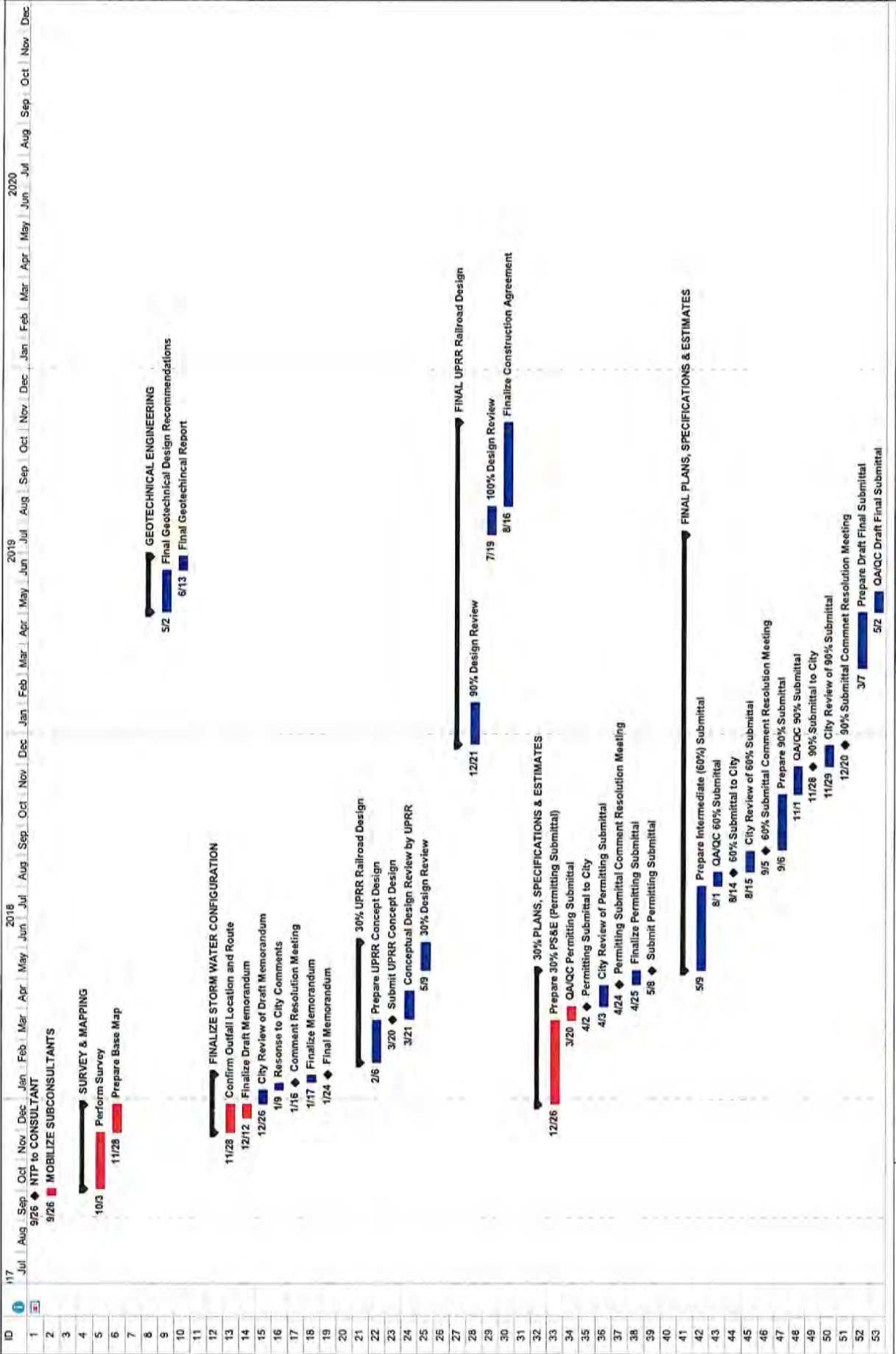
Subtask 14.6 Construction Cost Estimate

An engineer's construction cost estimate shall be prepared based upon the list of anticipated pay items and quantities obtained from the design effort.

Deliverable(s)

- Cost estimate submittals at 30, 60, 90, and 100 percent level of completion
- Three hard copies of the construction cost estimate
- One electronic copy (PDF) of the construction cost estimate
- One electronic copy (MS Excel) of the construction cost estimate

CITY OF TUKWILA - STRANDER/UPRR GRADE SEPARATION PHASE 3 - UPRR UNDERCROSSING



CITY OF TUKWILA - STRANDER/UPRR GRADE SEPARATION PHASE 3 - UPRR UNDERCROSSING

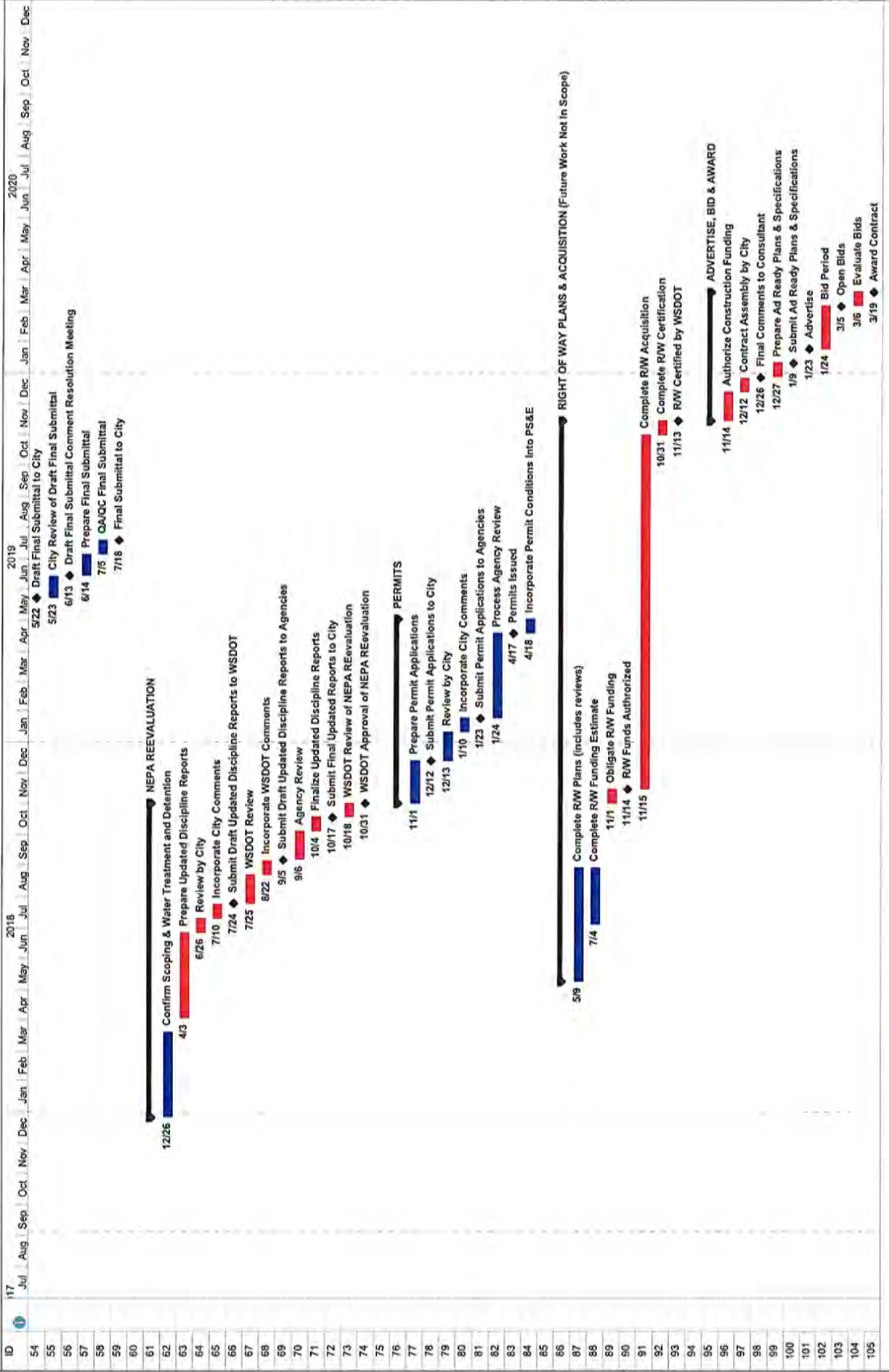


Exhibit B
DBE Participation

See attached Exhibit B.

Agreement Number:

STRANDER BOULEVARD/SW 27TH STREET EXTENSION
 EXHIBIT B - DBE PARTICIPATION PLAN

9/5/2017

Firm	Services to be Provided	DBE Cert. No.	Contract Amount		DBE Participation	
			Planned	Actual	Planned	Actual
Berger ABAM	Project Management, Civil & Structural Engineering		\$ 2,881,529	\$ -	-	-
One Alliance Geomatics	Surveying	D4M0022928	\$ 250,337	\$ -	6.19%	0.00%
Fehr & Peers	Traffic Engineering		\$ 164,952	\$ -	-	-
Abeyta & Associates	Right of Way Planning & Project Funding Estimate	D5F0019645	\$ 33,220	\$ -	0.82%	0.00%
Widener & Associates	Environmental Documentation & Permitting		\$ 188,491	\$ -	-	-
Hansen Professional Services	Railroad Engineering		\$ 179,333	\$ -	-	-
Bright Engineering	Structural Engineering	D3M0015622	\$ 94,991	\$ -	2.35%	0.00%
Shannon & Wilson	Geotechnical Engineering		\$ 141,320	\$ -	-	-
Ott-Sakai & Associates, LLC	Constructability Review & Construction Cost Estimating	D4M0023226	\$ 42,505	\$ -	1.05%	0.00%
R&W	Pump Station Electrical & Control Systems		\$ 70,650	\$ -	-	-
Notes: Planned amounts reflect the scope of work and level of effort at project NTP.			Totals =	\$ 4,047,328	\$ 0	10.40%

Preparation and Delivery of Electronic Engineering and Other Data

In this Exhibit the agency, as applicable, is to provide a description of the format and standards the consultant is to use in preparing electronic files for transmission to the agency. The format and standards to be provided may include, but are not limited to, the following:

I. Surveying, Roadway Design & Plans Preparation Section

A. Survey Data

See attached Exhibit A-1.

B. Roadway Design Files

Civil 3D. Version to be determined by consultant based on current practice at the time the work is completed.

C. Computer Aided Drafting Files

AutoCAD. Version to be determined by consultant based on current practice at the time the work is completed.

Agreement Number:

D. Specify the Agency's Right to Review Product with the Consultant
See attached Exhibit A-1.

E. Specify the Electronic Deliverables to Be Provided to the Agency
See attached Exhibit A-1.

F. Specify What Agency Furnished Services and Information Is to Be Provided
See attached Exhibit A-1.

Agreement Number: _____

II. Any Other Electronic Files to Be Provided

See attached Exhibit A-1.

III. Methods to Electronically Exchange Data

Methods will be determined in consultation with agency during the course of the work.

A. Agency Software Suite

None.

B. Electronic Messaging System

None.

C. File Transfers Format

See attached Exhibit A-1.

Exhibit D
Prime Consultant Cost Computations

Exhibit D-1 - Consultant Fee Determination
Exhibit D-3 - Consultant WSDOT ICR Letter

Agreement Number:

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Phase 3 Cost Summary
9/5/2017**

DIRECT SALARY COSTS (DSC)

<u>Personnel</u>	<u>Hours</u>		<u>Rate</u>		<u>Cost</u>
1 Principal/Project Manager	414	X	\$ 93.03	= \$	38,514
2 Project Engineer	3,599	X	\$ 63.54	= \$	228,680
3 Structural Engineer	3,413	X	\$ 47.98	= \$	163,756
4 Civil Engineer	4,371	X	\$ 40.67	= \$	177,769
5 Construction Specialist	372	X	\$ 62.04	= \$	23,079
6 Designer/CAD Operator	6,010	X	\$ 46.26	= \$	278,023
7 Graphics	136	X	\$ 40.00	= \$	5,440
8 Department Coord./Admin	408	X	\$ 35.26	= \$	14,386
Total Hours					18,723
Subtotal Direct Salary Costs (DSC) =					\$ 929,647
Salary Escalation (SE) = 5% of DSC =					\$ 46,482
Subtotal (DSC + SE) =					\$ 976,129
Overhead (OH)	163.45%	of (DSC + SE) =			\$ 1,595,483
Fixed Fee (FF)	31.55%	of (DSC + SE) =			\$ 307,968.73
TOTAL SALARY COSTS (DSC + SE + OH + FF) =					\$ 2,879,581

DIRECT NONSALARY COSTS (DNCS)

Mileage Design Team	800	miles @ \$ 0.560	\$	448
Expendables (photographs, equip rental, etc.)	1	Estimate \$ 1,500	\$	1,500
TOTAL REIMBURSABLE EXPENSES (DNCS) =				\$ 1,948

TOTAL BergerABAM = \$ 2,881,529

SUBCONSULTANTS

One Alliance Geomatics - Survey	\$	250,337
Fehr and Peers - Traffic	\$	164,952
Abeyta & Associates - ROW Planning Services/Project Funding Estimate (PFE)	\$	33,220
Widener & Associates - Environmental	\$	188,491
Hanson - Railroad	\$	179,333
Bright - Structural	\$	94,991
Shannon & Wilson - Geotechnical	\$	141,320
Ott Sakai - Constructability	\$	42,505
R & W - Pump Station Electrical & Control Systems	\$	70,650
TOTAL Subconsultants =		\$ 1,165,799

Management Reserve = \$ 100,000

TOTAL Authorized Amount \$ 4,147,328

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Direct Salary Costs
9/5/2017**

Classification	Name	Base Wage Rate	% Participation	Blended Hourly Rate
Principal/Project Manager	Bob Fernandes	\$93.03	100%	\$ 93.03
Project Engineers	Ross French	\$63.00	100%	\$ 63.54
	Naomi Selove	\$56.64		
	Stuart Bennion	\$63.54		
	Matt Huxley	\$58.05		
Structural Engineers	Greg Banks	\$63.64	100%	\$ 47.98
	Santiago Aguilar	\$47.98		
Civil Engineers	Blake Nelson	\$35.58	100%	\$ 40.67
	Brook Emry	\$40.67		
Construction Specialists	Bob Lee	\$62.04	100%	\$ 62.04
	Ed Cline	\$58.89		
Designer/CAD Operator	John Reyes	\$41.61	30%	\$ 46.26
	Jef Blake	\$55.19	30%	
	Lee Childress	\$43.05	40%	
Graphics	Aaron Savage	\$40.00	100%	\$ 40.00
	Kim Crow	\$37.91		
Department Coord./Admin	Nora Bretana	\$34.88	100%	\$ 35.26
	Kelly Robinson	\$35.26		

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	DSC	Personnel										Totals
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department Coord./Admin			
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26			
1	TASK 1 - PROJECT MANAGEMENT	238	708	220	172	104	-	-	156	-	-	1,598
1.1	Project Coordination (24 months) Quality Assurance	48	96	48	-	-	-	-	96	-	-	288
1.2	Preparation of QA Plan and Monitoring Checking Subconsultant Work Products 30 Percent Submittal QA 60 Percent Submittal QA 90 Percent Submittal QA Final Submittal QA	18	440	-	-	104	-	-	12	-	-	574
	Meetings	8	60	-	-	-	-	-	12	-	-	80
	Project Team Meetings (52) Meetings with City Staff (24)	2	100	-	-	32	-	-	-	-	-	102
		2	60	-	-	20	-	-	-	-	-	94
		2	80	-	-	20	-	-	-	-	-	102
		2	80	-	-	32	-	-	-	-	-	114
		2	60	-	-	20	-	-	-	-	-	82
1.3		172	172	172	172	-	-	-	48	-	-	736
		52	52	52	52	-	-	-	-	-	-	208
		120	120	120	120	-	-	-	48	-	-	528
2	TASK 2 - DIRECTED SERVICES	-	-	-	-	-	-	-	-	-	-	-
2.1	Public Involvement Exhibits Mailings Summary of Comments	-	-	-	-	-	-	-	-	-	-	-
2.2	Value Engineering (VE) Initial Presentation of Project to VE Team Review and Response to VE Recommendations	-	-	-	-	-	-	-	-	-	-	-
2.3	Ad, Bid, and Award Services Answers to Bidder Questions Addenda Special Provisions Addenda Bid Quantities Addenda Plans	-	-	-	-	-	-	-	-	-	-	-
3	TASK 3 - INDEPENDENT CONSTRUCTABILITY REVIEW	-	-	-	-	-	-	-	-	-	-	-
		See Ott Sakai Fee Estimate for Details										

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	DSC	Personnel										Totals	
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department Coord./Admin				
4	TASK 4 - SURVEY AND BASE MAPPING												
4.1	Record Research, GPS RTK Control and, Terrestrial Control Survey Work												
4.2	Topographic Survey												
4.3	Utility Locate Services												
4.4	Additional Topographic Survey of Adjacent Wetland(s)												
4.5	Title and ROW Review												
5	TASK 5 - UTILITIES												
5.1	Existing Utility Data												
5.2	Preliminary Coordination with Utilities												
5.3	Coordination with Utilities for Final Design												

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	DSC	Personnel										Totals	
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department Coord./Admin				
5.4	SPU Waterline Monitoring Plan Draft Waterline Monitoring Plan	-	16	-	-	-	-	-	-	-	-	-	16
5.5	Coordination with Utilities for Final Design King County Coordination Meeting Provide Meeting Minutes for Meeting Develop Design Criteria Provide Draft Conceptual Sanitary System Layout Incorporate County Comments into Conceptual Design Construction Cost Estimate	-	18	-	101	4	56	-	2	-	-	-	181
		-	4	-	4	-	-	-	-	-	-	-	8
		-	-	-	1	-	-	-	2	-	-	-	3
		-	4	-	16	-	-	-	-	-	-	-	20
		-	4	-	40	-	40	-	-	-	-	-	84
		-	2	-	16	-	16	-	-	-	-	-	34
		-	4	-	24	-	4	-	-	-	-	-	32
6	TASK 6 - TRAFFIC ANALYSIS, ILLUMINATION & SIGNAL DESIGN	-	-	-	-	-	-	-	-	-	-	-	-
6.1	Traffic Capacity Analysis	-	-	-	-	-	-	-	-	-	-	-	-
6.2	Preliminary Construction Cost Estimate	-	-	-	-	-	-	-	-	-	-	-	-
6.3	Preliminary Illumination (30 Percent) Design	-	-	-	-	-	-	-	-	-	-	-	-
6.4	Traffic Study for Environmental Documentation	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-
7	TASK 7 - RIGHT OF WAY PLANNING AND COORDINATION	30	208	55	324	18	192	-	-	-	-	-	827
7.1	Local Business Access Design	30	58	-	96	-	72	-	-	-	-	-	256
	Meet with Taco Bell	4	8	-	8	-	4	-	-	-	-	-	24
	Develop Revised Access Options	2	8	-	24	-	16	-	-	-	-	-	50
	Review Options for Revised Access with City	3	3	-	-	-	-	-	-	-	-	-	6
	Revise Access Options	-	4	-	16	-	8	-	-	-	-	-	28
	Present Options to Taco Bell	3	3	-	-	-	-	-	-	-	-	-	6
	Follow Up Meeting	3	3	-	-	-	8	-	-	-	-	-	14
	Meet with Jack in the Box	4	8	-	8	-	4	-	-	-	-	-	24
	Develop Revised Access Options	2	8	-	24	-	16	-	-	-	-	-	50
	Review Options for Revised Access with City	3	3	-	-	-	-	-	-	-	-	-	6
	Revise Access Options	-	4	-	16	-	8	-	-	-	-	-	28
	Present Options to Jack in the Box	3	3	-	-	-	-	-	-	-	-	-	6
	Follow Up Meeting	3	3	-	-	-	8	-	-	-	-	-	14

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	DSC	Hourly Rates											Totals	
		Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department Coord./Admin					
7.2	Puget Sound Energy ROW Coordination Meet with PSE ROW department (1 hr mtg) Provide Minutes for PSE Mtg Develop Access Options Revise Access Options Present Final Driveaway Configuration to PSE ROW General Coordination (1 hr/ month) Sound Transit Coordination Meet with Sound Transit (6-1.5 hr mtg) Provide Minutes for Sound Transit Mtg Prepare Exhibits for Sound Transit Meetings and Correspondence General Coordination (3 hr/ month) Kaiser Coordination Meet with Kaiser (2-1 hr mtg) Provide Minutes for Kaiser Mtg General Coordination (1 hr / month) Intersection Plan for Approval (IPA) (Assume 3 review cycles) Prepare IPA plans Submit IPA to WSDOT Review, respond and address WSDOT Comments King County Metro (KCM) RapidRide Coordination Meet with KCM (1 hr mtg) Provide Minutes for KCM Mtg Develop Draft Detour Route Submit Draft Detour Route to KCM for Approval Submit Final Detour Route to KCM for Approval General Coordination (0.5 hr/ month) Boeing ROW Coordination Meet with Boeing ROW department (1 hr mtg) Provide Minutes for Boeing Mtg Develop Draft Construction Route for approval	\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26					
		-	8	-	8	-	-	8	-	-	-	-	-	24
		-	3	-	-	-	-	-	-	-	-	-	-	3
		-	1	-	-	-	-	-	-	-	-	-	-	1
		-	2	-	8	-	-	8	-	-	-	-	-	18
		-	2	-	-	-	-	-	-	-	-	-	-	2
		-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
		-	35	55	32	-	-	8	-	-	-	-	-	130
		-	21	21	-	-	-	-	-	-	-	-	-	42
-	6	2	-	-	-	-	-	-	-	-	-	8		
-	8	32	32	-	-	8	-	-	-	-	-	80		
-	-	-	-	-	-	-	-	-	-	-	-	-		
-	8	-	6	-	-	-	-	-	-	-	-	14		
-	6	-	6	-	-	-	-	-	-	-	-	12		
-	2	-	-	-	-	-	-	-	-	-	-	2		
-	-	-	-	-	-	-	-	-	-	-	-	-		
-	14	-	78	-	-	20	-	-	-	-	-	112		
-	8	-	60	-	-	20	-	-	-	-	-	88		
-	3	-	-	-	-	-	-	-	-	-	-	3		
-	3	-	18	-	-	-	-	-	-	-	-	21		
-	10	-	8	-	-	8	-	-	-	-	-	26		
-	3	-	-	-	-	-	-	-	-	-	-	3		
-	1	-	-	-	-	-	-	-	-	-	-	1		
-	2	-	4	-	-	4	-	-	-	-	-	10		
-	2	-	-	-	-	-	-	-	-	-	-	2		
-	2	-	4	-	-	4	-	-	-	-	-	10		
-	-	-	-	-	-	-	-	-	-	-	-	-		
-	11	-	14	-	6	8	-	-	-	-	-	39		
-	3	-	-	-	3	-	-	-	-	-	-	6		
-	1	-	-	-	-	-	-	-	-	-	-	1		
-	2	-	8	-	-	8	-	-	-	-	-	18		

EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION

ABAM Phase 3 Hours
9/5/2017

Task Number	DSC	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department	Cord./Admin	Totals
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
	Revise Access Options Present Final Construction Route to Boeing ROW at Mig General Coordination (1 hr/ month)	-	2	-	6	-	-	-	-	-	8
		-	3	-	-	3	-	-	-	-	6
		-	-	-	-	-	-	-	-	-	-
7.2	BNSF ROW Coordination Meet with BNSF (1 hr mtg) Provide Minutes for BNSF Revise Access Options Present Final Impacts to BNSF ROW at Mig General Coordination (1 hr/ month)	-	9	-	6	6	-	-	-	-	21
		-	3	-	-	3	-	-	-	-	6
		-	1	-	-	-	-	-	-	-	1
		-	2	-	6	-	-	-	-	-	8
		-	3	-	-	3	-	-	-	-	6
		-	-	-	-	-	-	-	-	-	-
7.2	UPRR ROW Coordination Meet with UPRR (1 hr mtg) Provide Minutes for UPRR Mtg Revise Access Options Present Final Impacts to UPRR ROW at Mig General Coordination (1 hr/ month)	-	9	-	6	6	-	-	-	-	21
		-	3	-	-	3	-	-	-	-	6
		-	1	-	-	-	-	-	-	-	1
		-	2	-	6	-	-	-	-	-	8
		-	3	-	-	3	-	-	-	-	6
		-	-	-	-	-	-	-	-	-	-
7.2	Right-of-Way Plans & Coordination (assume 12 properties) Coordination (4 hr month for 9 months) Exhibits (Assume 24) Legal Descriptions (Assume 24) Plans	-	46	-	70	-	68	-	-	-	184
		-	36	-	36	-	-	-	-	-	72
		-	-	-	-	-	-	-	-	-	-
		-	10	-	34	-	68	-	-	-	112
		-	-	-	-	-	-	-	-	-	-
8	TASK 8 - ENVIRONMENTAL COMPLIANCE/PERMITTING REQ'S	-	-	-	-	-	-	-	-	-	-
8.1	Design Assistance and Early Agency Coordination	-	-	-	-	-	-	-	-	-	-
8.2	Prepare Area of Potential Effect	-	-	-	-	-	-	-	-	-	-
8.3	Section 106 Report	-	-	-	-	-	-	-	-	-	-
8.4	Noise Study	-	-	-	-	-	-	-	-	-	-
8.5	Hazardous Materials Memorandum	-	-	-	-	-	-	-	-	-	-
8.6	Biological Assessment (BA)	-	-	-	-	-	-	-	-	-	-
8.7	Air Quality Analysis	-	-	-	-	-	-	-	-	-	-
8.8	NEPA Environmental Classification Summary Update	-	-	-	-	-	-	-	-	-	-
8.9	Wetland and Critical Areas Study	-	-	-	-	-	-	-	-	-	-
8.10	Wetland Mitigation Use Plan	-	-	-	-	-	-	-	-	-	-

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	Description	Project Engineer		Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department	Totals
		Manager	Engineer							
8.11	DSC	\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26	-
8.12	SEPA									-
8.13	State & Federal Permits City Permits									-
9	TASK 9 - RAILROAD	1	20	16	44		54			135
9.1	Project Coordination									-
9.2	Railroad Shoofly and Phasing Concept									-
9.3	30 Percent Railroad Shoofly and Phasing Plan									-
9.4	60, 90 & 100 Percent Railroad Shoofly and Phasing Plan									-
9.5	Shoofly Plans - Hanson Shoofly Coordination (BergerABAM)	1	20	16	44		54			135
	Shoofly Design Coordination									30
	Shoofly Plans - BergerABAM									84
	Shoofly Coordination Estimate	1	4	8	8					21
10	TASK 10 - STRUCTURAL ENGINEERING	75	1,195	2,720	14	168	2,196	48	160	6,576
10.1	BNSF Bridge and Walls	22	120	260		20	206		30	658
	Coordination and Meetings with CITY and BNSF (3 Meetings)	12	12	12					6	42
	Retaining Wall and Integration									40
	Foundation Design and Ground Improvement									88
	Staging and Misc Details									60
	BNSF Bridge Plans									316
	BNSF Conceptual Submittal	2	4	6					4	16
	BNSF 30% Submittal	2	4	8			8		6	28
	BNSF 60% Submittal	2	6	12			8		6	34
	BNSF Final Submittal	2	4	8					4	18
	WSDOT/CITY Contract Submittal	2	4	6					4	16
10.2	UPRR Bridge and Walls	22	206	544		54	454		32	1,312
	Coordination and Meetings with CITY and UPRR (3 Meetings)	12	12	12					6	42
	Retaining Wall and Integration									56
	Foundation Design and Ground Improvement									116
	Staging and Misc Details									96
	Superstructure Design and Track Coordination									172

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	DSC	Personnel										Totals
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department Coord./Admin			
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26			
	UPRR Bridge Plans		86	172			438					696
	UPRR Conceptual Submittal	2	4	8			4					22
	UPRR 30% Submittal	2	4	12			4					28
	UPRR 60% Submittal	2	6	20			8					44
	UPRR Final Submittal	2	4	12								22
	WSDOT/CITY Contract Submittal	2	4	8								18
10.3	UPRR Temporary Shoring Wall		24	32								64
	Temporary Shoring Wall Design											
	Coordination of Staging with Civil, Structural, and Shooftly											
	UPRR Temporary Shoring Wall Plans											
	Bright Engineering Design Coordination		12	16								28
	Coordination with UPRR Submittals in Task 10.2		12	16								36
10.4	Sound Transit Vehicular Bridge	8	136	304		26	242	16	26			758
	Foundation Design and Ground Improvement											
	Superstructure Design		28	88		6						122
	Retaining and Shoring Wall Design Coordination		16	40		12						68
	Coordination of Staging with Civil and Structural		16	24		8						48
	Vehicular Bridge Plans (Substructure)		46	92			234					372
	Vehicular Bridge Plans (Superstructure)											
	Bright Engineering Design Coordination		12	24								36
	30% City Submittal	2	4	8			4	8	6			32
	60% City Submittal	2	4	8			4	8	8			34
	90% City Submittal	2	6	12					4			24
	WSDOT/CITY Contract Submittal	2	4	8					8			22
10.5	Retaining Walls	8	340	760		28	716	16	26			1,894
	Undercrossing Wall Concept and Layout		16	40		16	12					84
	Coordination with Utilities, Drainage, and Staging		12	24		12	8					56
	Retaining Walls #1 thru #4 Design		24	80								104
	Retaining Walls #5, #8 & #17 Design		24	72								96
	Retaining Walls #6 and #7 Design		24	60								84
	Retaining Walls #9 thru #12 Design		32	80								112
	Retaining Walls #13 thru #16 and Moment Slab Design		32	80								112
	Railing and Fence Design		8	24								32

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	DSC	Personnel										Totals
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Coord./Admin			
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26			
10.6	Retaining Wall Plans	-	132	264	-	-	688	-	-	-	-	1,084
	30% City Submittal	-	8	8	-	-	4	8	-	-	-	36
	60% City Submittal	2	8	8	-	-	4	8	-	-	-	38
	90% City Submittal	2	12	12	-	-	-	-	-	-	-	30
	WSDOT/CITY Contract Submittal	2	8	8	-	-	-	-	-	-	-	26
	Seal and Fascia Walls	8	200	452	-	24	354	-	16	-	-	1,054
	Seal Concept and Layout	-	16	36	-	12	8	-	-	-	-	72
	Coordination with Utilities, Drainage, Structures and Staging	-	12	24	-	12	8	-	-	-	-	60
	Un-Reinforced Seal Design	-	20	40	-	-	-	-	-	-	-	60
	Ground Improvement Design	-	8	24	-	-	-	-	-	-	-	32
Reinforced Seal Design	-	16	40	-	-	-	-	-	-	-	56	
Edge Beam and Approach Slab Design	-	20	48	-	-	-	-	-	-	-	68	
Fascia Wall Design	-	24	80	-	-	-	-	-	-	-	104	
Structural Seal Plans	-	66	132	-	-	338	-	-	-	-	536	
30% City Submittal	2	4	4	-	-	-	-	-	-	-	12	
60% City Submittal	2	4	6	-	-	-	-	-	-	-	16	
90% City Submittal	2	6	12	-	-	-	-	-	-	-	24	
WSDOT/CITY Contract Submittal	2	4	6	-	-	-	-	-	-	-	14	
10.7	Trail Bridge	4	56	134	8	8	124	-	8	-	-	342
	Conceptual Design and Coordination with Venders	-	4	16	-	-	-	-	-	-	-	20
	Foundation Design	-	16	40	-	4	-	-	-	-	-	60
	Coordination of Staging with Civil and Structural	-	4	16	8	4	-	-	-	-	-	32
	Pedestrian Bridge Plans	-	24	48	-	-	124	-	-	-	-	196
	30% City Submittal	1	2	4	-	-	-	-	-	-	-	9
	60% City Submittal	1	2	4	-	-	-	-	-	-	-	9
	90% City Submittal	1	2	4	-	-	-	-	-	-	-	9
	WSDOT/CITY Contract Submittal	1	2	2	-	-	-	-	-	-	-	7
	Miscellaneous Structures	3	58	128	-	8	100	-	6	-	-	303
Limits of Structural Excavation Development	-	12	20	-	4	-	-	-	-	-	36	
Luminaire Brackets Design	-	12	40	-	4	-	-	-	-	-	56	
Signal Bridge Design	-	-	-	-	-	-	-	-	-	-	-	
Signal Bridge Foundation Design	-	-	-	-	-	-	-	-	-	-	-	

See Bright Fee Estimate for Details
See Bright Fee Estimate for Details

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department Coord./Admin	Totals
	\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26	
DSC									
Miscellaneous Structures Plans									
Miscellaneous Structures Plans		20	40			100			160
Bright Engineering Design Coordination		8	16						24
60% City Submittal	1	2	4						9
90% City Submittal	1	2	4						9
WSDOT/CITY Contract Submittal	1	2	4						9
Structural Special Provisions and Estimate									
30% City Submittal - Estimate		46	106					8	160
60% City Submittal - Special Provision Outline and Estimate		8	24					2	34
90% City Submittal - Special Provision and Estimate		20	48					2	70
WSDOT/CITY Contract Submittal		12	24					2	38
		6	10					2	18
Project Aesthetics									
Project Aesthetics Meetings (3 - 2 hr Meetings)		9		6			16		31
		9		6			16		31
TASK 11 - GEOTECHNICAL ENGINEERING SUPPORT									
		12	8	18					38
Subsurface Explorations and Testing									
Update Existing Groundwater Flow Model Structure									
Update Groundwater Flow Model Calibration									
Groundwater Flow Model Simulations to Incorporate Phase 3A									
Geotechnical Engineering									
Geotechnical Review (BergerABAM)		12	8	18					38
Review of Draft Geotechnical Report		9	6	12					27
Review of Final Geotechnical Report		3	2	6					11
TASK 12 - DRAINAGE DESIGN									
		14	32	168		28		12	254
Determine Preferred Discharge Route			4	24		8			36
Determine Wetland Hydroperiod Baseline with Widener/City			4	4					8
Finalize Conceptual Drainage Design			4	12					16
Draft Drainage Memo		8	8	100		20		8	144
Address Comments on Draft Drainage Memo		2	8	20					30
Final Drainage Memo		4	4	8				4	20

**EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**ABAM Phase 3 Hours
9/5/2017**

Task Number	DSC	Project Engineer		Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department Coord./Admin	Totals
		\$	Hours							
13	TASK 13 - PUMP STATION DESIGN	12	312	264	904	20	864	-	48	2,424
13.1	Meeting with City to Determine Criteria	-	4	-	4	-	-	-	2	10
13.2	Draft Stormwater Pump Station Memorandum	-	44	-	84	-	16	-	4	148
13.3	Final Pump Station Memorandum	-	16	-	16	-	-	-	2	34
13.4	Public Interest Findings	-	36	-	-	-	-	-	-	36
13.5	Stormwater Pump Station Drawings	12	116	40	464	-	440	-	-	1,072
13.6	Specifications	-	16	40	80	-	-	-	40	176
13.7	Construction Cost Estimate	-	4	-	40	20	-	-	-	64
13.8	Outfall Pump Station Design (Optional)	-	76	184	216	-	408	-	-	884
14	TASK 14 - ROADWAY DESIGN	20	950	120	2,492	54	2,560	80	24	6,300
14.1	Roadway Geometry	-	52	-	208	-	228	80	8	576
	Determine Design Criteria & Roadway Limits	-	4	-	16	-	4	-	-	24
	Develop Cross-sections	-	4	-	8	-	16	-	-	28
	Review Sight Distance	-	4	-	16	-	-	-	-	20
	Autoturn Analysis	-	4	-	16	-	16	-	-	36
	ADA Analysis	-	4	-	16	-	16	-	-	36
	Develop Roadway Conceptual Design	-	8	-	16	-	16	-	-	40
	Review Roadway Conceptual Design with City	-	4	-	-	-	-	-	4	4
	Finalize Roadway Conceptual Design	-	4	-	8	-	8	-	-	20
	Generating Environmental Documents	-	8	-	32	-	32	-	8	80
	Base map Review and Roadway Modeling	-	8	-	80	-	120	80	-	288
14.2	Trail Layout	4	24	16	40	-	20	-	-	104
	Meet with City and King County Parks	4	4	4	-	-	-	-	-	12
	Develop Trail Conceptual Criteria & Design	-	8	-	16	-	4	-	-	28
	Develop 3 Alternative Trail Routes/Configurations	-	4	4	16	-	12	-	-	36
	Review Trail Alts with City/County to Determine Preferred Design	-	4	4	-	-	-	-	-	8
	Finalize Trail Conceptual Design	-	4	4	8	-	4	-	-	20
14.3	Project Construction Staging	-	12	16	22	22	8	-	-	80
	Develop Construction Staging/ Phasing Concepts	-	8	12	16	16	4	-	-	56
	Review Construction Staging/ Phasing Concepts with City	-	2	2	-	-	-	-	-	4
	Finalize Construction Staging/ Phasing Concepts	-	2	2	6	6	4	-	-	20

EXHIBIT D-1 - CONSULTANT FEE DETERMINATION
 CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION

ABAM Phase 3 Hours
 9/5/2017

Task Number	DSC	Hourly Rates										Totals
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Operator	Graphics	Department Coord./Admin			
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26			
14.4	Roadway Plans (See General-Civil Drawing List)	-	742	72	2,142	-	2,264	-	-	-	-	5,220
14.5	Specifications	8	60	8	40	16	-	-	-	-	8	140
14.6	Construction Cost Estimate	8	60	8	40	16	40	-	-	-	8	180
15	TASK 15 - SANITARY SEWER REPLACEMENT											
	Total	414	3,599	3,413	4,371	372	6,010	136	408			18,723

**EXHIBIT D1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Right-of-Way Drawing List
9/5/2017**

DRAWING LIST	Number	Totals										
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin			
DSC		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26			
RIGHT-OF-WAY PLANS		10	34	68								112
RIGHT OF WAY AND EASEMENT KEY MAP	1		2				4					8
RIGHT OF WAY AND EASEMENT PLANS - SHEET 1	2	2	8				16					26
RIGHT OF WAY AND EASEMENT PLANS - SHEET 2	3	2	8				16					26
RIGHT OF WAY AND EASEMENT PLANS - SHEET 3	4	2	8				16					26
RIGHT OF WAY AND EASEMENT PLANS - SHEET 4	5	2	8				16					26
RIGHT OF WAY AND EASEMENT PLANS - SHEET 5	6	2	8				16					26
RIGHT OF WAY AND EASEMENT PLANS - SHEET 6	7											
RIGHT OF WAY AND EASEMENT PLANS - SHEET 7	8											
RIGHT OF WAY AND EASEMENT PLANS - SHEET 8	9											
RIGHT OF WAY AND EASEMENT PLANS - SHEET 9	10											
RIGHT OF WAY AND EASEMENT PLANS - SHEET 10	11											
RIGHT OF WAY AND EASEMENT PLANS - SHEET 11	12											
RIGHT OF WAY AND EASEMENT PLANS - SHEET 12	13											
SUBTOTAL - ALL RIGHT-OF-WAY DRAWINGS		10	34	68			68					112

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Shoofly Drawing List
9/5/2017**

DRAWING LIST	Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin	Totals	
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 52.04	\$ 46.26	\$ 40.00	\$ 35.26		
DSC											
SHOOFLY PLANS - HANSON											
SHOOFLY EMBANKMENT PLACEMENT - EAST	1										
SHOOFLY EMBANKMENT PLACEMENT - WEST	2										
SHOOFLY EMBANKMENT PLACEMENT - WEST END DETAILS	3										
SHOOFLY EMBANKMENT PLACEMENT - EAST END DETAILS	4										
SHOOFLY EMBANKMENT PLACEMENT - SPU SECTION	5										
UPRR SHOOFLY - TYPICAL SECTIONS	6										
UPRR SHOOFLY - TEMPORARY - TRACK PLAN AND PROFILE	7										
UPRR SHOOFLY - FINAL - TRACK PLAN AND PROFILE	8										
UPRR SHOOFLY - CROSS SECTIONS - SHEET 1	9										
UPRR SHOOFLY - CROSS SECTIONS - SHEET 2	10										
UPRR SHOOFLY - CROSS SECTIONS - SHEET 3	11										
UPRR SHOOFLY - CROSS SECTIONS - SHEET 4	12										
UPRR SHOOFLY - CROSS SECTIONS - SHEET 5	13										
UPRR SHOOFLY - CROSS SECTIONS - SHEET 6	14										
UPRR SHOOFLY - CROSS SECTIONS - SHEET 7	15										
UPRR SHOOFLY - CROSS SECTIONS - SHEET 8	16										
See Hanson Fee Estimate for Details											
SHOOFLY PLANS - BERGERABAM											
SHOOFLY SURCHAGRE	17		10		20		54				84
SHOOFLY END GRADING	18		2		4		12				18
SHOOFLY EMBANKMENT CATCH DETAILS (1 OF 2)	19		2		4		12				18
SHOOFLY EMBANKMENT CATCH DETAILS (2 OF 2)	20		2		4		10				16
SHOOFLY MISCELLANEOUS	21		2		4		10				16
SUBTOTAL - ALL SHOOFLY DRAWINGS											
			10		20		54				84

EXHIBIT D1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION

Structures Drawing List
9/5/2017

DRAWING LIST	Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin		
DSC	10.1	\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
BNSF BRIDGE PLANS			42	84			190				316
BNSF BRIDGE - BRIDGE GENERAL NOTES AND SHEET LIST	1		2	4			12				18
BNSF BRIDGE - GENERAL PLAN	2		2	4			12				18
BNSF BRIDGE - ELEVATION AND TYPICAL SECTION	3		2	4			10				16
BNSF BRIDGE - RETAINING WALL DEMOLITION	4		2	4			10				16
BNSF BRIDGE - GROUND IMPROVEMENT - SHEET 1	5		2	4			10				16
BNSF BRIDGE - GROUND IMPROVEMENT - SHEET 2	6		2	4			10				16
BNSF BRIDGE - GROUND IMPROVEMENT - SHEET 3	7		2	4			10				16
BNSF BRIDGE - PILE LAYOUT PLAN & FOOTING REINFORCEMENT	8		2	4			10				16
BNSF BRIDGE - PILE & FOOTING DETAILS	9		2	4			10				16
BNSF BRIDGE - TYPICAL SECTION & BEARING ELEVATIONS	10		2	4			8				14
BNSF BRIDGE - ABUTMENT #1 ELEVATION	11		2	4			8				14
BNSF BRIDGE - ABUTMENT #1 PLAN	12		2	4			8				14
BNSF BRIDGE - ABUTMENT #3 ELEVATION	13		2	4			8				14
BNSF BRIDGE - ABUTMENT #3 PLAN	14		2	4			8				14
BNSF BRIDGE - PIER #2 ELEVATION	15		2	4			8				14
BNSF BRIDGE - PIER #2 PLAN	16		2	4			8				14
BNSF BRIDGE - STAGELINE WALLS AT ABUTMENTS	17		2	4			8				14
BNSF BRIDGE - ABUTMENT & PIER SECTIONS	18		2	4			8				14
BNSF BRIDGE - MISCELLANEOUS FOUNDATION DETAILS	19		2	4			8				14
BNSF BRIDGE - FOUNDATION REINFORCEMENT TABLES	20		2	4			8				14
BNSF BRIDGE - FOUNDATION ESTIMATED QUANTITIES	21		2	4			8				14
UPRR BRIDGE PLANS			86	172			438				696
UPRR BRIDGE - BRIDGE GENERAL NOTES AND SHEET LIST	22		2	4			12				18
UPRR BRIDGE - GENERAL PLAN	23		2	4			12				18
UPRR BRIDGE - ELEVATION AND TYPICAL SECTION	24		2	4			12				18
UPRR BRIDGE - SHEET PILE NOTES	25		2	4			12				18
UPRR BRIDGE - BRIDGE RETAINING WALL PLAN	26		2	4			10				16
UPRR BRIDGE - BRIDGE RETAINING WALL ELEVATION	27		2	4			10				16
UPRR BRIDGE - GROUND ANCHOR DETAILS	28		2	4			10				16
UPRR BRIDGE - WALLER & ANCHOR WALL DETAILS	29		2	4			10				16
UPRR BRIDGE - SHORING, TIEBACK, AND ANCHOR WALL LIMITS	30		2	4			10				16
UPRR BRIDGE - GROUND IMPROVEMENT - SHEET 1	31		2	4			10				16
UPRR BRIDGE - GROUND IMPROVEMENT - SHEET 2	32		2	4			10				16
UPRR BRIDGE - GROUND IMPROVEMENT - SHEET 3	33		2	4			10				16

**EXHIBIT D1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Structures Drawing List
9/5/2017**

DRAWING LIST	Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin		
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
DSC											
UPRR BRIDGE - PILE LAYOUT PLAN & FOOTING REINFORCEMENT	34	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - PILE & FOOTING DETAILS	35	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - BEARING ELEVATIONS	36	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - TYPICAL SECTION	37	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - ABUTMENT #1 ELEVATION	38	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - ABUTMENT #1 PLAN	39	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - ABUTMENT #3 ELEVATION	40	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - ABUTMENT #3 PLAN	41	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - PIER #2 ELEVATION	42	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - PIER #2 PLAN	43	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - STAGELINE WALLS AT ABUTMENTS	44	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - ABUTMENT & PIER SECTIONS	45	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - MISCELLANEOUS FOUNDATION DETAILS	46	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - FOUNDATION REINFORCEMENT TABLES	47	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - FOUNDATION ESTIMATED QUANTITIES	48	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - FRAMING PLAN - SPAN 1 (MAIN 1 & 2)	49	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - FRAMING PLAN - SPAN 2 (MAIN 1 & 2)	50	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - FRAMING DETAILS	51	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - BALLAST PAN PLAN	52	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - BALLAST PAN DETAILS	53	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - BEARING DETAILS	54	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - MISCELLANEOUS STEEL DETAILS (1 OF 2)	55	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - MISCELLANEOUS STEEL DETAILS (2 OF 2)	56	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - HANDRAIL PANEL DETAILS (1 OF 2)	57	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - HANDRAIL PANEL DETAILS (2 OF 2)	58	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - BRIDGE DECK WATERPROOFING (1 OF 2)	59	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - BRIDGE DECK WATERPROOFING (2 OF 2)	60	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - BRIDGE UTILITY PLAN	61	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - BRIDGE UTILITY DETAILS	62	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - MISCELLANEOUS DETAILS (1 OF 2)	63	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - MISCELLANEOUS DETAILS (2 OF 2)	64	-	2	4	-	-	10	-	-	-	16
UPRR TEMPORARY SHORING WALL PLANS	10.3										
UPRR BRIDGE - SHEET PILE NOTES	65										
UPRR BRIDGE - TEMPORARY SHORING PLAN - STAGE 1	66										
UPRR BRIDGE - TEMPORARY SHORING ELEVATION - STAGE 1	67										
UPRR BRIDGE - GROUND ANCHOR DETAILS	68										

See Brightt Fee Estimate for Details

**EXHIBIT D1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Structures Drawing List
9/5/2017**

DRAWING LIST	Number	DSC										Totals
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin			
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26			
UPRR BRIDGE - WALTER & ANCHOR WALL DETAILS	69											
UPRR BRIDGE - SHORING, TIEBACK, AND ANCHOR WALL LIMITS	70											
VEHICULAR BRIDGE PLANS	10.4	46	92	234								372
VEHICULAR BRIDGE - BRIDGE GENERAL NOTES AND SHEET LIST	71	2	4	12								18
VEHICULAR BRIDGE - GENERAL PLAN & ELEVATION	72	2	4	12								18
VEHICULAR BRIDGE - SHEET PILE NOTES	73	2	4	10								16
VEHICULAR BRIDGE - BRIDGE RETAINING WALL PLAN	74	2	4	10								16
VEHICULAR BRIDGE - BRIDGE RETAINING WALL ELEVATION	75	2	4	10								16
VEHICULAR BRIDGE - GROUND ANCHOR DETAILS	76	2	4	10								16
VEHICULAR BRIDGE - WALTER & ANCHOR WALL DETAILS	77	2	4	10								16
VEHICULAR BRIDGE - SHORING, TIEBACK, AND ANCHOR WALL LIMITS	78	2	4	10								16
VEHICULAR BRIDGE - GROUND IMPROVEMENT - SHEET 1	79	2	4	10								16
VEHICULAR BRIDGE - GROUND IMPROVEMENT - SHEET 2	80	2	4	10								16
VEHICULAR BRIDGE - GROUND IMPROVEMENT - SHEET 3	81	2	4	10								16
VEHICULAR BRIDGE - PILE LAYOUT PLAN & FOOTING REINFORCEMENT	82	2	4	10								16
VEHICULAR BRIDGE - PILE & FOOTING DETAILS	83	2	4	10								16
VEHICULAR BRIDGE - BEARING ELEVATIONS	84	2	4	10								16
VEHICULAR BRIDGE - ABUTMENT #1 ELEVATION	85	2	4	10								16
VEHICULAR BRIDGE - ABUTMENT #1 PLAN	86	2	4	10								16
VEHICULAR BRIDGE - ABUTMENT #3 ELEVATION	87	2	4	10								16
VEHICULAR BRIDGE - ABUTMENT #3 PLAN	88	2	4	10								16
VEHICULAR BRIDGE - STAGELINE WALLS AT ABUTMENTS	89	2	4	10								16
VEHICULAR BRIDGE - ABUTMENT & PIER SECTIONS	90	2	4	10								16
VEHICULAR BRIDGE - MISCELLANEOUS FOUNDATION DETAILS	91	2	4	10								16
VEHICULAR BRIDGE - FOUNDATION REINFORCEMENT TABLES	92	2	4	10								16
VEHICULAR BRIDGE - FOUNDATION ESTIMATED QUANTITIES	93	2	4	10								16
VEHICULAR BRIDGE - FRAMING PLAN	94											
VEHICULAR BRIDGE - TYPICAL SECTION	95											
VEHICULAR BRIDGE - GIRDER DETAILS (1 OF 3)	96											
VEHICULAR BRIDGE - GIRDER DETAILS (2 OF 3)	97											
VEHICULAR BRIDGE - GIRDER DETAILS (3 OF 3)	98											
VEHICULAR BRIDGE - END DIAPHRAGM	99											
VEHICULAR BRIDGE - INTERMEDIATE DIAPHRAGM	100											
VEHICULAR BRIDGE - DECK REINFORCEMENT	101											
VEHICULAR BRIDGE - DECK REINFORCEMENT SECTION	102											
VEHICULAR BRIDGE - TRAFFIC BARRIER DETAILS (1 OF 3)	103											

See Brightt Fee Estimate for Details

**EXHIBIT D1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Structures Drawing List
9/5/2017**

DRAWING LIST	Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin		
DSC		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
	104										
VEHICULAR BRIDGE - TRAFFIC BARRIER DETAILS (2 OF 3)	105										
VEHICULAR BRIDGE - TRAFFIC BARRIER DETAILS (3 OF 3)	106										
VEHICULAR BRIDGE - EXPANSION JOINT DETAILS	107										
VEHICULAR BRIDGE - APPROACH SLAB DETAILS (1 OF 2)	108										
VEHICULAR BRIDGE - APPROACH SLAB DETAILS (2 OF 2)	109										
VEHICULAR BRIDGE - SUPERSTRUCTURE REINFORCEMENT TABLES											
RETAINING WALL PLANS	10.5	132	264	688	1,084						
STRUCTURAL RETAINING WALL - GENERAL NOTES AND LIST OF SHEETS	110	2	4	12	18						
EXISTING RETAINING WALL REMOVAL	111										
SHEET PILE NOTES	112	2	4	12	18						
RETAINING WALL #1 - PLAN (1 OF 2)	113	2	4	12	18						
RETAINING WALL #1 - PLAN (2 OF 2)	114	2	4	12	18						
RETAINING WALL #1 - ELEVATION (1 OF 2)	115	2	4	12	18						
RETAINING WALL #1 - ELEVATION (2 OF 2)	116	2	4	10	16						
RETAINING WALL #1 - SECTIONS	117	2	4	10	16						
RETAINING WALLS #2 & #3- PLAN (1 OF 2)	118	2	4	12	18						
RETAINING WALLS #2 & #3- PLAN (2 OF 2)	119	2	4	12	18						
RETAINING WALLS #2 & #3 - ELEVATION (1 OF 2)	120	2	4	10	16						
RETAINING WALLS #2 & #3 - ELEVATION (2 OF 2)	121	2	4	10	16						
RETAINING WALLS #2 & #3 - SECTIONS	122	2	4	10	16						
RETAINING WALL #4 - PLAN	123	2	4	10	16						
RETAINING WALL #4 - ELEVATION	124	2	4	10	16						
RETAINING WALL #4 - SECTIONS	125	2	4	10	16						
RETAINING WALL #5 - PLAN	126	2	4	10	16						
RETAINING WALL #5 - ELEVATION	127	2	4	10	16						
RETAINING WALL #5 - SECTIONS & DETAILS (1 OF 2)	128	2	4	10	16						
RETAINING WALL #5 - SECTIONS & DETAILS (2 OF 2)	129	2	4	10	16						
RETAINING WALL #6 - PLAN	130	2	4	10	16						
RETAINING WALL #6 - ELEVATION	131	2	4	10	16						
RETAINING WALL #6 - SECTIONS	132	2	4	10	16						
RETAINING WALL #7 - PLAN	133	2	4	12	18						
RETAINING WALL #7 - ELEVATION	134	2	4	12	18						
RETAINING WALL #7 - SECTIONS	135	2	4	10	16						
RETAINING WALL #8 - PLAN	136	2	4	10	16						
RETAINING WALL #8 - ELEVATION	137	2	4	10	16						
RETAINING WALL #8 - SECTIONS & DETAILS (1 OF 2)	138	2	4	10	16						

**EXHIBIT D1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Structures Drawing List
9/5/2017**

DRAWING LIST	Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin		Totals
DSC		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
RETAINING WALL #8 - SECTIONS & DETAILS (2 OF 2)	139		2	4	-	-	-	10	-	-	16
RETAINING WALL #9 - PLAN	140		2	4	-	-	-	10	-	-	16
RETAINING WALL #9 - ELEVATION	141		2	4	-	-	-	10	-	-	16
RETAINING WALL #9 - SECTIONS	142		2	4	-	-	-	10	-	-	16
RETAINING WALL #10 - PLAN	143		2	4	-	-	-	10	-	-	16
RETAINING WALL #10 - ELEVATION	144		2	4	-	-	-	10	-	-	16
RETAINING WALL #10 - SECTIONS	145		2	4	-	-	-	10	-	-	16
RETAINING WALL #11 - PLAN	146		2	4	-	-	-	10	-	-	16
RETAINING WALL #11 - ELEVATION (1 OF 2)	147		2	4	-	-	-	12	-	-	18
RETAINING WALL #11 - ELEVATION (2 OF 2)	148		2	4	-	-	-	10	-	-	16
RETAINING WALL #11 - SECTIONS	149		2	4	-	-	-	10	-	-	16
RETAINING WALL #12 - ELEVATION (1 OF 2)	150		2	4	-	-	-	12	-	-	18
RETAINING WALL #12 - ELEVATION (2 OF 2)	151		2	4	-	-	-	10	-	-	16
RETAINING WALL #12 - SECTIONS	152		2	4	-	-	-	10	-	-	16
RETAINING WALL - GROUND ANCHOR DETAILS (1 OF 2)	153		2	4	-	-	-	10	-	-	16
RETAINING WALL - GROUND ANCHOR DETAILS (2 OF 2)	154		2	4	-	-	-	10	-	-	16
RETAINING WALL - ANCHOR WALL DETAILS (1 OF 4)	155		2	4	-	-	-	10	-	-	16
RETAINING WALL - ANCHOR WALL DETAILS (2 OF 4)	156		2	4	-	-	-	10	-	-	16
RETAINING WALL - ANCHOR WALL DETAILS (3 OF 4)	157		2	4	-	-	-	10	-	-	16
RETAINING WALL - ANCHOR WALL DETAILS (4 OF 4)	158		2	4	-	-	-	10	-	-	16
RETAINING WALLS - SOLDIER PILE WALL DETAILS (1 OF 2)	159		2	4	-	-	-	12	-	-	18
RETAINING WALLS - SOLDIER PILE WALL DETAILS (2 OF 2)	160		2	4	-	-	-	12	-	-	18
RETAINING WALLS #13 TO #16 - PLAN	161		2	4	-	-	-	10	-	-	16
RETAINING WALLS #13 & #15 - ELEVATION	162		2	4	-	-	-	10	-	-	16
RETAINING WALLS #14 & #16 - ELEVATION	163		2	4	-	-	-	10	-	-	16
RETAINING WALLS - GEOSYNTHETIC WALL DETAILS (1 OF 2)	164		2	4	-	-	-	10	-	-	16
RETAINING WALLS - GEOSYNTHETIC WALL DETAILS (2 OF 2)	165		2	4	-	-	-	10	-	-	16
MOMENT SLAB DETAILS (1 OF 2)	166		2	4	-	-	-	10	-	-	16
MOMENT SLAB DETAILS (2 OF 2)	167		2	4	-	-	-	10	-	-	16
RETAINING WALL #17 - PLAN	168		2	4	-	-	-	10	-	-	16
RETAINING WALL #17 - ELEVATION	169		2	4	-	-	-	12	-	-	18
RETAINING WALL #17 - SECTIONS & DETAILS (1 OF 2)	170		2	4	-	-	-	12	-	-	18
RETAINING WALL #17 - SECTIONS & DETAILS (2 OF 2)	171		2	4	-	-	-	10	-	-	16
PEDESTRAIN RAILING (1 OF 2)	172		2	4	-	-	-	10	-	-	16
PEDESTRAIN RAILING (2 OF 2)	173		2	4	-	-	-	10	-	-	16
SAFETY FENCE DETAILS (1 OF 2)	174		2	4	-	-	-	10	-	-	16
SAFETY FENCE DETAILS (2 OF 2)	175		2	4	-	-	-	10	-	-	16

EXHIBIT D1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION

Structures Drawing List
9/5/2017

DRAWING LIST	Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin	Totals	
DSC		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
STRUCTURAL SEAL PLANS	10.6	88	132	338						536	
SEAL - FOUNDATION PLAN (1 OF 6)	176	2	4	12						18	
SEAL - FOUNDATION PLAN (2 OF 6)	177	2	4	12						18	
SEAL - FOUNDATION PLAN (3 OF 6)	178	2	4	10						16	
SEAL - FOUNDATION PLAN (4 OF 6)	179	2	4	10						16	
SEAL - FOUNDATION PLAN (5 OF 6)	180	2	4	10						16	
SEAL - FOUNDATION PLAN (6 OF 6)	181	2	4	10						16	
SEAL - SECTIONS (1 OF 4)	182	2	4	12						18	
SEAL - SECTIONS (2 OF 4)	183	2	4	12						18	
SEAL - SECTIONS (3 OF 4)	184	2	4	10						16	
SEAL - SECTIONS (4 OF 4)	185	2	4	10						16	
SEAL - STAGING (1 OF 2)	186	2	4	10						16	
SEAL - STAGING (2 OF 2)	187	2	4	10						16	
SEAL - STRUCTURE/FOUNDATION INTERFACE (1 OF 2)	188	2	4	10						16	
SEAL - STRUCTURE/FOUNDATION INTERFACE (2 OF 2)	189	2	4	10						16	
SEAL - GROUND IMPROVEMENT (1 OF 2)	190	2	4	10						16	
SEAL - GROUND IMPROVEMENT (2 OF 2)	191	2	4	10						16	
SEAL - REINFORCED SEAL DETAILS (1 OF 3)	192	2	4	10						16	
SEAL - REINFORCED SEAL DETAILS (1 OF 3)	193	2	4	10						16	
SEAL - REINFORCED SEAL DETAILS (1 OF 3)	194	2	4	10						16	
SEAL - EDGE BEAM (1 OF 5)	195	2	4	10						16	
SEAL - EDGE BEAM (2 OF 5)	196	2	4	10						16	
SEAL - EDGE BEAM (3 OF 5)	197	2	4	10						16	
SEAL - EDGE BEAM (4 OF 5)	198	2	4	10						16	
SEAL - EDGE BEAM (5 OF 5)	199	2	4	10						16	
SEAL - APPROACH SLAB (WEST)	200	2	4	10						16	
SEAL - APPROACH SLAB (EAST)	201	2	4	10						16	
SEAL - APPROACH SLAB (LOOP)	202	2	4	10						16	
SEAL - APPROACH SLAB (NORTH)	203	2	4	10						16	
SEAL - APPROACH SLAB (SOUTH)	204	2	4	10						16	
SEAL - APPROACH SLAB DETAILS	205	2	4	10						16	
SEAL - FASCIA WALL SECTIONS AND DETAILS (1 OF 3)	206	2	4	10						16	
SEAL - FASCIA WALL SECTIONS AND DETAILS (2 OF 3)	207	2	4	10						16	
SEAL - FASCIA WALL SECTIONS AND DETAILS (3 OF 3)	208	2	4	10						16	
PEDESTRIAN BRIDGE PLANS	10.7	24	48	124						196	

EXHIBIT D1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION

Structures Drawing List
9/5/2017

DRAWING LIST	Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord. / Admin		
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
DSC											
TRAIL BRIDGE - BRIDGE GENERAL NOTES AND SHEET LIST	209	-	2	4	-	-	12	-	-	-	18
TRAIL BRIDGE - GENERAL PLAN & ELEVATION	210	-	2	4	-	-	12	-	-	-	18
TRAIL BRIDGE - SUPERSTRUCTURE TYPICAL SECTION & NOTES	211	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - FOUNDATION PLAN	212	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - ABUTMENT ELEVATION	213	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - ABUTMENT PLAN	214	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - ABUTMENT CURTAIN WALLS	215	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - MISCELLANEOUS FOUNDATION DETAILS (1 OF 2)	216	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - MISCELLANEOUS FOUNDATION DETAILS (2 OF 2)	217	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - FOUNDATION REINFORCEMENT TABLES	218	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - FOUNDATION ESTIMATED QUANTITIES	219	-	2	4	-	-	10	-	-	-	16
TRAIL BRIDGE - BEARINGS	220	-	2	4	-	-	10	-	-	-	16
MISCELLANEOUS STRUCTURAL DRAWINGS	10.8	-	20	40	-	-	100	-	-	-	160
LIMITS OF STRUCTURAL EXCAVATION CLASS A - BNSF FOUNDATION SLAB	221	-	2	4	-	-	10	-	-	-	16
LIMITS OF STRUCTURAL EXCAVATION CLASS A - UPRR FOUNDATION SLAB	222	-	2	4	-	-	10	-	-	-	16
LIMITS OF STRUCTURAL EXCAVATION CLASS A - VEHICULAR FOUNDATION SLAB	223	-	2	4	-	-	10	-	-	-	16
LIMITS OF STRUCTURAL EXCAVATION CLASS A - PED FOUNDATION FOOTINGS	224	-	2	4	-	-	10	-	-	-	16
LIMITS OF STRUCTURAL EXCAVATION CLASS A - ANCHOR WALLS	225	-	2	4	-	-	10	-	-	-	16
LIMITS OF STRUCTURAL EXCAVATION CLASS A - SEAL (1 OF 3)	226	-	2	4	-	-	10	-	-	-	16
LIMITS OF STRUCTURAL EXCAVATION CLASS A - SEAL (2 OF 3)	227	-	2	4	-	-	10	-	-	-	16
LIMITS OF STRUCTURAL EXCAVATION CLASS A - SEAL (3 OF 3)	228	-	2	4	-	-	10	-	-	-	16
LUMINAIRE BRACKET DETAILS (1 OF 2)	229	-	2	4	-	-	10	-	-	-	16
LUMINAIRE BRACKET DETAILS (2 OF 2)	230	-	2	4	-	-	10	-	-	-	16
SIGNAL BRIDGE PLAN AND ELEVATION	231	-			-	-		-	-	-	
SIGNAL BRIDGE DETAILS (1 OF 3)	232	-			-	-		-	-	-	
SIGNAL BRIDGE DETAILS (2 OF 3)	233	-			-	-		-	-	-	
SIGNAL BRIDGE DETAILS (3 OF 3)	234	-			-	-		-	-	-	
SIGNAL BRIDGE FOUNDATION (1 OF 2)	235	-			-	-		-	-	-	
SIGNAL BRIDGE FOUNDATION (2 OF 2)	236	-			-	-		-	-	-	
See Bright Fee Estimate for Details											
SUBTOTAL - ALL STRUCTURAL DRAWINGS		416	832	2112	3360						

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Pump Station Drawing List
9/5/2017**

TASK DESCRIPTION	Task Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin		Totals
DSC	Number	\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
DRAWING LIST											
PUMP STATION PLANS											
OUTFALL PUMP STATION PLANS											
PUMP STATIONS - OVERALL PLAN	1	12	116	40	464	-	440	-	-	-	1,072
EXISTING PUMP STATION - DESIGN DATA	2	-	76	184	216	-	408	-	-	-	884
EXISTING PUMP STATION - ENLARGED PLAN	3	4	4	4	16	-	16	-	-	-	48
EXISTING PUMP STATION - DEMOLITION DETAILS - SHEET 1	4	4	4	4	8	-	8	-	-	-	52
EXISTING PUMP STATION - DEMOLITION DETAILS - SHEET 2	5	4	4	4	8	-	16	-	-	-	28
EXISTING PUMP STATION - DEMOLITION DETAILS - SHEET 3	6	4	4	4	8	-	16	-	-	-	28
EXISTING PUMP STATION - WET WELL & VAULT - PLAN	7	4	4	4	8	-	16	-	-	-	28
EXISTING PUMP STATION - WET WELL AND VAULT SECTIONS - SHEET 1	8	4	4	4	24	-	16	-	-	-	44
EXISTING PUMP STATION - WET WELL AND VAULT SECTIONS - SHEET 2	9	4	4	4	24	-	16	-	-	-	44
EXISTING PUMP STATION - WET WELL AND VAULT SECTIONS - SHEET 3	10	4	4	4	24	-	16	-	-	-	44
EXISTING PUMP STATION - WET WELL AND VAULT DETAILS - SHEET 1	11	4	4	4	16	-	16	-	-	-	36
EXISTING PUMP STATION - WET WELL AND VAULT DETAILS - SHEET 2	12	4	4	4	16	-	16	-	-	-	36
EXISTING PUMP STATION - STRUCTURAL NOTES	13	8	8	8	-	-	16	-	-	-	32
EXISTING PUMP STATION - STRUCTURAL DETAILS - SHEET 1	14	8	8	16	-	-	24	-	-	-	48
EXISTING PUMP STATION - STRUCTURAL DETAILS - SHEET 2	15	8	8	16	-	-	24	-	-	-	48
GROUND WATER PUMP STATION - DESIGN DATA	16	4	4	4	40	-	16	-	-	-	60
GROUND WATER PUMP STATION - SITE PLAN	17	4	4	4	8	-	24	-	-	-	36
GROUND WATER PUMP STATION - PIPING PLAN AND PROFILES	18	4	4	4	40	-	16	-	-	-	60
GROUND WATER PUMP STATION - DEMOLITION DETAILS - SHEET 1	19	4	4	4	8	-	16	-	-	-	28
GROUND WATER PUMP STATION - DEMOLITION DETAILS - SHEET 2	20	4	4	4	8	-	16	-	-	-	28
GROUND WATER PUMP STATION - WET WELL AND VAULT - PLAN	21	4	4	4	40	-	24	-	-	-	68
GROUND WATER PUMP STATION - WET WELL AND VAULT SECTIONS - SHEET 1	22	4	4	4	24	-	16	-	-	-	44
GROUND WATER PUMP STATION - WET WELL AND VAULT SECTIONS - SHEET 2	23	4	4	4	24	-	16	-	-	-	44
GROUND WATER PUMP STATION - CIVIL DETAILS - SHEET 1	24	4	4	4	8	-	16	-	-	-	44
GROUND WATER PUMP STATION - CIVIL DETAILS - SHEET 2	25	4	4	4	8	-	16	-	-	-	44
GROUND WATER PUMP STATION - CIVIL DETAILS - SHEET 3	26	4	4	4	8	-	16	-	-	-	28
OUTFALL PUMP STATION - DESIGN DATA	27	8	8	8	40	-	16	-	-	-	64
OUTFALL PUMP STATION - SITE PLAN	28	4	4	4	16	-	16	-	-	-	36
OUTFALL PUMP STATION - PIPING PLAN AND PROFILES	29	4	4	4	16	-	24	-	-	-	44
OUTFALL PUMP STATION - WET WELL AND VAULT PLAN	30	4	4	4	40	-	24	-	-	-	68
OUTFALL PUMP STATION - WET WELL AND VAULT SECTIONS - SHEET 1	31	4	4	4	24	-	24	-	-	-	52
OUTFALL PUMP STATION - WET WELL AND VAULT SECTIONS - SHEET 2	32	4	4	4	24	-	16	-	-	-	44
OUTFALL PUMP STATION - WET WELL AND VAULT SECTIONS - SHEET 3	33	4	4	4	24	-	16	-	-	-	44
OUTFALL PUMP STATION - CIVIL DETAILS - SHEET 1	34	4	4	4	8	-	16	-	-	-	28

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**Pump Station Drawing List
9/5/2017**

TASK DESCRIPTION	Task Number	Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Admin Project Coord./	Totals
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26	
DSC										
OUTFALL PUMP STATION - CIVIL DETAILS - SHEET 2	35		4		8		16			28
OUTFALL PUMP STATION - CIVIL DETAILS - SHEET 3	36		4		8		16			28
OUTFALL PUMP STATION - CIVIL DETAILS - SHEET 4	37		4		8		16			28
OUTFALL PUMP STATION - STRUCTURAL NOTES	38		4	16			16			36
OUTFALL PUMP STATION - STRUCTURAL PLANS	39		4	40			40			84
OUTFALL PUMP STATION - STRUCTURAL ELEVATIONS	40		4	40			40			84
OUTFALL PUMP STATION - STRUCTURAL SECTIONS	41		4	40			40			84
OUTFALL PUMP STATION - STRUCTURAL DETAILS - SHEET 1	42		4	16			24			44
OUTFALL PUMP STATION - STRUCTURAL DETAILS - SHEET 2	43		4	16			24			44
OUTFALL PUMP STATION - STRUCTURAL DETAILS - SHEET 3	44		4	16			24			44
SUBTOTAL DRAWINGS		12	192	224	680		848			1,956

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**General-Civil Drawing List
9/5/2017**

TASK DESCRIPTION	Task Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin	Totals	
DSC	Number	\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26	\$ 5,220	\$ 5,220
DRAWING LIST											
GENERAL-CIVIL PLANS											
COVER SHEET	1	742	72	2,142	2,264						12
VICINITY MAP	2	2	2	2	2						8
SUMMARY OF QUANTITIES - SHEET 1	3	2	2	2	2						8
SUMMARY OF QUANTITIES - SHEET 2	4	2	2	2	2						8
INDEX SHEET - SHEET 1	5	2	2	2	2						8
INDEX SHEET - SHEET 2	6	2	2	2	2						8
KEY PLAN LAYOUT	7	2	2	2	2						8
SURVEY CONTROL - SHEET 1	8	4	4	4	4						16
LEGEND AND ABBREVIATIONS - SHEET 1	9	2	2	2	2						8
LEGEND AND ABBREVIATIONS - SHEET 2	10	2	2	2	2						8
GENERAL NOTES AND UTILITY NOTES - SHEET 1	11	4	4	4	4						16
GENERAL NOTES AND UTILITY NOTES - SHEET 2	12	4	4	4	4						16
GENERAL NOTES AND UTILITY NOTES - SHEET 3	13	4	4	4	4						16
GENERAL NOTES AND UTILITY NOTES - SHEET 4	14	4	4	4	4						16
ALIGNMENT KEY MAP - SHEET 1	15	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 1	16	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 2	17	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 3	18	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 4	19	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 5	20	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 6	21	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 7	22	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 8	23	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 9	24	4	4	4	4						16
ALIGNMENT LAYOUT - SHEET 10	25	4	4	4	4						16
RIGHT OF WAY AND EASEMENT KEY MAP	26	2	2	2	2						8
RIGHT OF WAY AND EASEMENT PLANS - SHEET 1	27	2	2	2	2						8
RIGHT OF WAY AND EASEMENT PLANS - SHEET 2	28	2	2	2	2						8
RIGHT OF WAY AND EASEMENT PLANS - SHEET 3	29	2	2	2	2						8
RIGHT OF WAY AND EASEMENT PLANS - SHEET 4	30	2	2	2	2						8
RIGHT OF WAY AND EASEMENT PLANS - SHEET 5	31	2	2	2	2						8
RIGHT OF WAY AND EASEMENT PLANS - SHEET 6	32	2	2	2	2						8
RIGHT OF WAY AND EASEMENT PLANS - SHEET 7	33										
RIGHT OF WAY AND EASEMENT PLANS - SHEET 8	34										
RIGHT OF WAY AND EASEMENT PLANS - SHEET 9	35										

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**General-Civil Drawing List
9/5/2017**

TASK DESCRIPTION	Task Number	Job Cost Breakdown										Totals
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin			
	DSC	\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 52.04	\$ 46.26	\$ 40.00	\$ 35.26			
RIGHT OF WAY AND EASEMENT PLANS - SHEET 10	36											
RIGHT OF WAY AND EASEMENT PLANS - SHEET 11	37											
RIGHT OF WAY AND EASEMENT PLANS - SHEET 12	38											
CONSTRUCTION STAGING PROJECT - SHEET 1	39			4	12		12					32
CONSTRUCTION STAGING PROJECT - SHEET 2	40			4	12		12					32
CONSTRUCTION STAGING PROJECT - SHEET 3	41			4	12		12					32
CONSTRUCTION STAGING PROJECT - SHEET 4	42			4	12		12					32
CONSTRUCTION STAGING PROJECT - SHEET 5	43			4	12		12					32
CONSTRUCTION STAGING UTILITIES - SHEET 1	44			4	12		12					32
CONSTRUCTION STAGING UTILITIES - SHEET 2	45			4	12		12					32
CONSTRUCTION STAGING UTILITIES - SHEET 3	46			4	12		12					32
CONSTRUCTION STAGING UTILITIES - SHEET 4	47			4	12		12					32
CONSTRUCTION STAGING UTILITIES - SHEET 5	48			4	12		12					32
CONSTRUCTION STAGING UTILITIES - SHEET 6	49			4	12		12					32
TRAFFIC CONTROL AND PHASING PLAN - SHEET 1	50			4	12		12					32
TRAFFIC CONTROL AND PHASING PLAN - SHEET 2	51			4	12		12					32
TRAFFIC CONTROL AND PHASING PLAN - SHEET 3	52			4	12		12					32
TRAFFIC CONTROL AND PHASING PLAN - SHEET 4	53			8	12		12					32
TRAIL DETOUR - SHEET 1	54			8	12		12					32
TRAIL DETOUR - SHEET 2	55			8	12		12					32
TRAIL DETOUR - SHEET 3	56			8	12		12					32
TRAIL DETOUR - SHEET 4	57			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 1	58			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 2	59			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 3	60			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 4	61			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 5	62			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 6	63			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 7	64			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 8	65			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 9	66			4	12		12					28
SITE PREP AND DEMOLITION - SHEET 10	67			4	12		12					28
EROSION AND SEDIMENT CONTROL NOTES	68			4	12		12					28
EROSION AND SEDIMENT CONTROL PLAN - SHEET 1	69			4	12		12					28
EROSION AND SEDIMENT CONTROL PLAN - SHEET 2	70			4	12		12					28
EROSION AND SEDIMENT CONTROL PLAN - SHEET 3	71			4	12		12					28
EROSION AND SEDIMENT CONTROL PLAN - SHEET 4	72			4	12		12					28

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**General-Civil Drawing List
9/5/2017**

TASK DESCRIPTION	Task Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin	Totals	
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26		
EROSION AND SEDIMENT CONTROL PLAN - SHEET 6	73		4		12		12			28	
EROSION AND SEDIMENT CONTROL PLAN - SHEET 7	74		4		12		12			28	
EROSION AND SEDIMENT CONTROL PLAN - SHEET 8	75		4		12		12			28	
EROSION AND SEDIMENT CONTROL PLAN - SHEET 9	76		4		12		12			28	
EROSION AND SEDIMENT CONTROL PLAN - SHEET 10	77		4		12		12			28	
FINAL GRADING PLAN - SHEET 1	78		4		8		8			24	
FINAL GRADING PLAN - SHEET 2	79		4		8		8			24	
FINAL GRADING PLAN - SHEET 3	80		4		8		8			24	
FINAL GRADING PLAN - SHEET 4	81		4		8		8			24	
FINAL GRADING PLAN - SHEET 5	82		4		8		8			24	
ROADWAY SECTIONS - SHEET 1	83		4		16		16			36	
ROADWAY SECTIONS - SHEET 2	84		4		16		16			36	
ROADWAY SECTIONS - SHEET 3	85		4		16		16			36	
ROADWAY SECTIONS - SHEET 4	86		4		16		16			36	
ROADWAY SECTIONS - SHEET 5	87		4		16		16			36	
ROADWAY SECTIONS - SHEET 6	88		4		16		16			36	
ROADWAY SECTIONS - SHEET 7	89		4		16		16			36	
ROADWAY SECTIONS - SHEET 8	90		4		16		16			36	
ROADWAY PLAN & PROFILE - SHEET 1	91		4		16		16			36	
ROADWAY PLAN & PROFILE - SHEET 2	92		4		16		16			36	
ROADWAY PLAN & PROFILE - SHEET 3	93		4		16		16			36	
ROADWAY PLAN & PROFILE - SHEET 4	94		4		16		16			36	
ROADWAY PLAN & PROFILE - SHEET 5	95		4		16		16			36	
ROADWAY PLAN & PROFILE - SHEET 6	96		4		16		16			36	
ROADWAY PLAN & PROFILE - SHEET 7	97		4		16		16			36	
ROADWAY DETAILS - SHEET 1	98		4		16		16			36	
ROADWAY DETAILS - SHEET 2	99		4		16		16			36	
ROADWAY DETAILS - SHEET 3	100		4		16		16			36	
ROADWAY DETAILS - SHEET 4	101		4		16		16			36	
TRAIL SITE PLAN	102		4		16		16			36	
TRAIL PLAN - SHEET 1	103		4		16		16			36	
TRAIL PLAN - SHEET 2	104		4		16		16			36	
TRAIL PLAN - SHEET 3	105		4		16		16			36	
TRAIL DETAILS - SHEET 1	106		4		16		16			36	
SOUND TRANSIT PEDESTRIAN PATH SITE PLAN	107		4		16		16			36	
SOUND TRANSIT PED PATH - SHEET 1	108		4		16		16			36	
SOUND TRANSIT PED PATH - SHEET 2	109		4		16		16			36	

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**General-Civil Drawing List
9/5/2017**

TASK DESCRIPTION	Task Number	DSC										Totals
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin			
		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26			
SOUND TRANSIT PED PATH - SHEET 3	110		4		16		16					36
SOUND TRANSIT PED PATH DETAILS - SHEET 1	111		4		16		16					36
PAVING PLAN - SHEET 1	112		4		8		8					24
PAVING PLAN - SHEET 2	113		4		8		8					24
PAVING PLAN - SHEET 3	114		4		8		8					24
PAVING PLAN - SHEET 4	115		4		8		8					24
PAVING PLAN - SHEET 5	116		4		8		8					24
PAVING PLAN - SHEET 6	117		4		8		8					24
PAVING PLAN - SHEET 7	118		4		8		8					24
INTERSECTION PLAN - W VALLEY HIGHWAY	119		4		16		16					36
INTERSECTION PLAN - BUSINESS ENTRANCE 1	120		4		16		16					36
INTERSECTION PLAN - BUSINESS ENTRANCE 2	121		4		16		16					36
INTERSECTION PLAN - TUKWILA STATION ACCESS RD	122		4		16		16					36
INTERSECTION PLAN - NACHES AVE SW	123		4		16		16					36
INTERSECTION PLAN - PSE ACCESS	124		4		16		16					36
INTERSECTION DETAILS - SHEET 1	125		4		16		16					36
INTERSECTION DETAILS - SHEET 2	126		4		16		16					36
TACO BELL SITE PLAN - SHEET 1	127		8		12		12					32
TACO BELL GRADING PLAN - SHEET 1	128		8		12		12					32
TACO BELL DETAILS - SHEET 1	129		8		12		12					32
TACO BELL DETAILS - SHEET 2	130		8		12		12					32
JACK IN BOX SITE PLAN - SHEET 1	131		8		12		12					32
JACK IN BOX GRADING PLAN - SHEET 1	132		8		12		12					32
JACK IN BOX DETAILS - SHEET 1	133		8		12		12					32
JACK IN BOX DETAILS - SHEET 2	134		8		12		12					32
BUSINESS PARKING LOT PLAN - SHEET 1	135		8		12		12					36
BUSINESS PARKING LOT PLAN - SHEET 2	136		8		12		12					36
BUSINESS PARKING LOT DETAILS - SHEET 1	137		8		12		12					36
SIGNING & CHANNELIZATION PLAN - SHEET 1	138		4		16		16					36
SIGNING & CHANNELIZATION PLAN - SHEET 2	139		4		16		16					36
SIGNING & CHANNELIZATION PLAN - SHEET 3	140		4		16		16					36
SIGNING & CHANNELIZATION PLAN - SHEET 4	141		4		16		16					36
SIGNING & CHANNELIZATION PLAN - SHEET 5	142		4		16		16					36
SIGNING & CHANNELIZATION PLAN - SHEET 6	143		4		16		16					36
SIGNING & CHANNELIZATION PLAN - SHEET 7	144		4		16		16					36
CHANNELIZATION AND SIGNING DETAILS - SHEET 1	145		4		16		16					36
CHANNELIZATION AND SIGNING DETAILS - SHEET 2	146		4		16		16					36

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**General-Civil Drawing List
9/5/2017**

TASK DESCRIPTION	Task Number	Totals													
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin						
OVERALL COMPOSITE UTILITY PLAN	147	\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26						28
UTILITY PLAN AND PROFILE- SHEET 1	148		4		8		16				16				36
UTILITY PLAN AND PROFILE- SHEET 2	149		4		16		16				16				36
UTILITY PLAN AND PROFILE- SHEET 3	150		4		16		16				16				36
UTILITY PLAN AND PROFILE- SHEET 4	151		4		16		16				16				36
UTILITY PLAN AND PROFILE- SHEET 5	152		4		16		16				16				36
UTILITY PLAN AND PROFILE- SHEET 6	153		4		16		16				16				36
UTILITY PLAN AND PROFILE- SHEET 7	154		4		16		16				16				36
UTILITY DETAILS - SHEET 1	155		4		16		16				16				36
UTILITY DETAILS - SHEET 2	156		4		16		16				16				36
UTILITY DETAILS - SHEET 3	157		4		16		16				16				36
BRIDGE STAGE I UTILITY PLAN	158		4		12		12				12				28
BRIDGE STAGE I UTILITY DETAILS	159		4		12		12				12				28
BRIDGE STAGE II UTILITY PLAN	160		4		12		12				12				28
BRIDGE STAGE II UTILITY DETAILS	161		4		12		12				12				28
SPU WATER MAIN PROTECTION - SHEET 1	162		4	4	8		16				16				36
SPU WATER MAIN PROTECTION - SHEET 2	163		4	4	8		16				16				36
SPU WATER MAIN PROTECTION - SHEET 3	164		4	4	8		16				16				36
DRAINAGE PLAN - SHEET 1	165		4		16		16				16				36
DRAINAGE PLAN - SHEET 2	166		4		16		16				16				36
DRAINAGE PLAN - SHEET 3	167		4		16		16				16				36
DRAINAGE PLAN - SHEET 4	168		4		16		16				16				36
DRAINAGE PLAN - SHEET 5	169		4		16		16				16				36
DRAINAGE PLAN - SHEET 6	170		4		16		16				16				36
DRAINAGE PLAN - SHEET 7	171		4		16		16				16				36
DRAINAGE PROFILE - SHEET 1	172		4		16		16				16				36
DRAINAGE PROFILE - SHEET 2	173		4		16		16				16				36
DRAINAGE PROFILE - SHEET 3	174		4		16		16				16				36
DRAINAGE PROFILE - SHEET 4	175		4		16		16				16				36
DISCHARGE ROUTE PLAN & PROFILE - SHEET 1	176		4		16		16				16				36
DISCHARGE ROUTE PLAN & PROFILE - SHEET 2	177		4		16		16				16				36
POND PLAN - SHEET 1	178		4		16		16				16				36
POND SECTIONS - SHEET 1	179		4		16		16				16				36
DRAINAGE DETAILS - SHEET 1	180		4		16		16				16				36
DRAINAGE DETAILS - SHEET 2	181		4		16		16				16				36
DRAINAGE DETAILS - SHEET 3	182		4		16		16				16				36
DRAINAGE DETAILS - SHEET 4	183		4		16		16				16				36

**EXHIBIT D-1: CONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BOULEVARD EXTENSION**

**General-Civil Drawing List
9/5/2017**

TASK DESCRIPTION	Task Number	Totals											
		Principal/Project Manager	Project Engineer	Structural Engineer	Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin			
DSC		\$ 93.03	\$ 63.54	\$ 47.98	\$ 40.67	\$ 62.04	\$ 46.26	\$ 40.00	\$ 35.26				
OUTFALL PLAN & PROFILE - SHEET 1	184		4		16		16						36
OUTFALL DETAILS - SHEET 1	185		4		16		16						36
SUBTOTAL DRAWINGS		742	72	2142	2264								5,220

TASK DESCRIPTION	Task Number	DSC	Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin	Totals
											\$ 93.03
DRAWING LIST											
PUMP STATION PLANS											
KING COUNTY PUMP STATION - DESIGN DATA	1										0
KING COUNTY PUMP STATION - SITE PLAN	2										0
KING COUNTY PUMP STATION - SEWER LINE PLAN AND PROFILES - SHEET 1	3										0
KING COUNTY PUMP STATION - SEWER LINE PLAN AND PROFILES - SHEET 2	4										0
KING COUNTY PUMP STATION - SEWER LINE PLAN AND PROFILES - SHEET 3	5										0
KING COUNTY PUMP STATION - WETWELL AND VAULT PLAN	6										0
KING COUNTY PUMP STATION - WETWELL AND VAULT SECTIONS - SHEET 1	7										0
KING COUNTY PUMP STATION - WETWELL AND VAULT SECTIONS - SHEET 2	8										0
KING COUNTY PUMP STATION - WETWELL AND VAULT SECTIONS - SHEET 3	9										0
KING COUNTY PUMP STATION - CIVIL DETAILS - SHEET 1	10										0
KING COUNTY PUMP STATION - CIVIL DETAILS - SHEET 2	11										0
KING COUNTY PUMP STATION - CIVIL DETAILS - SHEET 3	12										0
KING COUNTY PUMP STATION - CIVIL DETAILS - SHEET 4	13										0
KING COUNTY PUMP STATION - CIVIL DETAILS - SHEET 5	14										0
KING COUNTY PUMP STATION - CIVIL DETAILS - SHEET 6	15										0
KING COUNTY PUMP STATION - CIVIL DETAILS - SHEET 7	16										0
KING COUNTY PUMP STATION - CIVIL DETAILS - SHEET 8	17										0
KING COUNTY PUMP STATION - STRUCTURAL NOTES	18										0
KING COUNTY PUMP STATION - STRUCTURAL PLANS	19										0
KING COUNTY PUMP STATION - STRUCTURAL ELEVATIONS	20										0
KING COUNTY PUMP STATION - STRUCTURAL SECTIONS	21										0
KING COUNTY PUMP STATION - STRUCTURAL DETAILS - SHEET 1	22										0
KING COUNTY PUMP STATION - STRUCTURAL DETAILS - SHEET 2	23										0
KING COUNTY PUMP STATION - STRUCTURAL DETAILS - SHEET 3	24										0
KING COUNTY PUMP STATION - STRUCTURAL DETAILS - SHEET 4	25										0
KING COUNTY PUMP STATION - STRUCTURAL DETAILS - SHEET 5	26										0
SUBTOTAL DRAWINGS											0

EXHIBIT D-3



**Washington State
Department of Transportation**

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

November 29, 2016

BergerABAM, Inc.
33301 Ninth Avenue South, Suite 300
Federal Way, WA 98003-2600

Subject: Acceptance FYE 2016 ICR – Audit Office Review

Dear Ms. Megan Isaacks:

Transmitted herewith is the WSDOT Audit Office's memo of "Acceptance" of your firm's FYE 2016 Indirect Cost Rate (ICR) of 174.19%. This rate will be applicable for WSDOT Agreements and Local Agency Contracts in Washington only. This rate may be subject to additional review if considered necessary by WSDOT. Your ICR must be updated on an annual basis.

Costs billed to agreements/contracts will still be subject to audit of actual costs, based on the terms and conditions of the respective agreement/contract.

This was not a cognizant review. Any other entity contracting with your firm is responsible for determining the acceptability of the ICR.

If you have any questions, feel free to contact our office at (360) 705-7019 or via email consultantrates@wsdot.wa.gov.

Regards;

A handwritten signature in blue ink that reads "Erik K. Jonson".

ERIK K. JONSON
Manager, Consultant Services Office

EKJ:kms

BergerABAM, Inc.
Indirect Cost Rate Schedule
For the Year Ended May 31, 2016

Classification	General Ledger	Firm Adjust.	Ref.	Accepted Amount	%
Direct Labor Base	11,394,308		M	11,394,308	
Indirect Salaries					
Proposal Admin Salaries	662,699			662,699	5.82%
Proposal/Negotiation Salaries	3,225,714	(56,945)	A, M	3,168,769	27.81%
Administrative Salaries	2,597,641	(38,792)	A	2,558,849	22.46%
Payroll Variance	(18,160)			-18,160	-0.16%
Office Support Salaries	0			0	0.00%
Accounting Salaries	486,041			486,041	4.27%
Housekeeping/Stby. Salaries	0			0	0.00%
Professional Activities Salaries	64,686			64,686	0.57%
Education & Training Salaries	257,642			257,642	2.26%
Research and Development	16,314			16,314	0.14%
Computer Salary	395,020			395,020	3.47%
Total Indirect Salaries	7,687,597	(95,737)		7,591,860	66.63%
Fringe Benefits/Salary Overhead					
Incentive Compensation	409,330			409,330	3.59%
Vacation	1,408,263			1,408,263	12.36%
Holiday	625,994			625,994	5.49%
Sick Leave	447,026			447,026	3.92%
Other Paid Leave	19,931			19,931	0.17%
FICA	1,461,004			1,461,004	12.82%
Federal Unemployment	13,685			13,685	0.12%
State Unemployment	119,055			119,055	1.04%
Industrial Insurance	6			6	0.00%
USL&H Work Comp	143,318			143,318	1.26%
Group Insurance	1,967,364			1,967,364	17.27%
Retirement Expense	438,126	(824)		437,302	3.84%
Benefit Recovery				0	0.00%
Fringe Benefit Adjustment		(6,882)	H	-6,882	-0.06%
Total Fringe Benefits/Sal. Ovhd.	7,053,102	(7,706)	0	7,045,396	61.83%
Administrative Expenses					
Travel & Subsistence	202,238	(21,733)	B, E, F, N	180,505	1.58%
Recruiting Fees & Expenses	69,417			69,417	0.61%
Contract Personnel	49,938	(28,863)		21,075	0.18%
Advertising	2,300	(2,300)	B, C	0	0.00%
Entertainment Expense				0	0.00%
Charitable Contributions	13,523	(13,523)	B, D	0	0.00%
Employee Welfare	102,280	(31,715)	B, E, F	70,565	0.62%
Employee Meals	97,219	(54,191)	B, E, F, N	43,028	0.38%
Library	21,108	(196)		20,912	0.18%
Professional Activities	14,209	(2,376)	B	11,833	0.10%
Education & Training Fees	106,884	(49)	B	106,835	0.94%
Research & Develop Expense	0			0	0.00%
General Admin	102,991	(7,203)	B	95,788	0.84%
Association Dues	87,274	(22,179)	B	65,095	0.57%
General Liability Insurance	88,005	(738)	I, J	87,267	0.77%
Legal Fees	174,693	(32,173)	B	142,520	1.25%
Accounting Fees	233,223	(97,908)	K	135,315	1.19%
Proposal Administration	(444,806)	(99,500)	B, M, N	-544,306	-4.78%
Proposal & Negotiation				0	0.00%
Office and Work Space	1,692,464		B	1,692,464	14.85%
Operating Expense	75,975		B	75,975	0.67%

BergerABAM, Inc.
Indirect Cost Rate Schedule
For the Year Ended May 31, 2016

Classification	General Ledger	Firm Adjust.	Ref.	Accepted Amount	%
Furniture & Small Equipment	8,558			8,558	0.08%
Furn & Small Office Depr.	273,297			273,297	2.40%
Office Equipment	0			0	0.00%
Office Supplies	62,126		B	62,126	0.55%
Field Equipment	14,195			14,195	0.12%
Field Equip Depreciation	67,010			67,010	0.59%
Auto Fuel & Maintenance	47,551			47,551	0.42%
Auto Insurance & License	26,132		B	26,132	0.23%
Auto & Truck Depreciation	45,805			45,805	0.40%
Field Equip Recovery	(113,902)			-113,902	-1.00%
Telephone	217,879			217,879	1.91%
Postage & Freight	19,351			19,351	0.17%
Reproduction	162,680			162,680	1.43%
Personal Property Tax	24,307			24,307	0.21%
Fidelity Insurance	31,324			31,324	0.27%
Business & Prof License	42,041			42,041	0.37%
Interest Expense	3,072	(3,072)	G	0	0.00%
Error & Omissions Insurance	600,041		I, J	600,041	5.27%
B&O Taxes	536,753			536,753	4.71%
City, State and Federal Taxes	539,386	(523,246)	L	16,140	0.14%
Computer Expense	590,688			590,688	5.18%
Computer Depreciation	249,730			249,730	2.19%
Misc Income			M	0	0.00%
Gain or Loss Sale of Asset	(15,395)			-15,395	-0.14%
Total Administrative Expenses	<u>6,121,564</u>	<u>(940,965)</u>	<u>0</u>	<u>5,180,599</u>	<u>45.47%</u>
Total Indirect Costs and Overhead	<u>20,862,263</u>	<u>(1,044,408)</u>	<u>0</u>	<u>19,817,855</u>	<u>173.92%</u>
Indirect Cost Rate	<u>1.83</u>			<u>1.74</u>	
Facilities Cost of Capital				31,053	0.27%
	<u>\$20,862,263</u>	<u>(\$1,044,408)</u>		<u>19,848,908</u>	
				<u>174.19%</u>	

References

Removed by BergerABAM

- A Unallowable Proposal Negotiation Salaries (\$56,945.36) and Administrative salaries (\$38,792.04).
- B Unallowable administrative expenses. Firm tracks unallowable expenses on the general ledger.
- C Advertising unallowable per 48 CFR 31.205-1(f).
- D Contributions unallowable per 48 CFR 31.205-8.
- E Removed by Berger/ABAM in compliance with various FARS regulations.
- F Travel and subsistence that are over the daily FAR allowable rates per 48 CFR 31.205-46
- G Interest and other financial costs not allowable per 48 CFR 31.205-20
- H Fringe Benefit adjustment; directly associated cost to unallowable advertising, public relations and direct selling labor unallowable per 48 CFR 31.201-6(a)
- I Determining allowability - costs property supported with adequate documentation are allowable CFR 31.201-2(d)
- J CFR 31.201-3(b) (1) Determining reasonableness - Costs generally not recognized as ordinary and necessary for the conduct of business are unallowable
- K Taxes - Taxes from which exemptions are available to the contractor directly are unallowable when the burden incident to obtaining the exemption outweighs the corresponding benefits accruing to the Government. CFR 31.205-41 (B) (3)
- L Taxes - Federal income and excess profits taxes are unallowable
- M Design build loss adjustments
- N Unallowable adjustments made from conducting EZ quant Audit- 11839.22 from travel, 878.12 from meals and 4234.21 removed from proposal

Exhibit E

Sub-consultant Cost Computations

~~There isn't any sub-consultant participation at this time.~~ The CONSULTANT shall not sub-contract for the performance of any work under this AGREEMENT without prior written permission of the AGENCY. Refer to section VI "Sub-Contracting" of this AGREEMENT.

Exhibit E-1 - Subconsultant Fee Determination

Exhibit E-3 - Subconsultant WSDOT ICR Letters or Safe Harbor Letter/Rates

Agreement Number:

**EXHIBIT E-1, SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA- STRANDER BLVD/SW 27TH ST EXTENSION**

Ott
9/4/2017

Ott-Sakai & Associates LLC
129 E. Lake Sammamish Shln NE
Sammamish, WA 98074
425-890-3533

**Strander Grade Separation
Fee Estimate - Constructability Review**

5/16/2015

Item	Scope	Principal Rate \$215.26 /hour	Senior Construction Specialist \$209.11/ hour	Contract Manager \$159.91/ hour	Ott Costs
	Invoicing and reporting			4	\$639.64
Constructability with Reports					
1	Site Visit (2 Staff)	4	8		\$2,533.92
2	Review Preliminary Design		8		\$1,672.88
3	Site Access Plan		24		\$5,018.64
4	Temporary Walls		8		\$1,672.88
5	Bottom Seal Alternates Evaluation (up to 3 methods)	2	24		\$5,449.16
8	Memorandum		16		\$3,345.76
9	Meetings 4 ea @4 Hrs		16		\$3,345.76
Schedule					
10	Prepare Schedule - Preliminary- Bar Chart	2	16		\$3,776.28
Contractor Style Estimate					
11	Prepare estimate (30% and 60% Update)	2	56		\$12,140.68
Meetings					
12	with Owner (2 ea)		12		\$2,509.32
Travel Expenses					
	Travel (Bus Fare, Parking, Mileage)				\$200.00
Sub - Totals					
		10	188	4	\$42,304.92
All Inclusive Hourly Rate					
TOTAL ESTIMATED					
					\$42,504.92



Ott – Sakai & Associates, LLC

129 E. Lk. Sammamish Shorelane NE, Sammamish, WA 98074

Bill Ott: 425-890-3533 bill@ott-sakai.com

Kevin Sakai: 206-255-2509 kevin@ott-sakai.com

August 25, 2017

BergerABAM
33301 Ninth Ave. South, Suite 300
Federal Way, WA 98003-2600

Subject: Hourly Rates

Attn: Kelly Robinson / Bob Fernandes

Ott-Sakai is young and a small firm that that does not have an established overhead rate nor do we have audited overhead rates. Below are our lowest fully burdened (all-inclusive) hourly billing rates for Ott-Sakai and Associates, LLC services. These rates are fully burdened and are the lowest rates billed to our clients for this type of work.

Classification	Max. Hourly Rate
Principal, Bill Ott, Kevin Sakai	\$215.26
Senior. Constr. Specialist	\$209.11
Kevin Parrish	
Charlie McCoy	
Forrest Dill	
David Place	
Eric Reichelt	
Construction Specialist	
Bing Ma	\$196.80
Contracts Administrator	
Janice Christain	\$159.91

The above hourly rates are fully burdened and are all-inclusive except for travel mileage, parking, or any other direct expenses.

Ott-Sakai shall comply with the rules and regulations regarding travel costs (excluding air, train, and rental costs) in accordance with the Tukwila Travel Rules and Procedures. All sub-consultant cost and direct reimbursable expenses will be at cost with no mark-ups.

Respectfully,

William P. Ott

EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION

CITY OF TUKWILA - STRANDER BOULEVARD/SW 27TH STREET EXTENSION



1 ALLIANCE
GEOMATICS
 SURVEYING & MAPPING

LEVEL OF EFFORT

PROJECT	NUMBER	17-096
	NAME	Strander Extension
	CLIENT	BergerABAM
	OWNER	City of Tukwila

by bblevins REVISED
 date 30-Aug-17
 ck'd mgroot
 date 30-Aug-17



TASK			bblevins	meroot	evanbaskirk	lprets	lbowie	stwart	klind	ecarroll	FEE
NUMBER	DESCRIPTION	HOURS	Principal	PM	PLS	CADD S	CADD E	TECH S	TECH E	TECH I	TASK
1	4.1 - Research and Control	108	4	8	16			32	32	16	\$ 9,581
2	4.2 - Topographic Mapping	428	4	24				80	160	160	\$ 31,384
3	4.3 - Utility Locate Services	112	4	8				20	40	40	\$ 8,640
4	4.4 - Right of Way/Parcels	212	4	24	120			24	24	16	\$ 22,714
5	4.5 - Easements and Exhibits	180	4	56	120						\$ 21,792
6	4.6A - Pond/Wetlands Typo Area 4	332	4	8		24	40	96	120	40	\$ 26,246
7	4.6B - Wetland Flag Locates Area 4	48							24	24	\$ 3,168
8	4.7 - Deliverables	268	4	24		80	160				\$ 23,136
9		0									\$
10		0									\$
11		0									\$
12		0									\$
13		0									\$
14		0									\$
TOTAL HOURS		1688	28	152	256	104	200	252	400	296	
			\$ 4,704.00	\$ 18,240.00	\$ 30,720.00	\$ 9,984.00	\$ 14,880.00	\$ 21,772.80	\$ 28,800.00	\$ 17,760.00	
TOTAL DIRECT BURDENED SALARY COSTS											\$ 146,861
OTHER DIRECT COSTS											
MILEAGE	(ONE WAY)	1.4	MILEAGE (TOTAL MILES)		882						\$ 476
number of field days		31.5									\$
NOTES											
TITLE REPORTS					22	\$1,000.00					\$ 22,000
TECHNOLOGY					Estimated 3D Laser Scanner/Drone					\$	
TRAFFIC CONTROL					Estimated Police Officer (8 hours at \$125/hr)					\$ 1,000	
UTILITY LOCATES and POTHOLES					ESTIMATED at \$1800 per 40 PH and \$8K UG Utility Locate					\$ 80,000	
TOTAL OTHER DIRECT COSTS											\$ 103,476
GRAND TOTAL FEE ESTIMATE											\$ 250,337

EXHIBIT E-3



**Washington State
Department of Transportation**

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

July 12, 2017

Jason Nakamura, President
1 Alliance Geomatics, LLC
1261 A 120th Ave NE
Bellevue WA 98005-2121

Re: 1 Alliance Geomatics, LLC
Safe Harbor Indirect Cost Rate Extension

Dear Mr. Nakamura:

Washington State has received approval from our local Federal Highway Administration (FHWA) Division to continue administering the "safe harbor" indirect cost rate program on engineering and design related service contracts, as well as for Local Public Agency projects.

We completed our risk assessment for 1 Alliance Geomatics, LLC, in May, 2014. Our assessment was conducted based on the documentation provided by the firm. The reviewed data included, but was not limited to, a description of the company, basis of accounting, accounting system and the basis of indirect costs. Based on our review, we found the firm eligible to use the Safe Harbor rate. 1 Alliance opted to use the Safe Harbor rate, rather than provide a FAR-compliant rate.

Based on further review and discussion with the firm, we are issuing an extension of the Safe Harbor Indirect Cost Rate of 110% of direct labor with a field rate, where applicable, of 80% of direct labor for 1 Alliance Geomatics, LLC.

1 Alliance Geomatics, LLC has agreed to improve Internal Controls and timekeeping processes in order to be able to develop an Indirect Cost Rate Schedule in the future in accordance with the Federal Acquisition Regulations (FAR), Subpart 31. The WSDOT Internal Audit Office has provided guidance and information related to FARs and the AASHTO Audit Guide. You may use the Safe Harbor Rate of 110%, or 80% for field office situations, for agreements entered into prior to June 30, 2018. For agreements entered into after this date, please contact the WSDOT Consultant Services Office (CSO) or our office for guidance.

The Safe Harbor Rate will not be subject to audit. Please coordinate with CSO or your Local Programs contact if you have questions about when to apply the Safe Harbor rate to your agreement.

If you have any questions, please contact me, Jeri Sivertson, or Steve McKerney at (360)705-7003.

Sincerely,

A handwritten signature in black ink that reads "Schatzie Harvey for SH".

Schatzie Harvey
Agreement Compliance Audit Manager

cc: Steve McKerney, Director of Internal Audit
Jeri Sivertson, Assistant Director of Internal Audit
Larry Schofield, MS 47323
File

Task 6.1 (Phase 3)

	Daniel Grayuski	Kristin Calia	James Sellards	Carmen Kwan	Sarah Keenan	Rachael Sewell	Yukari Bettencourt
Task	Principal	Senior Associate	Senior Engineering Technician	Senior Engineer/Planner	Engineer/Planner	Administrative	Administrative
Coordination meetings	4			6			
Document Review	2			10			
Summarize document studies / reports	1			6			
Outline detailed scope/budget for Phase 3B	2			2			
Preliminary analysis of illumination / traffic signal modification		4	3				
Administration						2	4
Total Hours	9	4	3	24	0	2	4
DSR	\$ 95.67	\$ 65.87	\$ 48.56	\$ 37.50	\$ 31.73	\$ 34.38	\$ 35.10
OH 176.04%	\$ 168.42	\$ 115.96	\$ 85.49	\$ 66.02	\$ 55.86	\$ 60.52	\$ 61.79
30% Fee	\$ 28.70	\$ 19.76	\$ 14.57	\$ 11.25	\$ 9.52	\$ 10.31	\$ 10.53
Billing Rate	\$ 292.79	\$ 201.59	\$ 148.61	\$ 114.77	\$ 97.11	\$ 105.22	\$ 107.42
Subtotal	\$2,635.10	\$806.35	\$445.84	\$2,754.36	\$0.00	\$210.43	\$429.68
						Total Budget	\$7,281.76

Task 6.2 & 6.3 (Phase 3)

	Daniel Grayuski	Kristin Calia	James Sellards	Carmen Kwan	Sarah Keenan	Rachael Sewell	Yukari Bettencourt
Task	Principal	Senior Associate	Senior Engineering Technician	Senior Engineer/Planner	Engineer/Planner	Administrative	Administrative
Memo outline traffic analysis / assumptions	2			8	2		
Field visit				8	8		
Traffic Operations analysis	8	6	14	88	72		
VMT/GHG analysis	2			18	12		
Traffic Study Report	8	4	8	50	44		
Coordination for environmental document	8			20	22		
Convert Traffic Study Report to Transportation Discipline Report	2			8	10		
Traffic Signal Permit	2	4		28	44		
30% illumination / traffic signal modification design and response to comments	6	10	24	34	36		
Administration						12	50
Total Hours	38	24	46	262	250	12	50
DSR	\$ 95.67	\$ 65.87	\$ 48.56	\$ 37.50	\$ 31.73	\$ 34.38	\$ 35.10
OH 176.04%	\$ 168.42	\$ 115.96	\$ 85.49	\$ 66.02	\$ 55.86	\$ 60.52	\$ 61.79
30% Fee	\$ 28.70	\$ 19.76	\$ 14.57	\$ 11.25	\$ 9.52	\$ 10.31	\$ 10.53
Billing Rate	\$ 292.79	\$ 201.59	\$ 148.61	\$ 114.77	\$ 97.11	\$ 105.22	\$ 107.42
Subtotal	\$11,125.96	\$4,838.13	\$6,836.20	\$30,068.43	\$24,276.62	\$1,262.60	\$5,371.00
PM Intersection traffic Counts & 24-hr speed/volume tube counts							\$8,000.00
						Total Budget	\$91,778.94

Task 6.4

	Daniel Grayuski	Kristin Calia	James Sellards	Carmen Kwan	Sarah Keenan	Rachael Sewell	Yukari Bettencourt
Task	Principal	Senior Associate	Senior Engineering Technician	Senior Engineer/Planner	Engineer/Planner	Administrative	Administrative
60% illumination / traffic signal design and response to comments	8	32	82	74	78		
90% illumination / traffic signal design and response to comments	4	16	24	24	34		
100% illumination / traffic signal design and response to comments	2	6	12	12	16		
Public Interest Finding Submittal	2	2	8	4			
Provide support for bidding		4	4				
Administration						8	32
Total Hours	16	60	130	114	128	8	32
DSR	\$ 95.67	\$ 65.87	\$ 48.56	\$ 37.50	\$ 31.73	\$ 34.38	\$ 35.10
OH 176.04%	\$ 168.42	\$ 115.96	\$ 85.49	\$ 66.02	\$ 55.86	\$ 60.52	\$ 61.79
30% Fee	\$ 28.70	\$ 19.76	\$ 14.57	\$ 11.25	\$ 9.52	\$ 10.31	\$ 10.53
Billing Rate	\$ 292.79	\$ 201.59	\$ 148.61	\$ 114.77	\$ 97.11	\$ 105.22	\$ 107.42
Subtotal	\$4,684.62	\$12,095.31	\$19,319.69	\$13,083.21	\$12,429.63	\$841.73	\$3,437.44
						Total Budget	\$65,891.64

Note: Optional Task (Initial Traffic Signal Timing Plans) Budget to be Provided if Included.

Grand Total \$164,952.34



**Washington State
Department of Transportation**

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

June 21, 2017

Fehr & Peers
100 Pringle Avenue, Suite 600
Walnut Creek, CA 94596

Subject: Acceptance FYE 2016 ICR – Audit Office Review

Dear Ms. Marion Donnolly:

Transmitted herewith is the WSDOT Audit Office's memo of "Acceptance" of your firm's FYE 2016 Indirect Cost Rate (ICR) of 176.04%. This rate will be applicable for WSDOT Agreements and Local Agency Contracts in Washington only. This rate may be subject to additional review if considered necessary by WSDOT. Your ICR must be updated on an annual basis.

Costs billed to agreements/contracts will still be subject to audit of actual costs, based on the terms and conditions of the respective agreement/contract.

This was not a cognizant review. Any other entity contracting with your firm is responsible for determining the acceptability of the ICR.

If you have any questions, feel free to contact our office at (360) 705-7019 or via email consultantrates@wsdot.wa.gov.

Regards;

ERIK K. JONSON
Manager, Consultant Services Office

EKJ:kms

EXHIBIT E-1
Strander Grade Separation Phase 3

Item 1: Project Administration	Prop Mgt		Admin		PM / Sr.		SR		REO	Escrow	Title	Total
					Acq Agent	Acq Agent	Acq Agent	Acq Agent				
Coord & Meetings with Tukwila & BergerABAM						25						25
Certification Assistance -						0						0
Contract Admin -						7						7
PFE/AOS						55	105					160
Pre-Design Acq Cost Assessment & Evaluations						20						20
Project Funding Estimate						40	30					70
Coord w/Subconsultants-												0
Hours:	0	0	0	0	0	147	135	0	0	0	0	282
Direct Labor \$:		0.00				6,835.50	4,995.00					\$ 11,830.50

Item 2: Right-of-Way Acquisition	Prop Mgt		Admin		PM / Sr.		SR		REO	Escrow	Title	Total
Title Report Review, ROW Plan and Legal Descriptions					Acq Agent	Acq Agent	Acq Agent	Acq Agent				
Review						0						0
Pre-Offer/ File Setup						0						0
Negotiations						0						0
Clearing Title -						0						0
Condemn Support -						0						0
Data/file & Diary Maintenance & Delivery						0						0
Hours:	0	0	0	0	0	0	0	0	0	0	0	0
Direct Labor \$:		0.00				0.00						\$ -

Direct Labor Totals:												
Hours:	0	0	0	0	0	147	135	0	0	0	0	282
Dollars:	0	0.00				6,835.50	4,995.00	0	0	0	0	\$ 11,830.50

Direct Salary Cost: \$ 11,830.50

Direct Labor Rate: 1

Audited Overhead Rate: 1.5

Profit: 0.3

Composite Multiplier: 2.8

Work Break Down:												
1 PFE Report: Includes 7 Acq, 5 Perm Easements, & 10 TCE(s).												

Expenses:												
Review Appraisals	\$											-
Appraisal 6	\$											-
Mileage/Travel	\$											95.00
Reprographic, Copy, & Printing	\$											-
Courtfex Overnight Postage	\$											-
Subtotal:	\$											95.00
TOTAL	\$											33,220.40



**Washington State
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310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

August 25, 2017

Abeyta & Associates
1011 SW Klickitat Way, Suite 206
Seattle, WA 98134

Subject: Acceptance FYE 2016 ICR - Negotiated

Dear Ms. Rosa Villa:

We have negotiated and accepted your firms FYE 2016 Indirect Cost Rate (ICR) of 150.00%. This rate will be applicable for Local Agency Contracts in Washington only. This rate may be subject to additional review if considered necessary by WSDOT. Your ICR must be updated on an annual basis.

Costs billed to agreements/contracts will still be subject to audit of actual costs, based on the terms and conditions of the respective agreement/contract.

This was not a cognizant review. Any other entity contracting with the firm is responsible for determining the acceptability of the ICR.

If you have any questions, feel free to contact our office at (360) 705-7019 or via email consultantrates@wsdot.wa.gov.

Regards;

ERIK K. JONSON
Manager, Consultant Services Office

EKJ:kms

Exhibit B

Project Name **strander**
 Client **Abam**
 Location **Tukwila** Date **12/6/2015**

Tasks	Project Manager Hours	Senior Biologist Hours	Project Biologist Hours	Archaeologist Hours
1.1 Design Assistance and Early Agency Coordination	40	4	16	
1.2 Section 106 Consultation				
APE	8	2	4	
1.3 106 Section Report Coordination				
Draft	12	8	4	36
Final	2	4	2	12
1.4 Noise Report				
Draft	12	20	60	
Final	8	8	20	
WSDOT Review	4	3	16	
1.4 Air Report				
Draft	12	20	60	
Final	8	8	20	
WSDOT Review	4	3	16	
1.5 Hazardous Materials Memo				
Draft	2	2	16	
Final	2	2	2	
WSDOT Review	4	2	4	
1.6 Environmental Justice Survey				
draft	12	6	40	
final	6	8	12	
1.7 Biological Assessment No Effect Letter				
Draft	12	16	40	
Final	8	2	12	
1.8 NEPA ECS				
Draft	4	9	32	
Final	2	2	4	
WSDOT Review	8	4	4	
1.9 Wetland and Critical Areas Study				
Field Work	8	12	60	
Draft	16	24	120	

**EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

**Widener Fee
9/3/2017**

	Final	32	8	48		
1.10 Wetland Mitigation Use Plan						
	Draft	40	12	80		
	Final	20	8	40		
1.10 Wetland Mitigation Use Plan						
	Draft	40	12	80		
	Final	20	8	40		
1.11 SEPA						
	Draft	2	2	24		
	Final	2	2	8		
	Coordination and Response Comments	8	2	16		
1.12 Permit Coordination						
	Section 404	36	12	80		
	Section 401	36	12	40		
	Coordination and Response Comments	40	8	24		
	Critical Areas permits	6		12		
	HPA					
	Total hours	476	255	1056	48	
Summary						
		Hours	Direct	Overhead	Profit	Cost
	Project Manager	476	\$64.00	\$70.40	\$19.20	\$73,113.60
	Senior Biologist	255	\$50.00	\$55.00	\$15.00	\$30,600.00
	Project Biologist	1056	\$31.00	\$34.10	\$9.30	\$78,566.40
	Project Archaeologist	48	\$50.00	\$55.00	\$15.00	\$5,760.00
	Total Labor					\$188,040.00
Expenses						
Mileage						
	Trips to project site (5 Trips)	146	miles @	\$0.56 per mile		\$408.80
	Trip to Local Programs (1 Trip)	30	miles @	\$0.56 per mile		\$16.80
Field Supplies						
	Flagging & Stakes					\$25.00
	Total Expenses					\$450.60
TOTAL ESTIMATED COST						
						\$188,490.60

EXHIBIT E-3



Washington State
Department of Transportation

Lynn Peterson
Secretary of Transportation

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

February 27, 2014

Jeanette Widener, President
DGK Inc.
10108 32nd Avenue W, Suite D
Everett, WA 98204-1302

Re: DGK (dba Widener & Associates) Safe Harbor Indirect Cost Rate

Dear Ms. Widener:

Washington State is one of ten states who have received approval from Federal Highway Headquarters to participate in the Test and Evaluation Program (TE-045) for use of a "safe harbor" indirect cost rate on engineering and design related service contracts, as well as for Local Public Agency projects.

We have completed our risk assessment for DGK. Our assessment was conducted based on the documentation provided by the firm. The reviewed data included, but was not limited to, a description of the company, basis of accounting, accounting system and the basis of indirect costs. Based on our review, your firm is eligible to use the Safe Harbor rate for the City of Bellingham West Horton Road Project.

We are issuing the Safe Harbor Indirect Cost Rate of 110% of direct labor for DGK. The Safe Harbor rate is effective on February 27, 2014.

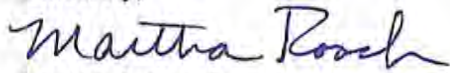
DGK has agreed to improve Internal Controls and timekeeping processes in order to be able to develop an Indirect Cost Rate Schedule in future accordance to Federal cost principles (48 CFR FAR). The WSDOT Internal Audit Office has provided guidance and information related to FARs and the AASHTO Audit Guide.

The Safe Harbor Rate will not be subject to audit. Please coordinate with WSDOT Consultant Services (CSO) or your WSDOT Local Programs Manager if you have questions about when to apply the Safe Harbor rate to your agreement.

Page 2
DGK
February 27, 2014

If you or any representatives of DGK have any questions, please contact Martha Roach, Jeri Sivertson, or Steve McKerney at (360)705-7003.

Sincerely,



Martha S. Roach
Agreement Compliance Audit Manager

cc: Steve McKerney, Director of Internal Audit
Jeri Sivertson, Assistant Director of Internal Audit
Larry Schofield, MS 47323
File

CERTIFICATION OF FINAL INDIRECT COSTS – FOR A SAFE HARBOR INDIRECT COST RATE

Firm Name: DGK INC. DBA WIDENER & ASSOC.

Project Number/Name: Horton Road

I, the undersigned, certify that I have reviewed the proposal to establish the Safe Harbor rate.

The firm is electing to use the SAFE HARBOR INDIRECT COST RATE of 110%. To the best of my knowledge and belief:

- a) The firm has not had a FAR compliant indirect cost rate previously accepted by any other state agency.
- b) The firm will provide reports as required by the SAFE HARBOR RATE program on their progress toward compliance with the cost principles of the Federal Acquisition Regulations (FAR) of title 48, Code of Federal Regulations (CFR), part 31.

All known material transactions or events that have occurred affecting the firm's ownership, organization and prior & current indirect cost rates have been disclosed.

The firm agrees to follow the "Path to Compliance". Steps noted below:

The Pathway must include:

- A timekeeping system which includes the Internal Controls described in chapter 6 of AASHTO
- An accounting system which separates indirect costs and direct costs
- An accounting system which separates allowable and unallowable cost
- A compliant job cost system which is general ledger driven
- Training for accounting personnel and key management on Part 31 of the Federal Acquisition Regulations, Contract Cost Principles and Procedures
- A strong written internal control policy with a policy and procedures manual

*Signature: Jeanette C Widener

*Name of Certifying Official (Print): Jeanette C Widener

*Title: PRESIDENT

Date of Certification (mm/dd/yyyy): 02/27/14

*Note: This form is to be completed by an individual executive or financial officer of the consultant at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has the authority to represent the financial information utilized to establish the indirect cost rate proposal submitted in conjunction with the agreement.

**EXHIBIT E-1: SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

**HANSON Costs
9/3/2017**

DIRECT SALARY COSTS (DSC)

<u>Personnel</u>	<u>Hours</u>		<u>Rate</u>		<u>Cost</u>
1 Principal	10	X	\$ 90.00	= \$	900
2 Engineer VII (PM)	181	X	\$ 50.00	= \$	9,050
3 Engineer VII (PE)	744	X	\$ 50.00	= \$	37,200
4 Engineer VI	0	X	\$ 50.00	= \$	-
5 Engineer V	173	X	\$ 50.00	= \$	8,650
6 Engineer IV	0	X	\$ 40.00	= \$	-
7 Engineer III	30	X	\$ 40.00	= \$	1,200
8 Technician VII	0	X	\$ 35.00	= \$	-
<hr/>					
Total Hours	1,138		Subtotal Direct Salary Costs (DSC) = \$		57,000
			Salary Escalation (SE) =	2% of DSC = \$	1,140
			Subtotal (DSC + SE) = \$		58,140
Overhead (OH)	174.37%		of (DSC + SE) = \$		101,379
Fixed Fee (FF)	33.00%		of (DSC + SE) = \$		19,186.20
<hr/>					
TOTAL SALARY COSTS (DSC + SE + OH + FF) = \$					178,705

DIRECT NONSALARY COSTS (DNSC)

Mileage	800	miles @ \$ 0.535	\$	428
Miscellaneous Expendables (photographs, equip rental, etc)			\$	200
<hr/>				

TOTAL REIMBURSABLE EXPENSES (DNSC) = \$ 628

TOTAL AUTHORIZED AMOUNT = \$ 179,333

**EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

Hanson Hours
9/3/2017

Task Descriptions	Principal	Engineer VII (Project Manager)	Engineer VII (Project Engineer)	Engineer VI	Engineer V	Engineer IV	Engineer III	Technician VII	Subtotals
Labor Rate \$	90.00 \$	50.00 \$	50.00 \$	50.00 \$	50.00 \$	40.00 \$	40.00 \$	35.00 \$	
TASK 9.0 - RAILROAD DESIGN									
Subtask 9.1 - Project Administration	0	129	100	0	11	0	10	0	250
Project Set-Up		4	4		1				9
Project Management (1 hr/wk for 56 weeks)		56	0						56
Invoicing Per Client Format (14 billing cycles anticipated)		14	0						14
Prepare Progress Reports (14 total)		7	14						21
Meetings with Design Team, City, and/or UPRR									0
Kick-Off Meeting in Tukwila		6	6						12
Progress Meetings in Federal Way									0
10% Plans: 3 meetings		6	9		3		3		21
25% Plans: 3 meetings		6	9		3		3		21
30% Plans: 1 meeting		2	4						6
90% Plans: 1 meeting		2	4		2		2		10
100% Plans: 1 meeting		2	4		2		2		10
Progress Meetings via Conference Call									0
10% Plans: 6 calls		3	6						9
25% Plans: 6 calls		3	6						9
30% Plans: 2 calls		2	5						7
90% Plans: 2 calls		2	4						6
100% Plans: 2 calls		2	5						7
Site Meetings with UPRR									0
25% Plans: 1 meeting		4	6						10
90% Plans: 1 meeting		4	6						10
Pre-Bid Meeting (1 meeting)		4	6						10
Subtask 9.2 - 10% Railroad Shoofly Plan	2	8	102	0	21	0	4	0	137
Site review and Field Report (concurrent with survey)		2	8		1				11
Survey Data Reduction for Engineering			6		1				7
Establish Existing Track Alignment from Survey			8		1				9
Shoofly Track Alignment		1	8		2				11
10% Earthwork Model (Civil 3D 2017)			16		2				18
10% Shoofly Plan - (11x17 - 3 sheets)			32		4				36
10% Opinion of Probable Cost of Construction		1	6		2				9
QC Review	2	2	6		4				14
Final Revisions & Prepare PDFs for submittal		2	12		4		4		22
Subtask 9.3 - 25% Shoofly and Phasing Plans	2	13	238	0	61	0	4	0	318
Review and Prepare responses to UPRR Design Comments		1	4		1				6
Phasing Plan Schematics - (11x17 - 2 sheets)			12		2				14
Phasing Narrative		1	4		1				6
25% Shoofly Plan & Profile Sheets - (3 sheets)			32		6				38
25% Shoofly Typical Section Sheets - (4 sheets)			24		2				26
Curve Data Sheet (1 Sheet)			3		1				4
Prepare Civil / Track Detail Sheet (2 sheets)			6		1				7
Earthwork Model (Civil 3D 2017) by Phase			40		8				48
25% Shoofly Cross Section Sheets by Phase - (12 sheets)			40		8				48
Review Geotechnical Report			6		4				10
Utility Review for conformance with UPRR req.	2		12		3				17
Verify Shoofly Track Drainage			16		4				20
Prepare Quantity Summary Table			3		2				5
Update Opinion of Probable Cost of Construction		2	6		2				10

**EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

**Hanson Hours
9/3/2017**

Task Descriptions	Principal	Engineer VII (Project Manager)	Engineer VII (Engineer)	Engineer VI	Engineer V	Engineer IV	Engineer III	Technician VII	Subtotals
	\$ 90.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 40.00	\$ 40.00	\$ 35.00	
Design Report									
Prepare Initial Track Specifications		1	8		4				13
QC Review	2	2	10		2				14
Final Revisions & Prepare PDF's for submittal		2	4		4				10
		2	10		6		4		22
Subtask 9.4 - 30% Plans (Update 25% per Site Meeting)									
Review and Prepare responses to UPRR Site Review	2	14	77	0	32	0	4	0	129
Update Phasing Plan Schematic - (11x17 - 2 sheets)		1	3		4				4
Update Phasing Narrative		1	5						5
Update Shoofly Plan & Profile Sheets - (3 sheets)		1	3						4
Update Shoofly Typical Section Sheets - (4 sheets)			5		2				7
Update Curve Data Sheet (1 Sheet)			6						6
Update Prepare Civil / Track Detail Sheet (2 sheets)			2						2
Update Earthwork Model (Civil 3D 2017) by Phase			4						4
Update Shoofly Cross Section Sheets by Phase - (12 sheets)			5		3				8
Review Geotechnical Report			6		2				8
Act. Utility Review for conformance with UPRR req.		3	1		1				8
Update Shoofly Track Drainage			6		1				10
Update Quantity Summary Table			6		1				7
Update Opinion of Probable Cost of Construction		2	4		2				2
Update Design Report		1	4		4				8
Update Initial Track Specifications		2	4		2				8
QC Review	2	2	3		5		4		12
Final Revisions & Prepare PDF's for submittal		2	6		5				17
Subtask 9.5 - 60% Plans (Update 30% if required by UPRR)									
Engineering Contingency (none)	0	0	0	0	0	0	0	0	0
Subtask 9.6 - 90% Plans									
Update Shoofly Plan & Profile Sheets - Finalize Cut & Fill Lines, signal (if needed)	2	6	109	0	29	0	4	0	150
Update Shoofly Typical Section Sheets - (4 sheets)			14		3				17
Update Prepare Civil / Track Detail Sheet (2 sheets)			10		4				14
Update Earthwork Model Incl. Potential Signal Pads and Special Sections			7		7				7
Update Shoofly Cross Section Sheets Incl. Special Sections (if needed) - (12 sheets)			28		4				32
Update Quantity Summary Table			9		1				10
Update Opinion of Probable Cost of Construction		1	5		2				3
QC Review		1	5		2				8
Finalize Track Specifications	2	1	10		5				18
Contingency to Incorporate Comments from 60% UPRR Review (none)		1	11		4				16
Final Revisions & Prepare PDF's for submittal		1	7		4		4		1
									16
Subtask 9.7 - 100% Plans (Update 90% incl. all UPRR comments)									
Update Shoofly Plan & Profile Sheets - Finalize Cut & Fill Lines, signal (if needed)	2	11	118	0	19	0	4	0	154
Update Shoofly Typical Section Sheets - (4 sheets)		1	14		1				16
Update Prepare Civil / Track Detail Sheet (2)			11		1				12
Update Earthwork Model Incl. Potential Signal Pads and Special Sections			5		1				6
Update Shoofly Cross Section Sheets Incl. Special Sections (if needed) - (10 sheets)			15		1				16
Update Quantity Summary Table			12		2				14
Update Opinion of Probable Cost of Construction		1	3		1				4
Update Design Report		1	3		3				7

**EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

**Hanson Hours
9/3/2017**

Task Descriptions	Principal	Engineer VII (Project Manager)	Engineer VII (Project Engineer)	Engineer VI	Engineer V	Engineer IV	Engineer III	Technician VII	Subtotals
QC Review	2	1	7		3				13
Update Final Track Specifications including agreement with front end documents		2	16						18
Bid Support through Award		4	24						28
Final Revisions & Prepare PDFs for submittal		1	5		3		4		13
Hours	10	181	744	0	173	0	30	0	1138

EXHIBIT E-3



**Washington State
Department of Transportation**

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

July 6, 2017

Hanson Professional Services Inc.
1525 S. Sixth Street
Springfield, IL 62703

Subject: Acceptance FYE 2016 ICR – Risk Assessment Review

Dear Ms. Jo Ellen Keim:

Based on Washington State Department of Transportation's (WSDOT) Risk Assessment review of your Indirect Cost Rate (ICR), we have accepted your proposed FYE 2016 ICR of 174.37%. This rate is applicable to Washington Local Agency Contracts only. This rate may be subject to additional review if considered necessary by WSDOT. Your ICR must be updated on an annual basis.

Costs billed to agreements/contracts will still be subject to audit of actual costs, based on the terms and conditions of the respective agreement/contract.

This was not a cognizant review. Any other entity contracting with your firm is responsible for determining the acceptability of the ICR.

If you have any questions, feel free to contact our office at (360) 705-7019 or via email consultanrates@wsdot.wa.gov.

Regards;

ERIK K. JONSON
Manager, Consultant Services Office

EKJ:kms

EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION Bright Phase 3B Cost Summary
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION **9/3/2017**

DIRECT SALARY COSTS (DSC)

<u>Personnel</u>	<u>Hours</u>		<u>Rate</u>		<u>Cost</u>
1 Principal/Project Manager	20	X	\$ 71.25	= \$	1,425
2 Project Engineer	108	X	\$ 67.00	= \$	7,236
3 Structural Engineer	254	X	\$ 60.00	= \$	15,240
4 Civil Engineer	0	X	-	= \$	-
5 Construction Specialist	0	X	-	= \$	-
6 Designer/ CAD Oper	216	X	\$ 31.30	= \$	6,761
7 Graphics	0	X	-	= \$	-
8 Project Coord. / Admin	12	X	\$ 22.50	= \$	270
<hr/>					
Total Hours	610		Subtotal Direct Salary Costs (DSC) = \$		30,932
			Salary Escalation (SE) = 5% of DSC = \$		1,547
			Subtotal (DSC + SE) = \$		32,478
Overhead (OH)	161.86%		of (DSC + SE) = \$		52,570
Fixed Fee (FF)	30.00%		of (DSC + SE) = \$		9,743.52
<hr/>					
TOTAL SALARY COSTS (DSC + SE + OH + FF) = \$					94,791

DIRECT NONSALARY COSTS (DNSC)

Mileage Design Team	300	miles @	\$ 0.560	\$	168
Expendables (photographs, equip rental, etc)	1	Estimate	\$ 32	\$	32
<hr/>					
TOTAL REIMBURSABLE EXPENSES (DNSC) = \$					200

TOTAL Bright Fee = \$ 94,991

0.782234503

**EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

**Bright Phase 3B Hours
9/3/2017**

TASK DESCRIPTION	Task Number	DSC										Totals		
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin					
		\$ 71.25	\$ 67.00	\$ 60.00	\$ -	\$ -	\$ 31.30	\$ -	\$ 22.50	\$ -	\$ -	\$ -	\$ -	
TASK 10 - STRUCTURAL ENGINEERING (supplemented)	10	20	108	254	-	-	216	-	-	-	-	-	12	610
UPRR Temporary Shoring Wall	10.3	8	30	64	-	-	56	-	-	-	-	-	4	162
Temporary Shoring Wall Design Coordination of Staging with Civil, Structural, and Shoo-fly		-	10	24	-	-	-	-	-	-	-	-	-	34
UPRR Temporary Shoring Wall Plans		-	4	8	-	-	-	-	-	-	-	-	-	12
PM & Submittal Coordination		-	12	24	-	-	56	-	-	-	-	-	-	92
Sound Transit Vehicular Bridge	10.4	8	4	8	-	-	-	-	-	-	-	-	4	24
Superstructure Design		8	56	132	-	-	150	-	-	-	-	-	4	350
Vehicular Bridge Plans		-	20	60	-	-	-	-	-	-	-	-	-	80
PM & Submittal Coordination		-	32	64	-	-	150	-	-	-	-	-	-	246
Miscellaneous Structures	10.8	4	4	8	-	-	-	-	-	-	-	-	4	24
Signal Bridge Design		4	22	58	-	-	10	-	-	-	-	-	4	98
Signal Bridge Foundation Design		-	8	24	-	-	-	-	-	-	-	-	-	32
Pedestrian Bridge Plans		-	8	24	-	-	-	-	-	-	-	-	-	32
PM & Submittal Coordination		-	2	6	-	-	10	-	-	-	-	-	-	18
Total		20	108	254	-	-	216	-	-	-	-	-	12	610

**EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

**Bright Structures Drawing List
9/3/2017**

DRAWING LIST	Number	Totals									
		Principal/Project Manager	Project Engineer	Structural Engineer	Civil Engineer	Construction Specialist	Designer/CAD Oper	Graphics	Project Coord./Admin		
		\$ 71.25	\$ 67.00	\$ 60.00	\$ -	\$ -	\$ 31.30	\$ -	\$ 22.50		
DSC	10.3		12	24			56				92
UPRR TEMPORARY SHORING WALL PLANS											
UPRR BRIDGE - SHEET PILE NOTES	1	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - TEMPORARY SHORING PLAN - STAGE 1	2	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - TEMPORARY SHORING ELEVATION - STAGE 1	3	-	2	4	-	-	8	-	-	-	14
UPRR BRIDGE - GROUND ANCHOR DETAILS	4	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - WALKER & ANCHOR WALL DETAILS	5	-	2	4	-	-	10	-	-	-	16
UPRR BRIDGE - SHORING, TIEBACK, AND ANCHOR WALL LIMITS	6	-	2	4	-	-	8	-	-	-	14
VEHICULAR BRIDGE PLANS	10.4		32	64			150				246
VEHICULAR BRIDGE - FRAMING PLAN	1	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - TYPICAL SECTION	2	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - GIRDER DETAILS (1 OF 3)	3	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - GIRDER DETAILS (2 OF 3)	4	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - GIRDER DETAILS (3 OF 3)	5	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - END DIAPHRAGM	6	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - INTERMEDIATE DIAPHRAGM	7	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - DECK REINFORCEMENT	8	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - DECK REINFORCEMENT SECTION	9	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - TRAFFIC BARRIER DETAILS (1 OF 3)	10	-	2	4	-	-	8	-	-	-	14
VEHICULAR BRIDGE - TRAFFIC BARRIER DETAILS (2 OF 3)	11	-	2	4	-	-	8	-	-	-	14
VEHICULAR BRIDGE - TRAFFIC BARRIER DETAILS (3 OF 3)	12	-	2	4	-	-	8	-	-	-	14
VEHICULAR BRIDGE - EXPANSION JOINT DETAILS	13	-	2	4	-	-	10	-	-	-	16
VEHICULAR BRIDGE - APPROACH SLAB DETAILS (1 OF 2)	14	-	2	4	-	-	8	-	-	-	14
VEHICULAR BRIDGE - APPROACH SLAB DETAILS (2 OF 2)	15	-	2	4	-	-	8	-	-	-	14
VEHICULAR BRIDGE - SUPERSTRUCTURE REINFORCEMENT TABLES	16	-	2	4	-	-	10	-	-	-	16
MISCELLANEOUS STRUCTURAL DRAWINGS	10.8		12	24			54				90
SIGNAL BRIDGE PLAN AND ELEVATION	1	-	2	4	-	-	10	-	-	-	16
SIGNAL BRIDGE DETAILS (1 OF 3)	2	-	2	4	-	-	10	-	-	-	16
SIGNAL BRIDGE DETAILS (2 OF 3)	3	-	2	4	-	-	8	-	-	-	14
SIGNAL BRIDGE DETAILS (3 OF 3)	4	-	2	4	-	-	8	-	-	-	14
SIGNAL BRIDGE FOUNDATION (1 OF 2)	5	-	2	4	-	-	10	-	-	-	16
SIGNAL BRIDGE FOUNDATION (2 OF 2)	6	-	2	4	-	-	8	-	-	-	14
SUBTOTAL - ALL STRUCTURAL DRAWINGS			56	112			260				428

**EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

**S&W Phase 3 Costs
9/3/2017**

DIRECT SALARY COSTS (DSC)

<u>Personnel</u>	<u>Hours</u>		<u>Rate</u>		<u>Cost</u>
1 Vice President	49	X	\$ 82.68	= \$	4,010
2 Associate	156	X	\$ 65.92	= \$	10,284
3 Senior Engineer I	272	X	\$ 40.27	= \$	10,953
4 Engineer IV	124	X	\$ 36.91	= \$	4,577
5 Engineer II	345	X	\$ 30.77	= \$	10,616
6 Senior Drafter	22	X	\$ 35.95	= \$	791
<hr/>					
Total Hours	968		Subtotal Direct Salary Costs (DSC) =	\$	41,230
			Salary Escalation (SE) =	4.0% of DSC =	\$ 1,649
				Subtotal (DSC + SE) =	\$ 42,880
Overhead (OH)	190.27%			of (DSC + SE) =	\$ 81,587
Fixed Fee (FF)	30.00%			of (DSC + SE) =	\$ 12,863.86
<hr/>					
TOTAL SALARY COSTS (DSC + SE + OH + FF) =				\$	137,330

DIRECT NONSALARY COSTS (DNCS)

Excavator subcontractor			lump sum	\$	2,500
PIT equipment			lump sum	\$	500
Pumping test subcontractor			lump sum		
Pumping test ODCs			lump sum		
Mileage	875		miles @ \$ 0.56	\$	490
Reproduction			lump sum	\$	500
<hr/>					
TOTAL REIMBURSABLE EXPENSES (DNCS) =				\$	3,990

TOTAL AUTHORIZED AMOUNT = \$ 141,320

**EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION**

**S&W Phase 3 Hours
9/3/2017**

TASK	Vice President	Associate	Senior Engineer I	Engineer IV	Engineer II	Senior Drafter	SUBTOTAL
TASK 11 - GEOTECHNICAL ENGINEERING SUPPORT							
	48.5	156	272	124	345	22	
Project Management and Quality Assurance	24	60	0	0	0	0	84
Meetings (assume 4 @ 4 hrs each for 2 people)	0	16	16	0	0	0	32
Coordinate permits, traffic control, and/or railroad flaggers for in situ testing	0	2	4	16	0	0	22
Coordinate and perform pilot infiltration test	0	2	12	0	12	0	26
Install and develop test well	0	0	0	0	0	0	0
Coordinate and observe aquifer pumping test	0	0	0	0	0	0	0
Evaluate results of aquifer pumping test	0	0	0	0	0	0	0
Seismic design criteria	1	1	3	0	0	0	5
Liquefaction evaluation	1	2	0	12	0	0	15
Bridge Foundation Axial Resistance (3 Cases)	1	3	6	0	12	0	22
Bridge Foundation Lateral Resistance (3 Cases)	1	3	6	0	12	0	22
Bridge Foundation Group Interaction (3 Cases)	0.5	3	6	0	12	0	22
Retaining Wall Earth Pressure (6 Cases)	1	6	12	0	24	0	43
Retaining Wall Global Stability and Settlement (6 Cases)	1	9	24	0	96	6	136
Underpass uplift forces	0	1	4	0	8	0	13
Underpass mitigation alternatives	2	6	12	0	32	0	52
Shoofly Embankment Global Stability and Settlement (4 Cases)	1	8	20	0	64	4	97
Continue reading existing dataloggers on site (3 readings)	0	0	3	0	9	0	12
Update groundwater model	1	0	12	0	8	0	21
Evaluate construction dewatering (6 cases)	0	0	0	0	0	0	0
Construction Dewatering-Induced Settlement and Impacts	0	0	0	0	0	0	0
Utility Protection	1	1	4	0	16	0	22
New Outfall Recommendations	0	1	4	0	8	0	13
Evaluate stormwater infiltration rates	0	2	4	0	0	0	6
Construction Considerations	1	0	24	8	0	0	33
Prepare 60% Report	4	16	40	60	16	8	144
Revise 60% Report Based on CITY and UPRR Comments	2	2	8	4	0	2	18
Prepare final report	2	8	24	0	16	2	52
Review and comment on plans and specifications	4	4	24	24	0	0	56
Develop specifications (dewatering and instrumentation)	0	0	0	0	0	0	0
Total Hours	49	156	272	124	345	22	968

EXHIBIT E-3



**Washington State
Department of Transportation**

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

June 14, 2017

Shannon & Wilson, Inc.
400 N. 34th Street, Suite 100
Seattle, WA 98103

Subject: Acceptance FYE 2016 ICR – CPA Report

Dear Ms. Noelani Bevill:

We have accepted your firms FYE 2016 Indirect Cost Rate (ICR) of 190.27% based on the "Independent CPA Report," prepared by CPA Consulting, Inc.. This rate will be applicable for WSDOT Agreements and Local Agency Contracts in Washington only. This rate may be subject to additional review if considered necessary by WSDOT. Your ICR must be updated on an annual basis.

Costs billed to agreements/contracts will still be subject to audit of actual costs, based on the terms and conditions of the respective agreement/contract.

This was not a cognizant review. Any other entity contracting with the firm is responsible for determining the acceptability of the ICR.

If you have any questions, feel free to contact our office at (360) 705-7019 or via email consultantrates@wsdot.wa.gov.

Regards;

 Jonson, Erik

cosign

ERIK K. JONSON
Manager, Consultant Services Office

EKJ:kms

Certification of Final Indirect Costs

Firm Name: Shannon & Wilson, Inc.

Indirect Cost Rate Proposal: 190.267%

Date of Proposal Preparation (mm/dd/yyyy): 5/19/2017

Fiscal Period Covered (mm/dd/yyyy to mm/dd/yyyy): 1/1/2016 - 12/31/2016

I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

1.) All costs included in this proposal to establish final indirect cost rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of title 48, Code of Federal Regulations (CFR), part 31.

2.) This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR 31.

All known material transactions or events that have occurred affecting the firm's ownership, organization and indirect cost rates have been disclosed.

Signature:  _____

Name of Certifying Official* (Print): Hollie L. Ellis

Title: SR Vice President

Date of Certification (mm/dd/yyyy): 5/24/17

*The "Certifying Official" must be an individual executive or financial officer of the firm at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has the authority to represent the financial information utilized to establish the indirect cost rate for use under Agency contracts.

Ref. FHWA Directive 4470.1A available on line at:
<http://www.fhwa.dot.gov/legisregs/directives/orders/44701a.htm>

SHANNON & WILSON, INC.
STATEMENT OF DIRECT LABOR, FRINGE BENEFITS AND GENERAL OVERHEAD
For the Year Ended December 31, 2016

	General Ledger Balance	Portion Unallowable	FAR Reference	Audited Total	Proposed	Percent of Direct Labor
DIRECT LABOR	\$ 13,074,066	\$ -		\$ 13,074,066		
FRINGE BENEFITS						
Additional compensation	2,088,223	400,000	(15) 31.205-6	2,488,223		
Qualified retirement plans	1,264,491	-		1,264,491		
Vacation, sick and holiday	2,484,371	-		2,484,371		
Payroll fringes	5,196,436	(143,000)	(2,3) 31.205-1,13	5,053,436		
	<u>11,053,520</u>	<u>257,000</u>		<u>11,290,520</u>		86.4%
GENERAL OVERHEAD						
Administrative salaries	3,328,445	(3,154)	(1,4) 31.205-6(f),(p)	3,325,290		
Proposal and business development labor	3,680,256	(203,726)	(5) 31.205-1	3,476,530		
Equipment	265,180	-		265,180		
Rent and facility	2,127,443	(5,082)	(13) 31.203(b)	2,122,361		
Travel and auto	423,066	(3,393)	(6) 31.205-46	419,673		
Proposal and business development	511,096	(357,475)	(7,8,9) 31.205-1,8,14	153,620		
Interest	10,723	(10,723)	(10) 31.205-20	-		
Supplies	531,011	-		531,011		
Outside professional services	182,393	-		182,393		
Computer	768,301	-		768,301		
Telephone and postage	328,508	-		328,508		
Conferences and professional	463,484	-		463,484		
Depreciation	484,907	(27,707)	(6,14) 31.205-46,22	484,907		
Insurance	1,085,847	-		1,085,847		
Taxes and licenses	2,482,842	(1,862,141)	(11) 31.205-41	620,701		
Bad debts	215,341	(215,341)	(12) 31.205-3	-		
Revenue from in-house charges	(651,849)	-		(651,849)		
	<u>16,236,992</u>	<u>(2,688,743)</u>		<u>13,548,248</u>		103.6%
Total Fringe Benefits and General Overhead	<u>\$ 27,270,512</u>	<u>\$ (2,431,743)</u>		<u>\$ 24,838,768</u>		190.0%
Facilities capital cost of money				<u>\$ 34,896</u>		0.267%

See accompanying notes.
3

SHANNON & WILSON, INC.
STATEMENT OF DIRECT LABOR, FRINGE BENEFITS AND GENERAL OVERHEAD
For the Year Ended December 31, 2016

FAR References:

- (1) Unallowable spot bonuses
- (2) Taxes related to unallowable promotion labor
- (3) Unallowable meals and employee gifts
- (4) Not used
- (5) Advertising and public relations labor
- (6) Excess per diem and travel expense
- (7) Unallowable contribution costs
- (8) Unallowable entertainment costs
- (9) Unallowable advertising and public relations costs
- (10) Interest expenses
- (11) Federal income taxes
- (12) Bad debts
- (13) Rent charged as direct costs to projects
- (14) Unallowable lobbying cost
- (15) Accrued prior year bonuses paid in current year

See accompanying notes.

4

SHANNON & WILSON, INC.
NOTES TO STATEMENT OF DIRECT LABOR, FRINGE BENEFITS
AND GENERAL OVERHEAD
For the Year Ended December 31, 2016

NOTE A: DESCRIPTION OF BUSINESS AND BASIS OF ACCOUNTING

Description of business – Shannon & Wilson, Inc. (the Company) provides geotechnical engineering and environmental consulting services, primarily throughout the United States of America.

Basis of accounting – The Company maintains its accounting records on the accrual basis for financial reporting while using the cash method of accounting for federal income tax purposes. The Company's policy is to prepare its overhead schedules, which support the Statement of Direct Labor, Fringe Benefits, and General Overhead (the Statement), on the basis of accounting practices prescribed by Part 31 of the Federal Acquisition Regulations (FAR). Accordingly, the above-mentioned Statement is not intended to present the results of operations of the Company in conformity with accounting principles generally accepted in the United States of America.

NOTE B: DESCRIPTION OF ACCOUNTING SYSTEM

Description of accounting – The Company maintains a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the Company's job-order cost accounting system.

The audited overhead rate is a unitary rate for all disciplines. Direct project costs and allocated indirect costs are included in the project cost record. The allocation basis for indirect costs is direct labor. Direct labor of salaried employees is calculated using a standard hourly rate based on an annual hour base of 2,080.

Direct costs incurred in providing services billed to clients at unit rates or on the basis of a published fee schedule are charged by functional accounts and accumulated as a single project or grouping to allow segregation of such costs from other direct costs.

The Company's method of estimating costs for pricing purposes during the proposal process is consistent with the accumulation and reporting of costs under its job-order cost accounting system.

Direct labor costs – The Company distributes labor costs directly to projects for all employee classifications at standard cost. Certain officers and associates are not paid for the time worked in excess of 40 hours per week (uncompensated overtime). The uncompensated overtime in excess of 40 hours is credited to administrative salaries in the amount of \$1,249,051. Overtime premium costs have been excluded from direct labor and are included in general overhead as part of administrative salaries and totaled \$36,508.

Overhead rate – The calculated overhead rate is a unitary rate for all offices (ten) and includes all disciplines.

NOTE B: DESCRIPTION OF ACCOUNTING SYSTEM (continued)

Depreciation – Depreciation has been provided on the straight-line method over the estimated useful lives of buildings, equipment and leasehold improvements. The depreciation included in General Overhead does not exceed the amount used in the financial statements and is allowable under FAR 31.205-11(e).

Sick leave – Sick leave costs are neither accrued annually nor paid to an employee upon termination. Applicable sick leave costs are expensed if paid and then included in the overhead rate.

Compensation – The Company paid no compensation in excess of the FAR 31.205-6(p) limit of \$487,000 per person. Senior executive compensation was analyzed using the *2016 National Compensation Matrix* in accordance with the AASHTO Audit Guide and all compensation was allowable.

NOTE C: FACILITIES CAPITAL COST OF MONEY (FCCM)

The Facilities Capital Cost of Money rate has been calculated in accordance with FAR Section 31,205-10; using average net book values of equipment and facilities multiplied by the average Treasury rates for the applicable period, as shown:

Beginning net capital assets, January 1, 2016	\$ 1,717,307
Ending net capital assets, December 31, 2016	<u>1,473,166</u>
Average Net Capital Assets	1,595,237
Average Treasury Rate	<u>2.188%</u>
Facilities Cost of Money	<u>\$ 34,896</u>
Direct Labor Base	<u>\$ 13,074,066</u>
FCCM Rate	<u>0.267%</u>

NOTE D: BENEFIT PLANS

The Company has two qualified retirement plans which cover employees who meet eligibility requirements. The Company made cash contributions of \$1,264,491 to the plans during the year ended December 31, 2016.

NOTE E: AUDITOR CONTACT

The person to contact relative to this engagement is:

Kristine L. Tryon
CPA Consulting, Inc., P.S.
Phone (425) 401-5061

EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION

R&W PS remodel
9/3/2017

R&W PROJECT PLAN BUDGET

PROJECT NO.: 604.P17.005 CLIENT: BergerAB&V
DATE: 9/23/2017 PROJECT: Tukwila PS

FEE CALCULATIONS AND SUMMARY
Standardl Rate Schedule

PROJECT TASKS	MANHOURS										TOTAL \$	STAFF Classification	HOURS	RATE	COSTS		
	P	PM	Sr Engr II	Sr Engr I	Engr	Sr Tech II	Sr Tech I	Tech/Des	CAD/Tech	Cler/Admin							
Upgrade existing pump station													1	0	\$180.00	\$ -	
Team meeting													11	16	\$145.00	\$ 2,320.00	
Utility Service Preliminary Load Demand Calcs				6.00													
Generator Sizing		1.00		2.00													
PS Distribution Calcs		1.00		2.00													
Utility Coordination				2.00													
Site visit			8.00														
Design workshop			4.00														
Drawings																	
Legend				1.00													
Site plan		1.00		3.00													
One line diagram		1.00		2.00													
Building power, lighting, signal		2.00		4.00													
Vault power, lighting, signal		1.00		1.00													
MCC Details				6.00													
Schedules		1.00		2.00													
Pump schematics		1.00		4.00													
Specifications			2.00														
Cost estimate		1.00		4.00													
Meetings				24.00													
PM		4.00															
TOTALS:		-	16.00	-	85.00	-	-	4.00	30.50	4.00							
STAFF CLASSIFICATIONS:																	
P: PRINCIPAL SR TECH II: SENIOR TECHNICIAN II																	
PM: PROJECT MANAGER SR TECH I: SENIOR TECHNICIAN I																	
SR ENGR II: SENIOR ENGINEER II TECH/DES: TECHNICIAN/DESIGNER																	
SR ENGR I: SENIOR ENGINEER I DRAFT CAD: DRAFTING (CAD)																	
ENGR: ENGINEER CLER/ADMIN: CLERICAL/ADMINISTRATIVE																	
SUBTOTAL EXPENSES: \$ 2,173.15																	
TOTAL COSTS: \$ 17,695.65																	
CONTINGENCY: 5.00% \$ 884.78																	
TOTAL BUDGET: \$ 18,580.00																	
PRINT DATE: 9/3/2017																	
PREPARED BY: 0																	

MISC. EXPENSES: 5.00% \$ 776.32
AIR: 1 \$ 50.00 \$
OTHER: 1 \$ 50.00 \$
OTHER: 1 \$ 50.00 \$
OTHER: 1 \$ 50.00 \$
OTHER: 1 \$ 50.00 \$
OTHER: 1 \$ 50.00 \$
QA/QC 10.34833 \$135.00 1397.00%

EXHIBIT E-1 - SUBCONSULTANT FEE DETERMINATION
CITY OF TUKWILA - STRANDER BLVD/SW 27TH ST EXTENSION

R&W New PS
9/3/2017

R&W PROJECT PLAN BUDGET

PROJECT NO.: 804-P17-005 CLIENT: BERGERABRAM
DATE: 9/23/2017 PROJECT: Tukwila PS

FEE CALCULATIONS AND SUMMARY
Standard Rate Schedule

PROJECT TASKS	MANHOURS										TOTAL \$	CLASSIFICATION	HOURS	RATE	COSTS	
	P	PM	Sr Engr II	Sr Engr I	Engr	Sr Tech II	Sr Tech I	Tech/Des	CAD/Tech	Cler/Admin						
New Pump Station																
Team meeting				6.00												\$ 2,320.00
Utility Service Preliminary Load Demand Calcs				2.00												
Generator Sizing		1.00		2.00												
PS Distribution Calcs		1.00		2.00												
Utility Coordination				2.00												
Site visit				4.00												
Design workshop				2.00												
Drawings																
Legend				1.00												
Site plan				6.00												
One line diagram				4.00												
Building power, lighting, signal				2.00												
Vault power, lighting, signal				2.00												
MCC Details				4.00												
Schedules				2.00												
Pump schematics				4.00												
Specifications				6.00												
Cost estimate				4.00												
Meetings				24.00												
PM				4.00												
TOTALS:				83.00				4.00	32.50	4.00						

STAFF CLASSIFICATIONS:

P: PRINCIPAL
PM: PROJECT MANAGER
SR ENGR II: SENIOR ENGINEER II
SR ENGR I: SENIOR ENGINEER I
ENGR: ENGINEER
SR TECH II: SENIOR TECHNICIAN II
SR TECH I: SENIOR TECHNICIAN I
TECH/DES: TECHNICIAN/DESIGNER
DRAFT CAD: DRAFTING (CAD)
CLER/ADMIN: CLERICAL/ADMINISTRATIVE

PRINT DATE: 9/3/2017
PREPARED BY: 0

Exhibit F

Title VI Assurances

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees, and successors in interest agrees as follows:

1. **Compliance with Regulations:** The CONSULTANT shall comply with the Regulations relative to non-discrimination in federally assisted programs of the AGENCY, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the "REGULATIONS"), which are herein incorporated by reference and made a part of this AGREEMENT.
2. **Non-discrimination:** The CONSULTANT, with regard to the work performed during this AGREEMENT, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of sub-consultants, including procurement of materials and leases of equipment. The CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the REGULATIONS, including employment practices when this AGREEMENT covers a program set forth in Appendix B of the REGULATIONS.
3. **Solicitations for Sub-consultants, Including Procurement of Materials and Equipment:** In all solicitations either by competitive bidding or negotiations made by the CONSULTANT for work to be performed under a sub-contract, including procurement of materials or leases of equipment, each potential sub-consultant or supplier shall be notified by the CONSULTANT of the CONSULTANT's obligations under this AGREEMENT and the REGULATIONS relative to non-discrimination on the grounds of race, color, sex, or national origin.
4. **Information and Reports:** The CONSULTANT shall provide all information and reports required by the REGULATIONS or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the AGENCY, the STATE, or the Federal Highway Administration (FHWA) to be pertinent to ascertain compliance with such REGULATIONS, orders and instructions. Where any information required of a CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the AGENCY, the STATE, or the FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Non-compliance:** In the event of the CONSULTANT's non-compliance with the non-discrimination provisions of this AGREEMENT, the AGENCY shall impose such AGREEMENT sanctions as it, the STATE, or the FHWA may determine to be appropriate, including, but not limited to:
 - Withholding of payments to the CONSULTANT under this AGREEMENT until the CONSULTANT complies, and/or;
 - Cancellation, termination, or suspension of this AGREEMENT, in whole or in part.
6. **Incorporation of Provisions:** The CONSULTANT shall include the provisions of paragraphs (1) through (5) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the REGULATIONS, or directives issued pursuant thereto. The CONSULTANT shall take such action with respect to any sub-consultant or procurement as the STATE, the AGENCY, or FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance.

Provided, however, that in the event a CONSULTANT becomes involved in, or is threatened with, litigation with a sub-consultant or supplier as a result of such direction, the CONSULTANT may request the AGENCY enter into such litigation to protect the interests of the STATE and/or the AGENCY and, in addition, the CONSULTANT may request the United States enter into such litigation to protect the interests of the United States.

Agreement Number:

Exhibit G

Certification Documents

- Exhibit G-1(a) Certification of Consultant
- Exhibit G-1(b) Certification of City of Tukwila
- Exhibit G-2 Certification Regarding Debarment, Suspension and Other Responsibility Matters - Primary Covered Transactions
- Exhibit G-3 Certification Regarding the Restrictions of the Use of Federal Funds for Lobbying
- Exhibit G-4 Certificate of Current Cost or Pricing Data

Agreement Number: _____

Exhibit G-1(a) Certification of Consultant

I hereby certify that I am the and duly authorized representative of the firm of
BergerABAM Inc.

whose address is

33301 Ninth Avenue S., Suite 300, Federal Way, WA 98003

and that neither the above firm nor I have:

- a) Employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above CONSULTANT) to solicit or secure this AGREEMENT;
- b) Agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out this AGREEMENT; or
- c) Paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above CONSULTANT) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out this AGREEMENT; except as hereby expressly stated (if any);

I acknowledge that this certificate is to be furnished to the City of Tukwila and the Federal Highway Administration, U.S. Department of Transportation in connection with this AGREEMENT involving participation of Federal-aid highway funds, and is subject to applicable State and Federal laws, both criminal and civil.

BergerABAM Inc.

Consultant (Firm Name)

Signature (Authorized Official of Consultant)

Date

Agreement Number: _____

Exhibit G-1(b) Certification of the City of Tukwila

I hereby certify that I am the:

Other

of the _____, and
or its representative has not been required, directly or indirectly as an express or implied condition in connection
with obtaining or carrying out this AGREEMENT to:

- a) Employ or retain, or agree to employ to retain, any firm or person; or
- b) Pay, or agree to pay, to any firm, person, or organization, any fee, contribution, donation, or consideration
of any kind; except as hereby expressly stated (if any):

I acknowledge that this certificate is to be furnished to the
and the Federal Highway Administration, U.S. Department of Transportation, in connection with this
AGREEMENT involving participation of Federal-aid highway funds, and is subject to applicable State and
Federal laws, both criminal and civil.

Signature

Date

Agreement Number:

Exhibit G-2 Certification Regarding Debarment, Suspension and Other Responsibility Matters - Primary Covered Transactions

- I. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - A. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - B. Have not within a three (3) year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State anti-trust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - C. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - D. Have not within a three (3) year period preceding this application / proposal had one or more public transactions (Federal, State and local) terminated for cause or default.
- II. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

BergerABAM Inc.

Consultant (Firm Name)

Signature (Authorized Official of Consultant)

Date

Agreement Number:

Exhibit G-3 Certification Regarding the Restrictions of the Use of Federal Funds for Lobbying

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or any employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative AGREEMENT, and the extension, continuation, renewal, amendment, or modification of Federal contract, grant, loan or cooperative AGREEMENT.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan or cooperative AGREEMENT, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000.00, and not more than \$100,000.00, for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier sub-contracts, which exceed \$100,000, and that all such sub-recipients shall certify and disclose accordingly.

BergerABAM Inc.

Consultant (Firm Name)

Signature (Authorized Official of Consultant)

Date

Agreement Number:

Exhibit G-4 Certificate of Current Cost or Pricing Data

This is to certify that, to the best of my knowledge and belief, the cost or pricing data (as defined in section 2.101 of the Federal Acquisition Regulation (FAR) and required under FAR subsection 15.403-4) submitted, either actually or by specific identification in writing, to the Contracting Officer or to the Contracting Officer's representative in support of Strander Blvd./SW 27th Street Extension * are accurate, complete, and current as of 9/5/17 **

This certification includes the cost or pricing data supporting any advance AGREEMENT's and forward pricing rate AGREEMENT's between the offer or and the Government that are part of the proposal.

Firm: BergerABAM Inc.

Signature

Vice President

Title

Date of Execution***:

*Identify the proposal, quotation, request for pricing adjustment, or other submission involved, giving the appropriate identifying number (e.g. project title.)

**Insert the day, month, and year, when price negotiations were concluded and price AGREEMENT was reached.

***Insert the day, month, and year, of signing, which should be as close as practicable to the date when the price negotiations were concluded and the contract price was agreed to.

Agreement Number: _____

Exhibit H

Liability Insurance Increase

To Be Used Only If Insurance Requirements Are Increased

The professional liability limit of the CONSULTANT to the AGENCY identified in Section XII, Legal Relations and Insurance of this Agreement is amended to \$

The CONSULTANT shall provide Professional Liability insurance with minimum per occurrence limits in the amount of \$

Such insurance coverage shall be evidenced by one of the following methods:

- Certificate of Insurance.
- Self-insurance through an irrevocable Letter of Credit from a qualified financial institution.

Self-insurance through documentation of a separate fund established exclusively for the payment of professional liability claims, including claim amounts already reserved against the fund, safeguards established for payment from the fund, a copy of the latest annual financial statements, and disclosure of the investment portfolio for those funds.

Should the minimum Professional Liability insurance limit required by the AGENCY as specified above exceed \$1 million per occurrence or the value of the contract, whichever is greater, then justification shall be submitted to the Federal Highway Administration (FHWA) for approval to increase the minimum insurance limit.

If FHWA approval is obtained, the AGENCY may, at its own cost, reimburse the CONSULTANT for the additional professional liability insurance required.

Notes: Cost of added insurance requirements: \$

- Include all costs, fee increase, premiums.
- This cost shall not be billed against an FHWA funded project.
- For final contracts, include this exhibit.

N/A

Agreement Number: _____

Exhibit I

Alleged Consultant Design Error Procedures

The purpose of this exhibit is to establish a procedure to determine if a consultant's alleged design error is of a nature that exceeds the accepted standard of care. In addition, it will establish a uniform method for the resolution and/or cost recovery procedures in those instances where the agency believes it has suffered some material damage due to the alleged error by the consultant.

Step 1 Potential Consultant Design Error(s) is Identified by Agency's Project Manager

At the first indication of potential consultant design error(s), the first step in the process is for the Agency's project manager to notify the Director of Public Works or Agency Engineer regarding the potential design error(s). For federally funded projects, the Region Local Programs Engineer should be informed and involved in these procedures. (Note: The Director of Public Works or Agency Engineer may appoint an agency staff person other than the project manager, who has not been as directly involved in the project, to be responsible for the remaining steps in these procedures.)

Step 2 Project Manager Documents the Alleged Consultant Design Error(s)

After discussion of the alleged design error(s) and the magnitude of the alleged error(s), and with the Director of Public Works or Agency Engineer's concurrence, the project manager obtains more detailed documentation than is normally required on the project. Examples include: all decisions and descriptions of work; photographs, records of labor, materials and equipment.

Step 3 Contact the Consultant Regarding the Alleged Design Error(s)

If it is determined that there is a need to proceed further, the next step in the process is for the project manager to contact the consultant regarding the alleged design error(s) and the magnitude of the alleged error(s). The project manager and other appropriate agency staff should represent the agency and the consultant should be represented by their project manager and any personnel (including sub-consultants) deemed appropriate for the alleged design error(s) issue.

Step 4 Attempt to Resolve Alleged Design Error with Consultant

After the meeting(s) with the consultant have been completed regarding the consultant's alleged design error(s), there are three possible scenarios:

- It is determined via mutual agreement that there is not a consultant design error(s). If this is the case, then the process will not proceed beyond this point.
- It is determined via mutual agreement that a consultant design error(s) occurred. If this is the case, then the Director of Public Works or Agency Engineer, or their representatives, negotiate a settlement with the consultant. The settlement would be paid to the agency or the amount would be reduced from the consultant's agreement with the agency for the services on the project in which the design error took place. The agency is to provide LP, through the Region Local Programs Engineer, a summary of the settlement for review and to make adjustments, if any, as to how the settlement affects federal reimbursements. No further action is required.
- There is not a mutual agreement regarding the alleged consultant design error(s). The consultant may request that the alleged design error(s) issue be forwarded to the Director of Public Works or Agency Engineer for review. If the Director of Public Works or Agency Engineer, after review with their legal counsel, is not able to reach mutual agreement with the consultant, proceed to Step 5.

Agreement Number:

Step 5 Forward Documents to Local Programs

For federally funded projects all available information, including costs, should be forwarded through the Region Local Programs Engineer to LP for their review and consultation with the FHWA. LP will meet with representatives of the agency and the consultant to review the alleged design error(s), and attempt to find a resolution to the issue. If necessary, LP will request assistance from the Attorney General's Office for legal interpretation. LP will also identify how the alleged error(s) affects eligibility of project costs for federal reimbursement.

- If mutual agreement is reached, the agency and consultant adjust the scope of work and costs to reflect the agreed upon resolution. LP, in consultation with FHWA, will identify the amount of federal participation in the agreed upon resolution of the issue.
- If mutual agreement is not reached, the agency and consultant may seek settlement by arbitration or by litigation.

Agreement Number: _____

Exhibit J

Consultant Claim Procedures

The purpose of this exhibit is to describe a procedure regarding claim(s) on a consultant agreement. The following procedures should only be utilized on consultant claims greater than \$1,000. If the consultant's claim(s) are a total of \$1,000 or less, it would not be cost effective to proceed through the outlined steps. It is suggested that the Director of Public Works or Agency Engineer negotiate a fair and reasonable price for the consultant's claim(s) that total \$1,000 or less.

This exhibit will outline the procedures to be followed by the consultant and the agency to consider a potential claim by the consultant.

Step 1 Consultant Files a Claim with the Agency Project Manager

If the consultant determines that they were requested to perform additional services that were outside of the agreement's scope of work, they may be entitled to a claim. The first step that must be completed is the request for consideration of the claim to the Agency's project manager.

The consultant's claim must outline the following:

- Summation of hours by classification for each firm that is included in the claim;
- Any correspondence that directed the consultant to perform the additional work;
- Timeframe of the additional work that was outside of the project scope;
- Summary of direct labor dollars, overhead costs, profit and reimbursable costs associated with the additional work; and
- Explanation as to why the consultant believes the additional work was outside of the agreement scope of work.

Step 2 Review by Agency Personnel Regarding the Consultant's Claim for Additional Compensation

After the consultant has completed step 1, the next step in the process is to forward the request to the Agency's project manager. The project manager will review the consultant's claim and will meet with the Director of Public Works or Agency Engineer to determine if the Agency agrees with the claim. If the FHWA is participating in the project's funding, forward a copy of the consultant's claim and the Agency's recommendation for federal participation in the claim to the WSDOT Local Programs through the Region Local Programs Engineer. If the claim is not eligible for federal participation, payment will need to be from agency funds.

If the Agency project manager, Director of Public Works or Agency Engineer, WSDOT Local Programs (if applicable), and FHWA (if applicable) agree with the consultant's claim, send a request memo, including backup documentation to the consultant to either supplement the agreement, or create a new agreement for the claim. After the request has been approved, the Agency shall write the supplement and/or new agreement and pay the consultant the amount of the claim. Inform the consultant that the final payment for the agreement is subject to audit. No further action is needed regarding the claim procedures.

If the Agency does not agree with the consultant's claim, proceed to step 3 of the procedures.

Agreement Number:

Step 3 Preparation of Support Documentation Regarding Consultant's Claim(s)

If the Agency does not agree with the consultant's claim, the project manager shall prepare a summary for the Director of Public Works or Agency Engineer that included the following:

- Copy of information supplied by the consultant regarding the claim;
- Agency's summation of hours by classification for each firm that should be included in the claim;
- Any correspondence that directed the consultant to perform the additional work;
- Agency's summary of direct labor dollars, overhead costs, profit and reimbursable costs associated with the additional work;
- Explanation regarding those areas in which the Agency does/does not agree with the consultant's claim(s);
- Explanation to describe what has been instituted to preclude future consultant claim(s); and
- Recommendations to resolve the claim.

Step 4 Director of Public Works or Agency Engineer Reviews Consultant Claim and Agency Documentation

The Director of Public Works or Agency Engineer shall review and administratively approve or disapprove the claim, or portions thereof, which may include getting Agency Council or Commission approval (as appropriate to agency dispute resolution procedures). If the project involves federal participation, obtain concurrence from WSDOT Local Programs and FHWA regarding final settlement of the claim. If the claim is not eligible for federal participation, payment will need to be from agency funds.

Step 5 Informing Consultant of Decision Regarding the Claim

The Director of Public Works or Agency Engineer shall notify (in writing) the consultant of their final decision regarding the consultant's claim(s). Include the final dollar amount of the accepted claim(s) and rationale utilized for the decision.

Step 6 Preparation of Supplement or New Agreement for the Consultant's Claim(s)

The agency shall write the supplement and/or new agreement and pay the consultant the amount of the claim. Inform the consultant that the final payment for the agreement is subject to audit.

Agreement Number: