



City of Tukwila Transportation and Infrastructure Services Committee

- ❖ Tosh Sharp, Chair
- ❖ Kate Kruller
- ❖ Mohamed Abdi

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AGENDA


MONDAY, AUGUST 07, 2023 – 5:30 PM
HYBRID MEETING – ONSITE AND VIRTUAL
DUWAMISH CONFERENCE ROOM, 6300 BUILDING, 2ND FLR

MS Teams: [Click here to join the meeting](#)

Virtual Meeting - Members of the public may listen by dialing 1-253-292-9750 and entering conference ID 439818817#

Item	Recommended Action	Page
1. PRESENTATIONS		
2. BUSINESS AGENDA		
a) Public Works Operations Campus Update (B. Miles)	a) Information only	Pg. 1
b) S 149th and S 150th St Watermain Replacement Project Contract Award (A. Altallal)	b) Forward to the 8/21/23 Regular Consent Agenda	Pg. 7
c) 42nd Ave S/Allentown Roadside Barrier (C. Knighton)	c) Information only	Pg. 51
3. MISCELLANEOUS		

Next Scheduled Meeting: August 21, 2023


 The City of Tukwila strives to accommodate individuals with disabilities.
 Please contact the Public Works Department at **206-433-0179** for assistance.



INFORMATIONAL MEMORANDUM

TO: Transportation and Infrastructure Committee

FROM: Brandon Miles, Business Relations Manager

CC: Mayor Ekberg

DATE: July 31, 2023

SUBJECT: Public Works Operations Campus Update

ISSUE

Staff will provide regular updates on the progress of the design and preconstruction work for the buildout of the Public Work's Operations Campus.

BACKGROUND

On June 5, 2023, the City Council gave approval for staff to begin design and preconstruction of the Public Work's Operations. The project will consolidate all facilities related to public works operations onto one property with modern, safe, and efficient facilities. Design and preconstruction work is anticipated to run through May 1, 2025, the soonest construction could begin.

DISCUSSION

Staff committed to providing monthly reports to the City Council regarding the status of the project. Attached to this memo is the first report. Staff would like input on the overall framework of the report and if it provides the City Council with the information it would like to have in the report.

FINANCIAL IMPACT

N/A

RECOMMENDATION

Discussion Only.

ATTACHMENTS

1. Public Works Operations Campus, July 2023 Report.
2. Current Site Plan and Cross Section

Public Safety Plan
Tukwila Public Works Operation Campus
Monthly Update
July, 2023

Key Project Metrics

Report Date	July, 2023	Previous Month	Discussion
Current Anticipate Construction Start Date:	May 1, 2025	N/A	No change from information provided to the City Council in May of 2023.
Design/Preconstruction Cost Estimate:	\$5,974,412	N/A	
Total Preliminary Construction Cost:	\$79,265,000	N/A	
Near Term Council Decision and Key Dates:	Review schematic design and cost estimates by end of year.	N/A	

Key Tasks

Program

- Architects held several program confirmation meetings/workshops with the user groups for sizes of spaces and adjacencies.
- Architects had a meeting to understand the server and IT equipment needs. Looking to see if there is space to bring other IT equipment from the City Hall campus to the Public Works site.

Entitlements

GC/CM Approval

- On July 27, 2023 the City received unanimous approval from the State of Washington Capital Projects Advisory Review Board to utilize alternative contractor selection for the project. The City's application included two parts, 1) to utilize GC/CM for the general contractor for the project and 2) and, on the recommendation from John Palewicz, to utilize an alternative selection process for the earthwork subcontractor on the site. As the Council is aware, the City utilized the GC/CM process for the construction of the Justice Center and the Fire Station projects. GC/CM allows the City to bring in a contractor early in the design process and allows the City to get cost estimates as the project progresses. GC/CM should allow the City to better

understand costs and to control cost as it moves through the design and preconstruction process.

- The Review Board was very complimentary of the City’s application, specifically the qualified team the City had assembled; the commitment to meeting DBE, apprenticeship, and local hiring goals; and the City’s utilization of the PMQA for the project and the reporting structure the PMQA has directly with the City Council.
- The Review Board also remarked that utilization of the alternative selection process for the earthwork subcontractor was an innovative way to better manage costs for the project that will have a significant amount of earth moving associated with it.

Permitting

- Project team and environmental consultant team met with Public Works and Department of Community Development (DCD) to understand the administrative approval process for the proposed bioswales for stormwater management for the project.
- Upcoming meeting in August with DCD to understand permitting requirements and process for the project.

Reports

- Geotechnical borings have been drilled to prepare the project’s geotechnical report for the project.
- Hazardous Material assessment (on the existing structure) work has started.

Project Partners

- Project staff met with King County Parks and Natural Resources to discuss an interim project to relocate stormwater draining from the Fleet and Facilities site onto the Chinook Wind property. King County has offered to design and construct an interim conveyance system.
- Public Works and project staff met with King County Metro to discuss partnership regarding a joint decant and solid’s facility. King County Metro will lose access to its solid’s facility in north Tukwila sometime in 2024. There is an opportunity for the City and King County Metro to partner on a joint facility.

Bidding and Construction

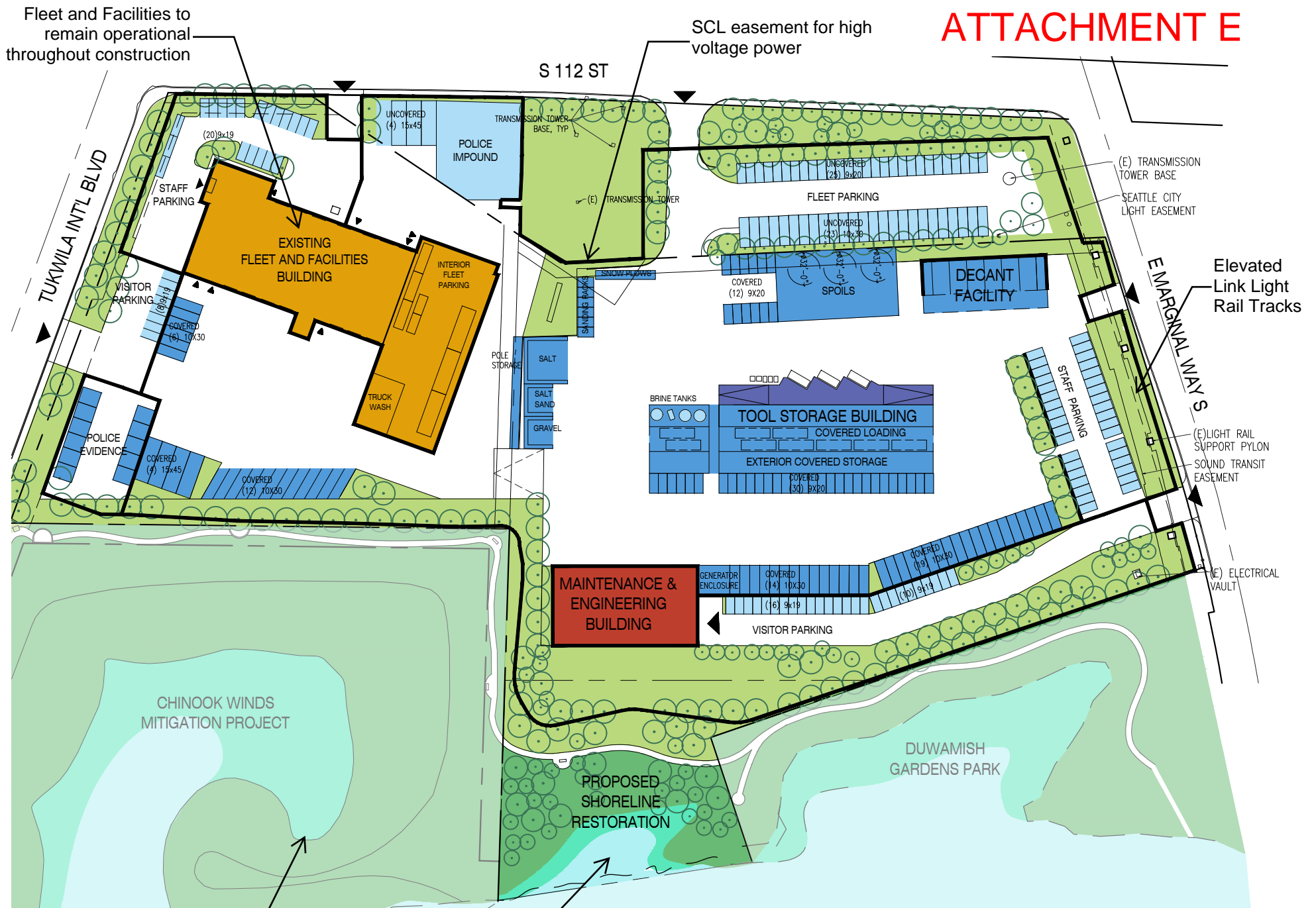
- Not applicable at this time.

Grants

Grant Name	Granting Agency	Status	Amount	Purpose
DOE Water Quality Combined Funding Program	Washington State Department of Ecology	Awarded and accepted by the City Council. Finalizing grant agreement.	\$462,043 (grant funds). These funds will reduce the City financial commitment for the design and	Development of an EMP and design only of a decant facility.

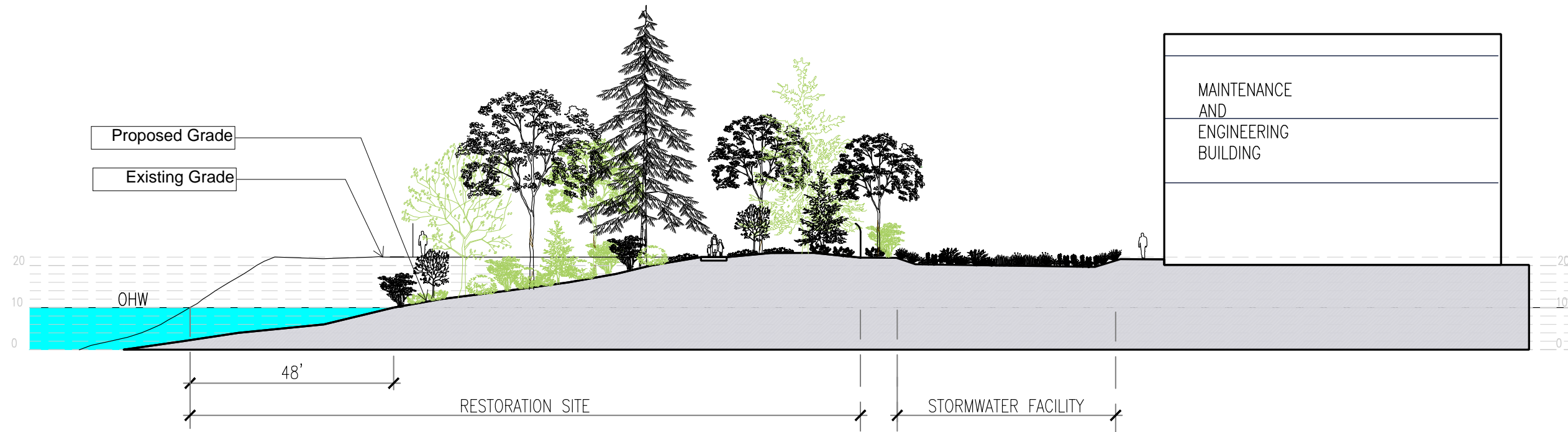
			preconstruction phase.	
Open Space and River Corridor Grant Program-Chinook Wind Extension.	King County Parks and Natural Resources	Preliminary awarded, waiting for final action from King County Council.	\$280,000	Design of shoreline enhancement project along project site.
Building Resilient Infrastructure and Communities (BRIC).	FEMA	Preapplication	Up to \$50 million.	To be determined. Could include construction costs, remediation at Minkler Shops, or other items.
Inflation Reduction Act	TBD	Researching	TBD	Funds could be used for alternative heating and cooling systems, such as geothermal, etc.

ATTACHMENT E



Existing Recent Shoreline Restoration

Proposed Shoreline Restoration



CONCEPTUAL SECTION: VIEW LOOKING WEST FROM SHORELINE RESTORATION SITE
SCALE 1:30



INFORMATIONAL MEMORANDUM

TO: **Transportation and Infrastructure Services Committee**
 FROM: **Hari Ponnekanti, Public Works Director/City Engineer**
 BY: **Adib Altallal, Utilities Engineer**
 CC: **Mayor Allan Ekberg**
 DATE: **August 4, 2023**
 SUBJECT: **S 149th and S 150th St Watermain Replacement Project**
Project No. 92340102
Design and Construction Management Contract Award

ISSUE

Approve design and construction management agreement with WSP for the S 149th and S 150th St Watermain Replacement Project.

BACKGROUND

In 2016, City staff identified the need for upsizing the aging 6” cast iron pipe along S 149th St and 150th St and extending it into Macadam Rd to loop the system in the area and increase the availability of fire flow in the case of an emergency.

DISCUSSION

When the project was identified in 2016, it was planned to be designed and constructed in two separate phases. After further assessment of the situation and the availability of funds, it was determined to be a better choice to combine the two projects into one. Combining the projects will allow us to complete construction at one time, thus saving resources and prevent inconveniencing residents with multiple street closures along this route. Approximately 2,000 LF of 6” cast iron pipe will be replaced with 12” ductile iron pipe. The existing dead-end pipe along S 149th St will be extended approximately 500 LF and looped into Macadam Rd. Looping the system will increase redundancy and reduce maintenance needs. Three consultants on the MRSC list were solicited for the design project. All three consultants submitted proposals, and WSP Inc was chosen as the most qualified.

FINANCIAL IMPACT

The project costs will be 100% funded by the water enterprise fund. The contract is for \$348,335.06 for the design and construction management services for the S 149th St and S 150th St Watermain Replacement Project.

	<u>Cost Estimate</u>	<u>Fund Source</u>	<u>2024-2025 Design/CM Budget</u>
Contract	\$348,335.06	S 149th/S 150th CIP	\$500,000.00
		Total	\$500,000.00

RECOMMENDATION

Council is being asked to approve a design and construction management agreement for design services with WSP in the amount of \$348,335.06 for the S 149th St and S 150th St Watermain Replacement Project and consider this item on the Consent Agenda at the August 21, 2023 Regular Council Meeting.

Attachments: 2023 CIP, Page 59
WSP Agreement
WSP Scope

CITY OF TUKWILA CAPITAL PROJECT SUMMARY

2023 to 2028

PROJECT: S 149th and S 150th St Watermain Replacement

Project No. 92340102

DESCRIPTION: Design and Construct 1,200 LF of 12" DI watermain along S 149th St and S 150th St.

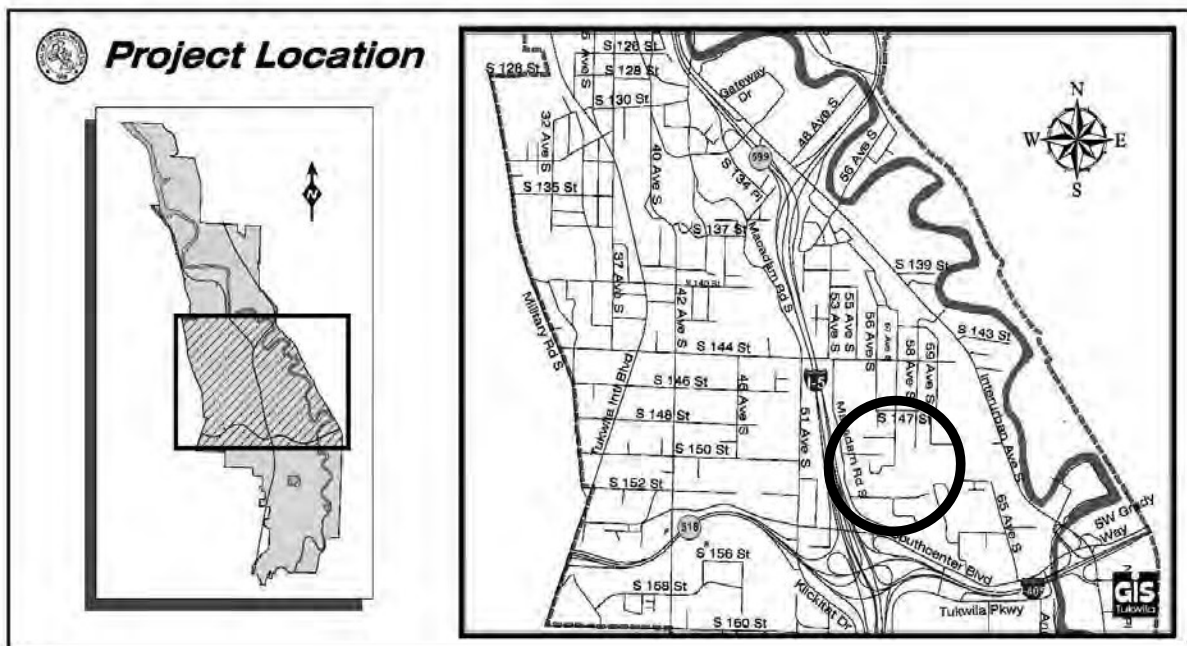
JUSTIFICATION: The existing watermain is reaching its useful life and does not meet Department of Health or fireflow requirements.

STATUS: Easement acquisitions may be needed.

MAINT. IMPACT: Reduce need to repair leaks.

COMMENT:

FINANCIAL (in \$000's)	Through		Estimated								
	2021	2022	2023	2024	2025	2026	2027	2028	BEYOND	TOTAL	
EXPENSES											
Design				250						250	
Land (R/W)										0	
Const. Mgmt.				125	125					250	
Construction				200	800					1,000	
TOTAL EXPENSES	0	0	0	575	925	0	0	0	0	1,500	
FUND SOURCES											
Awarded Grant										0	
Proposed Grant										0	
Mitigation Actual										0	
Mitigation Expected										0	
Utility Revenue	0	0	0	575	925	0	0	0		1,500	
TOTAL SOURCES	0	0	0	575	925	0	0	0	0	1,500	





PROFESSIONAL SERVICES AGREEMENT

(Includes consultants, architects, engineers, accountants, and other professional services)

THIS AGREEMENT is entered into between the City of Tukwila, Washington, hereinafter referred to as “the City”, and WSP USA Inc., hereinafter referred to as “the Consultant”, in consideration of the mutual benefits, terms, and conditions hereinafter specified.

1. **Project Designation.** The Consultant is retained by the City to perform design services in connection with the project titled S 149th St & S 150th St Watermain Replacement.
2. **Scope of Services.** The Consultant agrees to perform the services, identified on Exhibit “A” attached hereto, including the provision of all labor, materials, equipment and supplies.
3. **Duration of Agreement; Time for Performance.** This Agreement shall be in full force and effect for a period commencing upon execution and ending December 31, 2024, unless sooner terminated under the provisions hereinafter specified. Work under this Agreement shall commence upon written notice by the City to the Consultant to proceed. The Consultant shall perform all services and provide all work product required pursuant to this Agreement no later than December 31, 2024 unless an extension of such time is granted in writing by the City.
4. **Payment.** The Consultant shall be paid by the City for completed work and for services rendered under this Agreement as follows:
 - A. Payment for the work provided by the Consultant shall be made as provided on Exhibit “B” attached hereto, provided that the total amount of payment to the Consultant shall not exceed \$348,335.06 without express written modification of the Agreement signed by the City.
 - B. The Consultant may submit vouchers to the City once per month during the progress of the work for partial payment for that portion of the project completed to date. Such vouchers will be checked by the City and, upon approval thereof, payment shall be made to the Consultant in the amount approved.
 - C. Final payment of any balance due the Consultant of the total contract price earned will be made promptly upon its ascertainment and verification by the City after the completion of the work under this Agreement and its acceptance by the City.
 - D. Payment as provided in this section shall be full compensation for work performed, services rendered, and for all materials, supplies, equipment and incidentals necessary to complete the work.
 - E. The Consultant’s records and accounts pertaining to this Agreement are to be kept available for inspection by representatives of the City and the state of Washington for a period of three (3) years after final payments. Copies shall be made available upon request.

5. **Ownership and Use of Documents.** All documents, drawings, specifications and other materials produced by the Consultant in connection with the services rendered under this Agreement shall be the property of the City whether the project for which they are made is executed or not. The Consultant shall be permitted to retain copies, including reproducible copies, of drawings and specifications for information, reference and use in connection with the Consultant's endeavors. The Consultant shall not be responsible for any use of the said documents, drawings, specifications or other materials by the City on any project other than the project specified in this Agreement.
6. **Compliance with Laws.** The Consultant shall, in performing the services contemplated by this Agreement, faithfully observe and comply with all federal, state, and local laws, ordinances and regulations, applicable to the services rendered under this Agreement.
7. **Indemnification.** The Consultant shall defend, indemnify and hold the City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, to the extent caused by the negligent acts, errors or omissions of the Consultant in performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Consultant and the City, its officers, officials, employees, and volunteers, the Consultant's liability hereunder shall be only to the extent of the Consultant's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Consultant's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

8. **Insurance.** The Consultant shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees. Consultant's maintenance of insurance as required by the agreement shall not be construed to limit the liability of the Consultant to the coverage provided by such insurance, or otherwise limit the City's recourse to any remedy available at law or in equity.

A. **Minimum Amounts and Scope of Insurance.** Consultant shall obtain insurance of the types and with the limits described below:

1. **Automobile Liability** insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per occurrence. Automobile Liability insurance shall cover all owned, non-owned, hired and leased vehicles. Coverage shall be written on Insurance Services Office (ISO) form CA 00 01 or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.
2. **Commercial General Liability** insurance with limits no less than \$2,000,000 each occurrence, \$2,000,000 general aggregate. Commercial General Liability insurance shall be at least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, stop-gap independent contractors and personal injury and advertising injury. The City shall be included as an additional insured under the Consultant's Commercial General Liability insurance policy with respect to the work performed for the City using an additional insured endorsement at least as broad as ISO endorsement form CG 20 26.
3. **Workers' Compensation** coverage as required by the Industrial Insurance laws of the State of Washington.

4. **Professional Liability** with limits no less than \$2,000,000 per claim and \$2,000,000 policy aggregate limit. Professional Liability insurance shall be appropriate to the Consultant's profession.
 - B. **Other Insurance Provision.** The Consultant's Automobile Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain that they shall be primary insurance with respect to the City. Any Insurance, self-insurance, or insurance pool coverage maintained by the City shall be excess of the Consultant's insurance and shall not be contributed or combined with it.
 - C. **Acceptability of Insurers.** Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.
 - D. **Verification of Coverage.** Consultant shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsement, evidencing the insurance requirements of the Contractor before commencement of the work.
 - E. **Notice of Cancellation.** The Consultant shall provide the City with written notice of any policy cancellation, within five business days of their receipt of such notice.
 - F. **Failure to Maintain Insurance.** Failure on the part of the Consultant to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five business days notice to the Consultant to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due the Consultant from the City.
9. **Independent Contractor.** The Consultant and the City agree that the Consultant is an independent contractor with respect to the services provided pursuant to this Agreement. Nothing in this Agreement shall be considered to create the relationship of employer and employee between the parties hereto. Neither the Consultant nor any employee of the Consultant shall be entitled to any benefits accorded City employees by virtue of the services provided under this Agreement. The City shall not be responsible for withholding or otherwise deducting federal income tax or social security or for contributing to the state industrial insurance program, otherwise assuming the duties of an employer with respect to the Consultant, or any employee of the Consultant.
10. **Covenant Against Contingent Fees.** The Consultant warrants that he has not employed or retained any company or person, other than a bonafide employee working solely for the Consultant, to solicit or secure this contract, and that he has not paid or agreed to pay any company or person, other than a bonafide employee working solely for the Consultant, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this contract. For breach or violation of this warrant, the City shall have the right to annul this contract without liability, or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
11. **Discrimination Prohibited.** Contractor, with regard to the work performed by it under this Agreement, will not discriminate on the grounds of race, religion, creed, color, national origin, age, veteran status, sex, sexual orientation, gender identity, marital status, political affiliation, the presence of any disability, or any other protected class status under state or federal law, in the selection and retention of employees or procurement of materials or supplies.
12. **Assignment.** The Consultant shall not sublet or assign any of the services covered by this Agreement without the express written consent of the City.

13. **Non-Waiver.** Waiver by the City of any provision of this Agreement or any time limitation provided for in this Agreement shall not constitute a waiver of any other provision.
14. **Termination.**
- A. The City reserves the right to terminate this Agreement at any time by giving ten (10) days written notice to the Consultant.
 - B. In the event of the death of a member, partner or officer of the Consultant, or any of its supervisory personnel assigned to the project, the surviving members of the Consultant hereby agree to complete the work under the terms of this Agreement, if requested to do so by the City. This section shall not be a bar to renegotiations of this Agreement between surviving members of the Consultant and the City, if the City so chooses.
15. **Applicable Law; Venue; Attorney's Fees.** This Agreement shall be subject to, and the Consultant shall at all times comply with, all applicable federal, state and local laws, regulations, and rules, including the provisions of the City of Tukwila Municipal Code and ordinances of the City of Tukwila. In the event any suit, arbitration, or other proceeding is instituted to enforce any term of this Agreement, the parties specifically understand and agree that venue shall be properly laid in King County, Washington. The prevailing party in any such action shall be entitled to its attorney's fees and costs of suit. Venue for any action arising from or related to this Agreement shall be exclusively in King County Superior Court.
16. **Severability and Survival.** If any term, condition or provision of this Agreement is declared void or unenforceable or limited in its application or effect, such event shall not affect any other provisions hereof and all other provisions shall remain fully enforceable. The provisions of this Agreement, which by their sense and context are reasonably intended to survive the completion, expiration or cancellation of this Agreement, shall survive termination of this Agreement.
17. **Notices.** Notices to the City of Tukwila shall be sent to the following address:
- City Clerk
 - City of Tukwila
 - 6200 Southcenter Boulevard
 - Tukwila, WA 98188
- Notices to Consultant shall be sent to the following address:
- WSP USA, Inc.
 - 999 3rd Ave #3200
 - Seattle, WA 98104
18. **Entire Agreement; Modification.** This Agreement, together with attachments or addenda, represents the entire and integrated Agreement between the City and the Consultant and supersedes all prior negotiations, representations, or agreements written or oral. No amendment or modification of this Agreement shall be of any force or effect unless it is in writing and signed by the parties.

DATED this _____ day of _____, 2023.

CITY OF TUKWILA

WSP USA Inc.:

Allan Ekberg, Mayor

By: _____

Printed Name: Kara Crawford

ATTEST/AUTHENTICATED:

Title: Senior Director

Christy O'Flaherty, City Clerk

APPROVED AS TO FORM:

Office of the City Attorney

**EXHIBIT A
SCOPE OF WORK FOR ENGINEERING SERVICES FOR
S 149TH ST TO S 150TH ST WATER MAIN REPLACEMENT PROJECT**

PROJECT BACKGROUND AND OBJECTIVES

The South 149th Street to South 150th Street Water Main Replacement project is part of an ongoing water system improvement effort by the City of Tukwila (CITY). This project is the third and final water main replacement contract in the immediate vicinity of the Macadam Road South main line. The objective of the project is to replace a leaking existing six-inch cast iron water main pipe which traverses north/south between S 149th St and S 150th St through two private properties. The CITY is also aiming to replace aging 6” Cast Iron mains in the east/west direction from Macadam Rd S at the bottom of the hill and 57th Ave S at the top. The City would prefer to remove the water, stormwater, and sewer utilities in the north/south run through the two private properties and install new connections down the hill to Macadam Rd S through the existing Southcenter Community Baptist Church parcel. However, if this option is not feasible, replacement of the existing water main near its existing position would be acceptable. See Attachment 1 for an exhibit of the proposed project improvements.

The scope of work for final engineering will include the development and evaluation of two alternatives to a conceptual design level and some options for constructing the project. This effort will culminate in the selection of a preferred alternative, which will become part of the final design as described below.

PROJECT ASSUMPTIONS

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

- 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).
- Design of the project will comply with the *City of Tukwila Public Works Department, Infrastructure Design and Construction Standards (2019)*.
- Stormwater design will comply with the *King County Surface Water Design Manual (2021)*, except as modified in Section 5.0.1 of the *City of Tukwila Public Works Department, Infrastructure Design and Construction Standards (2019)*.
- Utility relocation and reconstruction plans for power, gas, and communication purveyors will be prepared by the respective utility if required. The CONSULTANT will coordinate directly with the utility companies and the CITY.
- Effort has been included in this scope for the relocation of the stormwater and sewer lines through the Southcenter Community Baptist Church property with the understanding this

is the preferred alternative. Only the extension through the church property from the west end of S149th St to the tie in at Macadam Rd S is included.

- The CITY will lead coordination efforts for any required permits.
- The CITY will provide rights-of-entry onto private lands prior to environmental explorations, if required, and geotechnical investigations, including drilling. 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 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. The CONSULTANT will coordinate the right-of-entry needs from all disciplines so that multiple right-of-entry requests are not requested from the same property owner.

SCOPE OF WORK AND LEVEL OF EFFORT

To facilitate management of the project in an efficient manner, the scope of work for the final design has been broken into the tasks listed below.

Task 1.0	General Activities
Task 2.0	Design Submittal and Review
Task 3.0	Civil Design
Task 4.0	Construction Specifications
Task 5.0	Construction Cost Estimate
Task 6.0	Construction Schedule
Task 7.0	Utility Coordination
Task 8.0	Right-of-Way Plans and Assistance
Task 9.0	Surveying (ABC Surveyor)
Task 10.0	Geotechnical Engineering (ABC Geotechnical)
Task 11.0	Directed Services
Task 12.0	Ad, Bid, and Award Services
Task 13.0	Construction Support Services

The level of effort associated with providing these services is shown in Attachment 3. 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 Attachment 3. 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.

SCHEDULE (see attached schedule)

The target dates for completing all work are shown on the schedule included in Attachment 4. These target dates assume that the notice to proceed (NTP) is provided on 30 June 2023.

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S 149TH TO S 150TH ST WATER MAIN REPLACEMENT**

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TASK 1.0 GENERAL ACTIVITIES

Subtask 1.1 Project Coordination

The CONSULTANT shall provide project management and communications between the CONSULTANT team and the CITY (assumed duration is 9 months with an advertisement date in March 2024). The CONSULTANT shall perform project administration and management tasks as follows.

The CONSULTANT shall perform project administration and management tasks as follows.

1. Prepare and submit monthly invoices, including a tabulation of hours expended, broken down by each major task for 9 months.
2. Prepare monthly progress reports providing the status of the budget, an estimate of earned value, and summary of project issues, if any, requiring corrective actions.
3. Prepare and update project schedule periodically as circumstances require or as requested by the CITY. The project schedule shall be developed using Microsoft Project.
4. Prepare subconsultant agreements for two (2) firms.
5. Perform ongoing subconsultant coordination. For estimating purposes, it is assumed four (4) hours per week on average will be spent coordinating with subconsultants.
6. Maintain all contract-required documentation, including yearly updates for insurance, billing rates, approved overhead rates, etc. for WSP and subconsultant firms.

Deliverable(s)

- Monthly progress report and invoice (one PDF copy)
- Updated project schedules, if required (one PDF copy)
- Updated contract forms and certifications, if required
- Subconsultant Agreements (one PDF copy each)

Subtask 1.2 Subconsultant Coordination

The CONSULTANT shall spend time necessary to manage subconsultants throughout the project including reviewing invoicing, attending meetings, coordinating subconsultant deliverables, and reviewing subconsultant materials.

Subtask 1.3 Meetings and Coordination

Project Team Meetings. The CONSULTANT shall facilitate biweekly internal project team coordination meetings during the project. A total of eighteen (18) team meetings are anticipated over a period of nine months. Meetings shall be approximately 1 hour in duration and shall be attended by an average of three CONSULTANT team members, including one of the CONSULTANT's project management staff and two project engineering staff.

Coordination Meetings with CITY Staff. The CONSULTANT shall participate in monthly coordination meetings with CITY staff. A total of nine (9) CITY coordination meetings are

anticipated over a period of nine months. Meetings shall be approximately one hour in duration and shall be attended by an average of three CONSULTANT team members, including two of the CONSULTANT's project management team and/or project engineering staff and one other CONSULTANT discipline specialists.

Deliverable(s)

- Meeting notes for all CONSULTANT and CITY meetings

Subtask 1.4 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.

Deliverable(s)

- QA/QC documentation for all design work will be made available to the CITY upon request.

Subtask 1.5 Project Close Out

Upon completion of the project, the CONSULTANT shall archive project work products in accordance with its work product policy on retention policy in effect at that time and provide the CITY electronic and hard copies of all deliverables and supporting documents.

Deliverable(s)

- Monthly progress report, with earned value, and invoice (one copy)
- Updated project schedules if required (one copy)
- Updated contract forms and certifications
- Meeting notes for all CONSULTANT and CITY meetings
- QA/QC documentation for all design work will be made available to the CITY upon request

TASK 2.0 DESIGN SUBMITTAL AND REVIEW

This task provides for the quality control (QC) of each submittal package, compiling the PS&E submittals, and reviewing and responding to the review comments received from the CITY.

Subtask 2.1 Thirty Percent Design Submittal

Quality Control

The CONSULTANT shall provide QC reviews for all design work prior to the 30 percent submittal to the CITY if requested.

Compile Submittals

The CONSULTANT shall coordinate with all subconsultants and compile the PS&E for each of the PS&E tasks.

Comment Review Meeting

The CONSULTANT will attend a one (1) hour comment resolution meeting with the CITY to go through the CITY's comments, and to come to a tentative agreement on them.

Comment Resolution

The CONSULTANT will provide written responses to all the CITY's review comments that are provided to the CONSULTANT following the 30 percent design submittal.

Deliverable(s)

- 30% Construction Plans (PDF Copy)
Plans included in this submittal:
 - Cover Sheet, Vicinity Map, and Index
 - General TESC, Work on Private Property Notes
 - Legend and Abbreviations
 - Existing Conditions and Survey Control Plans
 - Site Preparation Plans
 - Water Line Plan & Profile Plans
 - Drainage Plan and Profile (if required, see Subtask 3.3)
 - Sanitary Sewer Plan and Profile (if required, see Subtask 3.3)

Subtask 2.2 Sixty Percent Design Submittal

Quality Control

The CONSULTANT shall provide QC reviews for all design work prior to the 60 percent submittal to the CITY if requested.

Compile Submittals

The CONSULTANT shall coordinate with all subconsultants and compile the PS&E for each of the PS&E tasks.

Comment Review Meeting

The CONSULTANT will attend a one (1) hour comment resolution meeting with the CITY to go through the CITY's comments, and to come to a tentative agreement on them.

Comment Resolution

The CONSULTANT will provide written responses to all the CITY's review comments that are provided to the CONSULTANT following the 60 percent design submittal.

Deliverable(s)

- Written responses to the CITY's 30% review comments
- 60% Construction Plans (PDF Copy)
Plans included in this submittal:
 - Cover Sheet, Vicinity Map, and Index
 - General TESC, Work on Private Property Notes
 - Legend and Abbreviations
 - Existing Conditions and Survey Control Plans
 - Site Preparation Plans
 - Water Line Plan & Profile Plans
 - Drainage Plan and Profile (if required, see Subtask 3.3)
 - Sanitary Sewer Plan and Profile (if required, see Subtask 3.3)
 - Paving Plan & Restoration Plans
 - Intersection Plans

- Channelization & Signing Plans

Subtask 2.3 Ninety Percent Design Submittal

Quality Control

The CONSULTANT shall provide QC reviews for all design work prior to the 90 percent submittal to the CITY if requested.

Compile Submittals

The CONSULTANT shall coordinate with all subconsultants and compile the PS&E for each of the PS&E tasks.

Comment Review Meeting

The CONSULTANT will attend a one (1) hour comment resolution meeting with the CITY to go through the CITY's comments, and to come to a tentative agreement on them.

Comment Resolution

The CONSULTANT will provide written responses to all the CITY's review comments that are provided to the CONSULTANT following the 90 percent design submittal.

Deliverable(s)

- Written responses to the CITY's 60% review comments
- 90% Construction Plans (PDF Copy)
 - Plans included in this submittal:
 - Cover Sheet, Vicinity Map, and Index
 - General TESC, Work on Private Property Notes
 - Legend and Abbreviations
 - Existing Conditions and Survey Control Plans
 - Site Preparation & TESC Plans
 - TESC Details
 - Water Line Plan & Profile Plans
 - Construction Staging Plans
 - Water Line Details
 - Water Line Std. Details
 - Drainage Plan and Profile (if required, see Subtask 3.3)
 - Drainage Details (if required, see Subtask 3.3)
 - Sanitary Sewer Plan and Profile (if required, see Subtask 3.3)
 - Sanitary Sewer Details (if required, see Subtask 3.3)
 - Paving Plan & Restoration Plans
 - Intersection Plans
 - ADA Ramp Details
 - Channelization & Signing Plans
 - Miscellaneous Details

Subtask 2.4 One Hundred Percent Design Submittal

Quality Control

The CONSULTANT shall provide QC reviews for all design work prior to the 100 percent submittal to the CITY if requested.

Compile Submittals

The CONSULTANT shall coordinate with all subconsultants and compile the PS&E for each of the PS&E tasks.

Comment Review Meeting

The CONSULTANT will attend a one (1) hour comment resolution meeting with the CITY to go through the CITY's comments, and to come to a tentative agreement on them.

Comment Resolution

The CONSULTANT will provide written responses to all the CITY's review comments that are provided to the CONSULTANT following the 100 percent design submittal.

Deliverable(s)

- Written responses to the CITY's 90% review comments
- 100% Construction Plans (PDF Copy)
 - Plans included in this submittal:
 - All required plans

Subtask 2.5 Ad Ready Documents for Bidding

Quality Control

The CONSULTANT shall provide QC reviews for all design work prior to the Ad Ready submittal to the CITY if requested.

Compile Submittals

The CONSULTANT shall compile the PS&E and construction schedule for Ad Ready contract documents.

The CONSULTANT will provide project design calculations in PDF format with an accompanying index/table of contents to permit ease of reference.

Deliverable(s)

- Written responses to the CITY's 100% review comments
- Ad Ready Construction Plans (PDF Copy)
 - Plans included in this submittal:
 - All required plans

TASK 3.0 CIVIL DESIGN

This task involves engineering and design work for the roadway, ADA curb ramps and sidewalks, water main design, drainage design, and sanitary sewer design.

Subtask 3.1 Roadway Design

The CONSULTANT shall prepare the preliminary and final layout of the roadways, driveways, and access approaches for those impacted by the project. Restored pavement grades will match

existing grades. The CONSULTANT will NOT prepare sight distance studies for each roadway intersection.

Subtask 3.2 ADA Curb Ramp Design

The CONSULTANT shall prepare detailed drawings and calculations for each individual ADA curb ramp proposed for the project. These shall be provided to the CITY for review. If it is determined that getting an ADA ramp to comply with the current design standards is not feasible due to project constraints, then the CONSULTANT shall prepare Maximum Extent Feasible (MEF) documentation describing the design constraints and the reason for the MEF variance, which shall then be sent to the CITY for review and approval.

Assumptions(s)

- Up to two ADA ramps may require a MEF, most likely at the intersection of S 150th Street and Macadam Road South.

Deliverable(s)

- Draft MEF documentation for up to two ADA ramps, which will be sent to the CITY to review
- Final MEF documentation with incorporated CITY comments
- Curb ramp calculations for each ADA ramp

Subtask 3.3 Stormwater Pollution Prevention Plan

The CONSULTANT shall prepare the Stormwater Pollution Prevention Plan (SWPPP), including narrative. The SWPPP will address the recommended best management practices (BMPs) the contractor should use on site to address temporary erosion and sediment control, agency requirements, calculations, and testing protocols. The CONSULTANT will prepare a draft SWPPP that will be submitted to the CITY for review, address any comments the CITY has, and then prepare the final SWPPP that will be included in the contract documents for the contractor to use and update as required to meet their construction sequencing and methods throughout the duration of the project.

Deliverable(s)

- Draft SWPPP, response to comments, and the final SWPPP in PDF format

TASK 4.0 CONSTRUCTION SPECIFICATIONS

The CONSULTANT shall prepare the special provisions and project-specific specifications required for the construction of the project to supplement the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction and the associated amendments and general special provisions.

Assumptions(s)

- The CITY will prepare the bid documents and the CONSULTANT will prepare the special provisions to the CITY's standard specifications and the WSDOT standard specifications.
- The CONSULTANT will prepare all Division 1 special provisions and coordinate any specific fill ins with the CITY.

- The CITY will prepare the final contract documents, including compiling all the specifications and drawings.

Deliverable(s)

- Special provision submittals at 90, 100 percent and Ad Ready level of completion

TASK 5.0 CONSTRUCTION COST ESTIMATE

The CONSULTANT shall prepare a list of bid items, conforming to the WSDOT standard item table, for the project. Each bid item will have a description, measurement unit, and payment description in the specifications. Quantities and unit prices will be estimated for every bid item. Unit prices will be estimated from recent bid experience on similar projects, WSDOT unit bid analysis, and/or the Means construction estimating manuals, as applicable.

In addition, the CONSULTANT shall prepare a quantity take-off binder of all bid items that shows how each bid item was estimated, complete with sketches and calculations as necessary to the limits of the items.

Assumptions(s)

- It is assumed that there will be four reviews of the engineer’s construction cost estimate at the 30, 60, 90, and 100 percent submittals.

Deliverable(s)

- Thirty (high level), 60, 90, and 100 percent, and Ad Ready engineer’s construction cost estimates
- Engineer’s construction cost estimate review comments
- A quantity take-off binder at the Ad Ready submittal if requested.

TASK 6.0 CONSTRUCTION SCHEDULE

The CONSULTANT will prepare a construction schedule for the project. The construction schedule identifies major milestones and work activities for each phase of the project in sufficient detail to develop the duration of construction to complete the contract work items. This schedule will be refined as the design progresses.

It is assumed that there will be three reviews of the construction schedule at the 60, 90, and 100 percent submittals.

Deliverable(s)

- 60, 90, 100 percent, and Ad Ready construction schedules using Primavera or Microsoft Project scheduling software
- Responses to Construction Schedule review comments

TASK 7.0 UTILITY COORDINATION

Subtask 7.1 Review 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. The CONSULTANT shall

review the utilities shown on the basemap for project understanding and look for information that may be missing or incomplete.

Deliverable(s)

- Correspondence via e-mail to the CITY highlighting utilities that may need to be relocated due to the project impacts

Subtask 7.2 Utility Coordination Meetings

The CONSULTANT will coordinate and conduct quarterly utility meetings. These will be meetings for all those affected utilities. The CONSULTANT shall prepare meeting notes for each meeting held and send them to the CITY for review before sending them to the utility companies in attendance.

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. 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)

- The CONSULTANT will be responsible for contacting all the utility companies within the corridor limits for the initial design kickoff meeting.
- The CONSULTANT will coordinate and conduct quarterly utility meetings that will include all the utility purveyors.
- The CONSULTANT will have a staff member that communicates directly with the utility companies via phone and e-mails and/or prepares exhibits and other necessary functions related to utility coordination efforts that averages four (4) hours per month for nine (9) months.
- Respective utility companies will provide timely concurrence on relocation plans for all utilities and will provide their relocation design plans to the CITY and the CONSULTANT in a timely manner for any relocation work.

Deliverable(s)

- Meeting notes for all utility meetings held, including the kick-off meeting and subsequent quarterly meetings specific to the project
- Consolidated review comments received from the utilities (Excel electronic format)

Subtask 7.3 Utility Potholing Plan

The CONSULTANT shall prepare a utility potholing plan for those utilities that will need additional subsurface investigations performed to verify the elevation of existing utility lines for proposed utility crossings. The CONSULTANT shall identify each pothole location with a unique identification number for each utility needed. These potholes shall be shown on a plan sheet that shows the approximate location of the utility line needed and pertinent information, such as utility size, that will aid the pothole locating crew in the field.

Assumptions(s)

- Potholing operations will be performed by the utility owner, including by the individual utility companies for private utilities; and by the CITY for CITY-owned utilities.
- It is estimated that 12 potholes will be needed for the project.

Deliverable(s)

- Potholing plan showing the coordinate of the pothole location required, the utility being potholed, the size of the utility line, and any other pertinent information necessary to aid the potholing crew in locating the needed utility elevation

TASK 8.0 RIGHT-OF-WAY PLANS AND ASSISTANCE

This task involves preparing the ROW plans needed for acquiring ROW and easements.

Subtask 8.1 Right-of-Way Coordination Meetings

The CONSULTANT will attend coordination meetings in support of the preparation of the ROW plans and any subsequent amendments required during the acquisition process.

Consultant Led Coordination Meetings

1-Alliance (SUBCONSULTANT), under a subconsultant agreement with the CONSULTANT will lead the coordination efforts with the CONSULTANT and the CITY to determine right of way needs and procedures for obtaining the necessary property and easements. Meetings held under this task will include the following: attending up to 4 meetings with the CITY, including a review meeting of the base map to be used for preparing the ROW plans.

Assumptions(s)

- The CITY will be invited to attend all meetings led by SUBCONSULTANT and the CONSULTANT.
- Meeting minutes will be prepared by SUBCONSULTANT or the CONSULTANT and will be provided to the CITY.

Subtask 8.2 Right-of-Way Plans

The CONSULTANT, under the direction of SUBCONSULTANT, will prepare the ROW plans for the project using the certified Right of Way map provided by the SUBCONSULTANT. The base map will then be used to prepare the ROW plans, which will identify the property needed for real property acquisition and the acquisition of permanent and temporary easements. The plans will include property owner tables and the areas needed based on calculations performed by SUBCONSULTANT or the CONSULTANT. This effort will include preparing amendments to the ROW plans as required based on the final agreed-upon acquisition documents.

Assumptions(s)

- The CITY will obtain title reports and encumbrances associated with each parcel along and adjacent to the project that may be affected by the project. These will be provided to the CONSULTANT and SUBCONSULTANT.
- The CONSULTANT will provide a list of the affected parcels to the CITY.

Deliverable(s)

- ROW plans showing the existing and proposed ROW and both permanent and temporary easements required for project. This will include identifying the property owners affected by the project, and those calculated areas needed for the acquisition of real property and the temporary and permanent easements

Subtask 8.3 Right-of-Way Exhibits

The CONSULTANT shall prepare, at the request of the CITY, exhibits which may aid in discussions between the property owner and the ROW acquisition agent.

Assumptions(s)

- Exhibits prepared under this task will not be used for the recording of deeds.
- SUBCONSULTANT will prepare all the legal descriptions, including those needed for ROW acquisition, and temporary and permanent easements.
- Up to 4 exhibits will be needed for the project.

Deliverable(s)

Up to 4 exhibits and legal descriptions.

TASK 9.0 SURVEYING (1-ALLIANCE)

The project is located within the City of Tukwila. The CITY requires a topographic survey as the basis for engineering work for projects within the right-of-way. Surveys are required to protect the CITY, private property, easements, rights-of-way, and are essential for accurately planning, engineering, and constructing improvements in the right-of-way.

1 Alliance Geomatics, under a subconsultant agreement with the CONSULTANT, will conduct a topographic survey to the limits shown in Attachment 1 for the project location to develop a base map to be used in the design documents.

Work consisting of the Practice of Land Surveying performed for the CITY shall be done by or under the direction of a surveyor licensed to practice in the state of Washington and shall conform to all Revised Code of Washington Statutes and Washington Administrative Codes (WACs) pertaining to surveying and engineering.

CONSULTANT shall coordinate with and conform to CITY requirements for traffic control and street use permits for work under this contract.

Assumption(s)

- The approximate limits of the survey to be conducted are shown in Attachment 1.
- See general list of project assumptions.
- Underground utility locates are included in this scope of work.
- The CITY and/or engineer will be using GIS and other as-built data, in conjunction with surveyed surface observables, for general utility mapping on the project.
- Individual parcel lines and boundary resolutions are included in this scope of work.
- Traffic control work is included in this scope of work, where needed.

Subtask 9.1 Survey Control

The CONSULTANT shall perform all survey control in accordance with the *City of Tukwila Public Works Department, Infrastructure Design and Construction Standards (2019)*.

Survey control plans must at a minimum describe all monuments, the geometry of, and references used to establish the right-of-way, lines referencing the right-of-way, property lines, easements, and any rights in real property shown. Survey control information must be shown independently of other plan, design, or topographic information (on a separate sheet), and must contain the surveyor’s stamp, contact information, and the date.

Documentation/Notes	Monuments and Monument/Control Line	Right-of-Way Limits	Presentation
<ul style="list-style-type: none"> • Horizontal Datum • Vertical Datum • Basis of Bearing • Benchmarks • Project Field Notebooks • Convergence Angle • Project Combined Grid Factor • Scale Factor Basis • Reference Documents (plats/record surveys) • Project Surveyor • Equipment, Method, and Accordance with WAC Accuracy Standards 	<ul style="list-style-type: none"> • Survey Control Point Tables with Point Number, Northing, Easting, and Description • Label Control Points in Drawing • Monument Descriptions • Monument Line Distance, Bearing • Monument Line Distance, Radius, and Angle Delta for Curves 	<ul style="list-style-type: none"> • Dimension from Monument Line • Length, Radius, and Angle Delta for Curves 	<ul style="list-style-type: none"> • 1”=50’ Drawing Scale • Street Name Labels • Monument Line Station Labels • Sheet Numbers Coordinated with Project Plan Set

Deliverable(s)

The following deliverables are included in Task 9.1.

- The CONSULTANT shall provide 22- by 34-inch stamped and signed survey control plans on bond paper with the project’s 30 percent design submittal. The CONSULTANT shall provide an electronic PDF copy of the survey control plan with the 30 percent design submittal using the CITY-provided project-specific title block.

Subtask 9.2 Topographic Surveying and Mapping

The CONSULTANT shall perform topographic surveying and mapping in the locations identified in Attachment 1. Mapping limits will be Right-of-Way to Right-of-Way plus 10 feet where possible. The entirety of parcels 7661600211, 7661600208, and 8733000070 will be mapped. For these areas, full 3-D mapping will be completed.

General

The CONSULTANT shall survey all observable surface features within the surveying limits. Features may include, but are not limited to the following:

- All traffic signal equipment, including handholes, signals cabinets, signal poles, span wires, pedestrian pushbuttons, vehicular signal heads, and pedestrian signal heads
- Top of curbs, bottom of curbs, flow lines, front and back of sidewalk, and all grade breaks and limits associated with driveways and curb ramps
- Walls and rockeries
- Pavement surfaces (identified by type) and joints between dissimilar paving materials. Profiles of the existing street surface will be surveyed along the edge of pavement and pavement crown. These points will be surveyed at intervals of 10-foot minimum and/or 25-foot maximum. Pavement cross section intervals will be spaced at a minimum of 10-feet and maximum of 25-feet.
- Existing curb ramps
- On street parking delineations
- General vegetation, significant trees (evergreen and deciduous) with caliper diameter and canopy diameter as estimated from the ground. Significant trees are defined as taller than 15 feet with a trunk diameter of 6 inches or greater.
- Existing overhead utility lines
- Ground measurements will be captured sufficient to generate an accurate digital terrain model (DTM) at 1-foot contours.
- Building overhangs and awnings within the right-of-way
- Bridge deck corners and bridge deck joints
- Bridge column and/or footing locations
- Sensitive areas, including wetland and wetland buffers (flagged as defined in Task 7)
- Geotechnical explorations (as defined in Task 6)
- The field survey work will include elevations along the top of rail at 25-foot increments starting at 100-feet up-rail and extending to 100-feet down-rail of the bridge crossing.
- Vertical clearance from top of trail to the soffit of the existing bridge superstructure.

Utilities

The CONSULTANT shall survey surface observable utilities within the project limits.

- Surface observable utilities to include all visible utility castings, power poles, guy wires and anchors, street light poles, vaults, risers, fire hydrants, culverts, survey monument castings, and overhead utility lines.
- Stormwater and sanitary sewer structures (catch basins and storm drain manholes) center of lids only.
- Stormwater and sanitary sewer structures and inverts will be obtained.

Private Property/Beyond Right-of-Way

At a minimum, the CONSULTANT shall survey the following pertinent features on private property within the project limits.

- Building faces
- Garage entrances
- Door thresholds
- Retaining walls
- Railroad tracks
- Edge of Access Roads
- Trees
- Fences and fence posts
- Steps and walkways
- Driveway locations if located at back of sidewalk or behind curb
- At existing driveway locations, a sufficient number of survey shots shall be taken within private property to establish grade of driveway transitions onto private property.

Assumptions(s)

- The CITY will provide rights of entry on any private parcels where mapping is needed.

Subtask 9.3 Creation of Design Files

A survey base map file will be compiled in AutoCAD® Civil 3D® 2022 for the basis of design. This file will show the site's existing condition and surface capable of displaying 1-foot contours. Verified ROW lines of record, dynamic notes, control, and other observations (prepared for 1"=20' plans) will be included in this file to aid in the design going forward.

Deliverable(s)

The following deliverables are included in Task 9.2.

- Draft base map drawing (AutoCAD Civil 3D 2022), encompassing the survey limits, containing all existing surveyed features. Graphical scale shall be 1"=20'.
- Final base map drawing (AutoCAD Civil 3D 2022), encompassing the survey limits, containing all existing surveyed features. Graphical scale shall be 1"=20'.
- Integrated Land XML-compatible DTM.
- An AutoCAD Civil 3D 2022 XYZ point drawing file in PNEZD format (point number, northing, easting, elevation, and description)
- Point cloud files provided in .imp and .rcp format
- Survey field notes

Subtask 9.4 Right-of-Way and Parcel Research, Title Analysis, Boundaries

1 Alliance Geomatics shall perform ROW research and determination of ROW boundaries through the project. 1 Alliance Geomatics shall review and analyze title reports provided for the project to determine property lines and resolve easements for up to 5 parcels. This effort is primarily for the main alignment route. This task also includes research of public survey records throughout the project, as well as research regarding survey control and controlling monuments to be used throughout the project design and construction.

TASK 10.0 GEOTECHNICAL ENGINEERING (PANGEO)

PanGeo (SUBCONSULTANT) under a subconsultant agreement with the CONSULTANT, will provide the scope included in Attachment 6. Permits and rights-of-entry provided by the CITY.

TASK 11.0 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.

Deliverable(s)

- The deliverables for this task are to be determined (TBD) if and when the additional efforts are required

TASK 12.0 AD, BID, AND AWARD SERVICES

Subtask 12.1 Bid Advertisement Assistance

The CONSULTANT shall assist the CITY in preparing the contract bid documents for advertising and getting them uploaded to an internet site of their choice for contractors to download and review during the bid review process. It is assumed this assistance will be for a two-week timeframe.

Subtask 12.2 Prepare Response to Bidder Inquiries

The CONSULTANT shall provide formal responses to comments received by the CITY during the bid advertisement period. The responses to the comments will be submitted to the CITY for further distribution and dissemination to the contract plan holders. It is assumed that the CONSULTANT will provide up to thirty (30) formal responses. It is assumed there will be a four-week bid period.

Assumptions(s)

- Assume thirty (30) responses will be required

Deliverable(s)

- Up to thirty (30) formal responses to bidder inquiries

Subtask 12.3 Prepare Addenda

The CONSULTANT shall prepare addendum packages to the contract bid documents as requested by the CITY. It is assumed that the CONSULTANT will provide up to two (2) addenda. It is assumed there will be a four-week bid period.

Assumptions(s)

- Assume two (2) addenda will be required

Deliverable(s)

- Up to two (2) addenda

Subtask 12.4 Prepare Conformed Final Contract Documents

After the bid process is complete, the CONSULTANT shall prepare the conformed final contract documents, which will include any information from the Addendums that needs to be included in the final contract documents.

Deliverable(s)

- PDF of corrected final contract documents, including one PDF full-size set and one PDF half-size set of plans, and one PDF set of contract documents

Subtask 12.5 Pre-Bid Meeting

The CONSULTANT will conduct a prebid meeting in conjunction with the CITY. This includes preparing a presentation in PowerPoint format highlighting key project features that are included in the Contract. A site tour will be conducted directly after the pre-bid meeting. The completed presentation along with a meeting sign in sheet will be transmitted to the CITY for posting on the CITY’S website.

Deliverable(s)

- Power Point presentation, meeting sign-in sheet

Subtask 12.6 Bid Evaluation Review and Meeting

The CONSULTANT will facilitate a bid review meeting with the CITY and apparent low bidder. The CONSULTANT will evaluate the bid tabulations of all bidders and compared to the Engineer’s estimate and other bidders. Items that contain discrepancies from the Engineer’s estimate will be highlighted for review. The CONSULTANT will prepare a list of questions regarding the Contractor’s approach to the project, the conceptual project schedule, and any bid items with discrepancies from the Engineer’s estimate. After the meeting, the CONSULTANT will forward documentation of the meeting and recommendations to the CITY.

Deliverable(s)

- Meeting notes and documentation

TASK 13.0 CONSTRUCTION SUPPORT SERVICES

WSP has been directed by the CITY to remove this task for Construction Support Services at this time. This task may be added back in via a Change Order later.

FEE

WSP is prepared to perform this work on a time-and-materials basis for a total not-to-exceed fee of \$348,355, based on the assumptions provided in this document. If there are changes in these assumptions that increase the level of effort, we will not proceed without your approval.

CLOSING

WSP looks forward to providing these services to the City of Tukwila in support of the S 149th St to S 150th St Water Main Replacement project. Please call me if you have questions or require modification to our proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Jourden Makinen", is centered within a light gray rectangular box.

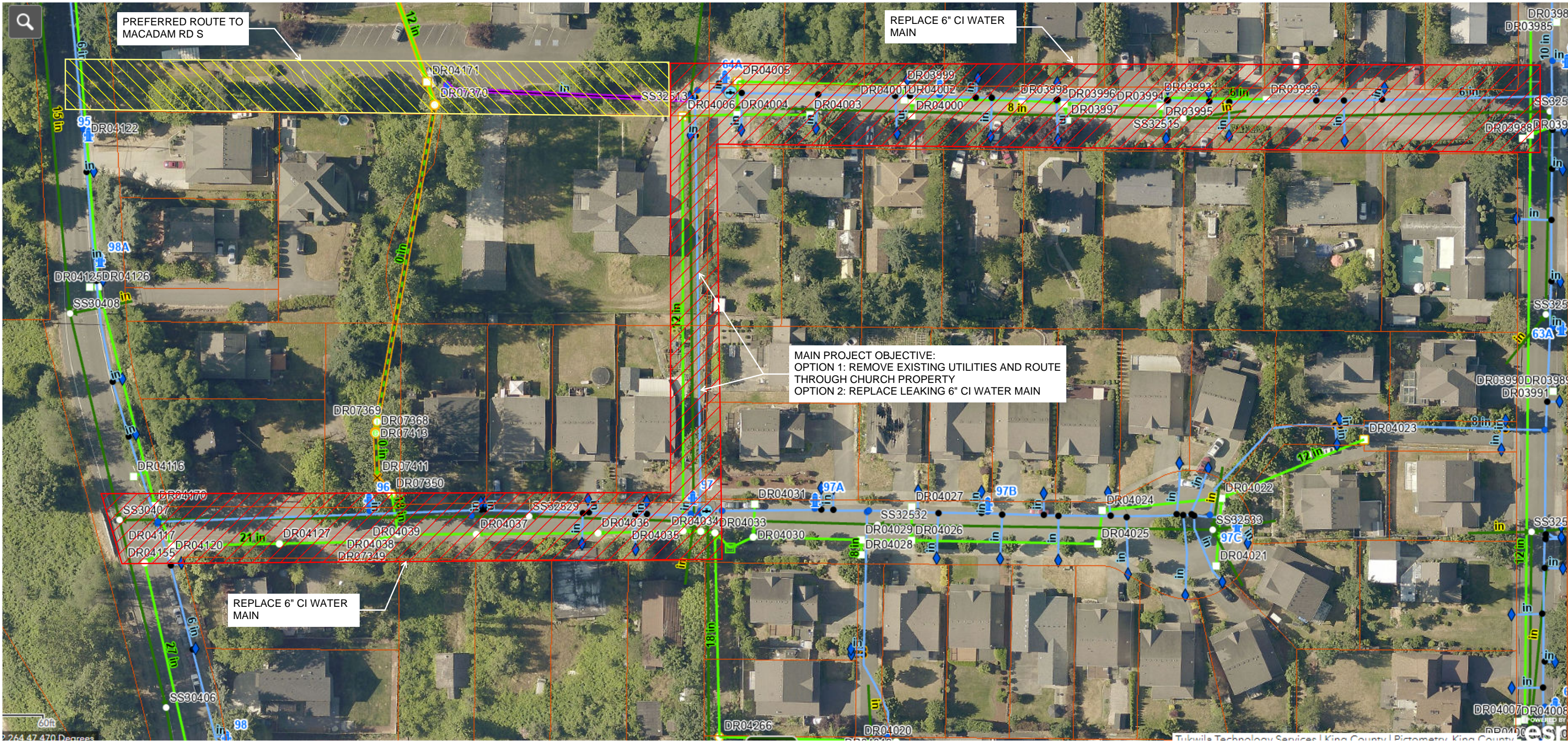
Jourden Makinen, PE
Project Manager

Kara Crawford, PE
Senior Director

Attachments

- Attachment 1 – Conceptual Project Exhibit
- Attachment 2 – Survey Limits Exhibit
- Attachment 3 – Basis of Fee Proposal
- Attachment 4 – Design Schedule
- Attachment 5 – 1-Alliance Fee
- Attachment 6 – PanGeo Scope and Fee

ATTACHMENT 1 - CONCEPTUAL PROJECT
CITY OF TUKWILA
S 149TH TO S 150TH WATER MAIN REPLACEMENT PROJECT



ATTACHMENT 2 - REQUESTED SURVEY AREA
CITY OF TUKWILA
S 149TH TO S 150TH WATER MAIN REPLACEMENT PROJECT



**ATTACHMENT 3 - CONSULTANT FEE DETERMINATION
S 149TH ST TO S 150TH ST WATER MAIN REPLACEMENT**

**Cost Summary
7/18/2023**

DIRECT SALARY COSTS (DSC)

<u>Personnel</u>	<u>Hours</u>		<u>Rate</u>		<u>Cost</u>
1 Project Managers	110	X	\$ 98.25	= \$	10,807.01
2 Civil Project Engineer	323	X	\$ 74.79	= \$	24,158.14
3 Bridge Project Engineer	0	X	\$ 102.42	= \$	-
4 Structural Engineer	0	X	\$ 78.61	= \$	-
5 Civil Engineer	580	X	\$ 45.56	= \$	26,425.96
6 Designer / CAD Oper.	514	X	\$ 53.47	= \$	27,482.86
7 Project Coord. / Admin. / Graphics	69	X	\$ 46.56	= \$	3,212.36
8 -	0	X	\$ -	= \$	-

	Total Hours	1,596	Subtotal Direct Salary Costs (DSC) = \$	92,086.33	
4%			Salary Escalation (4%/yr) of DSC = \$	3,683.45	149.448
			Subtotal (DSC + SE) = \$	95,769.78	
Overhead (OH)	139.52%		of (DSC + SE) = \$	133,618.00	
Fixed Fee (FF)	33.00%		of (DSC + SE) = \$	31,604.03	

TOTAL SALARY COSTS (DSC + SE + OH + FF) = \$260,991.81

DIRECT NONSALARY COSTS (DNCS)

Mileage Design Team	350	miles @ \$ 0.655	\$	229.25
			\$	-
			\$	-

TOTAL REIMBURSABLE EXPENSES (DNCS) = \$ 229.25

TOTAL WSP = \$261,221.06

SUBCONSULTANTS

1-Alliance - Task 9.0 (See Attachment 5)	\$	71,689.00
PanGeo - Task 10.0 (See Attachment 6)	\$	15,425.00

TOTAL Subconsultants = \$ 87,114.00

Management Reserve = \$ -

TOTAL Authorized Amount \$348,335.06

	Task	Project Managers	Civil Project Engineer	Bridge Project Engineer	Structural Engineer	Civil Engineer	Designer / CAD Oper.	Project Coord. / Admin. / Graphics		Totals
DSC		\$ 98.25	\$ 74.79	\$102.42	\$ 78.61	\$ 45.56	\$ 53.47	\$ 46.56	\$ -	
TASK 1 - GENERAL ACTIVITIES	1	62	111	-	-	72	36	46	-	327
Project Coordination (9 months)	1.1	26	34	-	-	-	-	30	-	90
Monthly Invoices (9 months)		9	9							18
Monthly Progress Reports (9 months)		9	9							18
Update Project Schedule (Quarterly, 3 updates)		2	4							6
Maintain Contract Required Documentation		4	8					24		36
Prepare Subconsultant Agreements (2 subs)		2	4					6		12
Subconsultant Coordination	1.2	4	16	-	-	16	16	-	-	52
1-Alliance		2	8			8	8			26
PanGeo		2	8			8	8			26
Meetings and Coordination	1.3	18	31	-	-	36	-	-	-	85
Internal Project Team Meetings (assume 18 @ 1 hr)		9	18			18				45
Coordination Meetings with CITY Staff (assume 9 @ 1 hr)		9	9			9				27
Prepare Meeting Notes			4			9				13
Quality Assurance	1.4	10	10	-	-	20	20	8	-	68
QA at 30% Design		2	2			4	4	2		14
QA at 60% Design		2	2			4	4	2		14
QA at 90% Design		2	2			4	4	2		14
QA at 100% Design		2	2			4	4	1		13
QA at Ad Ready Submittal		2	2			4	4	1		13
Project Close Out	1.5	4	20	-	-	-	-	8	-	32
Monthly Progress Reports		2	4					4		10
Project Schedules		2	4							6
Contract Forms/Certifications			4					4		8
Meeting Notes			4							4
QA/QC documentation (upon request)			4							4
TASK 2 - DESIGN SUBMITTAL AND REVIEW	2	8	76	-	-	238	244	-	-	566
Thirty Percent Design Submittal	2.1	-	25	-	-	90	94	-	-	209

	Task	Project Managers	Civil Project Engineer	Bridge Project Engineer	Structural Engineer	Civil Engineer	Designer / CAD Oper.	Project Coord. / Admin. / Graphics		Totals
DSC		\$ 98.25	\$ 74.79	\$102.42	\$ 78.61	\$ 45.56	\$ 53.47	\$ 46.56	\$ -	
30% Construction Plans		-	25	-	-	90	94	-	-	
Sixty Percent Design Submittal	2.2	2	16	-	-	49	49	-	-	116
Written Responses to CITY 30% Comments		2	4	-	-	4	2	-	-	12
60% Construction Plans		-	12	-	-	45	47	-	-	104
Ninety Percent Design Submittal	2.3	2	16	-	-	49	49	-	-	116
Written Responses to CITY 60% Comments		2	4	-	-	4	2	-	-	12
90% Construction Plans		-	12	-	-	45	47	-	-	104
One Hundred Percent Design Submittal	2.4	2	13	-	-	38	37	-	-	90
Written Responses to CITY 90% Comments		2	4	-	-	4	2	-	-	12
100% Construction Plans		-	9	-	-	34	35	-	-	78
Ad Ready Documents for Bidding	2.5	2	6	-	-	12	15	-	-	35
Written Responses to CITY 100% Comments		2	2	-	-	2	2	-	-	8
Ad Ready Construction Plans		-	4	-	-	10	13	-	-	
TASK 3 - CIVIL DESIGN	3	5	30	-	-	56	24	12	-	127
Roadway Design	3.1	1	2	-	-	4	8	-	-	15
Proposed Roadway Layout		1	2	-	-	4	8	-	-	15
ADA Curb Ramp Design	3.2	4	20	-	-	36	8	12	-	80
Curb Ramp Design (assume 2 ramps)			4	-	-	4	8	-	-	16
Draft MEF Documentation (assume 2 ramps)		2	8	-	-	16	-	8	-	34
Final MEF Documentation		2	8	-	-	16	-	4	-	30
Stormwater Pollution and Prevention Plan	3.3	-	8	-	-	16	8	-	-	32
Draft SWPPP at 60%			2	-	-	4	4	-	-	10
Written Responses to CITY 60% Comments			2	-	-	4	-	-	-	6
Draft Final SWPPP at 100%			2	-	-	4	4	-	-	10
Written Responses to CITY 100% Comments			2	-	-	4	-	-	-	6
Final SWPPP at Ad Ready			2	-	-	4	4	-	-	10
TASK 4 - CONSTRUCTION SPECIFICATIONS	4	4	27	-	-	72	-	7	-	110

	Task	Project Managers	Civil Project Engineer	Bridge Project Engineer	Structural Engineer	Civil Engineer	Designer / CAD Oper.	Project Coord. / Admin. / Graphics		Totals	
DSC		\$ 98.25	\$ 74.79	\$102.42	\$ 78.61	\$ 45.56	\$ 53.47	\$ 46.56	\$ -		
	90% Specification Submittal	4	2	16	-	-	44	-	3	-	65
	Amendments			4			16		1		21
	Division 1 City Support		1	4			16		1		22
	Division 2 - 9		1	4			8				13
	Address City Comments			4			4		1		9
	100% Specification Submittal	4	2	10	-	-	24	-	3	-	39
	Amendments			2			8		1		11
	Division 1 City Support			2			8		1		11
	Division 2 - 9		1	2			4				7
	Appendices		1	2			2				5
	Address City Comments			2			2		1		
	Ad-Ready Specification Submittal	4	-	1	-	-	4	-	1	-	6
	Incorporate Comments and Submit			1			4		1		6
											-
TASK 5 - CONSTRUCTION COST ESTIMATE		5	5	25	-	-	40	30	-	-	100
	30% Cost Estimate Submittal	5	1	8	-	-	16	8	-	-	33
	60% Cost Estimate Submittal	5	1	8	-	-	8	8	-	-	25
	90% Cost Estimate Submittal	5	1	4	-	-	8	8	-	-	21
	100% Cost Estimate Submittal	5	1	4	-	-	4	4	-	-	13
	Ad Ready Cost Estimate Submittal	5	1	1	-	-	4	2	-	-	8
TASK 6 - CONSTRUCTION SCHEDULE		6	2	-	-	-	20	-	-	-	22
	60% Construction Schedule Submittal	6	1	-	-	-	8	-	-	-	9
	90% Construction Schedule Submittal	6	-	-	-	-	6	-	-	-	6
	100% Construction Schedule Submittal	6	1	-	-	-	4	-	-	-	5

	Task	Project Managers	Civil Project Engineer	Bridge Project Engineer	Structural Engineer	Civil Engineer	Designer / CAD Oper.	Project Coord. / Admin. / Graphics		Totals
DSC		\$ 98.25	\$ 74.79	\$102.42	\$ 78.61	\$ 45.56	\$ 53.47	\$ 46.56	\$ -	
Ad Ready Construction Schedule Submittal	6					2				2
TASK 7 - UTILITY COORDINATION	7	1	11	-	-	36	8	-	-	56
Review Existing Utility Data	7.1		4			8	2			14
Utility Coordination Meetings	7.2	-	5	-	-	22	-	-	-	27
Conduct Initial Utility Kick-off Meeting (1 mtg)			1			1				2
Conduct Quarterly Utility Meetings (3 mtgs)						3				3
Prepare Meeting Minutes (3 mtgs)						3				3
Conduct Individual Utility Meetings (up to 3)						3				3
Utility Coordination (up to 4 hrs per month for 6 months)			4			12				16
Utility Potholing Plan	7.3	1	2	-	-	6	6	-	-	15
Identify Utility Conflicts		1	1			4	2			8
Prepare Utility Potholing Plan			1			2	4			7
TASK 8 - RIGHT-OF-WAY PLANS AND ASSISTANCE	8	15	22	-	-	20	152	-	-	209
Right-of-Way Coordination Meetings	8.1	9	12	-	-	12	72	-	-	105
Right-of-Way Coordination Meetings (assume 6 at 1hr)		3	6			6				15
Prepare Meeting Notes						6				6
Right-of-Way Plans	8.2	6	6	-	-	-	72	-	-	84
Preliminary Right-of-Way Plans		5	5				58			68
Final Right-of-Way Plans		1	1				11			13
Addendum Right-of-Way Plans		-	-				3			
Right-of-Way Exhibits	8.3	-	4	-	-	8	8	-	-	20
Prepare Right-of-Way Exhibits (up to 4)			4			8	8			20
TASK 9 - SURVEYING (1-Alliance)	9	See Attachment 5								-

	Task	Project Managers	Civil Project Engineer	Bridge Project Engineer	Structural Engineer	Civil Engineer	Designer / CAD Oper.	Project Coord. / Admin. / Graphics		Totals
DSC		\$ 98.25	\$ 74.79	\$102.42	\$ 78.61	\$ 45.56	\$ 53.47	\$ 46.56	\$ -	
TASK 10 - GEOTECHNCIAL ENGINEERING (PanGeo)	10	See Attachment 6								-
TASK 11 - DIRECTED SERVICES	11	-	-	-	-	-	-	-	-	-
Directed Services	11	-	-	-	-	-	-	-	-	-
TASK 12 - AD, BID, AND AWARD SERVICES	12	8	21	-	-	26	20	4	-	79
Bid Advertisement Assistance	12.1	1	4	-	-	4	-	4	-	13
Prepare Contract Bid Documents and Upload		1	4			4		4		13
Prepare Response to Bidder Inquiries	12.2	-	2	-	-	4	-	-	-	6
Prepare Formal Responses to Bidder Comments			2			4				6
Prepare Addendums	12.3	1	4	-	-	4	4	-	-	13
Prepare Addenda (up to 2 addenda)		1	4			4	4			13
Prepare Conformed Final Contract Documents	12.4	1	4	-	-	8	16	-	-	29
Prepare Conformed Final Contract Documents		1	4			8	16			29
Pre-Bid Meeting	12.5	4	5	-	-	5	-	-	-	14
Prepare Powerpoint Presentation		1	2			2				5
Conduct Pre-Bid Meeting and Site Walk (assume 1 at 3hr)		3	3			3				9
Bid Evaluation Review and Meeting	12.6	1	2	-	-	1	-	-	-	4
Bid Evaluation Review Meeting (assume 1 at 1hr)		1	1			1				3
Prepare Meeting Notes			1							1
TASK 13 - CONSTRUCTION SUPPORT SERVICES (NOT SCOPED AT THIS TIME)	13	-	-	-	-	-	-	-	-	-
Construction Support Services	13	-	-	-	-	-	-	-	-	-
TOTAL		110	323	-	-	580	514	69	-	1,596

DRAWING LIST	Number	Project Managers	Civil Project Engineer	Bridge Project Engineer	Structural Engineer	Civil Engineer	Designer / CAD Oper.	Project Coord. / Admin. / Graphics	Totals	
DSC		\$ 98.25	\$ 74.79	\$ 102.42	\$ 78.61	\$ 45.56	\$ 53.47	\$ 46.56		
Task 2.0 General Sheets										
	Cover Sheet, Vicinity Map, and Index	1		2		6	6		14	
	General, TESC, Work on Private Property Notes	2		2		6	6		14	
	Legend and Abbreviations	3		2		4	4		10	
	Existing Conditions, Key Map, Survey Control and Notes	4		2		4	4		10	
	Existing Conditions, Key Map, Survey Control and Notes	5		2		4	4		10	
	Existing Conditions, Key Map, Survey Control and Notes	6		2		4	4		10	
Task 2.0 TESC Sheets										
	Site Prep & TESC Plan - Sheet 1	7	2			8	8		18	
	Site Prep & TESC Plan - Sheet 2	8	2			8	8		18	
	Site Prep & TESC Plan - Sheet 3	9	2			8	8		18	
	TESC Details - Sheet 1	10	2			8	8		18	
Task 2.0 Civil Sheets										
	Water Line Plan & Profile - Sheet 1	11	2			8	8		18	
	Water Line Plan & Profile - Sheet 2	12	2			8	8		18	
	Water Line Plan & Profile - Sheet 3	13	2			8	8		18	
	Water Line Plan & Profile - Sheet 4	14	2			8	8		18	
	Water Line Plan & Profile - Sheet 5	15	2			8	8		18	
	Construction Staging Plan - Sheet 1	16	2			8	8		18	
	Construction Staging Plan - Sheet 2	17	2			8	8		18	
	Water Line Details - Sheet 1	18	2			8	8		18	
	Water Line Details - Sheet 2	19	2			8	8		18	
	Water Line Std. Details - Sheet 1	20				1	1		2	
	Water Line Std. Details - Sheet 1	21				1	1		2	
	Water Line Std. Details - Sheet 1	22				1	1		2	
	Water Line Std. Details - Sheet 1	23				1	1		2	
	Water Line Std. Details - Sheet 1	24				1	1		2	
	Water Line Std. Details - Sheet 1	25				1	1		2	
	Water Line Std. Details - Sheet 1	26				1	1		2	
	Water Line Std. Details - Sheet 1	27				1	1		2	
	Paving Plan & Restoration - Sheet 1	28	2			8	8		18	
	Paving Plan & Restoration - Sheet 2	29	2			8	8		18	
	Paving Plan & Restoration - Sheet 3	30	2			8	8		18	
	Intersection Plan - Sheet 1	31	2			8	8		18	
	Intersection Plan - Sheet 2	32	2			8	8		18	
	ADA Ramp Details - Sheet 1	33	2			8	8		18	
	ADA Ramp Details - Sheet 2	34	2			8	8		18	
	Channelization and Signing Plan - Sheet 1	35	2			4	8		14	
	Channelization and Signing Plan - Sheet 2	36	2			4	8		14	
	Channelization and Signing Plan - Sheet 3	37	2			4	8		14	
	Miscellaneous Details - Sheet 1	38	2			8	8		18	
	Miscellaneous Details - Sheet 2	39	2			8	8		18	
			0	62	0	0	224	236	0	522

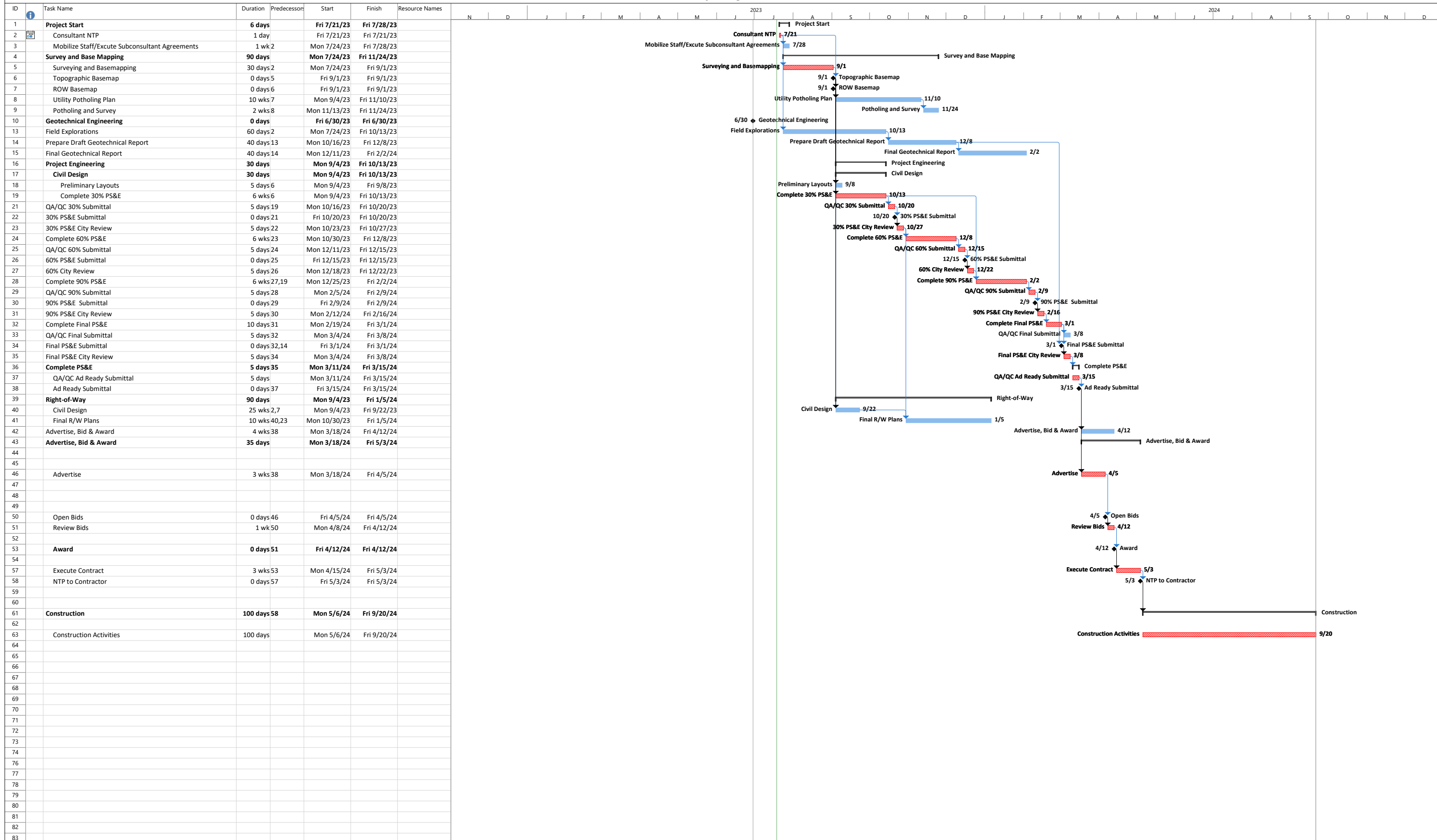
% Effort

DRAWING LIST	Number	Project Managers	Civil Project Engineer	Bridge Project Engineer	Structural Engineer	Civil Engineer	Designer / CAD Oper.	Project Coord. / Admin. / Graphics	Totals
DSC		\$ 98.25	\$ 74.79	\$ 102.42	\$ 78.61	\$ 45.56	\$ 53.47	\$ 46.56	
Prepare 30% Plans	40.0%	0	25	0	0	90	94	0	209
Prepare 60% Plans	20.0%	0	12	0	0	45	47	0	104
Prepare 90% Plans	20.0%	0	12	0	0	45	47	0	104
Prepare 100% Plans	15.0%	0	9	0	0	34	35	0	78
Prepare Ad-Ready Plans	5.2%	0	4	0	0	10	13	0	27
		0	62	0	0	224	236	0	522

DRAWING LIST		Number	Project Managers	Civil Project Engineer	Bridge Project Engineer	Structural Engineer	Civil Engineer	Designer / CAD Oper.	Project Coord. / Admin. / Graphics	Totals
DSC			\$ 98.25	\$ 74.79	\$ 102.42	\$ 78.61	\$ 45.56	\$ 53.47	\$ 46.56	
Task 13 RIGHT OF WAY PLANS										
1	Right of Way Plan Cover Sheet	1	1	1				12		14
2	Right of Way Plan - Sheet 01	2	1	1				12		14
3	Right of Way Plan - Sheet 02	3	1	1				12		14
4	Right of Way Plan - Sheet 03	4	1	1				12		14
5	Right of Way Plan - Sheet 04	5	1	1				12		14
6	Right of Way Plan - Sheet 05	6	1	1				12		14
Total Hours			6	6	0	0	0	72	0	84

		% Effort								
Prepare Preliminary Plans	80.0%	5	5	0	0	0	58	0	68	
Prepare Final Plans	15.0%	1	1	0	0	0	11	0	13	
Prepare Addendum Plans	3.6%	0	0	0	0	0	3	0	3	
	98.6%	6	6	0	0	0	72	0	84	

CITY OF TUKWILA
S 149TH & 150TH WATERMAIN REPLACEMENT
Preliminary Design Schedule



Project: S 149th & 150th Watermain
 Date: Wed 7/19/23

Task █ Milestone ◆ Summary Critical Task



Cost + FF (DSC) Pricing Proposal
S 149th to S 150th Water Main Replacement
 6/16/2023

Project Number 23-073
 Project Name Tukwila Water Main Replacement
 Client WSP
 Owner City of Tukwila

by MG
 ck'd DP

TASK X Surveying & Mapping	Principal Surveyor	Project Manager	QA/QC	PLS/Project	CADD 5	CADD 4	Tech 5	Tech 3	Assist PM	Admin	Total Hours	Labor Dollars
Task DSC Rate	\$ 96.15	\$ 61.75	\$ 48.50	\$ 48.50	\$ 43.50	\$ 39.00	\$ 43.00	\$ 37.00	\$ 38.00	\$ 36.00		
Subtask 8.1 Right-of-Way Coordination Meetings		6							8	8	22	\$ 962.50
Subtask 8.2 Right-of-Way Plans		4	2								6	\$ 344.00
Subtask 8.3 Right-of-Way Exhibits	1	4	4	24							33	\$ 1,701.15
Subtask 9.1 Survey Control	1	4	1	8			16	24			54	\$ 2,355.65
Subtask 9.2 Topographic Surveying and Mapping	2	8					80	120			210	\$ 8,566.30
Subtask 9.3 Creation of Design Files	2	8	8		80						98	\$ 4,554.30
Subtask 9.5 Right-of-Way, Boundaries (70 Parcels)	2	8	8	64							82	\$ 4,178.30
											-	\$ -
	8	42	23	96	80	0	96	144	8	8	505	
Total Dollars	\$ 769.20	\$ 2,593.50	\$ 1,115.50	\$ 4,656.00	\$ 3,480.00	\$ -	\$ 4,128.00	\$ 5,328.00	\$ 304.00	\$ 288.00	-	\$ 22,662.20

Direct Salary Cost \$ 22,662
 Overhead Cost 149.56% \$ 33,894
 Fee (*DSC) 33.00% \$ 7,479

Total Labor	\$ 64,034
ODC's (Other Direct Costs)	
Non-Invoiced (mileage; repro; etc.)	Mile/repro \$ 655.000
Invoiced (sub-c; rental; etc.)	TBD \$ 7,000.00

ODC BREAKDOWN					
NON-INVOICED			INVOICED		
Mileage	1000	0.655	\$655.00	3D Laser Scanner (2 Days)	
Materials		repro	\$ -	Traffic Control	\$ 2,000.00
		computer	\$ -	UG Utility Locates	\$ 5,000.00
		other	\$ -	Other	\$ -
				Other	\$ -
			SUB TOTAL		\$ 655.00
				SUB TOTAL	\$ 7,000.00

Contract Total \$ 71,689

June 14, 2023
File No. P-8760

Mr. Jourden Makinen, P.E.
WSP USA
33301 9th Avenue South, Suite 300
Federal Way, Washington 98003

Subject: Proposal for Geotechnical Services
Water Main Replacement
South 149th Street and South 150th Street, Tukwila, Washington

Dear Mr. Makinen:

Attached please find our proposal to provide geotechnical input for the proposed water main replacement project for the City of Tukwila, Washington. We understand it is planned to replace two sections of water main. The project areas are described below:

- **South 149th Street:** Replace the existing 6-inch cast iron water main below South 149th Street with a new 8-inch ductile iron pipe and extend the water main about 500 feet to the west to Macadam Road South. The proposed alignment will require extending the water main through an easement through the Southcenter Baptist Church property at 14742 Macadam Road South.

The easement through the Southcenter Baptist Church is the preferred route and if pursued, an existing north-south trending section of water main extending from South 149th Street to South 150th Street will be abandoned. However, if an easement through the church property cannot be obtained, the north-south trending water main would be upgraded to an 8-inch diameter ductile iron pipe.

- **South 150th Street:** Replace the existing 6-inch diameter cast iron water main with a new 8-inch diameter ductile iron pipe below a 400- to 500-foot-long section of South 150th Street.

We understand the inverts of the waterlines will likely be about 5 feet deep.

Our proposed scope of services and fee are summarized in Exhibits I and II, respectively. We estimate that a budget of \$14,799 will be needed to complete the proposed geotechnical evaluation. We will not exceed this amount without your prior authorization.

Please call should you have any questions regarding this proposal.

Sincerely,

A handwritten signature in blue ink, appearing to read "Scott D. Dinkelman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Scott D. Dinkelman, LEG
Principal Engineering Geologist

Enclosures:

- Exhibit I: Scope of Services
- Exhibit II: Cost Estimate

EXHIBIT I - SCOPE OF SERVICES

1. **Kickoff Meeting** – PanGEO will attend a project kickoff meeting with the project team and the City of Tukwila.
2. **Document Review** – Collect and review readily available geotechnical or geologic data for the project area. Results from the review will be used to prepare a exploration work plan memo to supplement our site reconnaissance and subsurface exploration.
3. **Site Reconnaissance** – We will perform a geologic reconnaissance along the water main alignment to review existing site conditions and finalize our boring locations.
4. **Subsurface Exploration (Test Borings)** – We propose to drill a total of five test borings. Three of the test borings will be located along the preferred route for the new water main through the Southcenter Community Baptist Church property. The other two borings will be drilled in the South 149th Street and South 150th Street right of way where the existing water main will be upgraded.

The test borings will be located within the travel lanes of South 149th Street and South 150th Street. We anticipate closure of one travel lane will be needed during drilling. We will retain a traffic control subconsultant to provide traffic control.

At least 72-hours before conducting our field exploration, we will mark out our boring locations and arrange for a utility locate. We will also use a private locator to clear our boring locations prior to drilling.

The test borings will be drilled using hollow stem augers. Soil samples will be obtained from the test borings at 2½- and 5-foot depth intervals, using the Standard Penetration Test (SPT) method. When completed, the test borings will be backfilled per the Department of Ecology's requirements. Drill cuttings will be removed.

Assumptions: We assume street-use permits (if needed) will be provided by the City of Tukwila at no cost to PanGEO.

5. **Laboratory Testing** – Where appropriate we will select representative soil samples for geotechnical index testing. These tests may include moisture contents and grain size analysis.

6. **Geotechnical Report** – Prepare a draft geotechnical report for review. The report will be finalized once we receive review comments from the project team. In general, the report will include:
- A site plan indicating the approximate test boring locations, summary boring logs, and a subsurface profile.
 - Description of surface and subsurface conditions encountered in our test borings, and a summary description of soils and groundwater conditions.
 - Recommendations for trenching, excavation support to protect adjacent utilities and roadways, subgrade preparation, and backfill.
 - Suitability of the on-site soils for trench backfill.
 - Recommendations for pavement restoration.
 - Recommendations for groundwater control, if needed.
 - Other recommendations as needed based on the site surface and subsurface conditions.
7. **Post-Report Consultation/Meetings** – We will attend project meetings, provide post-report consultation, and assist with the design and preparation of plans and specifications on an as-needed basis.

EXHIBIT II - COST ESTIMATE

ESTIMATED LABOR:								
WORK TASK DESCRIPTION	PERSONNEL & HOURLY RATE						TOTAL HOURS	TOTAL AMOUNT
	S. Tan	S. Dinkelmar	A. Ong	S. Scott				
	\$90.33	\$65.52	\$45.22	\$37.96				
Kickoff Meeting	2						2	\$181
Site Reconnaissance/Utility Locate		1		4			5	\$217
Work Plan Memo	1			2			3	\$166
Borehole Logging	1			10			11	\$470
Project Coordination Meetings	3						3	\$271
Draft Report	1	4	12	4			21	\$1,047
Plan and Specification Review	1		6				7	\$362
90% Final Report	1	2					3	\$221
							0	\$0
TOTAL LABOR:	8	7	18	20	0	0	53	\$2,754

LABORATORY TESTING:				ESTIMATED LABOR + OH + PROFIT	
Test	Est. No. Tests	Unit Cost	Total Cost		
Moisture Content	4	\$25	\$100	Direct Salary Cost	\$2,754
Grain Size Analysis	4	\$165	\$660	Overhead Cost (128.63%)	\$3,543
Atterberg Limits				Profit (30% of Direct Salary)	\$1,889
LABORATORY TOTAL:			\$760	ESTIMATED LABOR + OH + PROFIT	\$8,187

ESTIMATED DIRECT EXPENSES:	
Mileage: 160 @ \$0.66/mi	\$106
Laboratory Testing	\$760
Private Utility Locate	\$340
Drilling Subcontractor	
<i>Mobilization</i>	\$700
<i>Drilling (60 feet at \$65/foot)</i>	\$3,900
Traffic Control	\$750
Field Supplies	\$25
10% Markup on Outside Services	\$658
TOTAL DIRECT EXPENSES:	\$7,239
Labor Cost + OH + Profit	\$8,187
Direct Expenses	\$7,239
PanGEO TOTAL:	\$15,425



TO: **Transportation and Infrastructure Services Committee**
FROM: **Hari Ponnekanti, Public Works Director**
BY: **Joshua Hartley, Deputy Director of Transportation**
CC: **Mayor Ekberg**
DATE: **August 4, 2023**
SUBJECT: **42nd Ave S/Allentown Roadside Barrier**

ISSUE

This memo provides a comprehensive update on the history and funding status of the 42nd Ave S/Allentown Roadside Barrier Project.

BACKGROUND

In 2013, the Transportation Committee initiated a study to assess guardrail and/or barrier requirements along 42nd Avenue S and S 115th Street, from Interurban Avenue S to East Marginal Way S. The study aimed to identify design and safety standards, barrier needs, and any upgrades or modifications necessary for the existing guardrails and concrete barriers. The draft study recommended improvements estimated at \$366,480, requiring funding for the next year's Small Roadway and Safety Improvements Capital Improvement Program (CIP). However, the 2013 CIP did not allocate any funding for the project. The 2014 CIP provided \$110,000 for barrier design but only \$70,000 for construction in 2015, with the majority of the funding labeled as "Beyond." Despite a federal safety grant application for construction, it was ultimately unsuccessful.

During the Transportation Committee meetings on November 25, 2014, and June 15, 2015, alternative barrier options were discussed to soften the visual impacts along the river environment. The least expensive option was to use the typical steel W-beam style, estimated at approximately \$345,000 in 2015. However, several Allentown residents expressed concerns over the aesthetics of the barriers. The neighborhood-preferred option was the timber-style guardrail, which required an estimated installation cost of around \$540,000 due to the need for water line relocation, telecom relocation, and embankment stabilization along the Duwamish River. The Council agreed to proceed with Phase 1 work using available funding, acknowledging that any future installations would necessitate additional funding from the Small Roadway and Safety Improvements Program.

DISCUSSION

Phase 1: The existing concrete barriers along S 115th Street required some minor upgrades and a new guardrail was deemed necessary along 42nd Avenue S from S 115th Street southward to about the 11800 block, midway between S 116th Street and the S 119th Street Pedestrian Bridge. The concrete barriers on S 115th Street remained in place due to funding constraints, but along 42nd Avenue S, the preferred timber guard rail was installed. *In January of 2016, the City contracted with Dirt and Aggregate Interchange to complete Phase 1 of the guardrail installation for just over \$71,000.* However, due to funding constraints, no further design or construction has occurred beyond Phase 1.

FINANCIAL IMPACT

Historically, the roadside barriers in Allentown were not given a unique dedicated project page within the CIP. Instead, they were part of the broader "Small Roadway and Safety Improvements" CIP Project for 2015-2020, which allocated \$148,000 for design and construction in 2015. A proposed grant of \$350,000 for additional construction was included in 2016, but the application was unsuccessful. The available budget was fully utilized to complete Phase 1 in early 2016. In the subsequent 2017-2022 CIP, no funding was allocated in 2017. A proposed grant of \$175,000 with matching City revenue of \$175,000 was shown in 2018.

In the 2019-2024 budget, the Small Roadway and Safety Improvement project was combined with two other 103 fund projects: Neighborhood Traffic Calming and Residential Street Improvements. The current program is now titled "Traffic Calming/Residential Safety Improvements." Funding for this program has fluctuated but currently shows funding throughout the entire 6-year window, utilizing ARPA funds, proposed grants, and general city operating funds.

RECOMMENDATION

Information Only

ATTACHMENTS

- Exhibit A – Accident History
- 7/23/13 *Transportation Committee Memo*:
<http://records.tukwilawa.gov/WebLink/ElectronicFile.aspx?docid=72080&dbid=1>
- 11/24/14 *Transportation Committee Memo*:
<http://records.tukwilawa.gov/WebLink/ElectronicFile.aspx?docid=249703&dbid=1>
- 4/6/15 *Transportation Committee Memo*:
<http://records.tukwilawa.gov/WebLink/ElectronicFile.aspx?docid=257617&dbid=1>
- 6/15/15 *Transportation Committee Memo*:
<http://records.tukwilawa.gov/WebLink/ElectronicFile.aspx?docid=258680&dbid=1>

Exhibit A

Accident Data, 2017-2023

Intersecting Road	2017	2018	2019	2020	2021	2022	2023	Total by Location
S 115 th St				1				1
S 116 th St			1 [^] **				1 ^{**}	2
S 122 nd St					1			1
S 124 th St	1			1	1			3
Interurban Ave	2 [*]		1	1				4
Total by Year	3	0	2	3	2	0	1	11

**DUI, ** Speed, ^Serious Injury*