



## 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: **October 22, 2021**  
 SUBJECT: **CBD Sewer Repair Phase 4B – Lining & Open Trench Repair**  
**Design & Construction Management**  
**Project No. 91140203**

### **ISSUE**

Approve design and construction management agreement with RH2 Engineering, Inc. (RH2) for the CBD Sewer Lining Phase 4B – Lining & Open Trench Repair.

### **BACKGROUND**

Phases one through four lined/rehabilitated more than 80% of the aging sewer system identified in the Project Map. Phase 4B is anticipated to line and replace, through open trench repair, the remaining pipe segments determined most essential by the City. Once complete, a new map of priorities will be developed.

### **DISCUSSION**

RH2 performed the design and construction management services for the initial phases of the lining project and will be retained to perform the same services Phase 4B. Three consultants were interviewed and considered for the contract. RH2 was identified as the most qualified. The total project will include lining approximately 3,000 LF and replacing an additional 400 LF of aging pipe through open trench repair.

### **FINANCIAL IMPACT**

The contract is for \$121,504.00 for the design and construction management services for the 2020 CBD Sewer Lining Phase 4B – Lining & Open Trench Repair. The project costs are within budget and are 100% funded by the sewer enterprise fund.

	<b><u>RH2 Contract</u></b>	<b><u>2021-2022 Design/CM Budget</u></b>
Contract	\$121,504.00	\$365,000.00

### **RECOMMENDATION**

Council is being asked to approve a design and construction management agreement for design services with RH2 in the amount of \$121,504.00 for the 2020 CBD Sewer Lining Phase 4B – Lining & Open Trench Repair project and consider this item on the Consent Agenda at the November 1, 2021 Regular Meeting.

**Attachments:** 2021 CIP, Page 70  
Project Map  
RH2 Agreement

# CITY OF TUKWILA CAPITAL PROJECT SUMMARY

2021 to 2026

**PROJECT:** CBD Sanitary Sewer Rehabilitation

Project No. 91140203

**DESCRIPTION:** The asbestos concrete pipe in the CBD (commercial business district) is approximately 45 years old and becoming soft. Slip lining the pipe will reinforce the strength with little impact to roadways and minimal excavation.

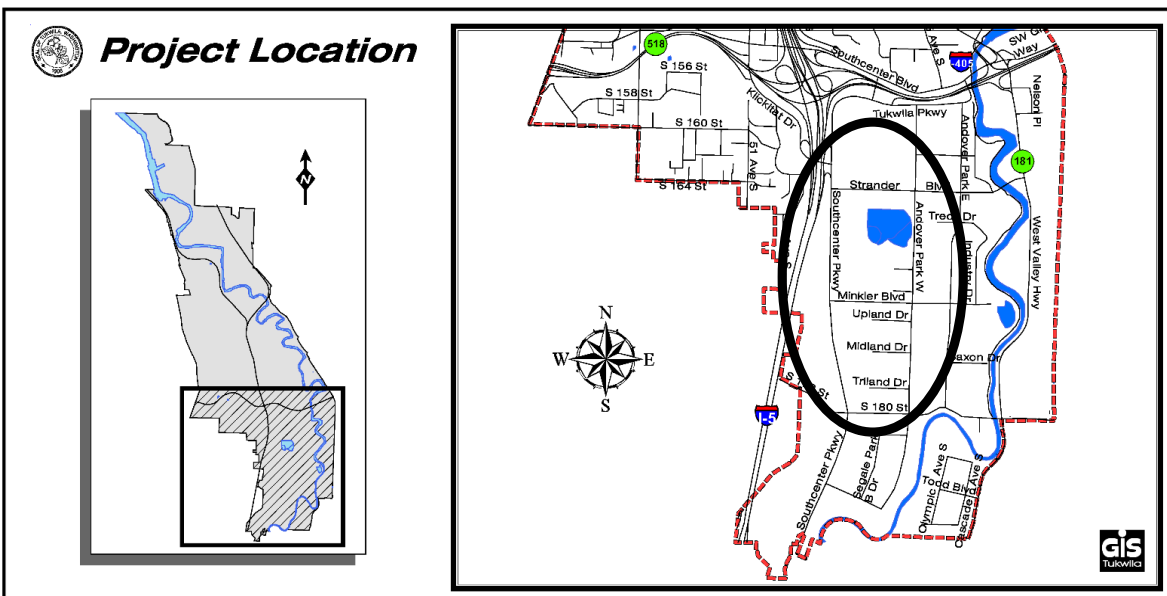
**JUSTIFICATION:** If the pipe collapses, the street will have to be excavated and the cost of the repairs will be significant. We have had four major pipe failures on Andover Park West and Andover Park East.

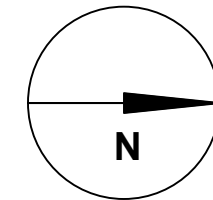
**STATUS:** In 2014 and 2015, over 10,500 feet of asbestos sanitary sewer pipe were relined. In 2020 through 2024, 15,000 feet of asbestos sewer is scheduled to be relined.

**MAINT. IMPACT:** Reduced maintenance and repair costs.

**COMMENT:** A Public Works Trust Fund loan was successfully obtained in 2012 for \$750k.

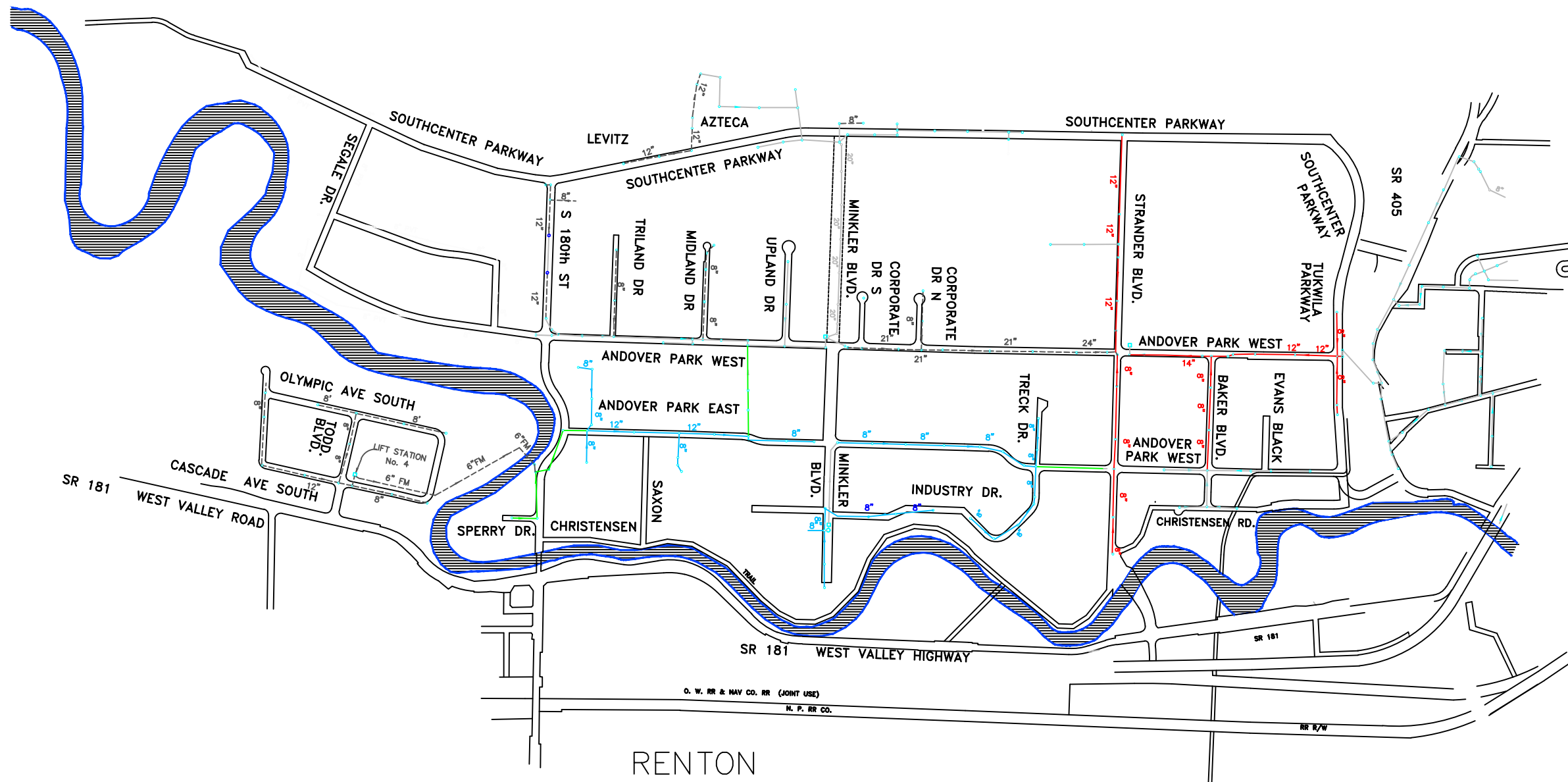
FINANCIAL (in \$000's)	Through Estimated		2021	2022	2023	2024	2025	2026	BEYOND	TOTAL
	2019	2020								
<b>EXPENSES</b>										
Design	436	45	45	50	50	50				676
Land (R/W)	1									1
Const. Mgmt.	429	120	150	120	50	50				919
Construction	2,418	1,100	1,500	1,000	450	450				6,918
<b>TOTAL EXPENSES</b>	<b>3,284</b>	<b>1,265</b>	<b>1,695</b>	<b>1,170</b>	<b>550</b>	<b>550</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,514</b>
<b>FUND SOURCES</b>										
Awarded Grant										0
PW Trust Fund	750									750
Mitigation Actual										0
Mitigation Expected										0
Utility Revenue	2,534	1,265	1,695	1,170	550	550	0	0	0	7,764
<b>TOTAL SOURCES</b>	<b>3,284</b>	<b>1,265</b>	<b>1,695</b>	<b>1,170</b>	<b>550</b>	<b>550</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,514</b>





### LEGEND

- 2016 MAIN TO BE LINED WITH CIPP (COMPLETE)
- 2018 MAIN TO BE LINED WITH CIPP (COMPLETE)
- 2020 MAIN TO BE LINED WITH CIPP (COMPLETE)
- - - 2022 MAIN TO BE LINED WITH CIPP



**CITY OF TUKWILA**



## PUBLIC WORKS DEPT.

-ENGINEERING-STREETS-WATER-SEWER-PARKS-BUILDING-

	by	date
designed		
drawn		
checked		
proj eng		
proj dir		
field bk no		

CITY OF TUKWILA

### CBD SANITARY SEWER REHABILITATION SCHEDULE

no	date	revisions

1  
1



**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 RH2 Engineering, 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 and construction management services in connection with the project titled 2020 CBD Lining Project Phase 4B – Lining & Open Trench Repair.
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, 2023, 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, 2023 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 \$121,504 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, arising out of or resulting from the 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 accident. 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 named 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. **Public Entity Full Availability of Contractor Limits.** If the Contractor maintains higher insurance limits than the minimums shown above, the Public Entity shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract or whether any certificate of insurance furnished to the Public Entity evidences limits of liability lower than those maintained by the Contractor.
- C. **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.
- D. **Acceptability of Insurers.** Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.
- E. **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. Upon request by the City, the Consultant shall furnish copies of all required insurance policies, including endorsements, required in this Agreement and evidence of all subcontractors' coverage.
- F. **Notice of Cancellation.** The Consultant shall provide the City with written notice of any policy cancellation, within two business days of their receipt of such notice.
- G. **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:

RH2 Engineering, Inc.  
22722 29<sup>th</sup> Drive Se #210  
Bothell, WA 98021
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 \_\_\_\_\_, 2021.

CITY OF TUKWILA

RH2 ENGINEERING, INC.

\_\_\_\_\_  
Allan Ekberg, Mayor

By: Richard L. Ballard

Printed Name: Richard L. Ballard

Title: Director

Attest/Authenticated:

Approved as to Form:

\_\_\_\_\_  
City Clerk, Christy O'Flaherty

\_\_\_\_\_  
Office of the City Attorney



**EXHIBIT A**  
**Scope of Work**  
**City of Tukwila**  
**CBD Lining Project Phase 4B – Lining and Open Trench Repair**  
 October 2021

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**Background**

The City of Tukwila (City) has programmed yearly upgrades to the wastewater collection system in its Central Business District (CBD). The sanitary sewer pipe in the CBD has been especially prone to failure because of its 50- to 60-year age, material (asbestos cement), and submergence below the groundwater table. The City has conducted four major cured-in-place pipe (CIPP) projects in 2014, 2016, 2018, and 2021. For this Scope of Work, RH2 will design the fifth round of pipeline improvements to be performed in 2022, which includes approximately 2,360 linear feet (lf) of sewer main in the areas identified in the table that follows for the CBD Sewer Rehabilitation Phase 4B – CIPP Lining project as outlined in Tasks 1, 4, and 5.

Area No.	Along	From	To
1	Near the Intersection of Strander Boulevard and Andover Park West		
2	Corporate Drive North	Andover Park West	Cul de Sac
3	South Todd Boulevard	Olympic Avenue South	Cascade Avenue South
4	Near the Intersection of Southcenter Parkway and Minkler Boulevard		
5	Southcenter Parkway	Approximately Midland Drive	Approximately Triland Drive

Additionally, one sewer main along Andover Park West was not lined during the most recent CIPP project due to a noticeable sag in the sewer main identified during construction. For this Scope of Work, RH2 will design the replacement and/or repair of approximately 430 lf of sewer main along Andover Park West near Tukwila Pond Park for the CBD Sewer Rehabilitation Phase 4B – Open Trench Repair project as outlined in Tasks 2 through 5. If additional utility design is needed for this sewer repair, Task 7 will be utilized.

Additionally, the City awarded a contract to Michels Construction using the design-bid-build process to construct the CBD Sewer Rehabilitation Phase 4A – CIPP Lining project. Construction started in the summer of 2021. RH2 was selected to perform the construction observation and administration for the CBD Sewer Rehabilitation Phase 4A – CIPP Lining project under the direction of the City’s Project Manager (PM). For this Scope of Work, RH2 will provide on-site construction observation and construction administration to the City for the CBD Sewer Rehabilitation Phase 4A – CIPP Lining project as outlined in Task 6.

Deliverables will be provided in electronic MS Word, PDF, and GIS formats as appropriate and requested by the City.

*It is assumed that all meetings will be attended via videoconference, unless otherwise noted.*

## Task 1 – Prepare Plans, Specifications, and Bid Documents for CBD Sewer Rehabilitation Phase 4B – CIPP Lining

**Objective:** Prepare base maps and develop plan sheets, technical specifications, bid documents, and an Engineer’s Estimate of probable construction cost for the CBD Sewer Rehabilitation Phase 4B – CIPP Lining project.

**Approach:**

- 1.1 Conduct up to one (1) project initiation meeting and two (2) design review meetings (with RH2 project manager) with the City’s engineering and operations staff prior to the bid advertisement.
- 1.2 Prepare preliminary plan sheets for the CIPP lining of existing gravity sewer at 1-inch equals 50 feet plan scale, based on City-identified sewer pipelines that need CIPP lining. Plans will note pipe runs to be lined and will use GIS files provided by the City as the base map. *It is assumed that the selected contractor will submit traffic control and temporary wastewater bypass plans for approval during the construction phase.* Specify flow rates to be bypassed based on information from the City. Estimate the quantity of required bid items to construct the project and write payment descriptions for each item. Prepare a preliminary Engineer’s Estimate of probable construction cost for the proposed improvements based on historical costs of similar projects in the vicinity, where possible. Submit preliminary review set, including the preliminary Engineer’s Estimate, for City review.
- 1.3 Prepare 95-percent review sets of plans, technical specifications, bid documents, and Engineer’s Estimate of probable construction cost based on City review comments. The CIPP lining will be split into two (2) parts: 1) base bid; and 2) bid alternate. The bid alternate is to include work to be performed if the total bid prices for both the base bid and bid alternate are within the City’s budget. A schedule of pipe size, length, and material will be prepared for the pipes identified in the base bid and bid alternate. Assemble PDFs of technical specifications, plans, bid documents, and Engineer’s Estimate of probable construction cost for the CIPP lining. *Technical specifications are to be based on the Washington State Department of Transportation/American Public Works Association (WSDOT/APWA) format. Technical specifications are to be based on the 2018 edition of the Standard Specifications for Road, Bridge, and Municipal Construction.* Perform internal quality control review on the plans and technical specifications and integrate edits. Submit 95-percent review sets of plans, technical specifications, bid documents, and construction cost estimate for City review.
- 1.4 Finalize plans, technical specifications, bid documents, and Engineer’s Estimate of probable construction cost based on City review comments.
- 1.5 Perform limited coordination with King County regarding the CIPP lining near the intersection of Strander Boulevard and Andover Park West for the sewer mains that connect to King County’s sewer interceptor that is located along Strander Boulevard.

**Assumptions:**

- *RH2 will rely on the accuracy and completeness of any information, data, and materials generated or produced by the City or others in relation to this Scope of Work.*

**Participation or Information Needed from City:**

- Attendance at project initiation meeting and design review meetings by members of City's engineering and operations staff.
- Record drawings and video inspections of sewer main to be rehabilitated.
- City's most current boilerplate bid documents and technical specifications.
- Review of and redline comments on preliminary and 95-percent plan sets and technical specifications. Comments can be delivered to RH2 electronically via email or file-sharing site using marked-up PDF files (preferred). Alternatively, redlined hard copies also can be used.

**RH2 Deliverables:**

- Attendance at up to three (3) meetings.
- One (1) set of PDF files of preliminary design plans with preliminary Engineer's Estimate of probable construction cost via email or file-sharing site for review.
- One (1) set of PDF files of 95-percent plans, technical specifications, bid documents, and Engineer's Estimate of probable construction cost (provided electronically via email or file-sharing site) for final review.
- One (1) set of PDF files of final plans, technical specifications, bid documents, and Engineer's Estimate of probable construction cost (provided electronically via email or file-sharing site).
- Five (5) hard copies of final plans (half-size), technical specifications, bid documents, and Engineer's Estimate of probable construction cost.

**Task 2 – Perform Site Investigations for CBD Sewer Rehabilitation Phase 4B – Open Trench Repair**

**Objective:** Provide detailed topographic survey of the project alignment to be installed by open-cut methods and investigate the historical soil and dewatering conditions at this site to support the CBD Sewer Rehabilitation Phase 4B – Open Trench Repair project design.

**Approach:**

- 2.1 Coordinate with PACE Engineers, Inc., (PACE) as a subconsultant to RH2 and provide a design-level detailed topographic survey for the proposed project alignments within the City's right-of-way, as detailed in **Attachment A**. Format survey provided by PACE to be used as a base map for the construction plans. Perform one (1) site visit to review the existing conditions and confirm elements in the survey.
- 2.2 Investigate previous dewatering field investigation reports near the Strander Boulevard site. *It is assumed that RH2 will rely on the accuracy and completeness of and base its conclusions on*

*the previous reports and will not perform any additional field investigations.* Prepare a technical memorandum summarizing the site investigations and previous reports.

**Assumptions:**

- *PACE will provide private utility locates for all utilities except the City-owned water, sewer, and stormwater.*
- *RH2 will rely on the accuracy and completeness of utility information provided by the private utility locator and the City locates for water, sewer, and stormwater.*
- *Coordinating rights-of-entry and topographic surveying of private property is not required for this project.*

**Participation or Information Needed from City:**

- City to provide utility locates for topographic surveying of City-owned water, sewer, and stormwater utilities.
- Dewatering field investigation reports near the Andover Park West site.

**RH2 Deliverables:**

- Topographic survey of the project alignments in electronic AutoCAD and PDF formats. The PDF of topographic survey drawings shall bear the stamp and signature of a Professional Land Surveyor and will be formatted to a 1-inch equals 20 feet scale and provided to the City at full size on 34-inch by 22-inch sheets, centered with 1-inch margins all around to promote printing at half-size on 11-inch by 17-inch sheets and a true 50-percent scale.
- One (1) electronic (PDF) copy of technical memorandum summarizing Andover Park West site investigations, to be included as an appendix in the bid documents.

**Task 3 – Prepare Plans, Specifications, and Bid Documents for CBD Sewer Rehabilitation Phase 4B – Open Trench Repair**

**Objective:** Prepare base maps and develop plan sheets, technical specifications, bid documents, and an Engineer’s Estimate of probable construction cost for the CBD Sewer Rehabilitation Phase 4B – Open Trench Repair project.

**Approach:**

- 3.1 Conduct up to one (1) project initiation meeting and two (2) design review meetings (with RH2 project manager) with the City’s engineering and operations staff prior to the bid advertisement in conjunction with the CBD Sewer Rehabilitation Phase 4B – CIPP Lining project (subtask 1.1).
- 3.2 Prepare preliminary plan sheets for the replacement and/or repair of the existing gravity sewer at 1-inch equals 20 feet plan scale using the survey as a base map. *It is assumed that the selected contractor will submit traffic control and temporary wastewater bypass plans for approval during the construction phase.* Specify flow rates to be bypassed based on information from the City. Estimate the quantity of required bid items to construct the project. Prepare a preliminary

Engineer's Estimate of probable construction costs. Submit preliminary review set, including the preliminary Engineer's Estimate, for City review.

- 3.3 Prepare 95-percent review sets of plans, technical specifications, bid documents, and Engineer's Estimate of probable construction cost based on City review comments. Assemble PDF of technical specifications and construction contract documents for the replacement and/or repair of the existing gravity sewer. *Technical specifications are to be the City's boilerplate technical specifications, which are based on WSDOT/APWA 2018 edition of the Standard Specifications for Road, Bridge, and Municipal Construction.* Perform internal quality control and quality assurance review on the plans and technical specifications and integrate edits. Submit 95-percent review sets of plans, technical specifications, bid documents, and Engineer's Estimate of probable construction cost for City review.
- 3.4 Finalize plans, technical specifications, bid documents, and Engineer's Estimate of probable construction cost based on City review comments.

**Assumptions:**

- *The City will prepare and submit any permitting on this project (such as a Right-of-Way Permit).*
- *The replacement sewers will be laid in the same horizontal and vertical location as the existing sewers, except for the sewer main being realigned.*
- *This Scope of Work only includes utility design for one (1) sewer main replacement. Additional budget will need to be authorized by the City under the Management Reserve (Task 7) and/or other means if additional utility design is identified as necessary during the design phase (subtasks 3.2 and 3.3), such as water main or storm main improvements to accommodate the sewer main realignment.*

**Participation or Information Needed from City:**

- Attendance at project initiation meeting and design review meetings by members of City's engineering and operations staff.
- Record drawings of Andover Park West with existing utilities.
- Video inspections of sewer main to be replaced.
- Review of and redline comments on preliminary and 95-percent plan sets and technical specifications. Comments can be delivered to RH2 electronically via email or file-sharing site using marked-up PDF files (preferred). Alternatively, redlined hard copies also can be used.

**RH2 Deliverables:**

- Attendance at up to three (3) meetings.
- One (1) set of PDF files of preliminary design plans with preliminary Engineer's Estimate of probable construction cost via email or file-sharing site for review.

- One (1) set of PDF files of 95-percent plans, technical specifications, bid documents, and Engineer's Estimate of probable construction cost (provided electronically via email or file-sharing site) for final review.
- One (1) set of PDF files of final plans, technical specifications, bid documents, and Engineer's Estimate of probable construction cost (provided electronically via email or file-sharing site).
- Five (5) hard copies of final plans (half-size), technical specifications, bid documents, and Engineer's Estimate of probable construction cost.

#### **Task 4 – Services During Bidding**

**Objective:** Assist the City and project bidders during the bidding phase for the CBD Sewer Rehabilitation Phase 4B – CIPP Lining and Open Trench Repair projects.

**Approach:**

- 4.1 Upload one (1) bid package to the Builders Exchange of Washington (BXWA) website. *This bid package will include separate schedules for the CBD Sewer Rehabilitation Phase 4B – CIPP Lining and Open Trench Repair projects.*
- 4.2 Respond to questions from bidders and the City during the bidding phase via phone and email.
- 4.3 Prepare up to one (1) addendum to modify the bid documents and provide clarification for CBD Sewer Rehabilitation Phase 4B – CIPP Lining project, if needed.
- 4.4 Prepare up to one (1) addendum to modify the bid documents and provide clarification for the CBD Sewer Rehabilitation Phase 4B – Open Trench Repair project, if needed.

**Assumptions:**

- *One (1) set of bid documents will be prepared for this project, with separate schedules for the CBD Sewer Rehabilitation Phase 4B – CIPP Lining and Open Trench Repair projects. Each schedule will be awarded separately to the apparent low bidder for that project schedule.*
- *No hard copies of bid sets will be provided to bidders as the project documents will be uploaded to BXWA.*
- *The City will coordinate the advertisement of the project and pay any applicable fees.*
- *It is assumed the City will handle the bid opening without RH2's assistance. The City will be responsible for construction contract execution, including preparation of the bid tabulation, Recommendation of Award letter, Notification of Award letter, and executable copies of contract to be signed.*

**Participation or Information Needed from the City:**

- Payment of advertisement fees to Daily Journal of Commerce and BXWA.

**RH2 Deliverables:**

- Posting of bid package to BXWA.

- Responses to technical questions via phone and email.
- Up to one (1) addendum for CBD Sewer Rehabilitation Phase 4B – CIPP Lining project in electronic PDF, if needed.
- Up to one (1) addendum for CBD Sewer Rehabilitation Phase 4B – Open Trench Repair project in electronic PDF, if needed.

## **Task 5 – Project Management Services**

**Objective:** Coordinate with City staff; monitor scope, budget, and schedule; review and issue invoices; and maintain project files and records.

### **Approach:**

- 5.1 Coordinate with City staff regarding schedule, progress, and technical questions.
- 5.2 Prepare invoices. Review for consistency and monitor budget spent. Provide monthly status updates.
- 5.3 Maintain project records and files.

### **RH2 Deliverables:**

- Monthly invoices and progress reports that outline in written and graphical form the status of various tasks and that compare actual progress with the original project schedule.
- Monthly status phone calls.

## **Task 6 – CBD Sewer Rehabilitation Phase 4A – CIPP Lining – Services During Construction**

**Objective:** Assist the City with technical efforts during construction of the CBD Sewer Rehabilitation Phase 4A – CIPP Lining project, including part-time on-site construction observation.

### **Approach:**

- 6.1 Assist with technical efforts during the construction of the CBD Sewer Rehabilitation Phase 4A – CIPP Lining project, which includes the following:
  - Prepare for and attend one (1) pre-construction conference.
  - Review shop drawings, submittals, and change order proposals of those items requested in the technical specifications. Provide a written response to the contractor and the City for each shop drawing and submittal reviewed.
  - Review written requests for information (RFIs) and quantities for pay requests and provide written responses to the contractor and the City following City review. Generate pay estimates for processing by the City's PM.
  - Provide part-time on-site construction observation and associated administrative duties, including observation of the contractor and its subcontractors, bid item quantity tracking, and communications and meetings with City staff. The intent of the on-site observation is to

observe the quality and compliance of the work with the construction contract plans and specifications. Notify the contractor and the City of any work that has been observed to not have been completed in accordance with the plans and specifications and discuss rectification.

- Establish quantity tracking spreadsheet and/or other pay note records as required to keep tally of daily totals of construction contract bid items. Establish data measurement and recording protocols in a manner approved by City.

6.2 Perform project management for the CBD Sewer Rehabilitation Phase 4A – CIPP Lining project, which includes the following:

- Coordinate with City staff regarding schedule, progress, and technical questions.
- Prepare invoices. Review for consistency and monitor budget spent. Provide monthly status updates.
- Maintain project records and files.

**RH2 Deliverables:**

- Pre-construction conference administration and documentation.
- Initial coordination and responses to construction and materials submittals, RFIs, and other project correspondence.
- Part-time on-site construction observation and associated reports.
- Utility field coordination, as needed, in support of the project scope and objectives.
- Meetings and correspondence with the City and contractor, as needed.
- Monthly invoices and progress reports that outline in written and graphical form the status of various tasks and that compare actual progress with the original project schedule.
- Monthly status phone calls.

**Task 7 – Management Reserve**

RH2 has specified a contingency as part of the Fee Estimate to accommodate for changed conditions, unforeseen complications, or additional utility design (such as water main or storm main improvements) that may arise during the project. In this event, RH2 will notify the City’s PM of the time and expense warranted to address the new issue(s) that arise and will request to authorize use of the contingency funds. RH2 will only attempt to address these issues with the City’s prior authorization. RH2’s PM will contact the City PM via email to request access to these funds should the need arise. Additional utility design could include the design of water main or storm main improvements to accommodate the sewer main repair along Andover Park West.

**Time for Performance**

The estimated completion date of the work is December 31, 2022.



## **Payment**

Payment for the work provided by the consultant as part of this contract shall be in the amount of \$121,504.

## **Future Tasks**

The scope of work for future tasks could include assisting the City with technical efforts during construction of the CBD Sewer Rehabilitation Phase 4B – CIPP Lining and Open Trench Repair projects, including submittal review and on-site construction observation.

**EXHIBIT B**

**Fee Estimate**

City of Tukwila

2020 CBD Lining Project Phase 4B - Lining and Open Trench Repair

Oct-21

Description		Total Hours	Total Labor	Total Subconsultant	Total Expense	Total Cost
<b>Task 1</b>	<b>Prepare Plans, Specifications, and Bid Documents for CBD Sewer Rehabilitation Phase 4B - CIPP Lining</b>	<b>144</b>	<b>\$ 24,640</b>	<b>\$ -</b>	<b>\$ 2,696</b>	<b>\$ 27,336</b>
1.1	Conduct Up to Three (3) Project Meetings with City Staff	10	\$ 1,870	\$ -	\$ 85	\$ 1,955
1.2	Prepare Preliminary Plans and Engineer's Estimate	46	\$ 7,760	\$ -	\$ 824	\$ 8,584
1.3	Prepare 95-Percent Plans, Technical Specifications, Bid Documents, and Engineer's Estimate	50	\$ 8,260	\$ -	\$ 838	\$ 9,098
1.4	Finalize Plans, Technical Specifications, Bid Documents, and Engineer's Estimate	25	\$ 4,418	\$ -	\$ 748	\$ 5,166
1.5	Perform Limited Coordination with King County	13	\$ 2,332	\$ -	\$ 200	\$ 2,532
<b>Task 2</b>	<b>Perform Site Investigations for CBD Sewer Rehabilitation Phase 4B - Open Trench Repair</b>	<b>24</b>	<b>\$ 4,288</b>	<b>\$ 7,763</b>	<b>\$ 407</b>	<b>\$ 12,458</b>
2.1	Coordinate with PACE, Prepare Base Map, and Perform Site Visit	17	\$ 2,811	\$ 7,763	\$ 368	\$ 10,942
2.2	Investigate Previous Dewatering Field Investigation Reports and Prepare Technical Memorandum	7	\$ 1,477	\$ -	\$ 39	\$ 1,516
<b>Task 3</b>	<b>Prepare Plans, Specifications, and Bid Documents for CBD Sewer Rehabilitation Phase 4B - Open Trench Repair</b>	<b>130</b>	<b>\$ 21,922</b>	<b>\$ -</b>	<b>\$ 2,809</b>	<b>\$ 24,731</b>
3.1	Conduct Project Meetings with City Staff in Conjunction with Subtask 1.1	-	\$ -	\$ -	\$ -	\$ -
3.2	Prepare Preliminary Plans and Engineer's Estimate	52	\$ 8,233	\$ -	\$ 1,208	\$ 9,441
3.3	Prepare 95-Percent Plans, Technical Specifications, Bid Documents, and Engineer's Estimate	57	\$ 10,038	\$ -	\$ 907	\$ 10,945
3.4	Finalize Plans, Technical Specifications, Bid Documents, and Engineer's Estimate	21	\$ 3,651	\$ -	\$ 694	\$ 4,345
<b>Task 4</b>	<b>Services During Bidding</b>	<b>35</b>	<b>\$ 5,913</b>	<b>\$ -</b>	<b>\$ 320</b>	<b>\$ 6,233</b>
4.1	Upload Bid Package to BXWA	9	\$ 1,300	\$ -	\$ 34	\$ 1,334
4.2	Respond to Bidders' Questions	8	\$ 1,487	\$ -	\$ 39	\$ 1,526
4.3	Prepare up to One (1) Addendum for CBD Sewer Rehabilitation CIPP Lining Phase 5 Project	10	\$ 1,692	\$ -	\$ 154	\$ 1,846
4.4	Prepare up to One (1) Addendum for 2021 CBD Sewer Main Repairs Design Project	8	\$ 1,434	\$ -	\$ 93	\$ 1,527
<b>Task 5</b>	<b>Project Management Services</b>	<b>22</b>	<b>\$ 3,848</b>	<b>\$ -</b>	<b>\$ 212</b>	<b>\$ 4,060</b>
5.1	Coordinate with City Staff Regarding Schedule, Progress, and Technical Questions	6	\$ 1,176	\$ -	\$ 31	\$ 1,207
5.2	Prepare Invoices and Monitor Project Budget	9	\$ 1,551	\$ -	\$ 41	\$ 1,592
5.3	Maintain Project Files	7	\$ 1,121	\$ -	\$ 140	\$ 1,261
<b>Task 6</b>	<b>CBD Sewer Rehabilitation Phase 4A - CIPP Lining - Services During Construction</b>	<b>151</b>	<b>\$ 24,880</b>	<b>\$ -</b>	<b>\$ (192)</b>	<b>\$ 24,688</b>
6.1	Assist with Technical Efforts During Construction	149	\$ 24,359	\$ -	\$ (205)	\$ 24,154
6.2	Perform Project Management	3	\$ 521	\$ -	\$ 13	\$ 534
<b>Task 7</b>	<b>Management Reserve</b>	<b>120</b>	<b>\$ 19,236</b>	<b>\$ -</b>	<b>\$ 2,764</b>	<b>\$ 22,000</b>
7.1	Management Reserve	120	\$ 19,236	\$ -	\$ 2,764	\$ 22,000
<b>PROJECT TOTAL</b>		<b>626</b>	<b>\$ 104,727</b>	<b>\$ 7,763</b>	<b>\$ 9,015</b>	<b>\$ 121,504</b>

**EXHIBIT C**  
**RH2 ENGINEERING, INC.**  
**2021 SCHEDULE OF RATES AND CHARGES**

<b>RATE LIST</b>	<b>RATE</b>	<b>UNIT</b>
Professional I	\$151	\$/hr
Professional II	\$166	\$/hr
Professional III	\$182	\$/hr
Professional IV	\$196	\$/hr
Professional V	\$211	\$/hr
Professional VI	\$224	\$/hr
Professional VII	\$240	\$/hr
Professional VIII	\$250	\$/hr
Professional IX	\$250	\$/hr
Control Specialist I	\$137	\$/hr
Control Specialist II	\$149	\$/hr
Control Specialist III	\$164	\$/hr
Control Specialist IV	\$178	\$/hr
Control Specialist V	\$189	\$/hr
Control Specialist VI	\$203	\$/hr
Control Specialist VII	\$218	\$/hr
Control Specialist VIII	\$227	\$/hr
Technician I	\$115	\$/hr
Technician II	\$125	\$/hr
Technician III	\$142	\$/hr
Technician IV	\$153	\$/hr
Technician V	\$167	\$/hr
Technician VI	\$183	\$/hr
Technician VII	\$198	\$/hr
Technician VIII	\$209	\$/hr
Administrative I	\$75	\$/hr
Administrative II	\$88	\$/hr
Administrative III	\$106	\$/hr
Administrative IV	\$125	\$/hr
Administrative V	\$143	\$/hr
CAD/GIS System	\$27.50	\$/hr
CAD Plots - Half Size	\$2.50	price per plot
CAD Plots - Full Size	\$10.00	price per plot
CAD Plots - Large	\$25.00	price per plot
Copies (bw) 8.5" X 11"	\$0.09	price per copy
Copies (bw) 8.5" X 14"	\$0.14	price per copy
Copies (bw) 11" X 17"	\$0.20	price per copy
Copies (color) 8.5" X 11"	\$0.90	price per copy
Copies (color) 8.5" X 14"	\$1.20	price per copy
Copies (color) 11" X 17"	\$2.00	price per copy
Technology Charge	2.50%	% of Direct Labor
Mileage	\$0.560	price per mile (or Current IRS Rate)
Subconsultants	15%	Cost +
Outside Services	at cost	

# ATTACHMENT A

**From:** Ben Ehrich <Bene@paceengrs.com>  
**Sent:** Friday, October 1, 2021 10:10 AM  
**To:** Kenny Gomez  
**Subject:** RE: 2021 CBD Sewer Repairs - Survey  
**Attachments:** TUK\_Project Limits\_2021 CBD Sewer Predesign.pdf

Updated scope and fee 9/30/2021

one

## Scope

- Research for survey control and Right-of-way information within the project areas.
- Sub contract for underground utility locate within the ~~two~~ project mapping areas.
- Establish horizontal and vertical control as required for site area mapping and right-of-Way calculations. (Datum to be determined by City of Tukwila).
- Provide topographic mapping in the following area:
  - An area approximately 50' X 450' along Andover Park West between Strander Boulevard and Minkler Boulevard beginning 20 feet North of SSMH#SS01300 and extending South approximately 20 feet South of SSMH3SS01290.  
*(Survey to include all visible surface improvements to the back of sidewalk including curbs, channelization striping, utilities (including underground utilities to be identified by sub-contractor.)*
- Provide Survey drawings on 24"X34" sheet at 1"=20' unless otherwise specified.
- Provide Survey drawing showing all surveyed information together with Road centerlines, Right-of-Way lines and monumentation in AutoCAD Civil 3D 2021.

## Estimated Fee

Based on the outlined scope and information available at this time our estimated fee is.....\$6,750.00

This fee includes \$760 for APS underground utility locates. (Estimate)

Fee does not include costs for traffic control if required.

Please feel free to call us if you have any questions or concerns.

We appreciate the opportunity and look forward to working with you on this project.

## **Ben Ehrich, LSIT**

Senior Project Surveyor  
11255 Kirkland Way | Suite 300  
Kirkland WA 98033  
425.827.2014



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Voted Zweig Best Places to Work and PSBJ Top 100 Fastest Growing Firms in the Northwest





SEE DWG NO. C02 FOR CONTINUATION

SEE DWG NO. C05 FOR CONTINUATION

**Project Area No. 2**

**NOTES:**  
 1 - AERIAL IS FROM YEAR 2017 AND MAY NOT BE REPRESENTATIVE OF EXISTING SITE CONDITIONS.  
 2 - LOCATIONS OF SEWER MAINS AND MANHOLES WERE TAKEN FROM THE CITY OF TUKWILA'S GIS AND ARE NOT SURVEY LEVEL QUALITY.  
 3 - CONTRACTOR SHALL PROVIDE BYPASS PUMPS AND PIPING, BYPASS PUMPING PLAN, AND TRAFFIC CONTROL PLAN. SEE SPECIFICATIONS FOR DETAILS.  
 4 - THERE IS A 150 LF LONG SAG IN THE SEWER MAIN BETWEEN SSMH #SS01290 AND SSMH #SS01300.



**PLAN VIEW**  
 1" = 50'



**VICINITY MAP**  
 1" = 1,500'

EXISTING		PROPOSED	
	SEWER MANHOLE		EXISTING SEWER MAIN TO BE LINED WITH CIPP
	SEWER MAIN		EXISTING SEWER LATERAL TO BE REINSTATED
	SEWER LATERAL		PIPE ID NO., BASE BID, SEE TABLE ON DWG NO. C06 FOR ADDITIONAL INFORMATION
	LIFT STATION		
	FORCE MAIN		
	PARCEL BOUNDARY		
	LATERAL ID NO.		
	LATERAL ID DRAWING NO.		

**RH2**

**RICHARD BALLARD**  
 32878  
 REGISTERED PROFESSIONAL ENGINEER

SIGNED: 7/28/20

**MANNY F. GOMEZ**  
 50500  
 REGISTERED PROFESSIONAL ENGINEER

SIGNED: 7/28/20

**CITY OF TUKWILA**  
**2020 Central Business District Sanitary Sewer Rehabilitation - Phase 4**  
**CIPP PLAN IV**

NO.	DATE	DESCRIPTION	BY	REVIEW
<b>REVISIONS</b>				

SCALE: SHOWN

DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: **C04** SHEET NO.: **4** OF **15**