

## SCOPE OF WORK

### City of Snoqualmie 384th Avenue SE Sewer Replacement

#### PROJECT OVERVIEW

The City of Snoqualmie (City) desires to replace approximately 2,100 linear feet of 10-inch-diameter gravity sanitary sewer pipe with new 12-inch-diameter pipe on 384th Avenue SE between SE Newton Street and Kimball Creek Drive. The City also desires to construct a sidewalk on the easterly side of the roadway between SE Newton Street and Kimball Creek Drive. The project is located entirely in King County (County) rights-of-way. This scope of work includes services for field investigation, design, permitting, and bidding phase support for this project.

#### GENERAL ASSUMPTIONS

The following assumptions apply to this entire scope of work. Any deviations from these assumptions may require an amendment to the portion of the scope and budget that is impacted by changes:

- The total project duration will not exceed 15 months from the Notice to Proceed date.
- Plans, Specifications, and Estimates will be provided by Parametrix in City Standard formats where available. Technical special provisions will be prepared in WSDOT format.
- The City will directly pay any permit fees required for the project.
- The City will be responsible for any advertisements associated with the permitting process.
- This scope of work does not include acquisition of right-of-way or temporary construction easements.
- While Parametrix will endeavor to expedite permitting, Parametrix does not control agency permitting timelines and is not responsible for delays to the project or related impacts resulting from agency permit review timelines.
- This scope does not include services during construction. These services will be provided under a separate scope of work to be developed once the details of the construction project and permit requirements are more fully developed.

Parametrix will provide the following services:

#### PHASE 1 –DESIGN

##### TASK 01 – Project Management and Meetings

##### Objective

Monitor and manage scope, schedule, and budget, and periodically meet with the project team and City to review project status.

### Activities

- Manage and direct Parametrix project design team.
- Provide routine internal project management and communications (scope, schedule, budget, invoicing, etc.).
- Prepare and submit progress reports and progress billings.
- Schedule, prepare for, attend, and document the project kickoff meeting.
- Schedule, prepare for, and attend biweekly coordination and check-in meetings.

### Assumptions

- The project kickoff meeting will be conducted in person at the City and will include up to three Parametrix staff for up to 5 hours each, including travel time.
- Internal quality assurance/quality control (QA/QC) and addressing internal QC comments is included in each task. QA/QC documentation will be retained by Parametrix.
- Coordination and check-in meetings will be conducted virtually.

### Deliverables

- Project Schedule (electronic only, Microsoft Project format).
- Monthly progress reports including a progress letter and invoice complying with City of Snoqualmie format requirements.

## TASK 02 – Data Collection

### Objective

Collect and review documentation of the existing project site. Obtain geotechnical data, utility locates, critical area delineation, stormwater design requirements, and topographic survey to support design.

### Activities

- Obtain and review existing records of City utilities in the project area.
- Parametrix will hire an underground utility locate firm to mark buried utilities such as gas, power, telephone, TV cable, and storm drainage in the project area, if such utilities have a conductible source or tracer lines attached. Per the assumptions below, the City will provide locates for water and sewer.
- Parametrix will conduct a field delineation of wetlands, streams, and buffers within the study area; perform wetland ratings; and determine Washington State Department of Natural Resources (DNR) water type for streams related to Kimball Creek within the project limits. Wetland delineation and rating forms will be prepared.
  - Delineate wetlands within the study area following the United States Army Corps of Engineers (Corps) Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (USACE 2010).

- Delineate other waters in the study area using the Corps Regulatory Guidance Letter 05-05 for ordinary high water mark (OHWM) identification methods for nontidal waters and jurisdictional ditch centerlines.
- Assess fish and wildlife habitat.
- Rate each wetland using the Washington State Wetland Rating System for Western Washington – 2014 Update (Hruby 2014). The applicable King County Critical Areas Ordinance sections will be reviewed for applicable regulatory buffer widths.
- Parametrix surveyors will use existing horizontal and vertical control in the project area. Mapping will consist of locating existing improvements and ground conditions within the right-of-way (ROW). Parcel lines and ROW limits will be based upon the applicable public records. Ground features including tops and toes, breaks, edge of pavement, and ditches will be mapped at sufficient detail to create 1-foot contours. Fences, driveways, power poles, overhead utilities, utility locate marks, water hydrants, utility valves, utility structures, wetland boundary delineation, OHWM, and other physical visible improvements will be mapped. Sanitary and storm structures will be opened and measurements will be made identifying size, type, and invert elevation of incoming and outgoing pipes. Valve boxes will be opened and measure-downs to top of valves will be made. The survey will include the edge of asphalt and the edge of gravel shoulders, pavement markings, edges and types of driveway surfacing, and existing curbs, sidewalks, and sidewalk ramps. Once the field work has been completed, a survey technician will process the data and prepare a base map using AutoCAD Civil 3D.
- Parametrix will coordinate with King County to determine project-specific stormwater design requirements and floodplain management requirements.
- Subconsultant Aspect Consulting, will perform geotechnical exploration and groundwater monitoring and analyze dewatering and subgrade conditions for sewer construction, as well as infiltration characteristics for stormwater management design in accordance with the attached scope of work (Exhibit C).

### Assumptions

- The City will provide available record drawings, the existing sewer television inspection video, and other available data regarding the existing sewer and water utilities on the project site within 2 weeks of Notice to Proceed.
- The wetland/critical areas site visit will include delineation of wetland boundaries and the OHWM of Kimball Creek on lands between the road and the creek along the roadway prism (up to 500 feet). Wetland delineation forms will be incorporated in the deliverables provided under Task 04. The site visit does not include any off-site delineation work.
- The City will provide utility locates for water and sewer prior to survey of the site.
- The County will provide record drawings for existing storm drain systems owned by the County.
- The City will verify that all sanitary sewer manholes are uncovered and can be opened using a standard manhole hook prior to survey of the site.
- Title reports will not be ordered for this work; boundary information will be based upon recorded information researched through the King County Auditor.
- Property corners will not be set, nor will a Record of Survey be prepared.

- The project limits will be contained within existing public rights-of-way. There will be no parcel acquisitions for sidewalk construction or stormwater management facilities.
- Horizontal Datum: North American Datum of 1983 (NAD 83/91) Washington State Plane Coordinate System, North Zone adjusted to Washington State Reference Network (WSRN).
- Vertical Datum: North American Vertical Datum of 1988 (NAVD) 1988 per WSRN.

### Deliverables

- Topographic base map prepared in AutoCAD Civil 3D format.
- Preliminary wetlands, waters, and buffers map in AutoCAD Civil 3D format.

## TASK 03 – Design

### Subtask 03.01 – Basis of Design (10 Percent Design)

#### Objective

Analyze alternatives for sidewalk construction and prepare a preliminary sewer alignment for review by the City.

#### Activities

- Using the information acquired under Task 02, analyze up to three alternatives for construction of a sidewalk on the east side of the roadway. Alternatives will consider grade separation (curb and gutter), horizontal separation with barrier, and realignment of the roadway to accommodate the sidewalk. Analysis will include:
  - Maximizing width to accommodate mixed use, if feasible.
  - Maintaining the existing ROW width.
  - Minimizing impacts to existing utility infrastructure and property improvements.
  - Evaluating stormwater requirements by Threshold Discharge Area (TDA) for each alternative, with the goal of minimizing stormwater impacts. Considerations will include use of pervious pavement for the sidewalk, replacement of existing roadway surfacing (as required by the King County ROW permit) and impacts to existing stormwater infrastructure.
  - Preparing a permitting requirement matrix for each alternative with the goal of avoiding wetland impacts and floodplain impacts.
  - Providing planning-level costs for each alternative.
  - Evaluating requirements for compliance with Washington State Transportation Improvement Board (TIB) funding.
- Prepare a draft and final Sidewalk Alternatives Analysis memorandum.
- Prepare a preliminary plan and profile view of the proposed sewer alignment(s).
- Attend a Basis of Design review meeting to discuss the draft Sidewalk Alternatives Analysis memorandum, preliminary sewer plan and profile, and stormwater design approach. Select a preferred sidewalk alternative, sewer alignment, and stormwater design approach. Discuss and resolve any design issues apparent at this level of design, and document comments to be addressed as design moves forward.

### Assumptions

- Because the project is located in King County ROW, the stormwater design will be based on the 2021 King County Surface Water Design Manual (KC SWDM).
- Sewer pipe sizing will not be evaluated; sizing will be in accordance with the January 2022 analysis provided by others.
- The preliminary sewer alignment(s) will address main line sewer and existing utilities only; side sewers will not be included.
- The final Sidewalk Alternatives Analysis memorandum will be stamped and signed by a professional engineer licensed in the State of Washington.
- The 10 percent sewer and storm submittal will be stamped by a professional engineer licensed in the State of Washington but will not be signed or dated.
- The Basis of Design review meeting will be conducted at the City and will include three Parametrix staff for up to 5 hours, including travel time.
- Any comments made on the Basis of Design will be addressed in the 50 percent design task.

### Deliverables

- Draft and final Sidewalk Alternatives Analysis memorandum.
- Basis of Design roll plots for sidewalk, sanitary sewer, and stormwater in PDF format. Hard copy roll plots will be provided at the review meeting.

## Subtask 03.02 – Design Development (50 Percent Design)

### Objective

Continue adding detail to the 10 percent Basis of Design, address comments from the Basis of Design review meeting, cut plan sheets, and provide preliminary engineer's opinion of probable construction cost (EOPCC).

### Activities

- Develop plan and profile sheets for the sidewalk, storm drainage improvements, and sanitary sewer including side sewers.
- Prepare an EOPCC based on estimated quantities and costs for lump-sum items as determined by the 50 percent plans.
- Perform internal QC review of the 50 percent deliverable package prior to submittal to the City.
- Attend a 50 percent design review meeting to review the 50 percent design with the City, and document comments to be addressed as design moves forward.
- Parametrix staff will meet once either on the site or at the City Public Works Building to review any utility conflicts with the utility companies that provide service in the project limits.

## Assumptions

- Grading design for up to 14 driveway and two roadway intersection impacts with up to eight pedestrian ramps will be included. SE 85th Court, SE 86th Place, and SE Roberts Court will be designed as driveway approaches.
- Retaining walls, if required, will consist of gravity block walls less than 4 feet in height.
- TESC BMPs will be shown for submittals following the 50 percent design.
- The 50 percent submittal sheets will be stamped by a professional engineer licensed in the State of Washington but will not be signed or dated.
- The 50 percent design review meeting will be conducted at the City and will include up to three Parametrix staff for up to 5 hours each, including travel time.
- The utility conflict meeting will be conducted at the City and will include up to three Parametrix staff for up to 5 hours each, including travel time.
- Any City or County comments made on the 50 percent design will be addressed in the 90 Percent Design task.

## Deliverables

- Comment response log addressing the 10 percent review comments (Electronic only, Excel format).
- 50 percent Draft Drawings, (electronic only, PDF format).
- 50 percent EOPCC (electronic only, PDF and Excel formats).

## Subtask 03.03 – Near-Final Design (90 Percent Design)

### Objective

Complete 90 percent near-final plans, specifications, and EOPCC for the project.

### Activities

- Develop 90 percent near-final plans, including details and traffic control plans, and incorporating comments received on the 50 percent design. The 90 percent Plans are assumed to include:
 

➤ Cover Sheet, Legend, and Notes	3 Sheets
➤ Survey and Horizontal Control Plans	3 Sheets
➤ TESC Plans	5 Sheets
➤ Sidewalk and Storm Drainage Plan and Profile	5 Sheets
➤ Intersection and Driveway Grading Plans and Details	5 Sheets
➤ Sidewalk and Storm Drainage Details and Sections	4 Sheets
➤ Sewer Plan and Profile	5 Sheets
➤ Sewer Details	3 Sheets
➤ Traffic Control Plans	<u>3 Sheets</u>
➤ <b>Total:</b>	<b>36 Sheets</b>
- Develop 90 percent specifications.
- Update the EOPCC to reflect the 90 percent design.

- Prepare a Construction Stormwater Pollution Prevention Plan (CSWPPP), including an Erosion and Sediment Control (ESC) Plan and a Stormwater Pollution Prevention and Spill (SWPPS) Plan.
- Perform internal QC review of the 90 percent deliverable package prior to submittal to the City.
- Attend a 90 percent design review meeting to review the 90 percent design with the City, and document comments to be addressed in the final bid documents.

### Assumptions

- The 90 percent submittal sheets will be stamped by a professional engineer licensed in the State of Washington but will not be signed or dated.
- The 90 percent design review meeting will be conducted at the City and will include up to two Parametrix staff for up to 5 hours each, including travel time.
- Any City or County comments made on the 90 percent submittal will be addressed in the Final Design submittal.

### Deliverables

- Comment response log addressing the 50 percent review comments (electronic only, Excel format).
- 90 percent Plans (electronic only, PDF format).
- 90 percent Specifications (electronic only, PDF and Word formats).
- 90 percent EOPCC (electronic only, PDF and Excel formats).

## Subtask 03.04 – Final Bid Documents

### Objective

Complete bid-ready Final plans, specifications, and EOPCC for the project.

### Activities

- Parametrix will develop 99 percent Check-Set plans, specifications including contract form and proposal, and EOPCC for the project. Comments received on the 90 percent Check Set will be addressed in the 99 percent documents.
- Parametrix will develop Final plans, specifications including contract form and proposal, and EOPCC for the project. Comments received on the 99 percent Check Set will be addressed in the Final documents.
- Any King County permitting requirements or comments received after the 90 percent submittal will be reviewed with the City and incorporated in the 99 percent and Final documents.
- Perform internal QC review of the 99 percent Final documents prior to submittal to the City.

### Assumptions

- The 90 percent submittal sheets will be stamped by a professional engineer licensed in the State of Washington but will not be signed or dated.
- The Final documents will be stamped and signed by a professional engineer licensed in the State of Washington.

## Deliverables

- Comment response log addressing the 90 percent review comments (electronic only, Excel format).
- 99 percent Specifications (electronic only, PDF and Word formats).
- 99 percent EOPCC (electronic only, PDF and Excel formats).
- 99 percent Check-Set Plans (electronic only, PDF format).
- Comment response log addressing the 99 percent review comments (electronic only, Excel format).
- Final Plans (One hard copy on 22 x 34 bond and electronic, PDF, and AutoCAD formats).
- Final Specifications (electronic only, PDF and Word formats).
- Final EOPCC (electronic only, PDF and Excel formats).

## Task 04 – Permitting

### Objective

Lead the process to apply for and receive a King County Right-of-Way permit and any environmental permits required to construct the project.

### Subtask 04.01 – King County Right-of-Way Permit Application

### Objective

Obtain a King County Right-of-Way Permit for Franchised Utilities covering the utility and sidewalk construction activities included in the project.

### Activities

- Review the King County franchise agreement covering the 384th Avenue SE Sewer.
- Prepare a King County Right-of-Way Permit application.
- Coordinate with King County for processing of the Right-of-Way Permit application.

### Assumptions

- The sewer and sidewalk work will be covered under a single Right-of-Way Permit application.
- The project will not require an update to the King County franchise agreement.
- The project plans will be provided with the permit application. No additional figures will be required to complete the application.

### Deliverables

- Draft and final King County Right-of-Way Permit application (electronic only, PDF format).

## Subtask 04.02 – SEPA Checklist

### Objective

Prepare a State Environmental Policy Act (SEPA) checklist to help the City determine whether the project will have significant adverse environmental impacts.

### Activities

- Prepare SEPA checklist.

### Assumptions

- No additional studies beyond this scope of work or additional information provided by the City will be required to complete the SEPA checklist.
- The City is the Lead Agency for SEPA.
- The City will be responsible for publishing of the public notification and managing the SEPA process.

### Deliverables

- Draft and final SEPA checklist.

## Subtask 04.03 – Critical Areas Report

### Objective

Using the delineations performed in Task 02, prepare a report documenting wetland and water boundaries and applicable critical area buffers. Because the critical area buffers can be reduced to the edge of the roadway, this technical memorandum will include a buffer reduction plan.

- Kimball Creek and associated wetlands along with residential development are present on the east side of the road beyond the roadway prism. The west side of the road is residential development. Per King County's Critical Areas Ordinance, where a legally established road transects a critical area buffer for wetlands and waters, the minimum required buffer width may be reduced to the edge of the roadway (including all maintained and traveled areas, shoulders, pathways, sidewalks, ditches and cut and fill slopes) (per King County Critical Area Ordinance [KCCAO] 21A.24.325.C.4 for wetland buffers and 21A.24.358.E.1.d for aquatic areas).

### Activities

- Prepare a critical areas report documenting field methodologies, results, wetland ratings, and a buffer reduction plan.

### Assumptions

- This task does not include assessment of geologic hazard or floodplain critical areas.
- Resource boundaries will be flagged, recorded using GPS, and surveyed.

- Buffer rating and wetland determination forms, appropriate maps, and other required attachments will be included in the technical memorandum.
- Critical area buffers may be reduced to the edge of maintained roadway prism by King County with no requirements for additional mitigation.

### Deliverables

- Draft and final wetland and critical areas and buffer reduction plan report.

## Subtask 04.04 – Cultural Resources Services

### Objective

The project will disturb earth below the existing road fill prism for construction of the sewer line. It is anticipated that Tribal coordination, a cultural resources study, and reporting will likely be required for compliance with the Governor’s Executive Order 21-02 (GEO 21-02) based on the project receiving State funding (TIB funds).

### Activities

- Prepare GEO 21-02 EZ Project Form for submittal to Department of Archaeology and Historic Preservation (DAHP) early in the project process.
- City and Parametrix will conduct limited coordination with local Tribes.
- Cultural resources subconsultant Cultural Resource Consultants, LLC will conduct cultural resources background review and site investigation including:
  - Literature research and review of the Washington Information System for Architectural and Archaeological Records Data (WISAARD) database.
  - A systematic pedestrian survey of all areas to be affected by ground disturbance by proposed construction activity.
  - Archaeological monitoring of preconstruction ground disturbance anticipated to exceed depth of fill, such as geotechnical explorations.
- Prepare a cultural resources report for GEO 21-02 compliance and per requirements for DAHP and Tribal coordination.

### Assumptions

- The cultural resources field study area **will consist of the project limits**.
- No more than two days of archaeological monitoring will be required during preconstruction ground disturbance.
- No more than **one archaeological resource and no historic resources** will be recorded.
- No federal permits or funding will be required; therefore, compliance with Section 106 of the National Historic Preservation Act will not be required.

### Deliverables

- GEO EZ 21-02 Form provided as a PDF.

- Draft and final Cultural Resource Survey Report provided as Word and PDF documents.

#### Subtask 04.05 – Critical Areas Permitting

##### Objective

Prepare critical area permit applications for the County noted below to account for construction and mitigation of the project on the site.

##### Activities

Anticipated permits required for the design and mitigation portion of this project include the following critical area permits:

- Floodplain Permit – Floodplain technical memorandum will be submitted with the Critical Areas permit submittal
- Wetlands and Fish and Wildlife Critical Areas Permit – Critical areas report and buffer reduction plan will be submitted with the Critical Areas permit submittal.

Following 30 percent design, Parametrix will coordinate with City and County to verify permitting and design assumptions, options for variances, or expedited permitting at a pre-application meeting.

Parametrix will prepare draft and final permit applications and required supporting documentation as listed in the “Deliverables” section below for submittal to the County. All applications and documentation will be provided to the City for draft review and final application to the City and County in electronic format only.

##### Assumptions

- Due to the variable nature of permitting requirements as the design progresses, any permitting requirements beyond the typical scope of work may require a change order.
- The project will have “no effect” on Endangered Species Act (ESA) listed species or direct wetland or waters impacts; therefore, no federal permits will be required.
- The construction contractor will be responsible for obtaining and complying with an Ecology National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit.
- This scope does not include tasks associated with compliance during construction.
- Minimal impacts to the floodplain are anticipated, so a technical memorandum documenting compliance with the County’s floodplain ordinance will be sufficient for permitting.
- Aside from a Right-of-Way Permit and critical areas permitting for floodplains, wetlands, and fish and wildlife areas, no other local land-use approvals will be required.
- The project area is not within or adjacent to a Shoreline Management area.
- This task does not include permitting of geologic hazard critical areas.
- All other State and Federal permits will not be required.

## Deliverables

Draft and final deliverables include:

- Critical Areas Application
  - Pre-application packet
  - Critical Areas Report and Buffer Mitigation Plan (prepared under separate Subtask 04.03)
  - Floodplain Memorandum
  - Critical Areas Permit Application Form

## Task 05 – Bid Support

### Objective

Assist the City as needed in the bidding process.

### Activities

- Upload the Bid documents to the Builder's Exchange.
- Attend a pre-bid walkthrough with bidders.
- Assist the City in responding to bidder inquiries as needed.
- Prepare a bid tabulation.
- Check bidder references and qualifications.

### Assumptions

- Parametrix will provide bid clarifications and addenda for the project up to the hour limit identified in Exhibit B.
- The City will be responsible for advertising the project and maintaining the plan holder list.
- The pre-bid walkthrough will include two Parametrix staff for up to 5 hours each, including travel time.

## Deliverables

- Responses to bidder inquiries in appropriate electronic format.
- Bid Tabulation (electronic only, PDF and Excel formats).

## Task 06 – Management Reserve

A management reserve of \$25,000.00 is included in the overall project budget. The management reserve will be used to address minor changes to the project scope and will only be used with specific written authorization from the City.

### Budget

The total compensation for this work shall not exceed \$479,986.69, including management reserve, as outlined in the attached budget spreadsheet (Exhibit B).