

City of Snoqualmie 384th Avenue SE Sewer Replacement Amendment No. 2

Introduction

Parametrix is providing design services for the City of Snoqualmie (City) 384th Avenue SE Sewer Replacement Project, which includes replacement of approximately 2,100 linear feet of 10-inch-diameter gravity sanitary sewer pipe with new 12-inch-diameter pipe and construction of 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) right-of-way, and extremely poor soils were encountered during field investigation. This Amendment No. 2 scope of work includes additional services not contemplated in the original scope of work for field investigation, design, and permitting support required due to the poor site soils and King County permit review and requirements.

Additional services are described under the associated task numbers where applicable. Effort to date and budget estimates for additional effort under these tasks are provided in the attached Exhibit B. Effort remaining to be completed will be billed on a time and materials basis, not to exceed the estimated budget without approval from the City.

Phase 1 – Design

Task 01 – Project Management and Meetings

Project Management: The original scope of work assumed a project duration of 15 months. The original project management budget covered 18 months of actual project duration. The current total contracted duration of the project through December 31, 2024, is 27 months. The estimated budget for providing project management services, as described in the original scope of work, for the remaining duration of the project is \$9,680.24. This estimated budget assumes that the contract duration will not be extended beyond December 31, 2024.

Task 02 – Data Collection

Additional Geotechnical Investigation: After initial geotechnical exploration, it was determined that the soils adjacent to the Kimball Creek Wetland would likely not be suitable for conventional fill and sidewalk construction. Additional investigation was recommended to support design of the sidewalk. An amendment totaling \$33,771.10 was executed with subconsultant Aspect Consulting LLC for additional exploration and analysis. The entire project Management Reserve of \$25,000 was applied to the amendment, leaving an added cost of \$8,771.10 to the project budget.

Natural Gas Potholing and Survey: The existing natural gas main on the project is located close to the flow line of the proposed curb and gutter on the easterly side of 384th Avenue SE. Due to right-of-way constraints, minimum sidewalk width requirements, and other existing utilities, It was not feasible to redesign the curb alignment. In coordination with the City, Puget Sound Energy requested potholing of the existing gas main to confirm that the main would not have to be relocated. The cost of potholing, including traffic control and survey of the results, was \$16,629.57.

Critical Areas Field Visit: During permit review of the project, King County requested confirmation of the wetland boundaries and buffers adjacent to the Kimball Creek Wetland. Parametrix staff conducted a field delineation to confirm and more fully document the boundaries. The cost of this effort was \$4,538.42.

Task 03 – Design

Sidewalk/Wall Analysis and Design: As noted in Task 02 above, after geotechnical exploration, it was determined that the soils adjacent to the Kimball Creek Wetland would not be suitable for conventional fill and sidewalk construction. Parametrix performed extensive alternatives analysis and design outside the scope of work to incorporate a feasible solution in the project. This effort was completed within the original project budget.

Storm System Redesign to Avoid Gas: Following the gas main potholing effort described in Task 02 above, the City requested modifications to the storm system design to avoid relocation of the existing gas main. The cost of this effort was \$9,864.65.

Redesign Storm and Roadway and Revise TIR: During permit review of the project, King County requested extensive re-analysis of the storm drainage system, including catch basin spacing, flow control, and water quality analysis. The requested analyses were performed, and Parametrix determined that the flow control would not function due to water elevations in Kimball Creek, and that the restrictions on allowable water quality systems imposed by the County would result in a prohibitively expensive system. Parametrix prepared a Storm Drainage Adjustment addressing these issues, and coordination and County review of the adjustment is ongoing. Once these issues are resolved, the Storm Drainage Technical Information Report (TIR) will require revision, and the plans will require significant revisions to address the changes. Both documents will require re-submittal and approval by the County. Costs incurred to date are included in the permitting effort described in Task 04 below. The estimated budget to complete revisions to the TIR and plans is \$27,319.04. This estimated budget assumes that a small proprietary vault system will be allowed by the County, no additional structural or geotechnical engineering will be required, and that the TIR and plans require a single resubmittal for approval.

Change Order Documentation: The project was bid and awarded to a contractor prior to receiving permit approval from King County, so all changes made to address County review comments subsequent to the original bid documents will have to be documented in a change order. The estimated budget to generate the revisions to the plans, specifications, and bid quantities for the change order is \$5,028.58. This estimated budget assumes a single change order to be generated after County permit approval has been received.

Task 04 – Permitting

Storm System Re-Analysis and Adjustment Request: As noted in Task 03 above, King County requested extensive re-analysis of the storm drainage system during permit review of the project. The costs to date to perform the required analysis, prepare and amend the Storm Drainage Adjustment, and coordinate with the City and County to address the comments is \$21,567.06. At the time of this writing, County permit approval has not yet been received. A total of 10 hours of staff time has been included in the Task 03 TIR and Plan Revision budget to address additional coordination. If more than 10 hours of coordination is needed, a further amendment may be necessary.

HEC-RAS Modeling: The project is located in the 100-year flood plain of the Snoqualmie River, which requires a flood hazard certification. King County is requiring HEC-RAS computer modeling in support

of the flood hazard certification submitted for the project. The estimated budget to obtain the current FEMA Effective Model, perform the modeling, and revise the flood hazard certification is \$19,904.18.

Revise Critical Areas Report: King County is requiring revisions to the project Critical Areas Report to address permitting comments and incorporate the revised wetland boundaries/buffers and the results of the HEC-Ras modeling. The estimated budget to revise the report is \$8,184.96. This estimated budget assumes that detailed wetland hydrology study will not be required for the Kimball Creek wetlands adjacent to the project.

Phase 2 – Construction

Phase 2 includes providing construction management and inspection/observation support services for construction of the 12-inch gravity sanitary sewer along 384th Avenue SE.

Task 01 – Project Management

This task includes all work related to the management, administration, and coordination of consultant activities. The Consultant shall provide the following project management services, including:

1. Regular communication with the City Project Manager on all aspects of work under this Scope of Work, including progress and budget.
2. Coordination of the Consultant's project team to ensure consistency across team efforts.
3. Prepare a Health and Safety Plan for the Consultant's own work to be performed while onsite during the construction period.
4. Provide monthly invoice with summary of services provided.

Deliverables:

1. Invoice
2. Health and Safety Plan

Task 02 – Construction Services

The Consultant will provide Construction Management services for construction of approximately 2,000 feet of sewer along 384th Avenue SE. Services include attending weekly construction meetings, reviewing daily reports and field note records, material verification, confirming concurrence with contract documents, and coordinating with project stakeholders.

Task 03 – Construction Documentation

Maintain the project files and provide documentation support related to the sewer construction including meeting notes and agendas, emails, communication logs, digital photos, construction daily reports, field note records, material tickets, submittals, RFI's, and field directives.

The estimated budget for Phase 2 Construction Tasks 2.01 through 2.04 is \$31,983.28

Cost Summary

The total budget for this Amendment No. 2 is \$131,488 as described above and detailed in the attached Exhibit B.