

#### AMENDMENT NO. 1 PROFESSIONAL SERVICES AGREEMENT

This Amendment to Professional Services Agreement ("Amendment") is effective as of the date of the Mayor's signature below, and is between the City of Everett, a Washington municipal corporation (the "City"), and the person identified as the Service Provider below ("Service Provider"). The City and Service Provider are parties to the Professional Services Agreement described below, as may be previously amended ("Agreement"). In consideration of the covenants, terms and conditions set forth below, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City and Service Provider agree to amend the Agreement as set forth below:

Service Provider	Carollo Engineers Inc.
City Project	John Nottingham, PE
Manager	jnottingham@everettwa.gov
Original Agreement Date	9/19/2022

	AMENDMENTS							
New Completion Date	If this Amendment changes the Completion Date, enter the new Completion Date: 12/31/2025 If no new date is entered, this Amendment does not change the Completion Date.							
	If this Amendment changes compensation, complete the following table. If the table is not completed, this Amendment does not change compensation.							
New Maximum Compensation	Maximum Compensation Amount Prior to this Amendment	\$98,854.00						
Amount	Compensation Added (or Subtracted) by this Amendment	\$1,054,281.00						
	Maximum Compensation Amount After this Amendment	\$1,153,135.00						

Changes to Scope of Work	Scope of Work is changed by ADDING the work in the attachment to this Amendment						
Other Amendments	Enter other changes to the Agreement, if any.						
	Regardless of the date(s) on which this Amendment is signed by the parties, and regardless of any Agreement completion date(s) that may have been in the Agreement prior to this Amendment, the parties agree that the Agreement is deemed continuously in effect since the Original Agreement Date.						
Standard Amendment Provisions	This Amendment may be signed in counterparts, each of which shall be deemed an original, and all of which, taken together, shall be deemed one and the same document. AdobeSign signatures are fully binding. Any ink, electronic, faxed, scanned, photocopied, or similarly reproduced signature on this Amendment will be deemed an original signature and will be fully enforceable as an original signature.						
	All provisions in the Agreement shall remain in effect except as expressly modified by this Amendment.						

# SIGNATURES ON FOLLOWING PAGE

# IN WITNESS WHEREOF, the City and Service Provider have executed this Amendment.

Signature:

# CITY OF EVERETT WASHINGTON

# CAROLLO ENGINEERS INC.

Cassie Franklin, Mayor

01/08/2024

Date

ATTEST

Manil ,

Office of the City Clerk

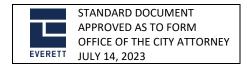
Harold Gresh

Name of Signer: H. Wayne Gresh Signer's Email Address: WGresh@carollo.com Title of Signer: Project Manager/Vice President

Tadd Giesbrecht

Signature: \_\_\_\_\_

Name of Signer: Tadd C. Giesbrecht, PE Signer's Email Address: tgiesbrecht@carollo.com Title of Signer: Senior Project Manager / Vice President



# EXHIBIT A SCOPE OF WORK

# ENGINEERING SERVICES CITY OF EVERETT

#### WATER POLLUTION CONTROL FACILITY COMBINED SEWER CONVEYANCE PROJECT

#### **INTRODUCTION**

The Combined Sewer Conveyance Project will bypass combined sewage (CS) flows that exceed the headworks and/or primary treatment capacity directly to the oxidation pond recirculation channel at the Water Pollution Control Facility (WPCF). This will reduce the washout of solids from Aeration Cells 1 and 2, which happens under the current configuration with CS flows passing through the aeration ponds and then into the oxidation pond recirculation channel.

A study was performed in 2022 "Engineering Report, Everett WPCF Combined Sewage Conveyance Improvements, January 17, 2022, Stantec," that identified changes needed to the CS bypass conveyance system to route flows directly to the oxidation pond recirculation channel downstream of diversion structure 1 (DS 1). A follow up study evaluated an alternative for routing the CS bypass pipes to avoid crossing wetlands and considered options to incorporate improvements planned to diversion structure 0 (DS 0) as documented in the "Basis of Design Report Diversion Structure 0 Improvements, April 29, 2016, HDR." The follow up study is documented in the "Alternatives Comparison Report, Draft April 2023, Carollo Engineers, Inc."

The selected alternative is to redirect CS flows immediately after DS 1 to the oxidation pond recirculation channel. The proposed project constructs a diversion structure onto line C and a diversion structure downstream of DS 1 to intercept bypassed CS flows and route them through two buried pipes constructed using open-cut methods through the adjacent wetland for discharge into the oxidation pond recirculation channel.

Under this scope of work, the Consultant will advance the alternative selected in the 2023 Alternatives Comparison Report by preparing an engineering/basis of design report, completing design of the improvements, preparing applications for environmental and building permits, and preparing documents for construction of the project by a contractor selected through competitive bidding.

The Scope of Work performed by the Consultant includes the following tasks:

- Task 100 Project Management
- Task 200 Geotechnical Engineering Services
- Task 300 Environmental Permitting Services
- Task 400 Engineering/Basis of Design Report
- Task 500 Design and Preparation of Documents for Construction
- Task 600 Bid Period Services

# **GENERAL ASSUMPTIONS**

- 1. The level of effort assumes the CS bypass conveyance pipes will be constructed in an open trench across wetlands.
- 2. Consultant will perform the services required hereunder in accordance with the prevailing engineering standard of care by exercising the skill and ability ordinarily required of engineers performing the same or similar services, under the same or similar circumstances, in the State of Washington.
- 3. The City of Everett (City) will furnish Consultant available studies, reports and other data pertinent to Consultant's services; obtain or authorize Consultant to obtain or provide additional reports and data as required; and furnish to Consultant services of others required for the performance of the Consultant's services. Consultant shall be entitled to use and rely upon all such information and services provided by City or others in performing Consultant's services under this Scope of Work.
- 4. City will arrange for access to and make all provisions for Consultant to enter upon public and private property as required for Consultant to perform services hereunder.
- 5. Documents prepared for construction will consist of the City's standard Division 00 combined with Consultant's Division 01 and technical specifications. Consultant's Division 01 and technical specifications will be in Consultant's CSI format.
- 6. Each deliverable memorandum and report submittal will include the following:
  - a. Draft submittals in electronic PDF format for review by the City.
  - b. Record of Comment Log with response to City review comments.
  - c. Final submittal in electronic PDF format and MS Word (Microsoft 365 version) format for written documents and AutoCAD (Version 2022) format for drawings.
- 7. 30 percent, 60 percent, 90 percent, and final design submittals will include the following:
  - a. Submittals in electronic PDF format for review by the City.
  - b. Record of Comment Log with response to City review comments.
  - c. Incorporation of City review comments in the subsequent submittal.
- 8. Submittal of documents issued for construction will be submitted electronically in PDF format with electronic seals and signatures by the professional engineers in charge of the work.

# **SCOPE OF WORK**

The scope of work performed by Consultant is as follows:

# **TASK 100 - PROJECT MANAGEMENT**

The purpose of this task is to plan, manage, and communicate with the project team to successfully complete the scope of work tasks and produce the task deliverables. This task includes project administration, progress reporting and invoicing, identifying and managing project risks, coordination of the work with the City project manager, coordination of the work between Consultant's team members, and performing in-house quality control/quality assurance reviews. Work performed under this task is as follows:

- 1. Plan and coordinate Consultant project team activities and staffing.
- 2. Monitor schedule and budget, work elements accomplished, work items planned, and scope changes for communicating to the City Project Manager.

- 3. Submit monthly invoices accompanied by monthly progress reports.
- 4. Conduct a project kick-off meeting to discuss specific project work efforts.
- 5. Conduct a monthly progress meeting (via video or teleconference) with the City Project Manager to discuss the status of the work and address issues that arise.
- 6. Conduct internal quality control reviews of work and task deliverables.
- 7. Develop a Risk Management Log that identifies risks that have an adverse impact on the project cost or schedule and the actions needed to mitigate the risks. Update the Risk Log monthly.
- 8. Develop a Decision Log to record key decisions made by the City and others during the project to document the evolution of the design. Update the Decision Log as decisions are made and review monthly.
- 9. Develop Record of Comment Logs to track City review comments and Consultant's responses for all project deliverables. Submit the Record of Comment Log for each deliverable with Consultant team responses to the City Project Manager.

#### Task 100 Assumptions

- 1. Project duration anticipated to be 24 months consisting of:
  - a. 4-month engineering/basis of design report period.
  - b. 4-month design period.
  - c. 8-to-12-month environmental permitting period.
  - d. 2-month bid period.
- 2. Monthly progress meetings will be via video conference for a duration of 30 minutes on average with two consultant team members attending.

#### Task 100 Meetings

- 1. Project Kick-Off Meeting and Site Visit.
- 2. Monthly progress meetings (via video conference).

# Task 100 Deliverables

- 1. Monthly progress reports with invoice.
- 2. Kick-Off meeting agenda, meeting materials, and minutes.
- 3. Risk Management Log.
- 4. Decision Log.
- 5. Record of Comment Logs.

# **TASK 200 - GEOTECHNICAL ENGINEERING SERVICES**

The purpose of this task is to characterize the geologic and subsurface soil conditions at the project location and provide geotechnical engineering analysis to identify parameters required for foundation and buried structure designs and Contractor design of temporary trench and excavation shoring and construction dewatering. Work under this task will be performed by HWA/GeoSciences, Inc. as a subconsultant to Consultant. Work performed under this task is as follows:

1. Field Exploration Work Planning:

- a. Gather and review available geotechnical and geologic data in the vicinity of the project location, including prior work at the site by HWA/GeoSciences, Inc.
- b. Conduct a geotechnical site reconnaissance of the project location. This reconnaissance will be used to identify geotechnical challenges and to assist in planning the geotechnical exploration program.
- c. Plan and coordinate the geotechnical exploration program for the project. The exploration program is anticipated to consist of up to three Cone Penetration Tests (CPT) and up to three Geoprobe explorations advanced below the existing ground surface (bgs) to provide data for design of deep foundation elements, shoring, and excavations for the proposed improvements.
- d. Mark the proposed exploration locations and arrange for utility locates using the Utility Notification Center and a private utility locate subcontractor. Conduct a site visit to verify that the proposed locations of the borings are clear of utilities prior to finalizing the exploration plans and mobilizing the equipment.
- e. Prepare a Field Exploration Work Plan Memoranda for the proposed exploration program that details the type, location, and extent (approximate depth, sampling interval, in-situ testing) of proposed field explorations along with logistics necessary to perform the work such as traffic control and/or staging areas.
- 2. Field Explorations:
  - a. Advance up to three CPTs to depths of approximately 100 feet bgs and three Geoprobes to up to 25 feet bgs to assess the subsurface soil and groundwater conditions at the location of proposed improvements. This task includes a half day of vacuum extraction to preclear explorations to mitigate the risk of damaging buried structures or utilities that may be mis-marked or not located. All drilling spoils will be drummed and transported off site for disposal. Field exploration work will be by a contractor employed by HWA/GeoSciences, Inc.
  - b. Prepare summary boring logs and perform laboratory testing to evaluate relevant physical properties of the site soils. Laboratory testing will include moisture content, grain-size distribution, organic content, and/or Atterberg Limits.
  - c. Based on the CPTs and the laboratory test results on selected samples, generate estimates of the soil strength and other properties needed to evaluate the effects the subsurface conditions will have on the proposed project elements.
  - d. Develop up to geologic cross-sections to show near surface soil conditions to be provided in a geotechnical data report.
- 3. Geotechnical Engineering Design Services:
  - a. Based on the soils encountered along the pipe alignment, determine the Site Class for seismic design and identify design spectral acceleration parameters in accordance with the governing codes.
  - b. Evaluate the susceptibility of the subsurface soils to liquefaction at the location of the proposed structures and assess the potential impacts to the existing structures and proposed improvements.
  - c. Conduct a series of engineering analyses to develop geotechnical recommendations for design of foundations (anticipated to be piles) for structures and pipes, Contractor's design of shoring for trenches and excavations, and Contractor's design of temporary dewatering systems.
  - d. Prepare a geotechnical report for the project that contains the results of the explorations and analyses, including descriptions of surface and subsurface conditions, a site plan showing

exploration locations and other pertinent features, summary boring logs, and laboratory test results. The report will provide geotechnical recommendations for design and construction of the proposed improvements including parameters for Contractor's design of temporary shoring and dewatering systems.

#### Task 200 Assumptions

- 1. Field explorations will not require traffic control or environmental permits.
- 2. Groundwater monitoring piezometers will not be installed as groundwater is anticipated to be shallow, about the same elevation as the water bodies near the proposed pipeline alignment.
- 3. Piles will be required to support the proposed structures and pipes.
- 4. Site reconnaissance is limited to observation of existing topography and features; no excavation or subsurface exploration will be conducted during site reconnaissance.
- 5. Exploration locations will be accessible by truck- or track-mounted rigs.
- 6. The geotechnical explorations proposed herein will not be used to assess site environmental conditions. However, visual or olfactory observations regarding potential contamination will be noted. Analysis, testing, storage, and handling of potentially contaminated soil and groundwater (either sampled or spoils) are beyond this scope of services. If contaminated soils and/or groundwater appear to be encountered, the material will be properly contained on-site for evaluation and disposal. Costs incurred for environmental services beyond on-site containment would be in addition to this scope and budget.
- 7. Coring or restoration of asphalt or concrete pavement will not be required prior to drilling the proposed explorations.
- 8. Phase 1 or Phase 2 Environmental Site Assessments are not required.
- 9. Seismic and site specific probabilistic seismic hazard analysis (PSHA) are not required.

# Task 200 Meetings

- 1. Attendance at Project Kick-Off Meeting.
- 2. Site Reconnaissance Meeting.
- 3. Attendance by HWA/GeoSciences at up to six project coordination meetings via video or tele conference.

#### Task 200 Deliverables

- 1. Field Exploration Work Plan Memoranda.
- 2. Geotechnical Engineering Report.

# **TASK 300 – ENVIRONMENTAL PERMITTING SERVICES**

The purpose of this task is to identify and assist with the environmental documentation and permitting needs associated with the project. A State Environmental Policy Act (SEPA) Environmental Checklist will be prepared and services performed to secure permits and reviews for the project under Section 404 of the Clean Water Act, including US Army Corps of Engineers permit under Nationwide Permit 12 for utility line activities, water quality certification by the Washington State Department of Ecology (Ecology) under Section 401 of the Clean Water Act, and Ecology review for consistency under the state Coastal

Zone Management Act (CZM). Work under this task will be performed by Environmental Science Associates (ESA) as a subconsultant to Consultant. Work performed under this task is as follows:

- 1. Contact State and Federal agencies to discuss features of the project, obtain information related to the permits required, and obtain initial information about preferred means and methods that may impact project design.
- 2. Prepare a permitting plan to identify the permits required and track permitting reviews.
- 3. Complete a SEPA Environmental Checklist to identify the environmental impacts associated with the project.
  - a. Delineate and rate wetlands, wetland buffer widths, and potential wetland buffer impacts using the 2014 Ecology Wetland Rating System for Western Washington. This includes marking wetland boundaries for incorporation in the project topographic base map.
- 4. Conduct an archaeological survey and inventory process and prepare and submit a Cultural Resources Report to the Washington State Department of Archaeology and Historic Preservation in accordance the requirements of Section 106 of the National Historic Preservation Act.
- 5. Prepare applications for submittal by the City for receipt of permits and approvals required for the project related to US Army Corps of Engineers permit under Nationwide Permit 12 for utility line activities, water quality certification by Ecology under Section 401 of the Clean Water Act, and Ecology review for consistency under the state CZM. This subtask includes:
  - a. Preparing a biological assessment for consultation with the US Fish and Wildlife Service and National Marine Fisheries Services (Services) in accordance with the requirements of Section 7 of the Endangered Species Act.
  - b. Preparing 30 percent, 60 percent and 100 percent landscape mitigation and restoration plans for impacted wetland areas.
  - c. Preparing a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General permit.
- 6. Assist with City permits for Critical Areas review and Clearing and Grading
- 7. Respond to City review comments to application packets and submittal documents.
- 8. Communicate with permitting agencies to obtain updates on permit reviews.
- 9. Respond to permitting agency review comments.

# Task 300 Assumptions

- 1. The selected pipe alignment will be constructed through wetlands with temporary construction impacts with no above-grade permanent structures constructed in the wetlands.
- 2. Wetlands delineation can be conducted in one day by two field staff.
- 3. The archaeological survey will not require subsurface examination of materials beyond monitoring of geotechnical borings.
- 4. The City of Everett will be the SEPA lead agency, and a SEPA checklist will be the appropriate level of SEPA documentation.
- 5. Because of the direct wetland impact, it is assumed the US Army Corps of Engineers (Corps) will be the federal lead agency.
- 6. Two sheets are anticipated for landscape mitigation design.

#### Task 300 Meetings

- 1. Attendance at Project Kick-Off Meeting.
- 2. Site Reconnaissance and Wetland Delineation Coordination Meeting.
- 3. Attendance by ESA at up to four project coordination meetings via video or teleconference.

#### Task 300 Deliverables

- 1. SEPA Environmental Checklist.
- 2. Critical Areas Report.
- 3. Cultural Resources Report.
- 4. Biological Assessment.
- 5. US Army Corps of Engineers permit application under Nationwide 12.
- 6. Ecology Section 401 Clean Water Act certification application.
- 7. Submittal for Ecology review of CZM compliance.
- 8. NPDES Construction Stormwater General Permit.

#### TASK 400 - BASIS OF DESIGN REPORT

The purpose of this task is to advance work performed in previous project studies to establish the location of new structures and pipes, determine hydraulic characteristics of the CS bypass system including energy dissipation at the Oxidation Pond recirculation channel discharge, set forth material and equipment criteria and types, set forth foundation type(s) and criteria, and set forth structural, mechanical, electrical, and instrumentation and control design criteria. Work performed under this task is as follows:

- 1. Prepare a brief description about routing the pipes beneath the access road to the northwest of Diversion Structure 01 to avoid crossing through wetlands that describes why this route is not constructable due to the large pipe crossings and significantly higher cost.
- 2. Perform a topographic survey of the area where structures and pipes will be constructed and prepare a base map that includes:
  - a. Wetland delineation markers and high-water mark locations.
  - b. Geotechnical exploration locations.
  - c. Utility locations marked for geotechnical explorations.
  - d. Surface topographic features.
- 3. Conduct a trip with up to four staff to the project site for reconnaissance of applicable electrical and control interfaces, meet with City staff regarding electrical and control standards, and reconnaissance of the proposed routing for conduits.
- 4. Perform three-dimensional (3D) free surface computational fluid dynamics (CFD) modeling of the CS bypass system to establish preliminary layout and design criteria for the structures and pipes.
  - a. Model the flow from DS 1 and the bypass constructed on existing Line C through the discharge structure in the Oxidation Pond recirculation channel.
  - b. Identify the hydraulic grade line from Diversion Structure 01 through the CS bypass system, configuration of the new diversion structure so that energy is dissipated and turned into the

channel with minimal scour risk near the bank and training wall, as well not generating additional hydraulic loading on the training wall.

- c. Model the peak flow condition as worst case scenario.
- d. Provide results of the CFD modeling work as a section in the Basis of Design Report.
- 5. Prepare a Basis of Design Report that includes:
  - a. References to prior CS bypass studies.
  - b. Describes the CS bypass configuration based on the pipe alignment selected by the City.
  - c. Hydraulic profile for the peak flow condition.
  - d. Sketches showing preliminary plans and sections of the diversion and discharge structures based on CFD modeling results.
  - e. Size of conveyance pipes based on CFD modeling results.
  - f. Design criteria, including:
    - i. Design flow criteria.
    - ii. Process flow diagram.
    - iii. Hydraulic grade line at peak flow condition.
    - iv. Pipe material.
    - v. Access to structures and pipes for cleaning and maintenance.
    - vi. Structural, including building code, seismic, and foundation.
    - vii. Mechanical for gates and appurtenances.
    - viii. Electrical, including power distribution and lighting.
    - ix. Instrumentation and Control, including control description, interface with the plant control system, and security.
  - g. Identification of the 25 year and 100-year flood elevations relative to the plant and project components.
  - h. Opinion of probable construction cost based on the ROM cost analysis.
- 6. Conduct a meeting at the City's facilities to present the Basis of Design Report. This meeting will be attended in-person by up to three staff, with up to three staff attending by video conference.
- 7. Prepare cover letter and documents for submittal by the City to Ecology for their review.
- 8. Respond to comments received from Ecology.

#### **Task 400 Assumptions**

- 1. The City's current topographic base map can be merged with the topographic survey map prepared from Consultant's survey to show the areas for electrical and instrumentation conduit and duct bank routing.
- 2. The City will submit the Engineering Report, *Everett WPCF Combined Sewage Conveyance Improvements, January 17, 2022, Stantec*, to Ecology for the Engineering Report required.
- 3. The City will provide Consultant with an AutoCAD file of the current plant liquid stream process flow diagram.
- 4. New electrical and instrumentation and control will be services will be from the existing Primary Facility.
- 5. No upgrades to Utility Transformer is required.

- 6. All electrically actuated gates will have hardwired controls and the associated connections can be made to an existing programmable logic controller (PLC) which has sufficient spare inputs and outputs (I/O) (i.e.: no network drawings and no modified PLC/PCM drawings are required). The existing PLC I/O list will be provided by the City to establish existing spare I/O points to be used.
- 7. Sufficient I/O exists in existing plant control equipment to connect control and monitoring of the new gates to the plant control system.
- 8. The wire terminations and programming of the existing PLC will be performed by the contractor with SCADA system integration and programming provided by the City.

#### Task 400 Meetings

- 1. Pipe Routing Alternatives Analysis Videoconference.
- 2. Electrical and Control Meeting (during site reconnaissance trip).
- 3. Basis of Design Presentation.

#### Task 400 Deliverables

- 1. Pipe Routing Alternatives Memorandum.
- 2. Basis of Design Report.
- 3. Record of Comments Log.
- 4. Meeting materials.

# TASK 500 - DESIGN AND PREPARATION OF DOCUMENTS FOR CONSTRUCTION

The purpose of this task is to complete design of the project elements and prepare the documents (specifications and drawings) for construction of the project by a contractor selected through a competitive bidding process (i.e., traditional design-bid-build). The design progress will be through submittals for review by the city at 30, 60, and 90 percent completion milestones. Work performed under this task is as follows:

- 1. Perform design services to prepare a 30 percent level of completion of the documents for review by the City that includes:
  - a. Comments from Consultant's legal and risk management review of the City's standard Division 00 documents for review, comment, and incorporation as appropriate by the city.
  - b. Table of contents for Division 00, Division 01, and technical specification sections.
  - c. Preliminary specification for gates, gate actuators, and pipe materials.
  - d. Drawings prepared to a 30 percent level of completion:
    - i. General:
      - (1) Cover sheet.
      - (2) Preliminary drawing sheet list.
      - (3) General notes and design criteria.
      - (4) Hydraulic profile and design criteria table.
      - (5) General notes, legends, and abbreviation sheets for erosion control, civil, structural, electrical, and instrumentation and control.

- ii. Erosion and Sediment Control:
  - (1) General notes and legend.
  - (2) Typical details.
- iii. Civil:
  - (1) Overall plan and profile showing locations of the diversion structures and pipes.
- iv. Mechanical/Structural:
  - (1) General structural notes and code requirements.
  - (2) Plans and sections of Line C diversion structure.
  - (3) Plans and sections of diversion structure downstream of DS 1.
  - (4) Plan and section of the discharge structure.
- v. Electrical:
  - (1) Electrical legend.
  - (2) Electrical abbreviations.
  - (3) One line diagram.
- vi. Instrumentation:
  - (1) Symbol and abbreviations sheets.
  - (2) Schematic symbols sheet.
  - (3) Process and Instrumentation Diagram (for gates).
- e. Opinion of probable construction cost estimate (AACIE Class 3).
- f. Updated Risk Management Log.
- g. Updated Decision Log.
- 2. Conduct a videoconference with the City to present the 30 percent submittal.
- 3. Review and respond to City review comments via Record of Comments Log.
- 4. Perform design services to prepare a 60 percent level of completion of the documents for review by the City and for permit application packages for the US Army Corps of Engineers permit under Nationwide Permit 12, water quality certification by the Washington State Department of Ecology under Section 401 of the Clean Water Act, and Ecology review for consistency under the state CZM. The submittal will include:
  - a. Draft Division 00 sections.
  - b. Draft Division 01 sections.
  - c. Draft technical specification sections.
  - d. Drawings prepared to a 60 percent level of completion:
    - i. General:
      - (1) Cover sheet.
      - (2) Preliminary drawing sheet list.
      - (3) General notes and design criteria.
      - (4) Hydraulic profile from the plant headworks through DS 1 and the CS bypass system and design criteria table.
      - (5) Liquid stream process flow diagram showing CS bypass system revisions.

- (6) General notes, legends, and abbreviation sheets for erosion control, civil, structural, electrical, and instrumentation and control.
- ii. Erosion and Sediment Control:
  - (1) General notes and legend.
  - (2) Erosion and Sediment Control plan sheets.
  - (3) Typical erosion and sediment control details.
- iii. Civil:
  - (1) Overall plan showing locations of the diversion structures and pipes.
  - (2) Pipeline plan and profile.
  - (3) Wetland restoration plan.
  - (4) Wetland restoration planting details and notes.
- iv. Mechanical/Structural:
  - (1) General structural notes and code requirements.
  - (2) Pipe support sections and details.
  - (3) Plans and sections of Line C diversion structure.
  - (4) Plans and sections of diversion structure downstream of DS 1.
  - (5) Plans and sections of the discharge structure.
  - (6) Typical Structural Details.
- v. Electrical:
  - (1) Electrical legend.
  - (2) Electrical abbreviations.
  - (3) One line diagram.
- vi. Instrumentation:
  - (1) Symbol and abbreviations sheets.
  - (2) Schematic symbols sheet.
  - (3) Process and Instrumentation Diagram (for gates).
- e. Updated opinion of probable construction cost (AACIE Class 2).
- f. Updated Risk Management Log.
- g. Updated Decision Log.
- 5. Conduct a videoconference with the City to present the 60 percent submittal.
- 6. Review and respond to City review comments via Record of Comments Log.
- Incorporate city review comments into the 60 percent documents and prepare figures and narratives for permit application packages for the US Army Corps of Engineers permit under Nationwide Permit 12, water quality certification by the Washington State Department of Ecology under Section 401 of the Clean Water Act, and Ecology review for consistency under the state CZM.
- 8. Perform design services to prepare a 90 percent level of completion of the documents for review by the City.
  - a. 90 percent complete submittal will include the Division 00, Division 01, technical specifications, and drawings complete and ready to be issued for construction following incorporation of city review comments and incorporation of criteria required by permitting agencies.

- b. Updated opinion of probable construction cost (AACEI Class 1).
- c. Updated Risk Management Log.
- d. Updated Decision Log.
- 9. Conduct a videoconference with the City to present the 90 percent submittal.
- 10. Review and respond to City review comments via Record of Comments Log.
- 11. Perform design services to prepare final documents to be issued by the City for receipt of competitive bids for the project.
- 12. Prepare applications and documents for submittal by the City for building permits and Department of Ecology review.
- 13. Respond to agency and Ecology review comments.

#### Task 500 Assumptions

1. See assumptions listed for Task 400 - Basis of Design Report.

#### Task 500 Meetings

1. 30, 60, and 90 percent complete presentations.

#### Task 500 Deliverable

- 1. 30, 60, and 90 percent complete submittals.
- 2. Figures and narratives for permits.

#### **TASK 600 - BID PERIOD SERVICES**

The purpose of this task is to assist the City during bidding and award process on an as needed basis.

- 1. Attend the pre-bid walkthrough.
- 2. Assist the City with responses to prospective bidder's questions during the bidding period.
- 3. Assist the City with the preparation of up to two addenda (as needed).
- 4. Provide input on apparent low bidder (i.e., check references, review bid tab, etc.).

#### Task 600 Assumptions

- 1. The City will lead this task and advertise the project for bids, distribute documents through an online service, maintain the bidder's list, manage responses to questions during bidding, and distribute any required information, including addenda and/or clarifications.
- 2. Documents will be distributed using an online bidding clearing house services without the need for Consultant to reproduce bid sets to be distributed to prospective bidders.
- 3. The pre-bid walkthrough will be conducted at the project site and will include up to two Consultant staff for up to six hours each, including travel time.
- 4. Up to two total bid clarifications and/or addenda will be provided.

#### Task 600 Meetings

1. Pre-bid walkthrough.

#### Task 600 Deliverables

1. Up to two Clarifications or Addenda (as required).

#### **TASK 700 - Unanticipated Services**

This task is reserved for unanticipated services that may be required for the project, such as the preparation of an Engineering Report for Ecology, additional topographic surveying work, or additional permitting or design work. Work under this task will be defined at the time needed along with a commensurate level of effort. Consultant is not authorized to perform work under this task without authorization by the City Project Manager.

								City of Evere					ITS										Date:	10-Nov-23
								P	ROJECT HO	URS AND BL	IDGET ESTIN	IATE												EXHIBIT B
		Task 1	00 - Project Mana	gement	Task 200 -	Geotechnical En	gr. Services		isk 300 - Environmental Permitting Services Task 400 - Basis of Design Report						Task 500 - 1	Design & Prepara	ation of Documen	ts for Const.	Task 600 - Bid Period Services			Additional Work	Total	
Labor Category	Direct Salary Rates	Subtasks 101 - 103 & 107 - 109 Monthly PM Activities	Subtask 104 Project Kickoff Meeting	Subtask 106 In-house QC Reviews	Subtask 201 Field Exploration Work Planning	Subtask 202 Field Explorations	Subtask 203 Geotechnical Engineering Design	Subtasks 301 - 305 Assessments	Subtasks 306 - 309 Permit Applications	Subtask 401 Alt. Route Assessment	Subtask 402 Topographic Surveying	Subtask 403 Site Visit	Subtask 404 CFD Analysis	Subtask 405 BDR Report	Subtask 501 30 Percent Submittal	Subtask 502 60 Percent Submittal		Subtask 504 Issued for Const.	Subtask 601 Pre-bid Walkthrough	Subtasks 602 RFIs and Addenda	Subtask 603 Bid Review	Task 700 - Unanticipated Services	Hours	Cost
1 Principle-in-Charge	\$ 105.00	24	4											4	4	3	2	1	1				42	
Project Manager	\$ 84.00	144					4	4		2		8	4	12	45	34	22	11			2	20	320	\$ 26.88
Civil QC	\$ 95.00		0	40			-					0		8		8					-	20	56	\$ 5.32
Project Engineer	\$ 62.00	104	12	40	12		12	16	16	16	8	8	20	40	120	100	64	32	8	12	4	80	684	
Civil Staff Engineer	\$ 55.00	104	12		12		12	10	40	10	Ŭ	Ů	136		200					12		86	895	
CFD Modeling Lead	\$ 83.00								40				24		200	8	3					00	40	
Structural Engineer Lead/QC	\$ 90.00		2	36	4		4							16	8	8	3 4	2					84	\$ 7.56
Structural Engineer	\$ 70.00													24	60	126	96	32		8			346	\$ 24.22
Electrical / I&C Lead/QC	\$ 113.00		2	56											4	2	2 2						66	\$ 7.45
Electrical Engineer	\$ 88.00											16		20	30	50	24	16		4			160	\$ 14,08
I&C Engineer	\$ 88.00											16		24	50	40	20	8	1	4			162	\$ 14,25
Sr. CAD/GIS/Technician	\$ 74.00										12		24	40	88	59	42	17		8		20	310	\$ 22,94
CAD/GIS/Technician	\$ 45.00													40	176			45				20	535	\$ 24,07
Clerical	\$ 40.00													20	32	22	2 15	8				16	113	\$ 4,52
otal Task Hours		272	28	132	16	0	20	20	56	18	20	48	208	316	817	805	506	227	8	48	6	242	3,813	
Subtotal Direct Salary Cost (DSC), \$		21,064	2,242	13,368	1,104	0	1,440	1,328	3,192	1,160	1,384	3,984	12,824	21,184	50,764	51,212	31,687	14,173	496	3,260	416	14,390		\$ 250,67
Overhead on DSC (Indirect cost) @	180.00%	37,915	4,036	24,062	1,987	0	2,592	2,390	5,746	2,088	2,491	7,171	23,083	38,131	91,375	92,182	57,037	25,511	893	5,868	749	25,902	1	\$ 451,20
otal Labor Cost, \$		58,979	6,278	37,430	3,091	0	4,032	3,718	8,938	3,248	3,875	11,155	35,907	59,315	142,139	143,394	88,724	39,684	1,389	9,128	1,165	40,292		\$ 701,88
Expenses, \$																								Expenses
Travel expenses			575									2,700						500	575			107		\$ 4,45
Per Labor Hr. Tech. Charge	\$ 14.70	3.998	412	1,940	235	0	294	294	823	265	294	706	3.058	4.645	12.010	11.834	7.438	3.337	118	706	88	3.557		\$ 56.05
otal Expenses		3.998	987	1,940	235	0	294	294	823	265	294	3.406	3.058	4.645	12.010	11.834	7,438	3.837	693	706	88	3.664		\$ 60.50
OTAL LABOR AND EXP		62.977	7.265	39.370	3.326	0	4.326	4.012	9.761	3.513	4,169	14.561	38,965	63,960	154,149	155.228	96,162	43.521	2.082	9.834	1.253	43,956		\$ 762.39
Subconsultant Expenses, \$																							-	Sub Expense
Environmental Permitting		2 500	500	4 400				14 000	65 000						1				1					\$86.40
Gentechnical		4,230	500	2.250	7 440	33.800	21.600													1 500				\$71.32
Surveying		1									20.000													\$20.00
Unauthorized																								
otal Subconsultant Expenses							21.600	14.000	65.000															\$177.72
OTAL SUBCONSULTANTS		6,730	1,000	6,650	7,440	33,800	21,600	14,000	65,000	0	20,000	0	0	0	0	0	0	0	0	1,500	0	0		\$177,72
Subconsultant Admin Mark-up	5.0%	337	50	333	372	1,690	1,080	700	3,250	0	1,000	0	0	0	0	0	0	0	0	75	0	0		\$8,88
Subtotal Cost by Task		70.044	8.315	46.353	11.138	35,490	27.006	18.712	78.011	3.513	25,169	14.561	38,965	63.960	154,149	155.228	96.162	43.521	2.082	11.409	1,253	43,956		\$ 948.99
FEE (% of Total DSC & Overhead)	15.0%	8.847	942		464	0	605	558	1.341	487		1.673	5.386		21.321	21,509		5,953	208	1.369	175	6.044		\$ 105.28
Federally Funded FEE (% of DSC Only)		0	0	0		0	0	0	0	0		0	0,000		0	0		0		0	0			s -
Next Year's Labor Escalation*	0.0%	0	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				s -
	0.070	i č		ľ	Ĭ		Ĭ	Ň		0	Ĭ		, in the second s	i	i č	Ĭ	1	Ĭ	i č	l i	Ĭ	Ť		Total
TOTAL ESTIMATED COST AND FEE. \$	2.8	78,891	9,257	51,968	11,602	35,490	27,611	19,270	79,352	4,000	25,750	16,234	44,351	72,857	175,470	176,737	109,471	49,474	2,290	12,778	1,428	50,000		\$ 1,054,28

\* Next year's labor escalation was calculated assuming 80.0% of the work would be completed next year.

Enter data in veltow & green shaded cells only. Other formula cells are locked to prevent accidental changes. There is no password protection.
Overall Project Multiplier 3.22

Profit as a % of Direct Salary Cost (DSC) 42.0%

# Carollo Engineers-WPCF Combined Conveyanc e-Amend1-JN-SD

Final Audit Report

2024-01-08

Created:	2024-01-04
By:	Marista Jorve (mjorve@everettwa.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAOE7zidsPEagXCHuhCTOuNUYxcJin6wtx

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