

**CITY OF LYNDEN WATERMAIN UPGRADE AND REPLACEMENT
GUIDE MERIDIAN WATER MAIN EXTENSION**

PROJECT NO. 2023-07

SCOPE OF WORK

**Final Construction Contract Documents Preparation
and
Construction Administration Phase**

Background

In December 2023, Pacific Surveying and Engineering, Inc. (CONSULTANT) and the City of Lynden (CITY) entered into a Professional Services Agreement (Agreement) scheduled to expire on December 31, 2024. The Agreement was subsequently supplemented to include the design of water main replacements along Guide Meridian Road; however, the expiration date of the original Agreement was not extended.

Both the CONSULTANT and the CITY mutually agreed to allow the original Agreement and its supplement to expire, with the understanding that a new agreement, as outlined in this document, would be executed. The new agreement excludes work in the Garden Drive and Meadow Lane areas, incorporates the completion of unfinished design elements for the Guide Meridian water main from the expired Agreement and supplement, and extends services to include construction management.

Should the CITY choose to proceed with the design of the Meadow Lane area in the future, a separate agreement may be executed at that time.

General

This Scope of Work defines the CONSULTANT's services necessary to assist the CITY with preparing the final Construction Contract Documents and assisting the CITY with the construction phase of the Guide Meridian Water Main Extension.

The CONSULTANT shall provide all labor and services necessary to complete the work of this AGREEMENT, including all supplies, equipment, software, incidentals, and materials except as designated elsewhere in this AGREEMENT. The CONSULTANT shall submit all work to the CITY in CITY format as it is detailed in the work elements.

The CONSULTANT understands that the project includes the work detailed on the Plans prepared by Pacific Surveying and Engineering, or as revised prior to or during bid advertisement.

The CONSULTANT shall deliver all project items to the CITY and the completion of the project. This scope will end when the construction phase is completed, assumed to be on or before December 31, 2025.

FINAL PLANS, SPECIFICATIONS, AND ESTIMATE
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Work Element 1

PROJECT MANAGEMENT

The CONSULTANT shall provide the required project administration until the Completion Date specified in Section 3.3 – Term, of the Agreement for Professional Services (CONTRACT). This shall include but is not limited to preparing progress reports, invoicing, preparing and updating a project schedule, general meetings, and support to the CITY during the bid advertisement and award process.

Invoicing

The CONSULTANT will provide the CITY with monthly invoices for work performed that is within this Scope of Work. Invoicing will be in accordance with the Professional Services Agreement, Section 3.2 Payment Conditions. The budget and charges assigned to each Work Element shall be reported in monthly invoices. Each invoice shall include a cover sheet that provides the City with a cost assigned to each work element together with a cost assigned to each of the following City budget items:

- Water System
- Sanitary Sewer System
- Road/Stormwater Improvements

Deliverable(s):

- i) Monthly invoice
- ii) Progress report on invoice

Weekly Construction Meetings

The CONSULTANT will conduct regular construction meetings, as necessary at the CITY Public Works Department or Project Site at a time agreed on by the CONSULTANT and the CITY. For the purposes of preparing this Scope of Work, it is assumed that the project will include weekly construction meetings for a 3-month period of time. The meetings shall include but not be limited to directly meeting with the personnel involved with the project, follow up of issues from the previous meeting minutes, and discussion of new issues. The CONSULTANT shall provide notes from each meeting summarizing general discussion, actionable items, decisions made, and general agreements.

The CONSULTANT will also be in regular communication with the CITY in the form of email and telephone conversations.

Deliverable(s):

- i) Meeting notes

Work Element 2

FINAL DESIGN

The CONSULTANT shall provide the CITY with the final design Plans, Specifications, and Estimate for the Bid Advertisement.

Final Design

This work shall include addressing a single round of design review comments from the CITY and issuing a final Bid Documents Package to the CITY that include Plans, Specifications, and the Cost Estimate.

Deliverable(s):

- i) Final Plans, Specification, and Estimate

Work Element 3

SURVEYING

The CONSULTANT will assist the CITY acquiring authorization from private property owners to construct improvements outside of the City/State right-of-way. The temporary

construction and permanent utility easement documents will be prepared by the CONSULTANT. The documents will include an aerial photograph exhibit (8.5"x11") showing the limits of the work and legal descriptions of the easements. The CITY will prepare a cover sheet for each easement and negotiate directly with each landowner. For the purpose of this scope of work, we assume that the project will require 1 temporary construction easement and 1 permanent easement.

Deliverable(s):

- i) 1 easement legal description and exhibit map (Temporary Construction Easement)
- ii) 1 easement legal description and exhibit map (Permanent Water Easement)

Work Element 4

BID ADVERTISEMENT AND AWARD SUPPORT

The CONSULTANT shall assist the CITY during the bid advertisement and award period.

Support During Bid Advertisement and Award

This work shall include providing assistance to the CITY during the bid advertisement and award period. This work shall include assisting the CITY with Bid Addendum preparation, responding to bidder questions, attending a pre-bid meeting, and attending the bid opening.

Deliverable(s):

- i) Bid Addendums (if necessary).
- ii) Pre-Bid Agenda, Minutes, and Sign-in Sheets.
- iii) Bid Tabulation
- iv) Recommendation to Award

Work Element 5

DIRECT REIMBURSABLES

The CITY agrees to reimburse the CONSULTANT, upon submission of appropriate expense documentation, for all reasonable and necessary out-of-pocket expenses incurred by the

CONSULTANT in the performance of services under this Agreement, provided such expenses are incurred during the term of the Agreement.

CONSTRUCTION MANAGEMENT

Work Element 6

CONSTRUCTION SURVEYING

The CONSULTANT shall provide construction surveying for the duration of the construction phase.

Construction Staking

The CONSULTANT shall stake the following items:

- Right-of-Way Boundary
- Easement Boundaries
- Clearing Limits
- Watermain Centerline with Offsets
- Hydrants
- Water Meters

In addition, the CONSULTANT shall conduct an as-built survey and provide the survey records to the Project Engineer for as-built drawing preparation.

Deliverable(s):

- i) Field Stakes
- ii) As-built drawings (GIS, CAD, pdf, other)

Work Element 7

CONSTRUCTION ADMINISTRATION ASSISTANCE

The CONSULTANT shall assist the CITY with the Construction Administration to document the construction activities, track material quantities, coordinate materials testing with GeoTest Services, Inc., review/prepare monthly contractor pay estimates, and prepare as-built drawings.

Construction Daily Inspections

This work shall include visiting the site daily for approximately 3 hours (plus 1 hour of travel time) during the construction phase of the project. The inspector shall prepare an Inspector's Daily Report (IDR), document working days and non-working days, track bid item material quantities, review Contractor provided payroll records for prevailing wage compliance, receive questions from the public or the Contractor, and meet with the Project Engineer to report daily activities.

Deliverable(s):

- i) Intent to Pay Prevailing Wages
- ii) Inspector Daily Reports (IDRs)
- iii) Material Testing Reports
- iv) Construction File

Project Engineer Review

The Project Engineer shall review IDR's, prepare design revisions, coordinate with the City and inspector, review material submittals, respond to RFI's, draft and process change orders prepare Record of Materials (ROM) and prepare as-built drawings.

Deliverable(s):

- i) Design Revisions (if necessary)
- ii) Material Submittal Review (WSDOT RAMS Forms)
- iii) Record of Materials (ROM)
- iv) Change Orders
- v) Force Account
- vi) Progress Payment Estimates
- vii) As-Built Drawings

Work Element 8
MATERIALS TESTING

The CONSULTANT will contract with a Materials Testing firm to perform materials testing for the duration of the project.

Materials Testing

The CONSULTANT shall provide the following materials testing:

- **Trench Backfill Compaction Testing** (Sieve, Mod. Proctor, Sand Equivalent, Nuclear Density Test) – 4 site visits plus laboratory work.
- **Asphalt Content and Gradation Testing** (Ignition, Rice Density, Uncompacted Voids, Percent Fracture) – 1 site visit plus laboratory work.
- **Concrete Testing** (Gradation, Slump, Test Cylinders) – 1 site visit plus laboratory work.

Deliverable(s):

- i) Materials Testing Reports (4)

Work Element 9
PROJECT CLOSEOUT PROCESS

Upon Substantial Completion, the CONSULTANT shall begin the process of project closeout. This shall include a project walkthrough, project punchlist, and gather final project documentation.

Deliverable(s):

- i) Project Walkthrough
- ii) Construction Punchlist
- iii) Punchlist Verification
- iv) Final Documentation

Work Element 10

CITY FURNISHED SERVICES, INFORMATION AND ITEMS

Throughout the duration of the project, the CITY will perform services, furnish information, and answer questions on CITY standard procedures for plan preparation.

The following services will be performed by the CITY:

1. The CITY will supply personnel on a continuing basis for ongoing assistance to provide information and answer questions on CITY standard procedures.
2. The CITY will lead public information/public outreach and outside agency coordination, including the bidding procedures.
3. The CITY will lead coordination of utility relocations with utility agencies, including coordination of permit applications, prepared by CITY and/or franchise utility companies, as necessary for utility relocations. The CONSULTANT shall provide exhibits and support information as needed.
4. The CITY will negotiate directly with landowners.

END OF SCOPE

TOTAL BUDGET SUMMARY

	WORK ELEMENT	PSE	GeoTest	CONTRACT TOTAL
FINAL PLANS, SPECIFICATIONS, AND ESTIMATE				
1	Project Management			
	Invoicing	\$ 1,790	\$ -	\$ 1,790
	Subtotal:	\$ 1,790	\$ -	\$ 1,790
2	Final Design			
	Final Plans, Specifications, and Estimate	\$ 4,980	\$ -	\$ 4,980
	Subtotal:	\$ 4,980	\$ -	\$ 4,980
3	Surveying			
	Permanent and Temporary Easements (1 each)	\$ 5,250	\$ -	\$ 5,250
	Subtotal:	\$ 5,250	\$ -	\$ 5,250
4	Bid Advertisement and Award Support			
	Support During Bid Advertisement and Award	\$ 4,240	\$ -	\$ 4,240
	Subtotal:	\$ 4,240	\$ -	\$ 4,240
5	Direct Reimbursables			
	Recording Fees	\$ 2,250	\$ -	\$ 2,250
	Subtotal:	\$ 2,250	\$ -	\$ 2,250
CONSTRUCTION MANAGEMENT				
6	Construction Surveying			
	Construction Staking	\$ 5,170	\$ -	\$ 5,170
	Subtotal:	\$ 5,170	\$ -	\$ 5,170
7	Construction Administration Assistance			
	Weekly Construction Meetings	\$ 6,820	\$ -	\$ 6,820
	Construction Daily Inspections	\$ 16,940	\$ -	\$ 16,940
	Project Engineer Review	\$ 6,820	\$ -	\$ 6,820
	Subtotal:	\$ 30,580	\$ -	\$ 30,580
8	Materials Testing			
	Review Test Reports	\$ 640	\$ 4,958	\$ 5,598
	Subtotal:	\$ 640	\$ 4,958	\$ 5,598
9	Project Closeout Process			
	Project Walkthrough	\$ 900	\$ -	\$ 900
	Construction Punchlist	\$ 640	\$ -	\$ 640
	Punchlist Verification	\$ 900	\$ -	\$ 900
	Final Documentation	\$ 2,230	\$ -	\$ 2,230
	Subtotal:	\$ 4,670	\$ -	\$ 4,670
10	City Furnished Services, Information, and Items			
	City Furnished Services, Information, and Items	\$ -	\$ -	\$ -
	Subtotal:	\$ -	\$ -	\$ -
	<i>Final Plans, Specifications, and Estimate Subtotal (Items 2-5)</i>			\$ 16,720
	<i>Final Construction Management Subtotal (Items 1, 6-10)</i>			\$ 47,808
	TOTAL	\$ 59,570	\$ 4,958	\$ 64,528

LABOR ESTIMATE: Guide Meridian Water Main

PSE SCOPE

WORK ELEMENT		CLASSIFICATION & HOURS									Hours	Direct Cost
		Princ. Eng.	Senior Eng.	Proj. Eng.	Const. Insp.	Princ. Surv.	Senior Land. Surv.	CAD Tech	2-Person Surv. Crew.	Office Clerical		
		\$ 210	\$ 190	\$ 175	\$ 130	\$ 210	\$ 190	\$ 125	\$ 260	\$ 95		
FINAL PLANS, SPECIFICATIONS, AND ESTIMATE												
1	Project Management											
	Invoicing	4	2	0	0	0	0	0	0	6	12	\$ 1,790
	Subtotal:	4	2	0	0	0	0	0	0	6	12	\$ 1,790
2	Final Design											
	Final Plans, Specifications, and Estimate	2	24	0	0	0	0	0	0	0	26	\$ 4,980
	Subtotal:	2	24	0	0	0	0	0	0	0	26	\$ 4,980
3	Surveying											
	Permanent and Temporary Easements (1 each)	0	2	0	0	10	8	10	0	0	30	\$ 5,250
	Subtotal:	0	2	0	0	10	8	10	0	0	30	\$ 5,250
4	Bid Advertisement and Award Support											
	Support During Bid Advertisement and Award	2	16	0	6	0	0	0	0	0	24	\$ 4,240
	Subtotal:	2	16	0	6	0	0	0	0	0	24	\$ 4,240
5	Direct Reimbursables											
	Recording Fees	0	0	0	0	0	0	0	0	0	0	\$ 2,250
	Subtotal:	0	0	0	0	0	0	0	0	0	0	\$ 2,250
CONSTRUCTION MANAGEMENT												
6	Construction Surveying											
	Construction Staking	0	0	0	0	3	2	0	16	0	21	\$ 5,170
	Subtotal:	0	0	0	0	3	2	0	16	0	21	\$ 5,170
7	Construction Administration Assistance											
	Weekly Construction Meetings	2	20	0	20	0	0	0	0	0	42	\$ 6,820
	Construction Daily Inspections	4	30	0	80	0	0	0	0	0	114	\$ 16,940
	Project Engineer Review	2	20	0	20	0	0	0	0	0	42	\$ 6,820
	Subtotal:	8	70	0	120	0	0	0	0	0	198	\$ 30,580
8	Materials Testing											
	Review Test Reports	0	2	0	2	0	0	0	0	0	4	\$ 640
	Subtotal:	0	2	0	2	0	0	0	0	0	4	\$ 640
9	Project Closeout Process											
	Project Walkthrough	0	2	0	4	0	0	0	0	0	6	\$ 900
	Construction Punchlist	0	2	0	2	0	0	0	0	0	4	\$ 640
	Punchlist Verification	0	2	0	4	0	0	0	0	0	6	\$ 900
	Final Documentation	0	8	0	4	0	0	0	0	2	14	\$ 2,230
	Subtotal:	0	14	0	14	0	0	0	0	2	30	\$ 4,670
10	City Furnished Servcies, Information, and Items											
	City Furnished Servcies, Information, and Items	0	0	0	0	0	0	0	0	0	0	\$ -
	Subtotal:	0	0	0	0	0	0	0	0	0	0	\$ -
TOTAL		16	130	0	142	13	10	10	16	8	345	\$ 59,570