



City of North Port
PURCHASING
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WORK ASSIGNMENT
Stantec Consulting Services, Inc.

CONSULTANT

CONTINUING CONTRACT NO. & TITLE

2020-59-12 PROFESSIONAL ENGINEERING SERVICES - CONTINUING SERVICES CONTRACTS FOR CITY OF NORTH PORT UTILITIES

THIS WORK ASSIGNMENT

WORK ASSIGNMENT #

2024-06 Agenda Item 24-0548 4/23/24 Com Mtg

SHORT TITLE

North Port- Lead & Copper Rule Revision (LCRR)

DATE SUBMITTED

3/4/2024

AMOUNT (LUMP SUM)

\$364,590.00

SCHEDULED COMPLETION

Refer to scope of work

CONTRACT AND BUDGET OVERVIEW FOR FISCAL YEAR 2024

	DEPARTMENT
TOTAL OF PREVIOUS ASSIGNMENTS	<u>\$173,145.00</u>
THIS WORK ASSIGNMENT	<u>\$364,590.00</u>
TOTAL WORK ASSIGNMENTS	<u>\$537,735.00</u>
ACCOUNT NO/PROJECT NO	<u>420-6063-536.31-05</u>

All work assignments require City Manager approval. In presenting this work assignment, it is understood that:

1. All associated supporting documentation and justification for this work assignment is attached hereto.
2. Unless specified herein, work does not involve watercraft, boat piers and/or other activities requiring additional workers compensation endorsements.
3. Contact or involvement with hazardous materials is not anticipated, should hazardous materials be encountered, the City shall be informed.
4. THIS WORK ASSIGNMENT SHALL NOT EXCEED \$500,000 & ANY RESULTING CONSTRUCTION SHALL NOT EXCEED \$4,000,000 PER FLORIDA STATUTE 287.055 AS AMENDED.

SUBMITTED BY:

Andrea Crivello 4/2/24
 CONSULTANT DATE
Stantec, Principal

APPROVED BY:

Nancy Gallinaro Digitally signed by Nancy Gallinaro
 Date: 2024.04.03 08:19:20 -04'00'

Lisa Herrmann Digitally signed by Lisa Herrmann
 Date: 2024.04.03 13:43:49 -04'00'

DEPARTMENT DIRECTOR DATE

BUDGET ADMINISTRATOR DATE

Ginny Duyn Digitally signed by Ginny Duyn
 Date: 2024.04.03 14:11:09 -04'00'

Kimberly Williams Digitally signed by Kimberly Williams
 Date: 2024.04.03 14:54:08 -04'00'

PURCHASING DATE

FINANCE DIRECTOR DATE

Jan Jackson Date: 2024.04.04
 13:22:28 -04'00'

ASSISTANT CITY MANAGER DATE

CITY MANAGER DATE



Stantec Consulting Services Inc.
777 S Harbour Island Blvd #600
Tampa, FL 33602

March 1, 2024

Ms. Melissa McConnell
Project Manager - Utilities
City of North Port
5930 Sam Shapos Way
North Port, FL 34287

Dear Ms. McConnell,

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

Thank you for the opportunity to provide Engineering services to the City of North Port Utilities Department (NPU). As requested, Stantec Consulting Services Inc. (Consultant) is pleased to submit this Scope of Services associated with the above referenced subject.

The services to be provided under this scope are listed below.

SCOPE OF SERVICES

The following services will be provided to assist NPU in preparing a City-wide inventory of existing water services to determine the material of all service lines that are 2-inch diameter or smaller. This Scope of Services is the first step in the process of developing a lead service line (LSL) inventory by utilizing predictive analysis and modeling to meet the requirements of the Environmental Protection Agency's (EPA's) Lead and Copper Rule Revisions (LCRR). This work will include utilizing Florida Department of Environmental Protection's (FDEP's) latest requirements, which were issued on January 12, 2024, and submitting the complete LSL inventory to FDEP in the format that conforms with the guidance by October 16, 2024.

Task 1 – Project Management and Administration

Consultant will provide overall Project Management Services throughout the duration of the project which are estimated to be as outlined in the schedule within this Scope of Services. We will work closely with NPU staff and hold regular progress meetings to involve and inform stakeholders of the project status, decision needs, and coordination needs. This work will include:

Task 1.1 – Project Management and Coordination

Consultant will perform project management and general administrative duties associated with the Project including project set-up, resource management, progress monitoring, scheduling, general correspondence, office administration, and invoicing. Consultant will review, update, and submit to NPU the updated project schedule periodically upon completion of major project elements.

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

Task 1.2 – Meetings

Consultant's Project Manager will hold regular monthly project progress calls with NPU's Project Manager to provide updates on progress and discuss any items requiring attention.

A. Project Kickoff Meeting

Following issuance of a Notice to Proceed (NTP), Consultant will coordinate and lead a project kickoff meeting with NPU staff to review the project purpose and objectives, scope of work, schedule for project activities and deliverables, and initial discussions regarding NPU's goals and vision for asset management program development. Consultant will provide an overview of the roadmap initiatives included in this task order. The meeting will introduce the Consultant/NPU staff that will be involved, identify data sources that may be utilized in developing the service line inventory, and establish the points of contact associated with specific City of North Port departments for access to historical records which are not available on-line. It is anticipated that up to four (4) Consultant staff members will attend the project kickoff meeting. This meeting is intended to be virtual. However, the fee includes budget for two (2) Stantec staff members to attend in person. Consultant will prepare an agenda for the meeting and will prepare and distribute meeting minutes.

B. Monthly Meetings

Consultant will coordinate and lead a monthly project coordination meeting (seven [7] total, assumed one hour duration) with NPU staff to review the project's progress from the previous month. These meetings are intended to be virtual (on Microsoft Teams or other NPU preferred platform). However, the fee for this scope of work includes one in-person meeting for two (2) Stantec staff members in addition to the kickoff meeting. Consultant will prepare an agenda for the meetings and will prepare and distribute meeting minutes.

Task 1 Assumptions:

- All deliverables will be submitted to NPU in electronic format.
- Project progress meetings will be held virtually, using Microsoft Teams or an equivalent platform.
- One monthly meeting will be held in person that will include two (2) Stantec staff members in attendance (with Teams or equivalent capability for virtual attendance).
- Meeting summaries will be transmitted via e-mail in draft form (for NPU review) before they are finalized.

Task 1 Deliverables:

- Monthly invoices, schedules, and status reports – electronic delivery.
- Meeting agendas and meeting summaries, including presentation materials – electronic delivery.
- Bi-monthly project status reports.

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

Task 2 – Assessment of Existing Infrastructure

The LCRR requires a complete inventory that identifies the material of construction of all 26,000± service lines that are 2-inch diameter (or smaller) on both the public (street) and private (house) side of the water meter (or other delineator). This inventory must be prepared and presented in a way that can be easily communicated to customers. Consultant will review NPU's available service/tap/tie cards, as-builts/Record Drawings, emergency repair records and documentation, meter records, assessing department information, etc. and utilize FDEP's LSL inventory spreadsheet template to tabulate all required information for each service line. For the purposes of budgeting this phase of the work, Consultant will tabulate historical records information for up to 26,000 service lines. Consultant will also perform field work to obtain field verified service line materials to be used as inputs into the predictive modeling efforts described in Task 3.

Task 2.1 Data Review and Documentation

A. Plumbing Code Review

A review of the local and State plumbing code will be conducted to determine the date when the use of lead was restricted following the amendment to the Safe Drinking Water Act (SDWA) banning the use of lead pipe (which went into effect on June 19, 1986 at the federal level). States had a period of two (2) years to incorporate the ban into State law and their regulations following the Federal date. The FDEP recently released guidance that utilities should use January 18, 1989 for the date of lead pipe ban within Florida. This establishes the date to use for determining when LSLs were no longer used for new service installations or replacements, unless NPU documentation dictates otherwise.

B. Billing Account Records

Through our knowledge of NPU's water distribution system, it was estimated that there are approximately 26,000 water accounts within their service area. The complete accounts record will be reviewed to reconcile with the total number of services in the distribution system.

C. Records Collection and Data Populations

Consultant will identify and review the data sources, which will require coordination across multiple City of North Port Departments. Sources of data that can support the development of the service line inventory (to acquire water service age, materials, diameter, lengths from the main to the water meter, length to the building, year installed and/or year replaced) may include:

- Water service cards
- Water service installation ledgers or notebooks
- Water account information
- Building permits/Code Enforcement Department (renovations and/or tear downs that note service line replacement)
- Work orders/field reports (meter replacements, service line repairs)
- Planning Department records (residential developments, etc.)
- Construction records (major water main repairs/replacement that identify services replaced)

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

- Plumbing permits (for replacement of services)
- Local ordinances noting the date the ban on lead pipe took effect
- Tax/parcel records (showing the date the home/business was constructed)
- Maps/Record Drawings
- Miscellaneous utility or street construction information

When possible, the Consultant will obtain the necessary records from NPU's website. Obtaining much of these documents/data will require access to NPU internal databases or records storage. As data sources are reviewed and found to be accurate and relevant to the LCRR service line inventory, the inventory will be updated with the relevant information. All information incorporated into the service line inventory will indicate the data source (or metadata) used for quality control and reporting purposes. It is assumed that these internal databases will only be accessible at NPU offices, thereby requiring in-person visits by Consultant staff members. Two (2) full day field visits by two (2) Consultant personnel are assumed to be necessary to work with NPU staff to research and collect water service record information.

The information will be reviewed for accuracy and data gaps will then be determined. It is anticipated that only a portion of the water services will have the service line material identified through the records review process. After data gaps (e.g., unknown materials, unknown year of install) and any data inconsistencies are identified, Consultant will work with NPU to confirm all data sources that could assist in developing the LSL inventory have been identified.

D. Interviews with NPU and Other City Department Staff

During the records review/inventory, interviews will be conducted with NPU staff who may have information that can be used to provide guidance and/or verify information. We anticipate conducting interviews with representatives from the following departments: Assessors, Building Department, Engineering/Planning, and Public Works.

E. Ongoing Work Order Data Reconciliation

It is understood that NPU is actively collecting service line material information as crews perform regular operations and maintenance activities. This information will be managed and entered into the working LSL inventory periodically.

Task 2.2 Field Verification

There are several means to determine private and public side service line materials. The Consultant will perform field investigations at up to 400 addresses to inspect water meter boxes and collect public and private side material and diameter information. Other means of field verifications may include mechanical excavations and hydrovac excavations (i.e., potholing). However, it is assumed that these methods will not be undertaken and hence, they are not included in the fee for this proposal.

Field work data will be captured using Esri's Lead Service Line Inventory (LSLI) Field Maps (mobile application) for easy data collection and automatic updates to the LSLI. Using the field map application, our

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

team will determine materials and attach photographic documentation for both the public and private sides and attach those to each service line inspection at the water meter box.

Task 2 Assumptions:

- NPU will provide internally available data pertaining to service lines.
- NPU will share all necessary information related to billing accounts with the Consultant.
- NPU will provide a SharePoint folder to the Consultant to share field data collected by City field staff and/or contractors.
- NPU will handle all communications with customers prior to field work taking place.
- NPU will be responsible for all costs and distribution of public outreach materials such as door hangers, customer notification letters, etc.

Task 2 Deliverables:

- Meeting minutes from interview(s) held with NPU staff.
- Data and document request list.

Task 3 – GIS Development

GIS will serve as the authoritative system of record for water service line materials. This project will utilize best practices in GIS, to enable the successful migration of many data sources into a single repository (i.e., the geodatabase). The Esri LSLI Solution will be used to create and maintain the LSL inventory, support material verifications in the field, manage replacement activities, monitor progress, and inform the community. The GIS database template will be customized to meet the requirements of the US EPA and FDEP service line material inventory attributes.

- A. An initial inventory will be developed using any existing service line material in NPU's current GIS. All service lines greater than 2-inches will be noted as Non-Lead. Additionally, per FDEP guidance, all homes built after January 18, 1989 will also be designated as Non-Lead per Florida's lead pipe ban on both the public and private sides.
- B. The LSL inventory development includes combining all data into a regulator-friendly dataset. Using the Esri LSLI Solution schema as a starting point, the Consultant's team will work with NPU staff to refine the schema to meet applicable Federal and State LCRR requirements and any NPU GIS needs.
- C. Utilizing various methods, the Consultant team will perform Extraction, Transfer and Loading (ELT) tasks to migrate NPU's existing GIS data into an initial LSL inventory geodatabase that includes current water system infrastructure, any previous LSL inventory results, county parcel information, and any other relevant information.
- D. Technical Support: Consultant will work with NPU's GIS manager to deploy Esri's ArcGIS LSLI Solution. By deploying this innovative product, NPU staff will be able to customize engagements with specific communities, neighborhoods, and stakeholders within NPU's service area. This is a spatially enabled solution that can be configured to capture geospatial inputs in addition to

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

responses to survey questions. This information will then be used with spatial information that is collected to identify specific locations where stakeholders have expressed concerns with lead and galvanized pipes. Lastly, another benefit of gathering this information is that it can be used as ancillary data for input/validation of the predictive model.

Consultant will continue documenting information sharing workflows to provide both the Consultant's team and NPU staff a clear understanding of the source of information, how it is being collected, and how it is being shared. Consultant will publish ArcGIS Online maps, applications and dashboards displaying current up-to-date information, which can then be used to support both internal and external (i.e., public) communications.

Task 3 Assumptions:

- NPU shall furnish any current GIS, previous LSL inventory results and capital improvement plan (CIP) information pertaining to previous service line replacements.
- Additional service records and GIS information obtained outside of this anticipated scope can be compiled, digitized, and added to the LSL inventory under later tasks or as additional professional services.
- Any necessary ArcGIS annual subscriptions will be paid by NPU.
- NPU will provide Consultant editors with permissions to necessary Groups to facilitate deployment and maintenance of the Esri LSLI Solution.

Task 3 Deliverables:

- Initial LSL inventory within a geodatabase (GIS).
- Functional Esri LSLI Solution elements.

Task 4 – Predictive Analysis and Modeling

Task 4.1 Predictive Modeling

The Consultant and its subcontractor (BlueConduit) will perform predictive analysis and modeling. The Consultant team will set up the necessary backend software infrastructure, tools, and environment to support data hosting, analysis, machine learning, integration, and outputs for NPU's project. The team will perform Esri integration and deployment and data ingestion and analysis by:

- A. Configuring the Esri applications for the BlueConduit Experience (to include custom applications and dashboards).
- B. Utilizing direct integration with Esri's LSLI Solution to ingest existing NPU data.
- C. Performing preliminary analysis of existing data to evaluate for quality, gaps, biases, and representativeness.

BlueConduit's predictive model will produce an initial batch of locations (typically 100 - 150) for the Consultant to complete physical verifications on both the public and private sides of unknown service lines. The results will be fed into the model to guide subsequent phases of field verifications to be performed, as

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

described in Task 2.2. The Consultant team estimates that up to 400 field verifications in total may be necessary to reconcile unknown service line materials on both the private and public sides. Data scientists will perform ongoing analysis of newly integrated data for the purpose of re-training the machine learning algorithm and refining service line material predictions for the duration of the project.

Task 4.2 Final Report and Inventory

The Consultant will prepare and submit to NPU a final report that includes a detailed description of the sampling program methods and procedures and a service line inventory compliant with LCRR inventory requirements. The report will also discuss the options available to replace lines that will require replacement under the current LCRR regulation (i.e., LSL Replacement Plan). This report will conclude with recommendations for project priorities that will result in the most efficient means to address lead and galvanized requiring replacement (GRR) service line replacements based on density and vulnerability.

Task 4 Assumptions:

- NPU will be available to answer questions about the data provided, as needed.
- Consultant will provide the electronic data deliverables to NPU in .xlsx, shapefile, .csv, or other NPU-approved data file type (in addition to .pdf reports).
- NPU's deliverable review time will be no longer than two (2) weeks (i.e., 10 business days).

Task 4 Deliverables:

- Report in Draft and Final form documenting the components described in Task 4 above.
 - Draft report will be submitted electronically with three (3) originals in the mail.
 - Final report will be submitted electronically with five (5) originals in the mail.
 - Draft and final reports will be provided electronically in both .docx and .pdf formats.
- Lead Service Line Inventory export in FDEP compliant Excel (.xlsx) format and in a GIS-compatible database.
- Public-facing inventory map.

Task 5 - Optional Tasks (Not Included in Fee)

5.1 Public Education/Outreach

At an additional cost and as requested by NPU, Consultant can support project communications and public outreach. This campaign aims to effectively inform and engage key audiences on the purposes and benefits of the LCRR compliance program, required field inspections and LSL inventory development in a way that facilitates customer and community understanding and support. It will also comply with all US EPA and FDEP regulations thereby maintaining the public's trust in NPU.

5.2 Funding Support

At an additional cost and as requested by NPU, Consultant can assist NPU with funding support for the LCRR compliance program. This will primarily focus on FDEP Drinking Water State Revolving Fund

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

(DWSRF) sources, including dedicated lead service line replacement (LSLR) funding but may also research and identify additional funding sources. Consultant can develop a Request for Inclusion (RFI) on the DWSRF’s Bipartisan Infrastructure Law (BIL) LSL Priority List (which identifies projects expected to be funded and to close on a loan agreement in the following fiscal year). These RFIs are evaluated quarterly (in February, May, August, and November) by FDEP to determine if a project will be added to the fundable portion of the LSL Priority List. Note that the State of Florida was allocated the most available funds for LSL replacement projects in Fiscal Year (FY) 2023. BIL funding for FY 2024 is pending announcement.

OTHER ASSUMPTIONS AND EXCLUSIONS

The following summarizes additional assumptions and exclusions for the overall project:

1. The schedule is based on a NTP date of March 15, 2024.
2. The engineering fees are based on the rate table in the City of North Port and Position Descriptions Contract 2020-58 Renewal Billing Rate Table between Stantec and NPU, signed and executed on August 18th, 2023.
3. Unless otherwise mutually agreed upon and noted as “in-person”, all meetings will be conducted in a virtual environment and all deliverables will be submitted in electronic formats.
4. Any fees for additional or optional services mentioned herein shall be negotiated as additional work as requested by NPU and will not be executed until Consultant has received NPU’s approval.
5. NPU staff will be performing all public outreach efforts in-house.
6. Members of NPU’s Leadership Team will actively engage with the Consultant’s team regarding review of the funding matrix, discussion and approval for any funding sources that are identified, and funding applications that are prepared (optional service).

FEE FOR SERVICES

Consultant proposes to complete engineering services described above in Tasks 1 – 4 for an amount of **\$364,590.00** inclusive of all expenses on a **fixed fee** basis.

Task	Billing Method	Amount
1 — Project Management and Administration	Fixed Fee	\$38,730
2 — Assessment of Existing Infrastructure	Fixed Fee	\$174,370
3 — GIS Development	Fixed Fee	\$44,390
4 — Predictive Analysis and Modeling	Fixed Fee	\$107,100
TOTAL AUTHORIZATION		\$364,590

Reference: Proposal for Engineering Services – City of North Port Lead and Copper Rule Revisions – Assessment & Predictive Modeling

SCHEDULE

Stantec will adhere to the following days from date of Notice to Proceed (NTP) with this project or by the date indicated:

Kick-off Meeting	15 days from NTP
Monthly Meetings	Duration of project
Data Review and Documentation	12 weeks from Kick-off Meeting
Field Verifications	20 weeks from Kick-off Meeting
GIS Development	Duration of Project
Predictive Modeling	Duration of Project
Draft Report	September 1, 2024
Final Report	October 1, 2024
LSL Inventory in FDEP Excel Format	October 16, 2024
Public-Facing Map	October 16, 2024

If you have any questions, please contact me at Brendan.OBrien@stantec.com or 617-417-3135.

Respectfully yours,

Stantec Consulting Services Inc.

Stephen MacEachern PE
Senior Project Engineer
Phone: (914) 225-6177
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Project Manager
Phone: (617) 417-3135
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Attachments: Fee Breakdown



FEE ESTIMATE - City of North Port LCRR – Assessment & Predictive Modeling

	Principal	Project Manager	Admin. Assistant	Technical Advisor (Senior Project Manager)	QA/QC (Principal)	Staff Engineer	Junior Engineer	Junior Engineer	GIS Lead (Principal)	Project Scientist	GIS Technician (Staff Engineer)	GIS Technician (Junior Engineer)	BluePrint - Predictive Modeling
Project Billing Rate	\$245.00	\$200.00	\$110.00	\$210.00	\$245.00	\$150.00	\$135.00	\$245.00	\$165.00	\$150.00	\$135.00	\$1.10	
Total Units	48.00	248.00	8.00	40.00	8.00	164.00	446.00	402.00	64.00	76.00	156.00	140.00	74,900.00
Fee	\$11,760.00	\$49,600.00	\$880.00	\$8,400.00	\$1,960.00	\$24,600.00	\$60,210.00	\$54,270.00	\$15,680.00	\$12,540.00	\$23,400.00	\$18,900.00	\$82,390.00

WBS Code	Task Code	Task Name	Units											
1	100	Project Management and Administration												
1.1	100.1	Project Management and Coordination	40.00	68.00	8.00	20.00								
1.2	100.2	Meetings	4.00	20.00		8.00	2.00	4.00	4.00		8.00			
2	200	Assessment of Existing Infrastructure												
2.1	200.1	Data Review and Documentation		50.00		8.00		120.00	66.00	66.00	4.00	40.00	20.00	20.00
2.2	200.2	Field Verification		50.00		2.00		336.00	336.00	4.00		40.00	40.00	
3	300	GIS Development	40.00			2.00			40.00	20.00	80.00	80.00		
4	400	Predictive Analysis and Modeling												
4.1	400.1	Predictive Modeling											74,900.00	
4.2	400.2	Final Report and Inventory	4.00	20.00		4.00	2.00	40.00	40.00		8.00	16.00	16.00	

Project Summary	Hours	Labor	Expense	Subs	Total
Fixed Fee	0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fixed Fee	1,800.00	\$282,200.00	\$0.00	\$82,390.00	\$364,590.00
Total	1,800.00	\$282,200.00	\$0.00	\$82,390.00	\$364,590.00

Task Type	Hours	Labor	Expense	Subs	Total
Fixed Fee	186.00	\$38,730.00	\$0.00	\$0.00	\$38,730.00
Fixed Fee	136.00	\$28,480.00	\$0.00	\$0.00	\$28,480.00
Fixed Fee	50.00	\$10,250.00	\$0.00	\$0.00	\$10,250.00
Fixed Fee	1,202.00	\$174,370.00	\$0.00	\$0.00	\$174,370.00
Fixed Fee	394.00	\$60,780.00	\$0.00	\$0.00	\$60,780.00
Fixed Fee	808.00	\$113,590.00	\$0.00	\$0.00	\$113,590.00
Fixed Fee	262.00	\$44,390.00	\$0.00	\$0.00	\$44,390.00
Fixed Fee	150.00	\$24,710.00	\$0.00	\$82,390.00	\$107,100.00
Fixed Fee	0.00	\$0.00	\$0.00	\$82,390.00	\$82,390.00
Fixed Fee	150.00	\$24,710.00	\$0.00	\$0.00	\$24,710.00



BlueConduit

Statement of Work

for BlueConduit LSLI Platform-as-a-Service

Project Name: Stantec/North Port, FL

Date: Feb 27, 2024



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BlueConduit LSLI Platform-as-a-Service (12 months)

Phase I

Task PM: Project Management

BlueConduit will provide project management services throughout the project to ensure successful execution of each task. BlueConduit's dedicated Project Manager (PM) and/or Customer Success Manager (CSM) will be responsible for all project coordination and communication with the Client (the Client). BlueConduit will track project performance including budget and schedule, identify any outstanding issues, and hold progress meetings/conference calls with the Client as necessary. BlueConduit will also perform typical project management activities including the following: preparation of invoices, work plan, coordination, staffing, schedule management, and project updates.

Task 1: Project Startup

1.1 Project Kickoff Meeting

- ⇒ BlueConduit will conduct a virtual project kickoff meeting in coordination with the Client to introduce our project team, establish lines of communication, set mutual project expectations, and review the scope of services and project schedule.

1.2 BlueConduit Platform Setup

- ⇒ BlueConduit will set up the necessary backend software infrastructure, tools, and environment to support data hosting, analysis, machine learning, integration and outputs for the Client's project.

Client Expectations

- ⇒ All Client staff involved in LCRR compliance preparation will be encouraged to attend the Kickoff Meeting.
- ⇒ The Client will provide an estimated timeframe to complete each of their respective tasks for inclusion in the Project Work Plan/Schedule.

Deliverables

- ⇒ Copy of Kickoff Meeting Slide Deck/Notes
- ⇒ Finalized Project Work Plan/Schedule

Task 2: Implementation

2.1 BlueConduit - Esri Integration and Deployment

- ⇒ BlueConduit will host a virtual working session with the Client's GIS staff to install a routine that adds our schema (tables, columns, views, triggers) to the ESRI inventory.
- ⇒ BlueConduit will configure the Esri applications for the BlueConduit Experience) to include our custom applications and dashboards.



2.2 Data Ingestion and Phase I Analysis

- ⇒ BlueConduit will utilize direct integration with Esri LSLI to ingest existing Client data.
- ⇒ BlueConduit's Data Scientists will perform preliminary analysis of existing data to evaluate for quality, gaps, biases and representativeness.
- ⇒ During this task, BlueConduit will also enrich the provided data set with several features which will be spatially joined to the inventory. Example sources of enrichment include: National Regrid Parcel Data and the American Community Survey for census and demographic data.

2.3 Inventory Data Protocol Summary and Review

- ⇒ BlueConduit will provide a summary of its data assessment and present any gaps and recommendations to be addressed for the purpose of supporting the BlueConduit machine learning process.
- ⇒ BlueConduit will host a virtual meeting with the Client to review the Inventory Protocol, ensuring all available data is provided and that we understand how the preliminary inventory was developed, including data sources, material classifications etc.
- ⇒ At the conclusion of this task, the Client will be asked to provide confirmation and sign-off on the mutual understanding of the preliminary inventory ground truth before BlueConduit proceeds with Recommended Inspections.

2.4 Recommended Inspection List (Batch 1)

- ⇒ BlueConduit will produce an initial batch of locations (typically 100-150 locations) for the Client to complete physical verifications on each the public and private sides of unknown service lines. These results will shore up the baseline data for statistical analysis.
- ⇒ BlueConduit's recommended inspection list is based on the quality of verified data provided.
- ⇒ The number of locations to be included in the first batch can be discussed and mutually agreed upon between the Client and BlueConduit, taking into consideration the preliminary data evaluation, overall project timeline and State compliance requirements.
- ⇒ Total physical verifications required to support the statistical analysis/modeling process for material classification may depend on State Primacy approval.
- ⇒ **The Client** will assume any property inspection and physical validation costs.

2.5 Recommended Inspection List (Additional Batches)

- ⇒ Subsequent inspections may be recommended and can be provided in batches as needed; the final recommended inspection expectation cannot be determined until BlueConduit has reviewed and analyzed the existing Client data in its entirety, however, BlueConduit estimates that up to ~400 field verifications total may be necessary to reconcile uncertainty.

Client Expectations

- ⇒ The Client will deploy and host the Esri Lead Service Line Inventory (LSLI) Solution v 3.0+ in their ArcGIS Online (AGOL) account.
- ⇒ The Client will utilize existing Esri licensing to deploy and use the configured solution, including allocating user licenses (viewer, editor, mobile worker) for all staff and/or contractors to view and edit the LSLI data.
- ⇒ The Client will provide BlueConduit with read/write access to the inventory data layer.



- ⇒ The Client will allocate a (temporary) creator license to BlueConduit to execute configuration of Esri LSLI solution.
- ⇒ The Client will collect, organize, review, and prepare available data for the preliminary service line material inventory.
- ⇒ The Client will load their available LSLI data into the Esri LSLI Application Service Line layer.
 - If the Client requires services or support from BlueConduit in regards to preliminary inventory development and/or data loading in Esri, a change order or update to scope/fee will be needed.
- ⇒ The Client will be available to meet and answer questions about the provided inventory data and ground truth data.

Deliverables

- ⇒ BlueConduit Experience deployed to the Esri LSLI
- ⇒ Recommended Inspection List(s)
 - Inspection lists will be delivered directly to the BlueConduit Inspection Manager in Esri and can be exported in .csv format.

Task 3: Statistical Analysis and Predictions

3.1 Data Ingestion and Phase II Data Analysis

- ⇒ Upon completion of the Client’s field investigation effort, BlueConduit will utilize direct integration with Esri LSLI to ingest the newly collected verified service line material data.
- ⇒ BlueConduit’s Data Scientists will perform analysis of the newly collected data for the purpose of statistical analysis, training machine learning models and producing address-level predictions.

3.2 First Iteration of Predictions

- ⇒ BlueConduit will deliver the first iteration of address-level predictions, which will include the likelihood of lead vs non-lead for each segment (public and private) for each unknown service line in the distribution system.
- ⇒ Lead = LSL, GRR, Lead Goosenecks and Non-Lead = All other “safe” materials
- ⇒ Predictions will be delivered directly to the Esri LSLI application.

3.3 Configuration of BlueConduit Predictions Dashboard

- ⇒ BlueConduit will configure a custom Esri LSLI dashboard which will visually display both verified materials and predictions, with separate layers for public side and private side predictions.
- ⇒ BlueConduit will coordinate with the Client to determine appropriate thresholds categorizing low, medium, and high risk levels.

3.4 Results Explanation and Review Meeting

- ⇒ BlueConduit will host a virtual meeting(s) with the Client to review and explain the dashboard, model results and model performance metrics as well as recommended next steps for model improvement.



3.5 Ongoing Data Science Analysis (2nd iteration and beyond)

- ⇒ BlueConduit's Data Scientists will perform ongoing analysis of newly integrated data for the purpose of re-training the machine learning algorithm and refining service line material predictions for the duration of the defined agreement.

3.6 Ongoing Updates to Service Line Material Predictions (2nd iteration and beyond)

- ⇒ BlueConduit will continuously update material predictions at a frequency determined in coordination with the Client during implementation for the duration of the contract agreement.

Client Expectations

- ⇒ The Client staff will be available to answer questions about the data provided, as needed.
- ⇒ The Client will be prepared to perform physical verifications in a timely manner and log results using Esri LSL Field Map App. Saved inspection records are linked to the project's inventory table.
 - If the Client uses an alternate field data collection tool/method, the Client must load the updated material data into the Esri LSLI for ingestion by BlueConduit.
- ⇒ The Client will own and maintain the inventory source of truth in the Esri LSLI.

Deliverables

- ⇒ Address-level predictions (public and private side) that indicate the likelihood of lead (LSL, GRR, lead goosenecks) vs non-lead (safe materials) for each unknown service line in the distribution system.
 - Access to ongoing updated address-level predictions for the duration of the contract agreement.
- ⇒ Esri LSLI - BlueConduit Predictions Dashboard

Task 4: Reporting and Compliance

4.1 Statistical Analysis Report for Compliance

- ⇒ BlueConduit will prepare a detailed report summarizing our methodology, data inputs, model performance and results of our analysis and predictions as necessary for State LCRR compliance.
- ⇒ This report will include recommendations for LSLI material classifications based on the results of analysis and predictions.
- ⇒ BlueConduit will assist the Client with statistical analysis based prioritization recommendations as it relates to LSL Replacement Strategy and Planning.

4.2 LSLI Export for Compliance

- ⇒ The LSLI will be available for export directly from Esri for submission ahead of the LCRR deadline. BlueConduit will support necessary data mapping to the required State Inventory Template.



4.3 Public-Facing Inventory Map

- ⇒ BlueConduit will configure a public-facing map of the LSLI in Esri for the Client to host on their website.

Client Expectations

- ⇒ The Client is responsible for exporting and submitting the Lead Service Line Inventory and supplemental reporting to the State Primacy Agency.
- ⇒ The Client is responsible for hosting their Public-Facing Map on their website to comply with LCRR requirements.

Deliverables

- ⇒ Statistical Analysis Project Summary Report
- ⇒ Compliant LSLI Export
- ⇒ Public-Facing Inventory Map



Pricing Summary

The below pricing summary includes all services and deliverables as outlined in the enclosed SOW.

BlueConduit Platform-as-a-Service (Year 1 - Fixed Fee)	\$74,900.00
Project Management/Meetings	
BlueConduit - Esri Integration	
Deployment: BlueConduit Experience powered by Esri LSLI	
Data Science Validation and Analysis	
Data Enrichment	
Configuration of BlueConduit LSLI Dashboard (Verified and Predictions)	
Recommended Inspection List(s)	
Lead Predictions per Service Line (Public and Private)	
Public Facing Map	
Statistical Analysis Report	
Project Total	\$74,900.00
BlueConduit Platform-as-a-Service Renewal - Year 2	\$25,000.00

Pricing – Key Assumptions

1. ~25,000 SL's
2. Base Project TimeFrame: Contract Signing +12 months.
3. Stantec/North Port will prepare the preliminary inventory and load data into the Esri LSLI application.
4. Project Total will be invoiced within 10 days of contract signing and subject to NET30 payment terms.
5. Stantec/North Port is required to utilize existing Esri licensing to deploy and use the configured solution, including allocating user licenses (viewer, editor, mobile worker) for all staff and/or contractors to view and edit the LSLI data.
6. Optional renewal in subsequent years provides ongoing access to the integrated BlueConduit solution, including data science analysis, automatic updates to material predictions and replacement prioritization.

The City of North Port Utilities Department (NPU) has taken a critical, proactive step toward meeting the U.S. Environmental Protection Agency's (EPA's) compliance date of October 16, 2024 for the Lead and Copper Rule Revisions (LCRR). Stantec shares your excitement and stands ready to assist with any and all aspects of the LCRR. As your prime consultant, our key focus from day one will be to get the lead out of NPU to protect public health, increase community trust, and optimize the use of public funds. As you read this proposal, please note the benefits we offer:

A Team You Know and Trust: Utilities and Local Risks

Stantec has been providing quality services to NPU since the early 1990s and continues to support your staff today through our Client Services Manager, Stephen MacEachern. This experience provides us with a keen understanding of the development of the City prior to and after the acquisition of the utility systems from General Development Corporation and Myakka Utilities in 1992 and 1994, respectively. Additionally, Stantec is currently leading the development of a Vulnerability Assessment and Adaptation Plan for the City of North Port.

Efficiency Through a Customized Technical Approach

Every water system, utility, municipality and state is different. Our combined experience on similar regulatory-driven LCRR programs in small and mid-sized communities (i.e., Flint, MI; Fall River, MA; Saugus, MA; and Trenton, NJ) to programs in large metropolitan areas (i.e., Jackson, MS and Detroit, MI) demonstrates we understand how to customize our approach, processes, and tools to yield optimal results for NPU.

Commitment to the Highest QA/QC Standards

Our team will develop and implement QA/QC protocols with early collaboration and input from our Technical Advisory Committee which is comprised of nationally-recognized water quality, predictive modeling, and data analytics experts. As part of the Jackson, MS program, team members were responsible for double checking the GIS digitization and mapping and Stantec engineers confirmed the materials identified by the potholing contractor.

Added Value with Funding Support

If requested, Stantec's North American Funding Program can work alongside NPU to support any funding needs for this or future projects. Recently, we helped the City of Englewood, CO access \$30M, and the City of Joliet, IL access \$220M in WIFIA funding for water main and LSL replacements. Our team's keen understanding of a multitude of funding sources and requirements will expedite the application process and help to maximize non-rate-payer funding alternatives.

Our team of local and national experts understands precisely what needs to be done in the RLI scope of services. We are committed to helping the City meet its water quality objectives and provide safer drinking water for its customers. Please contact us if there are any questions about this RFP response.

Very truly yours,
Stantec Consulting Services Inc.



Stephen MacEachern, PE, PSM
Client Services Manager
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Brendan O'Brien, PE
Project Manager
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PROJECT UNDERSTANDING AND APPROACH

PROJECT UNDERSTANDING

NPU is seeking assistance to meet LCRR requirements associated with the EPA's upcoming compliance deadline of October 16, 2024. These include the development of an initial, comprehensive lead service line (LSL) inventory, LSL replacement (LSLR) plan, tap sampling plan, public communications plan, and testing approach for schools and childcare facilities.

Within NPU's Service Area, we understand there are nearly 26,000 service line connections. But of this total, there were approximately 6,600 connections prior to North Port's acquisition of the assets and land associated with the utility systems from General Development Corporation in 1992 (with the majority of these located in the City center or the Myakka Utilities Service Area). These are important points due to Rule 62-555.322, Florida Administrative Code (FAC) which

banned the use of lead pipe, pipe fittings, solder and flux as of January 18, 1989. The Florida Department of Environmental Protection's (FDEP's) recently enacted LSL inventory guidance document states that subsequently constructed service lines (after January 18, 1989) can be designated as "non-lead without further specific documentation". Hence, nearly 75% of NPU's service lines (on both the public and private sides) will receive a "non-lead" designation at project outset - which will greatly reduce the level of effort in LCRR compliance program approach that follows.

PROJECT MANAGEMENT

Project administration will include day-to-day project management; coordination of project activities and team resources; data management, management of budgets, schedules, and subcontractors; quality assurance and quality control (QA/QC);

attending progress meetings; preparing progress reports and invoices; and reviewing all documents that are submitted to NPU. Finally, the project schedule will be reviewed and updated regularly as project milestones are completed. In the paragraphs that follow, we will focus on LCRR-related tasks.

LSL INVENTORY/ DATA REVIEW

The Stantec team will leverage a stepwise approach to complete the LSL inventory and LSLR plan. Under this task, we will identify data sources that may be used to develop the LSL inventory and establish points of contact for access to historical records that are not online. A plumbing code review, assessment of billing account records, and interviews with NPU staff will be performed under this task. The Stantec team recognizes the merits of compiling the best available information for entry into the predictive model.

PROJECT UNDERSTANDING AND APPROACH CONTINUED

LSL INVENTORY/STATISTICAL METHODS

An accurate service line materials inventory is the foundation of the LCRR. BlueConduit, our teaming partner for predictive modeling, will work with NPU's existing data to develop its service line material (SLM) inventory.

BlueConduit's methodology produces a full SLM inventory for all line segments (public and private).

The SLM inventory will display the presence of known materials and predict likely locations of LSLs, galvanized steel/iron pipes with or without lead goosenecks, and the remaining materials used in the distribution system. BlueConduit understands that limited funding and time prohibit the ability to physically inspect service line materials at every address.

After evaluation of existing SLM inventory data, BlueConduit will generate an initial list of recommended locations to conduct field verifications to validate the public and private side service line materials (100 - 150 locations). The verified service line material data collected from these field inspections provides essential information to support BlueConduit's statistical methods and improve results and predictions. The process is iterative and improves with continued data validation. BlueConduit estimates that up to 400 physical verifications may be needed to support statistical analysis processes and conclusions for the purpose of classifying unknown materials in the LSL inventory.

ESRI ARCGIS COLLABORATION: BLUECONDUIT SMART SLM INVENTORY POWERED BY ESRI LSLI

BlueConduit is partnered with Esri to deliver a best-in-class, GIS-based LSL Inventory (LSLI) Solution. By combining the Esri ArcGIS Online technical architecture with BlueConduit's robust data analytics, service line inventory management and compliance are simplified and efficient.

Our predictive model and machine learning capabilities are seamlessly integrated with the Esri LSLI Solution which features 11 applications that provide each key user with targeted functionality and can be deployed free of charge for existing Esri customers. This solution requires NPU to retain an active ArcGIS Online environment. Features include:

- ArcGIS Inventory Online Project Map (hosted by NPU).
- Custom dashboards.
- Parcel-level material predictions (public and private sides).
- Up-to-date inventory with two views displayed on the map: verified and predicted materials.
- Ability to collect and record physical verifications using Esri field-based apps.
- Water Service Line Material Survey for customer self-reporting.

FIELD INVESTIGATIONS

There are several means to determine private side service line materials. If NPU opts to have customers self-report, the Stantec team will leverage the BlueConduit Powered by Esri - Water Service Line Material Survey as the web-based tool for customers to self-report and upload photos, thereby streamlining data management and automatic updates to the LSL inventory.

Knowing that this effort will not be 100% supported by customers, we will also utilize other means of field verifications that may include mechanical excavations, hydrovac excavations (i.e., potholing), and visual inspections at the water meter box or home exterior.

The proposed BlueConduit Powered by Esri LSLI Solution also enables fieldwork to be captured using Esri's LSL Field Maps (mobile application) for easy data collection and automatic updates to the LSLI. Using the field map application, our team can determine

materials and attach photographic documentation for both the public and private sides and attach those to each service line inspection at the meter box.

LSLR PLAN

A LSLR plan will need to be prepared if even one service line is identified as 'Lead,' 'Galvanized Requiring Replacement (GRR),' or 'Lead Status Unknown'. Per LCRR guidelines, this plan is required to include specific components such as establishing a funding strategy for conducting LSL replacements. Additionally, our team is staying abreast of the requirements under the EPA's proposed Lead and Copper Rule Improvements (LCRI), which would result in additional required components in the LSLR.

It should be noted that LCRI requires all community water systems (CWSs) and non-transient, non-community water systems (NTNCWSs) with one or more 'Lead,' 'GRR' or 'Lead Status Unknown' service line to replace all 'Lead' or 'GRR' service lines within a 10-year period. And this duration may be shortened if deemed feasible by the State.

TAP SAMPLING PLAN

Under the LCRR, tap sample site selection is based on improved tiering criteria that prioritize collection from sites served by LSLs. Thus, under this new five-tiered system, most samples will come from one of the following locations:

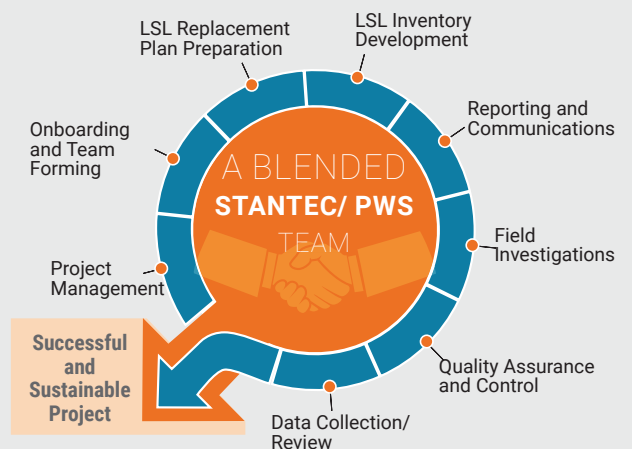
- Tier 1 (single family residences with LSLs).
- Tier 2 (multi-family residences with LSLs).
- Tier 3 (single family residences with galvanized service lines downstream of a LSL).

All samples must be collected from sites served by LSLs, if available. Based on LSL inventory inputs, we will prepare an updated tap sampling plan for NPU.

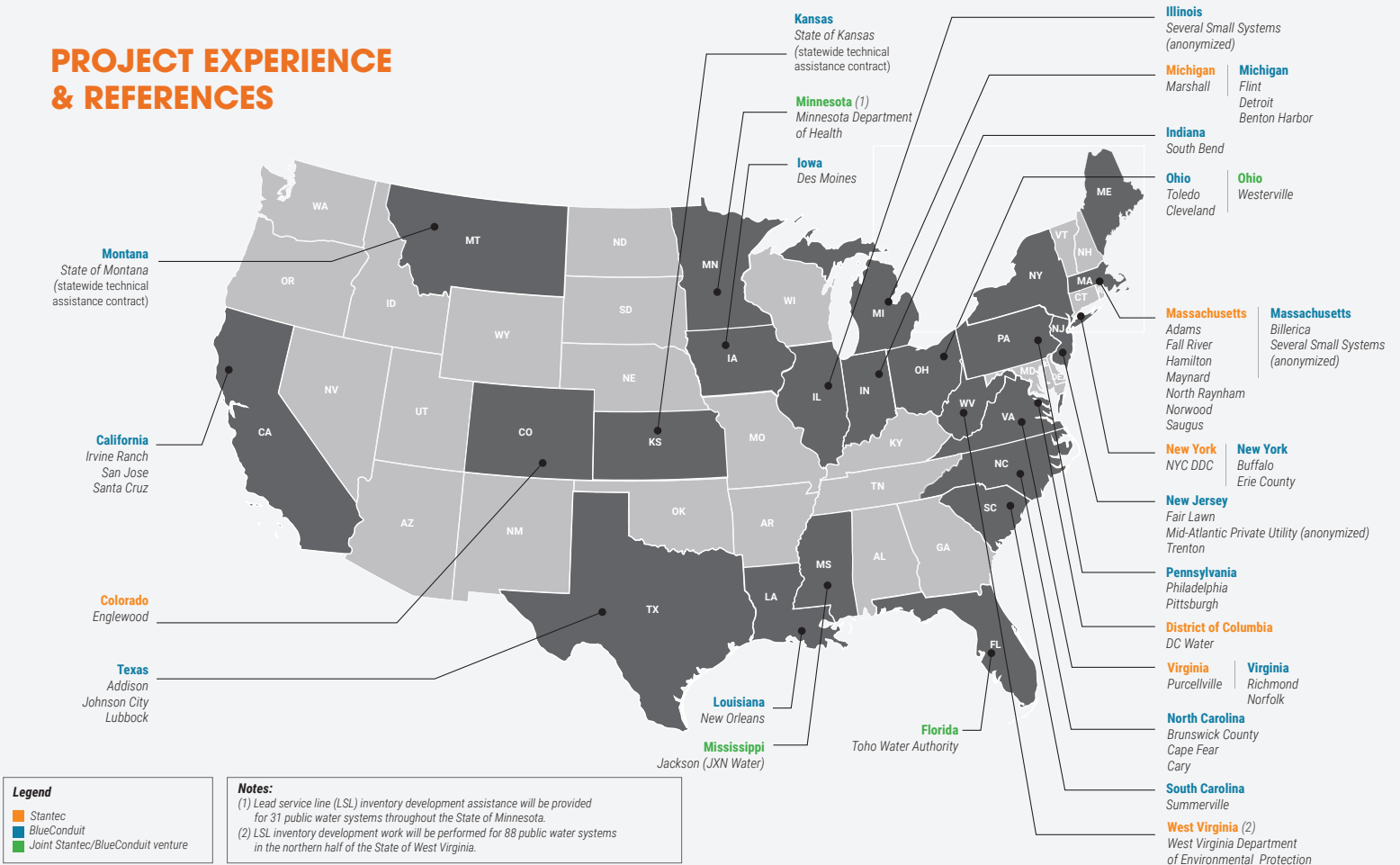
A BLENDED STANTEC AND PUBLIC WATER SYSTEM (PWS) TEAM

The Stantec team's philosophy on project management is centered on collaboration with applicable departments of a PWS and is designed to engage stakeholders from project inception. Our project management approach is designed to provide exceptional service and outcomes through clear alignment around scope, project risks, and expectations for schedule and budget. The graphic below shows the Stantec team's steps for the development and implementation of a successful LCRR Compliance Program.

Our team will work with NPU staff to provide a full-service LSL inventory solution with GIS mapping capabilities. We'll establish points of contact with applicable departments for access to historical records. A plumbing code review, assessment of billing account records, and interviews with NPU staff will be initially undertaken to understand the amount of information available. BlueConduit will work with the NPU's existing data to develop its service line material inventory which will generate recommended locations to conduct field investigations to validate public and private service line materials.



PROJECT EXPERIENCE & REFERENCES



LSL Inventory Assistance Toho Water Authority, FL (2023-present)

The Stantec/BlueConduit team recently began working with Toho Water Authority (Toho) personnel to assist them with preparation of an initial LSL inventory for their service area, consisting of nearly 160,000 service lines.

Stantec has coordinated with the Florida Department of Environmental Protection (FDEP) and has submitted the Drinking Water State Revolving Fund (DWSRF) program funding application in hopes of procuring Bipartisan Infrastructure Law (BIL) appropriations that have been allocated to the State to support development of LSL inventories and replacement of 'Lead' and 'GRR' service lines.

Predictive modeling, led by BlueConduit, will be performed to assist with LSL inventory development once the historical records review has been completed. They will recommend a number of field investigations at select locations that will be used to validate the accuracy of the model and verify the presence (or absence) of 'Lead' and 'GRR' service lines. The Stantec team will also be providing public education and outreach assistance.

Reference: Ms. Nina Cudahy, Environmental Compliance Section Manager | 689-312-3104 | ncudahy@tohowater.com

Jackson Water Improvements - Task 9 - Lead Service Line Inventory JXN Water (City of Jackson, MS) (2023-present)

Stantec is currently acting as an extension of JXN Water's staff in order to restore reliable drinking water service to the residents of Jackson, MS. As part of the process of digitizing 20,000 historical records and building out a GIS system from scratch, the team is documenting service line materials as they are encountered on record drawings. The LCRR project includes an aggressive potholing program of 400 residential addresses and the 55 Jackson Public Schools. An ongoing meter replacement program is also providing targeted information to aid in inventory development. The team has also built an interim work order system that is capturing data from multiple contractors performing repair and replacement work throughout Jackson, until the long-term work order system is implemented in March 2024.

Stantec is working with BlueConduit to input the field data from all ongoing work in Jackson in order to leverage predictive modeling to assist with LSL inventory development. Ultimately all information will be hosted in Esri's ArcGIS LSL Solution and hosted on JXN Water's website prior to the October 16th, 2024 LCRR deadline. The Jackson team is also actively replacing lead service lines as they are encountered and updating the inventory as that happens.

A video capturing the ongoing efforts in Jackson, MS can be found here: <https://www.stantec.com/en/ideas/watch/bringing-a-safe-reliable-drinking-water-system-back-to-jackson-ms>.

Reference: Ms. Jordan Rae Hillman, Chief Operating Officer | 601-500-5200 | jordan@jxnwater.com

LSL Inventory and Assessment Town of Norwood, MA (2021-present)

In response to the EPA's LCRR, The Town of Norwood, MA hired Stantec to prepare a material inventory of their approximately 10,000 water service lines utilizing all available historical record information. Under the first phase of the project, Stantec worked with Public Works to unearth water service-related documents dating back to the late 1880's once it was determined that the water service cards alone could not provide the level of detail desired for material information. The ability to cross-reference multiple sources of data (i.e., water service installation ledgers, service repair and replacement reports, past lead service replacements and assessor's information) as well as transferring the information from old record books to electronic databases has accomplished important first steps in the inventory development.

With other ongoing water main rehabilitation and main/service line replacement projects in the Town, the Norwood has leveraged the Phase 1 inventory results to target and begin replacement of numerous lead service lines, and will continue to do so through future projects.

Stantec applied for and procured a grant in the amount of \$150k through MassDEP and the Clean Water Trust in order to perform Phase 1.

Reference: Mr. Mark Ryan, PE Director of Public Works, Town of Norwood | (781) 762-1413 | mryan@norwoodma.gov

STAFF AVAILABILITY

Selecting our internal team and subconsultant was a deliberate process driven by our understanding of NPU's objectives, the scope of work, and EPA's LCRR requirements. For your LCRR program, we propose a team that includes a Project Manager, QA/QC review, technical resources, discipline-specific leads, support staff, and one outstanding subconsultant. These team members understand the critical nature of getting the lead out of our nation's drinking water and empowering communities through information and accountability.

This proposed team is readily available and committed to supporting NPU in developing

and implementing its LCRR compliance program. They have the experience, knowledge, resources, and technical capabilities to develop a system-wide LSL inventory and LSLR plan within NPU's budget and by EPA's compliance deadline date of October 16, 2024.

To enhance the success of this LCRR program, we are proposing Brendan O'Brien, PE as Project Manager. He is committed to performing the work promptly and cost-effectively and will be supported by a Technical Advisor, a QA/QC reviewer, and a team of local and national technical resources, all of whom were selected based on their relevant experience, availability, and passion for

protecting communities from the risks of lead exposure.

And finally, since time, cost and accuracy are all critical for this project, we procured a teaming partner with unparalleled expertise in predictive modeling and machine learning to help NPU maximize its budget and expedite the overall program timeline. With unmatched data management and service line inventory experience in high-profile industry case studies addressing elevated lead levels in drinking water, BlueConduit offers their industry-leading statistical modeling and machine learning platform.

SCHEDULE

The schedule at right presents the timeline for completing all tasks associated with the EPA's compliance deadline date of October 16, 2024 for submission of the initial, comprehensive LSL inventory; LSLR plan; public communications plan; testing approach for schools/child care facilities; and tap sampling plan.

TASK DESCRIPTION	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
Project Management								
Prepare Project Management Plan (PMP)	■							
Bi-Weekly Program Update Meetings		■	■	■	■	■	■	■
Lead Service Line (LSL) Inventory/Predictive Modeling								
Desktop Data Review/Data Onboarding	■	■						
Recommended Inspections List Locations			■	■				
Inspection Digs/Verified Materials for Model				■	■			
Data/Model Accuracy Verification					■	■	■	
Predictive Model Development					■	■	■	
Database for LSL Inventory/LSLR Plan Development					■	■	■	
Draft LSL Inventory (Draft LSL Inventory Workshop)						■	■	■
Submit Initial LSL Inventory to FDEP								■
Funding Source Support								
Preliminary Funding Meeting with NPU	■							
Funding Applications Support		■	■	■	■	■	■	■
NPU Review - Funding Applications					■	■	■	■
Ongoing Funding Assistance					■	■	■	■

TEAM'S ABILITY AND EXPERIENCE

Established in 1954, Stantec comprises approximately 28,000 employees working in over 400 locations across six continents. We collaborate across disciplines and industries to bring buildings, energy and resource, environmental, water, and infrastructure projects to life. We have a long-term commitment to the people and places we serve. Communities are fundamental. For this project, we propose an experienced team with a passion for universal access to clean drinking water and a lead-free future. Led by Stephen MacEachern, an experienced project manager with over 10 years of history with the City, our team is ready to hit the ground running.

Our teaming partner, BlueConduit, has been proactively using statistical modeling and machine learning to identify the potential for LSLs for over eight years. They are the industry leader in the development and use of predictive modeling for preparing LSL inventories and LSLR plans. Their extensive and unparalleled experience includes the most well-known water industry case (i.e., Flint, MI) as well as more than 300 other municipal clients. These include Toledo, OH; Detroit, MI; and Trenton, NJ to name a few.



Stephen MacEachern PE, PSM

CLIENT SERVICES MANAGER

- Over 25 years of experience in civil and utility design and has been working with NPU for close to 10 years on a variety of projects
- Has managed several conveyance, pump station, and treatment plant improvement projects from preliminary design through construction and start-up
- Client Services Manager for this project and will work closely with the entire project team for the successful completion of this project

CITY OF NORTH PORT

CLIENT SERVICES MANAGER
Stephen MacEachern PE, PSM

PROJECT MANAGER
Brendan O'Brien PE

TECHNICAL ADVISOR
Bill Marriott PE

QA/QC
Hal Schmidt PE, BCEE

GIS
James Hale GISP
Lance Price

PROJECT ENGINEERS
Sam Babbitt EIT
Emily Zajac

PREDICTIVE MODELING
Jared Webb*
Alice Berners-Lee PhD*

* BlueConduit (subconsultant)



Brendan O'Brien PE

Project Manager

Brendan, who sits in our Tampa, FL office, has 10 years of experience in the water/wastewater industry. Prior to working at Stantec, he served as the Deputy Director of Engineering for the Boston Water and Sewer Commission, overseeing the Design Division. In addition to his role as a Project Manager, he leads Stantec's LCRR Focus Group where he provides LCRR technical guidance to staff and clients nationwide. Brendan will draw upon his experience and expertise working in as the project/task manager for ongoing LCRR Lead Service Line Inventory projects for the Town of Maynard, MA; Jackson, MS (JXN Water); and the Toho Water Authority.



Bill Marriott PE

Technical Advisor

Bill, who sits in the Plano, TX office, has 28 years of experience and is helping to lead Stantec's LCRR Focus Group. He is currently serving as the technical advisor for several of Stantec's LCRR projects including the MDH LSLI Technical Assistance Program, West Virginia Department of Environmental Protection (WVDEP) Lead Service Line Inventory System, and LCRR Water Service Line Inventory Development for Purcellville, VA. He will leverage this experience to provide guidance and oversight for the LCRR compliance program for NPU that has been proposed herein.



Hal Schmidt PE, BCEE

QA/QC

Hal has more than 40 years of experience in planning, permitting, design, and construction management of water and wastewater facilities, which has included over \$3.5B worth of water and wastewater capital improvement projects. Hal has worked with the City since the 1990s when he oversaw the acquisition of the GDU utility systems in 1992 for the City. He will provide quality control/quality assurance for our project team, utilizing his deep historical and current knowledge of NPU's treatment facilities and piping network infrastructure.



James Hale GISP

GIS Lead

James has more than two decades of experience in consulting on GIS system development and deployment. Having developed complex GIS programs including Computerized Maintenance Management System (CMMS) and GIS utility billing integrations, he has extensive knowledge in remote sensing, mobile GIS, workflow automation, and enterprise GIS. James is familiar with a wide range of GIS technology projects ranging from asset management to impervious surface mapping to land use analysis to mobile data collection. Additionally, he has specialized experience leading GIS services for civil and environmental projects.



Lance Price

Data Scientist

Lance is a data scientist with a wide array of experience including the classification of impervious surfaces using remote sensing imagery and machine learning; automation and acceleration of workflow with Python scripts; machine learning and NLP (Natural Language Processing) with text data; parallel processing, storage and retrieval of data using SQL; customization and automation of PowerBI visualizations and workflows using Python; and processing of large amounts of automated meter reading data. Lance is Stantec's go-to data scientist for LCRR-related projects including Jackson, MS, Norwood, MA, Toho Water Authority, FL, Maynard, MA, Hamilton, MA, and Saugus, MA.



Sam Babbitt EIT

Project Engineer

Sam started at Stantec in June 2019 after graduating from George Mason University. Since starting she has been supporting project teams with engineering services during construction (ESDC), design coordination, technical memoranda, design-build specifications, and CAD drafting. She is currently serving as the project engineer for the LCRR Water Service Line Inventory Development project being performed for Purcellville, VA. In this role, she has been reviewing the Town's historical records and coordinating with Town staff to make entries into the LSL inventory for each service line connection (on both the public and private sides).



Emily Zajac

Project Engineer

Emily has provided assistance in creating a comprehensive inventory in compliance with the newly revised Lead and Copper Rule Revisions for the City of Fall River, MA and the Town of Norwood, MA. Emily has reviewed data for each project and assisted in compiling this information into a singular database. Emily earned her bachelor's degree in Geology from the University of Northern Colorado in 2020. Since June 2023, she has used her background in field work and construction monitoring to assist in a variety of Water projects around the country.



Jared Webb

Predictive Modeling

Jared is BlueConduit's Chief Data Scientist. His responsibilities include processing and analyzing customer data, managing relationships with technical service partners, and producing Machine Learning models. Jared received his Undergraduate/Masters in applied mathematics from Brigham Young University, where he focused on the mathematical foundations of machine learning models.



Alice Berners-Lee PhD

Predictive Modeling

Alice has more than 10 years of experience writing custom code to analyze complex data sets, completing postdoctoral work at Harvard University and PhD work at Johns Hopkins University and UC Berkeley. For NPU, Alice will support Jared with executing data analysis, providing data gap observations, inspection locations, SL material predictions and regulatory compliance assistance.

CONFLICT OF INTEREST FORM

Florida Statutes Section 112.313 places limitations on public officers (including advisory board members) and employees' ability to contract with the City of North Port, Florida ("City") either directly or indirectly.

PART I. *[Select and complete all that apply]:*

I am an employee, public officer, or advisory board member of the City.

Identify the position and/or board: _____

I am the spouse or child of an employee, public officer, or advisory board member of the City.

Identify the name of the spouse or child: _____

I am an employee, public officer or advisory board member of the City, or my spouse or child, is an officer, partner, director, or proprietor of Respondent/Contractor or has a material interest in Contractor. "Material interest" means direct or indirect ownership of more than 5 percent of the total assets or capital stock of any business entity. For the purposes of Florida Statutes Section 112.313, indirect ownership does not include ownership by a spouse or minor child.

Identify the name of the person and the entity _____

Bidder/Contractor employs or contracts with an employee, public officer, or advisory board member of the City.

Identify the name of the employee, public officer, or advisory board member _____

None of the Above

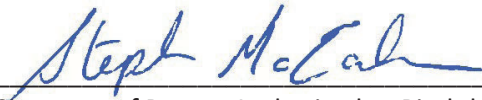
PART II: Will you request an advisory board member waiver?

I WILL request an advisory board member waiver under §112.313(12)

I WILL NOT request an advisory board member waiver under §112.313(12)

N/A

The City will review any relationships which may be prohibited under the Florida Ethics Code and will disqualify any Contractor whose conflicts are not waived or exempt.



 Signature of Person Authorized to Bind the Contractor
 Stephen MacEachern, PE

 Printed Name
 Senior Project Engineer

 Title
 February 7, 2024

 Date

DISCLOSURE FORM FOR CONSULTANT/ENGINEER/ARCHITECT

Please select only one of the following three options:

Print Form

Clear All Fields

Our firm has no actual, potential, or reasonably perceived, **financial*** or **other interest**** in the outcome of the project.

Our firm has a potential or reasonably perceived **financial*** or **other interest**** in the outcome of the project as described here:

Our firm proposes to mitigate the potential or perceived conflict according to the following plan:

Our firm has an actual **financial*** or **other interest**** in the outcome of the project as described here:

***What does "financial interest" mean?**


If your firm, or employee(s) of your firm working on the project (or a member of the employee's household), will/may be perceived to receive or lose private income depending on the government business choices based on your firm's findings and recommendations, this must be listed as a financial interest. An example would be ownership in physical assets affected by the government business choices related to this project. The possibility of contracting for further consulting services is not included in this definition and is not prohibited.

****What does "other interest" mean?**

If your firm, or employee(s) of your firm working on the project (or a member of the employee's household), will/may be perceived to have political, legal or any other interests that will affect what goes into your firm's findings and recommendations, or will be/may be perceived to be affected by the government business choices related to this project, this must be listed as other interest.

BUSINESS NAME: Stantec Consulting Services Inc.

NAME (PERSON AUTHORIZED TO BIND THE COMPANY): Stephen MacEachern, PE

SIGNATURE:  **DATE:** 02/07/2024

SCRUTINIZED COMPANY CERTIFICATION FORM

Contractor Name: Stantec Consulting Services, Inc
Authorized Representative Name and Title: Andrea Crumpecker Principal
Address: 6920 Professional Parkway City: Sarasota State: FL ZIP: 34240
Phone Number: 941-907-6900 Email Address: andrea.crumpecker@stantec.com

A company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a Contract with the City of North Port for goods or services of any amount if, at the time of bidding on, submitting a proposal for, or entering into or renewing such Contract, the company is on the Scrutinized Companies that Boycott Israel List, created pursuant to Florida Statutes, section 215.4725, or is engaged in a boycott of Israel.


A company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a Contract with the City of North Port for goods or services of \$1 million or more if, at the time of bidding on, submitting a proposal for, or entering into or renewing such Contract, the company is on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Florida Statutes, section 215.473, or with companies engaged in business operations in Cuba or Syria.

CHOOSE ONE OF THE FOLLOWING

This Contract or Contract renewal is for goods or services of less than \$1 million. As the person authorized to sign on behalf of the above-named company, and as required by Florida Statutes Section 287.135(5), I hereby certify that the above-named company is not participating in a boycott of Israel.

This bid, proposal, Contract or Contract renewal is for goods or services of \$1 million or more. As the person authorized to sign on behalf of the above-named company, and as required by Florida Statutes Section 287.135(5), I hereby certify that the above-named company is not participating in a boycott of Israel, is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and it does not have business operations in Cuba or Syria.

I understand that pursuant to Florida Statutes, section 287.135, the submission of a false certification may result in the termination of the Contract if one is entered into, and may subject the above-named company to civil penalties, attorney's fees and costs.

Certified By: 
Signature of Contractor's Authorized Representative
Andrea Crumpecker
Name
Principal
Title
4/2/24
Date

VENDOR'S CERTIFICATION FOR E-VERIFY SYSTEM

The undersigned Vendor/Consultant/Contractor (Vendor), after being duly sworn, states the following:

1. Vendor is a person or entity that has entered into or is attempting to enter into a contract with the City of North Port (City) to provide labor, supplies, or services to the City in exchange for salary, wages or other remuneration.
2. Vendor has registered with and will use the E-Verify System of the United States Department of Homeland Security to verify the employment eligibility of:
 - a. All persons newly hired by the Vendor to perform employment duties within Florida during the term of the contract; and
 - b. All persons, including sub-contractors, sub-vendors or sub-consultants, assigned by the Vendor to perform work pursuant to the contract with the City.
3. If the Vendor becomes the successful Contractor who enters into a contract with the City, then the Vendor will comply with the requirements of Section 448.095, Fla. Stat. "Employment Eligibility", as amended from time to time.
4. Vendor will obtain an affidavit from all subcontractors attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien as defined in 8 United States Code, Section 1324A(H)(3).
5. Vendor will maintain the original affidavit of all subcontractors for the duration of the contract.
6. Vendor affirms that failure to comply with the state law requirements can result in the City's termination of the contract and other penalties as provided by law.
7. Vendor understands that pursuant to Florida Statutes, section 448.095, the submission of a false certification may result in the termination of the contract if one is entered into, and may subject the Vendor named in this certification to civil penalties, attorney's fees and costs.

VENDOR: Stantec (Vendor's Company Name)

Certified By: 
AUTHORIZED REPRESENTATIVE SIGNATURE

Print Name and Title: Andrea Crumpton, Principal

Date Certified: 4/2/24



CITY OF NORTH PORT

PROFESSIONAL ENGINEERING SERVICES FOR NPU
NO. 2020-58
THIS IS NOT AN ORDER

Date: 1/11/2024

Page: 1 of 3

CITY OF NORTH PORT
Utilities Department
5930 Sam Shapos Way
North Port, Florida 34287

Contact Person: Colleen Hibbitts, Compliance Coordinator
Contact Phone: 941-240-8003
Contact Fax: 941-240-8022
Contact Email: chibbitts@northportfl.gov
Reply No Later Than: February 2, 2024 @ 2:00 p.m. (EST)

REQUEST FOR LETTERS OF INTEREST NO. 2024-06

CITY OF NORTH PORT LEAD AND COPPER RULE REVISION – ASSESSMENT & PREDICTIVE MODELING

The City of North Port Utilities Department (NPU) is currently accepting letters of interest from firms for Professional Engineering Services for NPU, Category 1 for the assessment of lead and copper lines in regard to the Lead and Copper Rule Revision requirements set forth by the State of Florida.

INTENT: It is the intention of NPU to secure professional engineering services to assess the City's infrastructure as well as develop a predictive analysis and modeling program based on the resulting data.

BACKGROUND

The Lead and Copper Rule Revisions (LCRR) at 40 CFR 141.84 require community and non-transient noncommunity public water systems to complete lead service line (LSL) inventories by October 16, 2024.

The City of North Port originally obtained General Development Utilities North Port facilities in 1992 from the General Development Company. At the time of construction in 1964 of the Myakkahatchee, galvanized materials were utilized as they were allowed within the existing building code during that era.

Over the following 60 years, as materials developed and code regulations were modified and improved, various materials were utilized for the City's service lines, including ones that could potentially contain leaded components. Service line material historically not been tracked.

To comply with the Lead and Copper Rule Revisions, The City of North Port Utilities will be securing a consultant to assess the City's infrastructure as well as develop a predictive analysis and modeling program based on the resulting data. The end goal is to develop an LCRR-Compliant Service Line Inventory

SCOPE OF SERVICES

TASK 1 – PROJECT MANAGEMENT AND ADMINISTRATION

1. Project Management and Coordination: Consultant will perform project management and general administrative duties associated with the Project, including project set-up, resource management, progress monitoring, scheduling, general correspondence, office administration, and invoicing. Consultant will review, update and submit to NPU the updated Project schedule periodically upon completion of major project elements.

2. Kickoff Meeting (Virtual): Consultant will coordinate and lead a project kickoff meeting with NPU Staff to review the project purpose and objectives, scope of work, schedule for project activities and deliverables, and initial discussions regarding NPU's goals and vision for asset management program development. Consultant will provide an overview of the roadmap initiatives included in this task order. This meeting is intended to be virtual. Consultant will prepare an agenda for the meeting and will prepare and distribute meeting minutes.
3. Monthly Coordination Meetings (Virtual): Consultant will coordinate and lead a monthly project coordination meeting with NPU Staff to review the project's progress from the previous month. These meetings are intended to be virtual. Consultant will prepare an agenda for the meetings and will prepare and distribute meeting minutes.

TASK 2 – ASSESS EXISTING INFRASTRUCTURE

Under this task, the consulting firm shall inventory and perform assessments of a representative sampling of existing water service lines.

North Port Utilities (NPU) will provide internally available data pertaining to service lines. The consulting firm will be responsible for parsing the data provided and sourcing externally available data if needed.

TASK 3 – PREDICTIVE ANALYSIS & MODELING

Under this task, the consulting firm shall prepare and submit to the City a final report including:

A detailed description of sampling program methods and procedures.

A service line inventory compliant with LCRR Inventory requirements.

Discussion of options available to replace lines that will require replacement under the current law.

Conclusions and recommendations for project priorities that will result in the most efficient means to address line replacement based on density and vulnerability.

TASK 4 – DATA MANAGEMENT QUALIFICATION, ANALYSES, AND REPORTING AND IDENTIFICATION OF LEAD AND COPPER SERVICE LINE REPLACEMENT PROJECTS

Project records and documents will be maintained for five years. The electronic data deliverables from this agreement will be submitted to North Port Utilities in xlsx, shapefile, csv, or other city-approved data file type in addition to pdf reports. Data collected under this work authorization will be scheduled, managed, qualified, and verified by the vendor according to the procedures set forth in the City.

PROJECT DELIVERABLES

The firm shall provide an electronic copy of the final report and all deliverables by October 16th, 2024. Once this contract is complete, reports all supporting information and documents will become property of NPU and the City of North Port. The project milestones and key deliverables for this work authorization are:

- Kickoff meeting attendance, agenda and minutes
- Data and documents request list
- Bi-monthly project status reports, coordination meetings, and meeting minutes
- Lead and Copper service line electronic data deliverable to North Port Utilities.
- Draft report (3 originals and digital copy)

- Final report (5 originals and digital copy) - Review the draft ERR with NPU, incorporate NPU comments to finalize the documents. To be included are a detailed description of sampling program methods and procedures; tabular and graphical summaries of service line data; discussion of service line trends and variability over time versus state standards; discussion of options available to replace applicable service lines; recommendation for projects to replace service lines with respect to priority; Data regarding the service line inventory and data used in modelling and assessments.

Note: Draft and final documents will be provided electronically in both Word and pdf format. One hard copy of each document will also be provided.

PROPOSAL REQUIREMENTS

Proposals shall include a project plan which specifies the firm's understanding of project and required deliverables; ability and relevant expertise/qualifications of the firm's personnel to be used in performing the service; availability of staff and ability to meet project schedule; the firm's proposed cost saving measures for the project, if any; and provide a schedule that will meet the timeline requirements of this project.

Firms are to provide references for at least three (3) similar projects within the last five (5) years. Name, title, email and phone numbers are required for appropriate contact for each reference.

Proposals are to include the names of all subconsultants/subcontractors to be used on this project.

ATTACHMENTS

1. Conflict of Interest Form
2. Disclosure for Consultant, Engineer, Architect
3. Statement of Non-Submittal

Please Note: The Conflict of Interest Form and Disclosure for Consultant, Engineer, Architect **must be submitted** with proposals for consideration.

Any questions concerning this project must be submitted via email to both Coco Hibbitts and Melissa McConnell at chibbitts@northportfl.gov and mmcconnell@northportfl.gov, respectively no later than **January 26th, 2024**.

All firms within Contract No. 2020-58 Category 1 are encouraged to submit a letter (not to exceed five single-sided pages) that provides the above information and adequately expresses why it would be in the City's best interest to select the submitting firm(s).

**LETTERS OF INTEREST ARE TO BE DELIVERED TO THE UTILITIES DEPARTMENT
ON OR BEFORE FEBRUARY 2, 2024 AT 2:00 P.M. (EST) VIA EMAIL TO:**

COLLEEN HIBBITTS: CHIBBITTS@NORTHPORTFL.GOV

AND

MELISSA MCCONNELL: MMCCONNELL@NORTHPORTFL.GOV

2024-06 RLI Evaluation Form

Project:	Lead & Copper Rule Revision (LCRR)
RLI No.:	2024-06
Date of Ranking:	2/20/2024

Black & Veatch					
<i>Evaluation Criteria</i>	<i>Value</i>	<i>MA</i>	<i>SB</i>	<i>CH</i>	<i>Score</i>
Understanding of Project/Deliverables	0-8	8	8	8	24
Expertise/Qualifications of Personnel	0-8	8	8	8	24
Availability of Personnel/Timeline	0-5	4	5	5	14
Evaluations/Experience on NPU projects	0-5	5	5	5	15
Proposed Cost Saving Measures	0-3	3	3	0	6
References/Required Forms	0-1	1	1	1	3
Total		29	30	27	86

Kimley Horn					
<i>Evaluation Criteria</i>	<i>Value</i>	<i>MA</i>	<i>SB</i>	<i>CH</i>	<i>Score</i>
Understanding of Project/Deliverables	0-8	7	7	7	21
Expertise/Qualifications of Personnel	0-8	5	6	7	18
Availability of Personnel/Timeline	0-5	5	5	5	15
Evaluations/Experience on NPU projects	0-5	5	4	5	14
Proposed Cost Saving Measures	0-3	3	2	0	5
References/Required Forms	0-1	1	1	1	3
Total		26	25	25	76

CDM Smith					
<i>Evaluation Criteria</i>	<i>Value</i>	<i>MA</i>	<i>SB</i>	<i>CH</i>	<i>Score</i>
Understanding of Project/Deliverables	0-8	8	8	8	24
Expertise/Qualifications of Personnel	0-8	7	8	8	23
Availability of Personnel/Timeline	0-5	5	5	5	15
Evaluations/Experience on NPU projects	0-5	4	4	5	13
Proposed Cost Saving Measures	0-3	3	3	0	6
References/Required Forms	0-1	1	1	1	3
Total		28	29	27	84

Stantec					
<i>Evaluation Criteria</i>	<i>Value</i>	<i>MA</i>	<i>SB</i>	<i>CH</i>	<i>Score</i>
Understanding of Project/Deliverables	0-8	8	8	8	24
Expertise/Qualifications of Personnel	0-8	8	8	8	24
Availability of Personnel/Timeline	0-5	5	5	5	15
Evaluations/Experience on NPU projects	0-5	5	5	5	15
Proposed Cost Saving Measures	0-3	3	3	0	6
References/Required Forms	0-1	1	1	1	3
Total		30	30	27	87

Statements of Non-Submittal received from: CHA Consulting, Inc., Ardurra Group Inc., Jones Edmunds & Associates,