CITY OF HIGH POINT AGENDA ITEM



TITLE: Compliance with Lead & Copper Rule R Black and Veatch	Revisions (LCRR)- Phase 2
FROM: Robby Stone, Public Services Director Derrick Boone, Asst. Public Services Director	MEETING DATE: May 6, 2024
PUBLIC HEARING: N/A	ADVERTISED DATE/BY: N/A
ATTACHMENTS: Scope of Services	

PURPOSE: To award a Task Order with Black and Veatch to aid with phase 2 of the implementation plan to achieve compliance with the federal Lead and Copper Rule Revisions (LCRR). The City has a Master Agreement with Black and Veatch.

BACKGROUND: On December 22, 2020, the United States Environmental Protection Agency (EPA) finalized the first major update to the Lead and Copper Rule (LCR) in nearly 30 years. The finalized LCRR were promulgated in the Federal Register on January 15, 2021, with a focus on switching from a reactive to proactive approach to improve water quality at the customer's tap. The EPA's proposed Lead and Copper Rule Improvements (LCRI) were released for public comment on November 30, 2023, to be finalized by the LCRR compliance date of October 16, 2024. The proposed LCRI has additional compliance requirements that are expected to go into effect starting in January 2028.

The scope for Phase 2 is based on a 10-month schedule and is intended to utilize field investigations to calibrate a predictive model based on the North Carolina Department of Environmental Quality's Service Line Inventory Statistical Methods and Predictive Modeling Guidance for North Carolina; finalize the initial service line inventory; perform a corrosion control evaluation; and prepare standard operating protocols and public education and outreach materials to position the City of High Point to achieve compliance for the October 16, 2024, compliance date. Phase 3, which is not part of this Scope of Services or fee, is for completing LCRI compliance deliverables.

BUDGET IMPACT: Funds for this project are available in the FY 2023-2024 Budget.

RECOMMENDATION/ACTION REQUESTED: The Public Services Department recommends approval and asks for the Council to award a Task Order to Black and Veatch in the amount of \$576,065 and authorize appropriate city staff to execute all necessary documents.



April 9, 2024

Derrick Boone, PE Assistant Public Services Director City of High Point 211 S. Hamilton Street High Point, NC 27260

Subject: Compliance with Lead & Copper Rule Revisions (LCRR) Phase 2 Project

Dear Mr. Boone,

Attached for your approval is Attachment A Scope of Services and Attachment B Basis of Compensation for the subject Project. The United States Environmental Protection Agency (EPA) finalized the first major update to the Lead and Copper Rule (LCR) in nearly 30 years. The finalized Lead and Copper Rule Revisions (LCRR) were promulgated in the Federal Register with a focus on switching from a reactive to proactive approach to improve water quality at the customers' tap. The compliance deadline for the LCRR is October 16, 2024. In addition, the EPA's proposed Lead and Copper Rule Improvements (LCRI) was released for public comment on November 30, 2023, so that it can be finalized by the LCRR compliance date of October 16, 2024. The proposed LCRI has additional compliance requirements that are expected to go into effect starting in January 2028. The Scope for Phase 2 is based on a 10-month schedule and is intended to utilize field investigations to calibrate a predictive model based on NCDEQ's Service Line Inventory Statistical Methods and Predictive Modeling Guidance for North Carolina; finalize the initial service line inventory; perform a corrosion control evaluation; and prepare standard operating protocols and public education and outreach materials to position the City of High Point to achieve compliance for the October 16, 2024 compliance date.

We appreciate and look forward to the opportunity to work with you and your staff on this important project.

Respectfully Submitted, Black & Veatch International Company

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Mike Osborne, PE Associate Vice President

Enclosure(s)

cc: Cathy Busking, Preston Johnson

ATTACHMENT A SCOPE OF SERVICES

Owner: City of High Point (CITY) Engineer: Black & Veatch International Company Project: Compliance with Lead & Copper Rule Revisions (LCRR)

Background

On December 22, 2020, United States Environmental Protection Agency (EPA) finalized the first major update to the Lead and Copper Rule (LCR) in nearly 30 years. The finalized Lead and Copper Rule Revisions (LCRR) were promulgated in the Federal Register on January 15, 2021 with a focus on switching from a reactive to proactive approach to improve water quality at the customers' tap. The compliance deadline for the LCRR was January 16, 2024 when it was initially published.

On March 10, 2021, EPA announced the delay of the effective date for the LCRR so the agency could seek further public input, especially from communities that are most at-risk of exposure to lead in drinking water. Following virtual hearings in April 2021 and discussions with key stakeholders in May and June 2021, the EPA further delayed the effective date to December 16, 2021 with a corresponding extension of the LCRR's compliance deadline to October 16, 2024.

As the regulatory landscape is changing, it is critical that utilities and State Primacy Agencies begin preparing for changes to the LCR to meet implementation and enforcement of compliance. Modifications finalized in the LCRR were focused on better protecting children and communities from the risks of lead exposure by identifying areas most impacted by lead contamination and developing plans to mitigate the risk.

In addition, the EPA's proposed Lead and Copper Rule Improvements (LCRI) was released for public comment on November 30, 2023 so that it can be finalized by the LCRR compliance data of Oct. 16, 2024. The proposed LCRI has additional compliance requirements that are expected to go into effect starting in January 2028.

This project illustrates the City of High Point's desire to remain proactive and begin activities right away to improve public education on risks from lead while evaluating materials throughout the distribution system to ensure that customers are receiving the highest quality water. The LCRR and proposed LCRI encompass water quality evaluations, distribution system materials assessment and replacements, testing for lead at schools and childcare facilities, public education, increased notification, etc., which requires numerous disciplines to be involved in this Project along with detailed program management including the use of internal and external (public) dashboards to monitor progress. Specialized personnel and companies will be involved in this project to streamline the Project execution and ensure that the details of the LCRR and proposed LCRI are effectively communicated and implemented.

The Scope for Phase 2 is based on a 10-month schedule and is intended to finalize the initial service line inventory and public facing dashboard, utilize field investigation results to calibrate a predictive model for unknown service line materials, and assist with development of SOPs and public education materials. Phase 3, which is not part of this Scope of Services or fee, is for completing LCRI compliance deliverables. This Phase 2 Task Order will achieve the following goals:

- Utilize field investigations of service line materials collected by the Owner to calibrate the predictive model.
- Finalize the initial service line inventory that meets LCRR compliance with both an internal editable inventory dashboard and public facing viewable dashboard.
- Prepare standard operating protocols and public education and outreach materials to cover potential scenarios based on service line inventory results.
- Continues an open line of communication between the City, Engineer, and North Carolina Department of Environmental Quality (NCDEQ) to understand how the LCRR and proposed LCRI will be enforced and what activities could be started prior to compliance dates as a proactive desire.

Scope of Services

- Phase 2, will complete the initial service line inventory prior to the compliance date of Oct. 16, 2024, including predictive model and calibration, field work for predictive model calibration (to be completed by the Owner), public outreach and education, as well as additional services the City wants to complete proactively (such as a corrosion control evaluation).
- Phase 3, which is not a part of this Scope of Services and fee, will complete compliance activities after the LCRR compliance date of Oct. 16, 2024 and required as part of the LCRI. Phase 3 scope and fee to be negotiated at close of Phase 2.

Phase 2 – LCRR Predictive Modeling, Data Management and Compliance Deliverables

- A. Initial Service Line Inventory and Predictive Modeling
 - 1. Submit a statistical methods proposal to NCDEQ for approval. The proposal will be based on the NCDEQ predictive modeling guidance document released in February 2024.
 - 2. Using the criteria in the NCDEQ predictive modeling guidance document released in February 2024, develop and calibrate a predictive model using existing data and the service line inventory field investigation results. Field investigations will be completed by the Owner at locations identified by the Engineer. A minimum of 384 field verifications are estimated to meet the NCDEQ requirements.
 - 3. Predictive modeling outputs include:
 - a. Predicted service line material for unknown service lines in the system.
 - b. Calculated accuracy of the predictive model using a subset of the field investigation results not used to calibrate the predictive model.
 - c. An analysis predicting the number of lead or galvanized service lines.
 - 4. The initial service line inventory dashboard will be updated with the following content:
 - a. Interactive service line inventory map noting the known public and private service line type for every parcel using historical records and field verifications.
 - b. Predictive model outputs for unknown service line materials.
 - 5. Finalize the public facing service line inventory dashboard with GIS map. Engineer will assist with setting up the user profile for the public facing service line inventory dashboard so that it is only viewable and not editable by the public.
 - 6. Submit the exported service line inventory data in the required format to NCDEQ for approval.

- 7. Submit statistical method report to NCDEQ for approval. The report will be based on the NCDEQ predictive modeling guidance document released in February 2024.
- 8. Deliverables:
 - a. Statistical methods proposal for NCDEQ (electronic format)
 - b. Statistical methods report for NCDEQ (electronic format)
 - c. Service line inventory dashboard with GIS map including predictive modeling results (electronic format)
 - d. Public facing service line inventory dashboard with GIS map (electronic format)
 - e. Service line inventory for NCDEQ (electronic format)
 - f. Tables providing total expected counts of different service line materials (electronic format)
- B. SOPs and Training
 - 1. Develop Standard Operating Procedures (SOPs) to standardize processes and data management. The SOP's to be developed include:
 - a. Service line field inspections, record keeping/data entry
 - b. Service line disturbances
 - c. Customer notification for any work on personal property or utility owned property
 - d. Service Line/lead connector harvesting and replacement
 - e. Whole house flushing
 - f. Pitcher filter delivery and record keeping
 - g. Sample kit delivery, sampling, record keeping, notification
 - h. Dashboard access and use
 - 2. Training
 - a. Virtual training will be conducted with Owner personnel that could be approached by customers regarding the LCR program so that they have the necessary information to respond or provide contact information to the Customer Outreach program managers. Engineer assumes one 2-hour training session and provision of a video recording.
 - b. Onsite training will be conducted with Owner's field personnel to describe the SOPs for field activities (i.e., service line field inspections, disturbances, harvesting, and replacements as well as whole house flushing and data entry). Engineer assumes one training session over three (3) – 8-hour days and provision of a video recording.
 - c. Virtual training will be conducted with Owner personnel (Field Ops and Engineering, in particular) that will access the dashboards to describe functionality, how data is input, how to modify layers displayed on maps, etc. Engineer assumes one 4-hour training session and provision of a video recording.
 - 3. Deliverables:
 - a. Written SOPs listed in #1 (electronic format)
 - b. Video recordings of training and slides from training presentations (electronic format)

- C. Corrosion Control Evaluation
 - 1. Review historical LCR compliance monitoring results.
 - 2. Review finished water quality data for the last ten years to evaluate current corrosion control treatment and review water quality data collected in the distribution system for the last ten years to assess stability throughout the system.
 - 3. Review current corrosion control treatment and associated chemical dosages and feed points.
 - 4. Use water quality modeling software (Water!Pro Version 5.91) to evaluate three alternative corrosion control treatments (i.e., pH/alkalinity adjustment, orthophosphate at 1 mg/L and 3 mg/L) to compare corrosion indices and theoretical solubilities of lead and copper.
 - 5. A Corrosion Control Evaluation Technical Memorandum will be developed with the results of the assessment.
 - 6. Deliverables:
 - a. Corrosion Control Evaluation Technical Memorandum (electronic format)
- D. Public Outreach
 - 1. Through a subcontract, engage a public relations subconsultant to support public outreach efforts.
 - 2. The following will be included as part of the Public Education effort:
 - a. Customer Survey to determine if they know materials of service line and request pictures
 - b. Handouts for how to determine material type of service line or internal plumbing (scratch/magnet test or swab test)
 - c. Public education on how to complete whole house flushing following a service line replacement
 - 3. Hold open houses/town hall meetings (Engineer assumes up to 4 meetings around the community) with the intent to engage customers, letting them know they are part of the solution.
 - 4. Hold collaborative workshops (total of two) with Greensboro and Winston-Salem/Forsyth County Utilities.
 - 5. Develop notification letter materials for customers with lead service lines, unknowns, and galvanized requiring replacement to be provided by the Owner within 30 days after submitting the initial service line inventory. It is assumed the Owner will print and distribute the notifications letters.
 - 6. Deliverables:
 - a. Public education materials listed in #2 above (electronic format)
 - b. Presentation materials for open houses/town hall meetings/workshops with stakeholders (electronic format)
 - c. Public education dashboard for tracking communication (electronic format)
 - d. Notification letters for customers with lead service lines, unknowns, and galvanized requiring replacement (electronic format)

E. Project Management and Administration

- 1. Provide Project Management and Administration for Phase 2 (10 months) of the project.
- 2. Coordinate the activities of the project team, subconsultants, and subcontractors.
- 3. Prepare monthly project invoices for ENGINEER's services in format acceptable to Owner.
- 4. Maintain a project filing system throughout the life of the project to use for storage and retrieval of project documents.
- 5. Conduct monthly meetings (10) with Owner Leadership team to review progress, schedules, resolve issues, and receive guidance. Engineer will issue meeting summaries.
- 6. Maintain MS TEAMS Project site for use by project team.
- 7. Deliverables:
 - a. Meeting agendas, summaries (electronic format)
 - b. Invoices (electronic format)

List of deliverables for each Task:

- A. Service Line Inventory and Predictive Modeling
 - 1. Statistical methods proposal for NCDEQ
 - 2. Statistical methods report for NCDEQ
 - 3. Service line inventory dashboard with GIS map including predictive modeling results
 - 4. Public facing service line inventory dashboard with GIS map
 - 5. Service line inventory in spreadsheet form for NCDEQ
 - 6. Tables providing total expected counts of different service line materials
- B. SOPs and Training
 - 1. Written SOPs
 - a. Service line field inspections, record keeping/data entry
 - b. Service line disturbances
 - c. Customer notification for any work on personal property or utility owned property
 - d. Service Line/lead connector harvesting and replacement
 - e. Whole house flushing
 - f. Pitcher filter delivery and record keeping
 - g. Sample kit delivery, sampling, record keeping, notification
 - h. Dashboard access and use
 - 2. Video recordings of training and slides from training presentations
- C. Corrosion Control Evaluation
 - 1. Corrosion Control Evaluation Technical Memorandum
- D. Public Outreach
 - 1. Public education materials.
 - a. Customer Survey to determine if they know materials of service line and request pictures

- b. Handouts for how to determine material type of service line or internal plumbing (scratch/magnet test or swab test)
- c. Public education on how to complete whole house flushing following a service line replacement
- 2. Presentation materials for open houses/town hall meetings/workshops with stakeholders
- 3. Public education dashboard for tracking communication
- 4. Notification letter material for customers with lead service lines, unknowns, and galvanized requiring replacement
- E. Project Management and Administration
 - 1. Meeting agendas, summaries
 - 2. Invoices

List of Activities that could be included in Phase 3 (post compliance date of Oct. 16, 2024 – Not included in Scope for Phase 2):

- A. LCR monitoring sites selection and sampling plan
- B. Service line replacement plan
- C. Prioritization of required replacements based on predictive modeling outcomes
- D. School/childcare sampling dashboard
- E. Completion of dashboards for public facing items required in LCRI
- F. Sampling at LCR compliance sites and contacting customers to see if they are willing to participate
- G. Sampling at schools and childcare facilities
- H. Continue community outreach and public education
- I. Service line replacements
- J. Funding/financing efforts
- K. Update dashboards, inventory, and predictive modeling outputs with newly collected data
- L. Set-up automated system for customer communications/notifications as well as automated systems for pitcher filters and sampling kits.
- M. LCRI Distribution system and site assessment program implementation

Supplemental Services

- A. Any work requested by Owner that is not included in one of the items listed in any other phase will be classified as supplemental services.
- B. Supplemental services shall include, but are not limited to:
 - 1. Changes in the general scope, extent, or character of the project, including, but not limited to:
 - a. Changes in size or complexity.
 - b. Owner's schedule.
 - c. Revision of previously accepted studies, reports, design documents, or construction contract documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes, or orders enacted

subsequent to the preparation of such studies, reports, documents, or designs; or are required by any other causes beyond Engineer's control.

- 2. Hazardous materials testing and subsequent provisions for hazardous material handling and disposal.
- 3. Services extending beyond the specified durations of the scope of services.
- 4. Special consultants or independent professional associates requested or authorized by Owner.
- 5. Surveying and/or Geotechnical services.
- 6. Field investigations and field work.

Key Assumptions:

- Scope assumptions included above.
- Owner PM will coordinate attendance at workshops and meeting of key staff participants.

PERIODS OF SERVICES –

Phase 2 – 10 months

ATTACHMENT B BASIS OF COMPENSATION PROJECT NAME: Compliance with Lead & Copper Rule Revisions (LCRR)

Below is a cost breakdown by Task:

Service Line Inventory and Predictive Modeling	\$145,390.00
SOPs and Training	\$139,150.00
Corrosion Control Evaluation	\$60,090.00
Public Outreach	\$177,085.00
Project Management and Administration	\$45,350.00
	Service Line Inventory and Predictive Modeling SOPs and Training Corrosion Control Evaluation Public Outreach Project Management and Administration

For the Phase 2 Scope of Services in Attachment A, Owner will compensate Engineer in accordance with the Bill Rate Schedule below, plus reimbursable expenses times 1.0, plus subconsultant expenses times 1.10 a fee not to exceed \$567,065.00. The maximum billed for these services shall not exceed this amount without further written approval from the Owner. Funds may be transferred from one task to another without amendment, as long as the total cost is not exceeded. Standard hourly rates are subject to review and adjustment annually. For Supplemental Services, Owner and Engineer will negotiate a written Amendment to this contract.

Owner will compensate ENGINEER in accordance with the Bill Rate Schedule below, plus reimbursable expenses times 1.0, plus subconsultant expenses times 1.10. Standard hourly rates are subject to review and adjustment annually. Hourly rates effective on the date of this Agreement are as follows:

HOURLY RATE SCHEDULE	
Effective through December 31, 2024	
Principal	\$280-340
Sr. Planning Manager	\$250-330
Sr. Project Manager	\$240-300
Project Manager	\$220-260
Sr. Engineering Manager/Director/QC	\$250-330
Engineering Manager	\$180-240
Sr. Engineer/ Planning Sr. Engineer	\$230-290
Project Engineer	\$155-235
Staff/Planning Engineer 4	\$150-190
Staff/Planning Engineer 3	\$140-175
Staff/Planning Engineer 2	\$130-155
Staff/Planning Engineer 1	\$120-140
Sr. Architect	\$190-270
Architect	\$145-200
Sr. Construction Manager	\$195-270
Construction Manager	\$150-200
Resident Project Representative	\$150-190
Construction Inspector	\$80-160
Sr. Technical Specialist	\$310-350
Technical Specialist	\$170-300
Sr. Engineering Technician	\$155-190
Engineering Technician	\$105-155
BIM Coordinator	\$180-210
BIM Director/QC	\$210-230
BIM Sr. Technician	\$145-185
BIM Technician	\$120-150
Sr. Drafter	\$120-160
Drafter	\$90-130
Sr. Estimator	\$225-275
Estimator	\$170-225
Project Controls	\$100-185
Finance/Accountant	\$100-175
Contracts Manager	\$215-250
Project Biller	\$100-140
Technical Editor	\$150-190
Project Administrator	\$100-140
Clerical	\$75-110

The following expenses are reimbursable work items and will be billed at cost: bulk reproduction of documents (outside reproduction services will be treated as a subconsultant); charges for review of drawings and specifications by government agencies, if any; vehicular transportation costs at the rate established by the Internal Revenue Service; airline tickets, meals, and lodging with out-of-town travel.

Owner: City of High Point

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Project: Compliance with Lead & Copper Rule Revisions Phase 2

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PHASE/Task	-	Principal \$330.00	Project Manager \$240.00	Project Admin \$115.00	Project Controls \$155.00	Accountng/Fin ance \$140.00	Biller \$115.00	Sr. Engineeering Manager \$275.00	Engineer 2 \$145.00	Process Sr. Engineer \$230.00	Process Engineer \$190.00	Process Engineer Dir/QC \$260.00	Asset Management Director \$325.00	Asset Management Consultant \$220.00	AM Consultant/Sr Data Scientist \$190.00	SUBTOTAL, Hours	SUBTOTAL, Billings \$	SUBTOTAL, EXPENSES	Chernoff Newman	TOTAL Billings
(Billing Rate, \$\$,Hr.)																				
WORK BREAKDOWN STRUCTURE	TASK																			
Predictive Modeling, Data Management and Compliance		9	44	4	-	-	-	72	28	34	10	4	20	184	260	669	\$ 144,990	\$ 400		\$ 145,390
SOPs and Training		6	48	8	-	-	-	120	190	80	90	16	8	60	8	634	\$ 131,950	\$ 7,200		\$ 139,150
Corrosion Control Evaluation		4	22	2	-	-	-	48	24	56	110	10	-	-	-	276	\$ 59,890	\$ 200		\$ 60,090
Public Outreach		16	112	8	-	-	-	135	20	118	36	-	8	40	60	553	\$ 129,885	\$ 8,700	\$ 35,000	\$ 177,085
Project Management and Administration		20	30	10	30	30	30	20	30	10	-	-	10	10	-	230	\$ 44,850	\$ 500		\$ 45,350
Total, Hours		55	256	32	30	30	30	395	292	298	246	30	46	294	328	2,362				
Total, Billings																	\$ 511,565	\$ 17,000	\$ 38,500	\$ 567,065

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