



**Solicitation Name:** Field Investigation and Potholing for Birmingham Water Works (BWW) Service Lines  
(South & East Districts)

**Solicitation Number:** 24-03-02

The Water Works Board of the City of Birmingham Operations and Technical Services Department seeks bids for Field Investigation and Potholing for BWW Service Lines (South & East Districts), hereinafter called the “Project”. Sealed Bids of the Project will be received by The Water Works Board of the City of Birmingham Purchasing Department until 10:00 a.m. local time on Thursday, April 4, 2024. Bids received after said time will be rejected and returned unopened.

The project scope of work is described as the following:

- A. Prepare the site by supporting and protecting the structures or property which appear within or adjacent to the excavations.
- B. Excavate the site to uncover and safely allow for the identification of the service line material.
- C. Perform and document field identification of the service line material according to the Field Investigation Standard Operating Procedures (SOP).
- D. Backfill and site restoration as per the Technical Specifications and SOP.

Contract documents, including Request for Bid, Technical Specifications, and Agreement, for the Project will be available on and after March 8, 2024. Please send request to Jonathan Jett, Purchasing Superintendent of The Water Works Board of the City of Birmingham Purchasing Department at [Jonathan.Jett@bwwb.org](mailto:Jonathan.Jett@bwwb.org). No Bidder may withdraw or alter a bid within 60 calendar days after the actual date of the bid opening.

A mandatory pre-bid conference will be held on Microsoft Teams at 10:00 a.m. CST on Thursday, March 21, 2024. All prospective Bidders and interested parties are required to attend the pre-bid conference. The purpose of the pre-bid conference is to raise questions pertaining to the Bidding and Contract documents and for the OWNER or its representatives to clarify any points. All Contractors shall complete and submit HUB Bid Solicitation Notice (HUB Form 3) no later than seven (7) days after the scheduled date of the pre-bid conference. This form may be submitted in person at the pre-bid conference. Bids will NOT BE ACCEPTED from any Prospective Bidder who does not attend the mandatory Pre-Bid Conference.

Bidders shall comply with all statutory requirements in accordance with the Instructions to Bidders. Bids will only be received from Contractors who are licensed by the State of Alabama.

Contract time of commencement and completion will be in accordance with the Agreement.

Failure on the part of a bidder to fully submit the information required herein may be considered by the BWB in evaluating whether the bidder is responsive to bid requirements.

Sealed bids shall be delivered to the BWW Purchasing Department before April 4, 2024 at 10 a.m., at which point they shall be opened and read publicly. **No late bids will be accepted.**



## 1. Introduction

### 1.1. Purpose of Procurement

Pursuant to State of Alabama Code this solicitation request is being issued to establish a contract with one or more qualified suppliers who will provide **Field Investigation and Potholing for Birmingham Water Works (BWW) Service Lines** to the Birmingham Water Works (hereinafter, "the BWW") as further described in this solicitation.

The BWW reserves the right to purchase from any State of Alabama contract or an approved cooperative purchasing agreement if it is more economical and/or in the BWW's best interest.

### 1.2. Overview of the Solicitation Process

The objective of the solicitation is to select one or more qualified suppliers (as defined by Section 1.1 "Purpose of the Procurement") to provide the goods and/or services outlined in this solicitation to the BWW. This solicitation process is being conducted to gather and evaluate responses from supplier(s) for potential award(s). All qualified suppliers are invited to participate by submitting responses, as further defined below.

NOTE TO SUPPLIERS: The general instructions and provisions of this document have been drafted with the expectation that the BWW may desire to make one award or multiple awards. For example, this document contains phrases such as "contract(s)" and "award(s)". Please refer to Section 1.1 "Purpose of the Procurement" and Section 6.6 "Selection and Award" for information concerning the number of contract awards expected.

### 1.3. Schedule of Events

The schedule of events set out herein represents the BWW's best estimate of the schedule that will be followed. However, delays to the procurement process may occur which may necessitate adjustments to the proposed schedule. If a component of this schedule, such as the close date, is delayed, the rest of the schedule may be shifted as appropriate. Any changes to the dates up to the closing date of the solicitation will be publicly posted prior to the closing date of this solicitation. After the close of the solicitation, the BWW reserves the right to adjust the remainder of the proposed dates, including the dates for evaluation, award, and the contract term, on an as-needed basis with or without notice.

Description	Date	Time
Release of Solicitation	As published per per state law.	N/A
Deadline for written questions sent via email to the Issuing Officer referenced in Section 1.4.	3/26/2024	4:00 p.m. CST
Bidders/Offerors' Conference Location: <b>Microsoft Teams</b> <b>Attendance is Mandatory</b>	3/21/2024	10:00 a.m. CST
Responses to Written Questions	3/28/2024	4:00 p.m. CST
Bids Due/Close Date and Time	4/04/2024	10:00 a.m. CST
Bid Evaluation Completed (on or about)	One Week after Close Date	N/A
Finalize Contract Terms	Two Weeks after Close Date	N/A

### 1.4. Official Issuing Officer (Procuring Agent)



**Jonathan Jett**

**Jonathan.Jett@bwwb.org (email address)**

**Engineer:**

ARCADIS, U.S., Inc.  
1143 1<sup>st</sup> Ave South, Suite 109  
Birmingham, Alabama 35233  
Mr. Yahya Majali, P.E

### **1.5. Definition of Terms**

Please review the following terms:

- Awarded Supplier- The supplier with whom the BWW will source products and/or services from as a result of the awarded contract and/or BWW issued PO
- Birmingham Water Works Board – the governmental entity identified in Section 1.1 “Purpose of Procurement” of this solicitation
- Birmingham Water Works Nine Member Voting Board of Directors- The awarding authority for BWW.
- Board- Birmingham Water Works Nine Member Voting Board of Directors
- Contract Amendment Form- a BWW issued document that adds, deletes, corrects, and/or modifies items such as contract extensions, terms revisions, increase or decrease of commodities, assignments, delegations of approval bodies, etc...
- Historically Underutilized Business- A business formed for the purpose of making a profit and is at least 51% owned, operated and/or controlled by one or more American citizens or permanent resident aliens who are: Minority Business Enterprise (MBE); Women's Business Enterprise (WBE); Disadvantaged Business Enterprise (DBE) and Disable Veteran Business Enterprise (DVBE); (herein sometimes collectively referred to as HUB)
- HUB Forms- Any document that captures information to determine if a company has received the verifiable status of Minority Business Enterprise (MBE), Women's Business Enterprise (WBE), Disadvantaged Business Enterprise (DBE), or Disable Veteran Business Enterprise (DVBE). All HUB Forms are verified and approved by the Birmingham Construction Industry Authority
- Supplier(s) – companies desiring to do business with the BWW

### **1.6. Contract Term and Renewal**

Award shall be made to the lowest responsive and responsible supplier(s) as described in [Section 6](#) of this document. The initial term of the contract shall be for a period of one (1) year from date of award and prices quoted shall remain effective for that period. The Board reserves the sole right to extend any applicable contract(s) for additional one (1) year periods or as allowable per State of Alabama law.

**All contract renewals must be approved by the Board. Before the contract end date, the BWW shall submit a Contract Amendment Form to the awarded supplier(s). The Contract Amendment Form may include any mandatory or implicative contract changes from BWW**

## **2. Instructions to Suppliers**

By submitting a response to the solicitation, the supplier is acknowledging that the supplier:

1. Has read the information and instructions,
2. Agrees to comply with the information and instructions contained herein.



## **2.1. General Information and Instructions**

### **2.1.1. Restrictions on Communicating with BWW Personnel**

From the issue date of this solicitation until the award is approved by the Birmingham Water Works Nine Member Voting Board of Directors, suppliers are not allowed to communicate for any reason with any BWW Personnel except through the Issuing Officer named herein, the Issuing Officer's designee, or during the Bidders/Offerors' conference (if any), or as defined in this solicitation or as provided by existing contract(s). Prohibited communication includes all contact or interaction, including but not limited to telephonic communications, emails, faxes, letters, or personal meetings, such as lunch, entertainment, or otherwise. The BWW reserves the right to reject the response of any supplier violating this provision.

### **2.1.2. Attending Bidders/Offerors' Conference**

The Bidders/Offerors' conference or any other information session (if indicated in the schedule of events) will be virtual via Microsoft Teams as referred to in Section 1.4 "Schedule of Events." Attendance is mandatory, and a representative of the supplier must attend the conference in its entirety to be considered eligible for contract award. The supplier is strongly encouraged to allow ample time to ensure arrival in the conference meeting room prior to the beginning of any mandatory conference. The BWW reserves the right to consider any representative arriving late to be "not in attendance." Therefore, all suppliers are strongly encouraged to arrive early to allow for unexpected travel contingencies.

### **2.1.3. BWW's Right to Request Additional Information - Supplier Responsibility**

Prior to an award, the BWW must be assured that the selected supplier has all of the resources to successfully perform under the contract. This includes, but is not limited to, adequate number of personnel with required skills, availability of appropriate equipment in sufficient quantity to meet the on-going needs of the BWW, financial resources sufficient to complete performance under the contract, and experience in similar endeavors. If, during the evaluation process, the BWW is unable to assure itself of the supplier's ability to perform, before award, the BWW shall have the option of requesting from the supplier any information deemed necessary to determine the supplier's responsibility. If such information is required, the supplier will be so notified and will be permitted approximately seven (7) business days to submit the information requested.

### **2.1.4. Failing to Comply with Submission Instructions**

Responses received after the identified due date and time or submitted by any other means than those expressly permitted by the solicitation will not be considered. Responses must be complete in all respects, as required in each section of this solicitation.

### **2.1.5. Rejection of Responses; BWW's Right to Waive Immaterial Deviation**

The BWW reserves the right to reject any or all responses, to waive any irregularity or informality in a response, and to accept or reject any item or combination of items, when to do so would be to the advantage of the BWW. It is also within the right of the BWW to reject responses that do not contain all elements and information requested in this solicitation. A response will be rejected if the response contains any defect or irregularity and such defect or irregularity constitutes a material deviation from the solicitation requirements, which determination will be made by the BWW on a case-by-case basis.

### **2.1.6. BWW's Right to Amend and/or Cancel the Solicitation**



The BWW reserves the right to amend this solicitation. Any revisions will be made in writing prior to the solicitation closing date and time. By submitting a response, the supplier shall be deemed to have accepted all terms and agreed to all requirements of the solicitation (including any revisions/additions made in writing through an addendum posted by BWW, prior to the close of the solicitation whether or not such revision occurred prior to the time the supplier submitted its response. THEREFORE, EACH SUPPLIER IS INDIVIDUALLY RESPONSIBLE FOR REVIEWING THE REVISED SOLICITATION AND MAKING ANY NECESSARY OR APPROPRIATE CHANGES AND/OR ADDITIONS TO THE SUPPLIER'S RESPONSE PRIOR TO THE CLOSE OF THE SOLICITATION. The BWW reserves the right to cancel and if desired, re-advertise this solicitation at any time.

**2.1.7. Costs for Preparing Responses**

Each response should be prepared simply and economically, avoiding the use of elaborate promotional materials beyond those sufficient to provide a complete presentation. The cost for developing the response and participating in the procurement process is the sole responsibility of the supplier. The BWW will not provide reimbursement for such costs.

**2.1.8. Quantities or Estimates of Products and Services**

The quantities specified herein are estimates based upon current consumption and projected demand for the next contract year and shall not be construed to represent an amount which the BWW shall be obligated to utilize or purchase. The exact amounts ordered may be more or less and subject to BWW's actual needs. The responding supplier acknowledges and agrees that the BWW will only be responsible for the commodities and/or services actually purchased and/or consumed.

**2.1.9. Permits and Licensing**

The awarded supplier shall be responsible for obtaining all permits, licenses, certifications, bonds, etc., required by federal, state, county, and municipal laws, regulations codes, and ordinances for the performance of the work required in these specifications and to conform to the requirements of said legislation. All fees must be included in the contract amount and paid by the awarded supplier. **All responding Suppliers must provide a valid copy of their business license.**

**2.1.10. Use of Subcontractor(s)**

Except as may be expressly agreed to in writing by the BWW, the awarded supplier shall not subcontract, assign, delegate, or otherwise permit anyone other than the supplier's personnel to perform any of supplier's obligations under the executed contract.

No subcontract which the awarded supplier enters into with respect to performance of obligations or work assigned under the BWW awarded contract shall in any way relieve the supplier of any responsibility, obligation, or liability under the contract which may be awarded from this solicitation.

All restrictions, obligations, and responsibilities of the supplier under the awarded contract shall also apply to any subcontractor(s) that may be sourced by the supplier. Any contract with a subcontractor must preserve the rights of the BWW. The BWW shall have the right to request the removal of a subcontractor from the awarded contract with or without cause.

**2.1.11. Supplier Performance**

In the event the BWW deems it expedient to perform service(s) or source alternate similar/like products(s) which have not been provided by the supplier as required by the awarded contract, or to correct work which has been inadequately performed by the supplier as required in the



solicitation documents, BWW reserves the sole right to procure services and/or products from another source and may charge the difference between the contract and the substitute contract to the defaulting supplier.

The BWW reserves the right to inspect the manufacturing and/or service development process of any awarded supplier's products and/or services.

#### **2.1.12. Supplier Warranties**

The awarded supplier represents and warrants that the goods and services provided in accordance with this solicitation will appear and operate in conformance with the terms and conditions of the finalized contract.

All goods delivered by awarded supplier to the BWW shall be free from any defects in design, material, or workmanship. If any goods offered by the awarded contractor are found to be defective in material or workmanship, or do not conform to supplier's warranty, the BWW shall have the option of returning, repairing, or replacing the defective goods at awarded supplier's expense. Payment for goods shall not constitute acceptance. Acceptance by the BWW shall not relieve the awarded supplier of its warranty or any other obligation under the finalized contract.

The awarded supplier represents and warrants that title to any property assigned, conveyed or licensed to the BWW is good and that transfer of title or license to the BWW is rightful and that all property shall be delivered free of any security interest or other lien or encumbrance.

The awarded supplier represents and expressly warrants that all aspects of the goods and services provided or used by it shall at a minimum conform to the standards in the supplier's industry. This requirement shall be in addition to any express warranties, representations, and specifications included in the finalized contract, which shall take precedence.

#### **2.1.13. Priority Customer Status**

By submitting a Cost Worksheet response to this solicitation, supplier understands and acknowledges that the BWW provides water services that are essential to the health and welfare of the public. Failure of an awarded supplier to provide materials under any awarded contract issued pursuant to this solicitation may jeopardize the BWW's ability to provide timely services, which may affect the health and welfare of the public served by the BWW. In the event of product shortages at any level of the production to delivery chain, awarded supplier(s) agrees and affirms that the BWW will be given the earliest possible notice of supply chain issues and the highest priority for allocation of the item(s) listed herein. To the extent that awarded supplier(s) must prioritize and/or allocate delivery among its customers, the requirements of the BWW will be honored before contract items are provided to a customer with no obligations with regard to the public health and welfare.

#### **2.1.14. Working hours**

Working hours on site shall be from Monday to Saturday 6 a.m. - 6 p.m. No work shall be performed during the following Holidays:

New Year's Day	Martin Luther King Jr. Day
Memorial Day	Juneteenth
Independence Day	Labor Day
Veteran's Day	Thanksgiving Day
Day After Thanksgiving	Christmas Eve



#### Christmas Day

Should it become necessary to perform Work outside of specified working hours the CONTRACTOR shall provide two (2) days advance written notice and receive subsequent written consent by the ENGINEER and OWNER.

#### **2.1.15 Damage or Pipes Found to be in Poor Condition**

If the service line is damaged by the CONTRACTOR, the CONTRACTOR shall immediately report the damage to the Field Maps App and shall replace the damaged items to the satisfaction of the OWNER /ENGINEER at no additional expense/cost to the OWNER.

If the service line, once uncovered, is found to be leaking or in poor condition that is not damaged by the CONTRACTOR, it is the CONTRACTOR's responsibility to report to the ENGINEER via the Field Maps App using the ArcGIS online account. CONTRACTOR shall keep the pothole open for inspection until BWB responds or until otherwise directed by BWB.

#### **2.1.16 Silence of Specifications**

THE APPARENT SILENCE OF SPECIFICATIONS AS TO ANY DETAIL OR TO THE APPARENT OMISSION FROM IT OF A DETAILED DESCRIPTION CONCERNING ANY POINT, SHALL BE REGARDED AS MEANING THAT ONLY THE BEST COMMERCIAL PRACTICES ARE TO PREVAIL.

### **2.2. Contract Time and Sequence of Work**

- 2.2.1** The Work must be executed at such times and in or on such parts of the Project, with a sufficient workforce, materials, and equipment to ensure completion of the Work within One Hundred (100) calendar days from the date of the Notice to Proceed
- 2.2.2** CONTRACTOR shall submit a work plan within 5 days after the Notice to Proceed to confirm the duration and sequence of the work.
- 2.2.3** The sequence of the work at each site shall be as specified in the Technical Specifications and the SOP.
- 2.2.4** CONTRACTOR shall submit a detailed and updated Sequence of Operations and Schedule to the ENGINEER every two (2) weeks. This sequence shall be site-specific and shall note significant changes to the activities on a given site (for example: excavation methods, temporary and permanent paving, landscaping, or others as appropriate). The schedule shall be assumed to be accurate for the following two (2) weeks unless written notification is received by the ENGINEER. ENGINEER may notify the CONTRACTOR for any updates every week.
- 2.2.5** ENGINEER reserves the right to not accept Work performed under this Contract that was not properly represented on the sequence of operations schedule. The schedule is an aid to having the proper inspections performed.
- 2.2.6.** CONTRACTOR shall provide two crews in the first two weeks of field investigation to gauge the execution rate (number of investigated potholes/day). With ENGINEER's





approval, CONTRACTOR may increase the number of crews for field investigation after the first two weeks.

- 2.2.7** CONTRACTOR shall purchase lead test kits as soon as receiving the award due to potential long lead time of the kits. CONTRACTOR shall order enough kits for a total 2,000 swabs from the brands specified below:
- a. 3M LeadCheck
  - b. D-Lead®
  - c. State of Massachusetts lead test kits
  - d. Or ENGINEER approved equal

- 2.2.8** CONTRACTOR shall recognize that time is of the essence of this project. If the CONTRACTOR fails, neglects or refuses to complete all or any designated part of the Work within the corresponding Contract Times as mentioned in 1.6.A, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR agrees to pay the OWNER, which may include, at OWNER's option, to deduct from progress payments and retainage \$500.00 for each day that expires after the Contract Times specified in 1.6.A, not to exceed the amount of the Contract Price (adjusted for any changes thereof made through Change Order) until the Work is substantially complete. Liquidated damages are cumulative and represent a reasonable estimate of the OWNER'S extra expenses, which expenses are difficult to estimate with accuracy.

### **2.3. Contractor use of site**

#### **2.3.1. Contractor must:**

- 2.3.1.1** Maintain a clean, functional, and safe worksite at all times. CONTRACTOR shall take all measures necessary to keep the work area in a clean, neat condition. Excavated materials shall be removed from the street and the area cleaned as directed by the Project Manager. Daily sweeping of areas to be open to traffic is required at the end of each workday.
- 2.3.1.2** If CONTRACTOR uses traditional excavation method, the CONTRACTOR shall identify all utility lines underground prior to any excavation work. CONTRACTOR shall call the 811 number along with any additional utility providers.
- 2.3.1.3** It is CONTRACTOR's responsibility to make himself thoroughly familiar with the most recent revisions or amendment to the ALDOT standard specifications for the maintenance and protection of traffic during construction.
- 2.3.1.4** Conform fully to above standard specifications to meet all requirements for providing, placing, maintaining of all necessary pavement markings, warning devices, signs, and barricades, and removing any temporary abovementioned items once work is completed on that site.





- 2.3.1.5 At the end of each working day, clear and clean footway and driving lanes.
- 2.3.1.6 Conform to all applicable laws, regulations, permits and contract document requirements.
- 2.3.1.7 CONTRACTOR is hereby informed that access to and use of BWW water from hydrants, mains, or other connections onsite is not inherent to this Contract. CONTRACTOR is solely responsible for obtaining any necessary temporary permits, meters, or other required items to provide water as needed. Unmetered and unpermitted use of BWW water is prohibited.
- 2.3.1.8 Excavations are not permitted to remain open after the end of a workday.

## **2.4. Submittal Instructions**

### **2.4.1. Solicitation Review**

Please carefully review all information contained in the Event, including all documents available as attachments or available through links. Any difficulty accessing the documents or opening provided links or documents should be reported immediately to the Issuing Officer (Section 1.4).

### **2.4.2. Preparing a Response to The Solicitation**

1. The BWW will not be responsible for the supplier's misunderstanding of the scope of work or any terms and conditions of the solicitation. The BWW will not be responsible for oral interpretations of this solicitation. Supplier's questions and/or comments concerning lack of clarity, defects and questionable or objectionable material in the solicitation must be submitted in writing to and received by the Issuing Officer, or their designee, no later than the deadline for questions date noted on the Schedule of Events (Section 1.3). Questions must specify the Section(s), paragraph(s), and page number(s) to which the question refers.
2. Use the BWW provided worksheets to prepare your response. Unless otherwise directed, do not insert "see attached document" (or similar statements) in the worksheet to reference separate documents. Please review and confirm that the most competitive response has been provided.
3. Answer each question in sufficient detail for evaluation while using judgment with regards to the length of response.
4. Proofread your response and make sure it is accurate and readily understandable.
5. Label any and all documents using the corresponding section numbers of the solicitation or any other logical name so that the BWW can easily organize and navigate the supplier's response

## **3. Instructions to Suppliers**

This section contains general business requirements. By submitting a response, the supplier is certifying its agreement to comply with all of the identified requirements of this section and that all costs for complying with these general business requirements are included in the supplier's submitted Cost Worksheet.

### **3.1. Standard Insurance Requirements and Bonding**

#### **Insurance**

Suppliers shall not commence any work until all the insurance as provided herein is obtained nor until the BWW has approved such insurance. Certificates issued by the Supplier's Insurance Company must be filed



with the BWW before any work is commenced as evidence of the insurance as provided herein. Such certificates must contain a clause stating that the Insurance Company will notify the BWW ten days prior to any change, cancellation, or renewal of the Supplier's insurance.

1. Workmen's Compensation Insurance: The Supplier shall carry Workmen's Compensation Insurance during the life of the Contract to insure statutory liability to their employees.
2. Comprehensive General Liability and Property Damage: The Supplier shall carry Comprehensive General Liability and Property Damage Insurance during the life of the contract covering all of the Supplier's own operations. The limits shall not be less than \$1,000,000 for bodily injury and \$1,000,000 for property damage.
3. Comprehensive Automobile Liability and Property Damage: The Supplier shall carry Comprehensive Automobile Liability and Property Damage Insurance during the life of the contract covering supplier's own automobile equipment and if any, supplier hired and non-supplier owned vehicles. The limits shall not be less than \$1,000,000 for bodily injury, \$1,000,000 for property insurance, and \$1,500,000 combined single limit.

#### **Bonding**

1. Each bid shall be accompanied by a cashier's check drawn on an Alabama Bank or bid Bond in the amount of five percent (5%) of the bid not to exceed \$50,000.00 in the form and subject to conditions provided for in the Specifications.
2. The successful Bidder will be required to furnish a Performance Bond and a Payment Bond each in an amount equal to 100 percent of the Contract Award.

### **3.2 Proposal Certification**

By responding to this solicitation, the supplier understands and agrees to the following:

1. That the submitted Cost Worksheet constitutes an offer, which if accepted in writing by the BWW, and subject to the terms and conditions of such acceptance, will constitute a valid and binding contract between the supplier and the BWW; and
2. That the supplier guarantees and certifies that all items included in the supplier's response meet all of the solicitation's identified specifications and requirements except as expressly stated otherwise in the supplier's response; and
3. That the response submitted by the supplier shall be valid and held open for a period of ninety (90) days from the final solicitation closing date and that the supplier's offer may be held open for a lengthier period of time subject to the supplier's consent; and
4. That the supplier's response is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a response for the same materials, supplies, equipment, or services and is in all respects fair and without collusion or fraud. Supplier understands and agrees that collusive bidding is a violation of state and federal law and can result in fines, prison sentences, and civil damage awards; and
5. That any provision of the State of Alabama Code has not been violated and will not be violated in any respect.

### **4. Solicitation Bid Factors**

This section contains the detailed technical requirements and related services for this solicitation. The BWW has determined that it is best to define its own needs, desired operating objectives, and desired operating



environment. The BWV will not tailor these needs to fit a particular solution a supplier may have available; rather, the suppliers shall propose to meet the BWV's needs as defined in this solicitation. All claims shall be subject to demonstration. Suppliers are cautioned that conditional responses/bids, based upon assumptions, may be deemed non-responsive.

Unless requested otherwise, all responses must be provided within the provided forms included with this solicitation.

#### **4.1. Introduction**

All of the items described in this section are service levels and/or terms and conditions that the BWV expects to be satisfied by any awarded supplier. Each supplier must indicate its willingness and ability to satisfy these requirements in the supplier's submitted response.

Unless otherwise specified, references to brand name or trade name/mark products are intended to be descriptive, but not restrictive, and are used to indicate the quality and characteristics of products that may be offered. Other products may be considered for award if such products are clearly identified and are determined by the BWV to meet its needs in all respects. Each supplier's response must indicate the brand name, model, and/or series number of the product offered and include such specifications, catalog pages, or other data that will provide an adequate basis for determining the quality and functional capabilities of the product offered.

#### **4.2. Mandatory Requirements**

As noted in the preceding section, this solicitation contains mandatory requirements (e.g., product specifications, service or quality levels, staff requirements, experience, or license requirements, etc.) which must be met by the supplier in order for the supplier to be considered "responsive" and, therefore, eligible for contract award. These mandatory requirements will be defined in one or more of the following ways:

1. Requirements in this solicitation document
2. Requirements contained in any attachment to this solicitation, such as HUB Documents, EEO Report, Certification of Non- Discrimination, Debarment Form, any BWV requested bonds, and the Cost Worksheet

### **5. Cost Worksheet**

Each supplier is required to submit pricing as part of their response.

#### **5.1. General Pricing Rules**

By submitting a response, the supplier agrees that it has read, understood, and will abide by the following instructions/rules:

1. The submitted pricing must include all costs of performing pursuant to the resulting contract; and
2. Bids containing a minimum order/ship quantity or dollar value, unless otherwise called for in the solicitation, will be treated as non-responsive and may not be considered for award; and
3. The supplier is required to provide net prices. In the event there is discrepancy between a supplier's unit price and extended price, the unit price shall govern;
4. The prices quoted and listed in the response shall be firm throughout the term of the resulting contract, unless otherwise noted in the solicitation or contract; and
5. Unless otherwise specified in any terms and conditions issued by the BWV to the solicitation, all product deliveries will be F.O.B. destination and all shipping charges must be included in the quoted cost; and



6. Unless expressly permitted by the solicitation, responses containing provisions for late or interest charges will not be awarded a contract. Suppliers must “redact” any such provisions in their submitted forms; and
7. Responses containing prepayment and/or progress payment requirements may be determined non-responsive unless otherwise permitted by the solicitation; and
8. Unless permitted by the solicitation, responses requiring payment from the BWW in less than thirty (30) days will be considered non-responsive; and
9. The BWW is exempt from certain taxes and no provision for such taxes should be included in the supplier’s response.

## **5.2 Cost Structure and Additional Instructions**

BWW’s intent is to structure the cost format in order to facilitate comparison among all suppliers and foster competition to obtain the best market pricing. Consequently, the BWW requires that each supplier’s cost be structured as directed in the solicitation. Additional alternative cost structures will not be considered. Each supplier is hereby advised that failure to comply with the solicitation instructions, submission of an incomplete offer, or submission of an offer in a different format than the one requested may result in the rejection of the supplier’s response.

Enter all information directly into the Cost Worksheet(s). Enter numbers on each cost sheet in “number” (two-place decimal), not “currency” or other format unless otherwise stated. That is, omit dollar signs, commas, and any other non-essential symbols. (e.g., \$7.90 should be entered as 7.90) Prices must be in US Dollars. Enter “n/a” to indicate not available or “0” if there is no charge. Cells left blank will be interpreted as “no offer”.

## **6. Evaluation and Award**

All timely responses will be evaluated in accordance with the following steps. The objective of the evaluation process is to identify the most competitive bid. Once the evaluation process has been completed, the apparent successful supplier(s) will be required to enter into discussions with the BWW to resolve any exceptions to BWW’s contract.

### **6.1. Administrative/Preliminary Review**

First, the responses will be reviewed by the Issuing Officer, or their designee, to determine compliance with the following requirements:

1. Response was submitted by deadline
2. Response is complete and contains all required documents

### **6.2. Evaluating Bid Factors**

If the supplier’s response passes the Administrative/Preliminary Review, the supplier’s responses will be evaluated. Responses to mandatory requirements will be evaluated on a pass/fail basis. If a response fails to meet a mandatory requirement, the BWW will determine if the deviation is material. A material deviation will be cause for rejection of the response. An immaterial deviation will be processed as if no deviation had occurred.

### **6.3. Evaluating Cost**

BWW may utilize lowest cost, lowest total cost, and total cost of ownership (TCO) or greatest savings to determine the most competitive pricing. Submitted pricing may be evaluated/scored on an overall basis or at the category/subcategory/line level (as applicable) relative to other responses/bids.



#### **6.4. Local Preference**

BWW may choose to utilize a local preference for the award of a contract for items of personal property or services as provided by and in accordance with State of Alabama Code §41-16-50 of the Code of Alabama (1975). A local preference is not applicable to the award of a contract funded by federal grant. Per State of Alabama Code § 41-16-50, the BWW considers Blount, Jefferson, St. Clair, and Shelby Counties to be within its Core Based Statistical Area.

#### **6.5. Alabama Based In-State Preference**

In compliance with State of Alabama Code § 41-16-57(b), the purchase of or contract for goods or services, the BWW shall give preference, provided there is no sacrifice or loss in price or quality, to commodities produced in Alabama or sold by Alabama persons, firms, or corporations.

#### **6.6. Selection and Award**

Any contract award resulting from the solicitation will be made to the lowest, responsive and responsible supplier meeting all specifications and with whom BWW has reached agreement on all contract terms and conditions.

When selecting the lowest responsive and responsible supplier, the determination may involve all or some of the following factors: price, conformity to specifications, financial ability to meet the contract, previous performance, facilities and equipment, availability of repair parts, experience, delivery promise, terms of payments, compatibility as required, other costs, and other objective and accountable factors which are reasonable.

#### **6.7. Site Visits and Oral Presentations**

The BWW reserves the right to conduct site visits, request product/work samples, or to invite suppliers and/or awarded suppliers to present their product/service solution to the evaluation teams. The supplier(s) and/or awarded supplier(s) shall provide access to all manufacturer's production, testing, storage, operation, and other areas if, and when, requested by the BWW.

### **7. Solicitation Terms and Conditions**

The contract that the BWW expects to award as a result of this solicitation will be based upon the solicitation, the successful supplier's final response as accepted by the BWW and the contract terms and conditions. The "successful supplier's final response as accepted by the BWW" shall mean: the response submitted by the awarded supplier, written clarifications, and any other terms deemed necessary by the BWW, except that no objection or amendment by a supplier to the solicitation requirements or the contract terms and conditions shall be incorporated by reference into the contract unless the BWW has explicitly accepted the supplier's objection or amendment in writing.

#### **Exception to Terms and Conditions**

By submitting a response, each supplier acknowledges its acceptance of the solicitation specifications without change except as otherwise expressly stated in their submitted responses. If a supplier takes exception to a solicitation provision, the supplier must state the reason for the exception and state the specific language it proposes to include in place of the provision. Any exceptions to any solicitation specification must be redlined with comments or countered as requested by other BWW supplied documentation, explaining the rationale for the proposed revision and submitted as an attachment to the supplier's response. Proposed exceptions must not conflict with or attempt to preempt mandatory requirements specified in the solicitation. Proposed exceptions must be in compliance with State of Alabama law. For further information regarding contracting with BWW, please go to the [State of Alabama Legislature Webpage](#), select [Legal Resources](#), and then [Code of Alabama](#).



In the event the supplier is selected for potential award, the supplier will be required to enter into discussions with the BWW to resolve any contractual differences before an award is made. These discussions are to be finalized and all exceptions resolved within the period of time identified in the schedule of events. Failure to resolve any contractual issues will lead to rejection of the supplier's response. The BWW reserves the right to proceed to discussions with the next best ranked supplier.

Exceptions that materially change the terms or the requirements of the solicitation may be deemed non-responsive by the BWW, in its sole discretion, and rejected. Contract exceptions which grant the supplier an impermissible competitive advantage, as determined by the BWW, in its sole discretion, will be rejected. If there is any question whether a particular contract exception would be permissible, the supplier is strongly encouraged to inquire via written question submitted to the Issuing Officer prior to the deadline for submitting written questions as defined by the Schedule of Events.

## **8. Delivery and Invoicing**

### **Delivery of Products and/or Services**

Unless otherwise stated in the solicitation and any resulting contract, items shall be shipped F.O.B. Destination. The supplier shall retain title for the risk of transportation, including the filing for loss or damages. The invoice covering the items is not payable until items are delivered and accepted by BWW. Unless the F.O.B. clause states otherwise, the seller assumes transportation and related charges either by payment or allowance.

All items shall be subject to inspection on delivery. Hidden damage will remain the responsibility of the awarded supplier to remedy without cost to the BWW, regardless of when the hidden damage is discovered.

**F.O.B.        Birmingham Water Works  
              3600 First Avenue North  
              Birmingham, AL 35222**

The BWW reserves the right to have orders delivered to different locations that are BWW owned or leased, or contractor worksites at the awarded supplier's expense.

A packing list shall accompany every shipment. The absence of a packing slip or required shipping order information may cause refusal of the shipment. The packing list shall contain: Purchase Order number, Delivery release number, item description, quantity shipped, quantity ordered, and quantity backordered (if any).

If there is a delay in products manufacturing or shipping and/or the performance of services, the awarded supplier(s) must notify the BWW, in writing, as soon as possible. The awarded supplier(s) must provide weekly updates, in writing, to the BWW for any product and/or service delays.

### **Invoicing**

The BWW will render payment to the awarded supplier(s) by check on a net 30-day basis after receipt of the products and/or services and an invoice that has been submitted as required in this solicitation, unless the BWW authorizes alternative terms in writing. All invoices must be submitted to [accountspayable@bwwb.org](mailto:accountspayable@bwwb.org). Any discrepancies noted by the BWW must be corrected by the awarded supplier within 48 hours. The payment amount due on invoices cannot be altered by the BWW personnel. Once disputed items are resolved, the awarded supplier must submit an amended invoice, or a credit memorandum for the disputed amount. The BWW will not make partial payments on an invoice where there is a dispute. The BWW will only make payments on authorized transactions.

Invoices submitted pursuant to this solicitation must include:

- Name and remittance address of supplier.
- Invoice date.



- Invoice number.
- Solicitation number.
- BWW Issued PO number.
- Must clearly show the description of products and/or services to include the number of each product or line item fulfilled.
- Contact information of the person to be notified in event of a discrepancy in the invoice.

## 9. Order of Preference

In the case of any inconsistency or conflict among the specific provisions of the executed contract (including any amendments accepted by both the BWW and the Awarded Supplier), the solicitation (including any subsequent addenda and written responses to supplier's questions), and the supplier's response, any inconsistency or conflict shall be resolved as follows:

- (i) First, by giving preference to the specific provisions of the executed contract.
- (ii) Second, by giving preference to the specific provisions of the solicitation.
- (iii) Third, by giving preference to the specific provisions of the supplier's response, except that objections or amendments by a supplier that have not been explicitly accepted by the BWW in writing shall not be included in the contract and shall be given no weight or consideration.

## 10. Indemnification

The successful bidder shall indemnify and hold harmless the Board and its present and future affiliates, and the representatives, agents, officers, and employees of each of them (The "Indemnified Parties") from and against any and all loss, damage, or liability resulting from demands, claims, suits, or actions of any character presented or brought for any injuries (including death) to persons (including without limitation employees or agents of the successful bidder) and for damages to property caused by or arising out of any negligent (including strict liability), wanton, or intentional act or omission of the successful bidder, any of its subcontractors, anyone directly or indirectly employed by any of them or anyone whose actions anyone of them may be liable or in any way associated or connected with the performance of the obligations under these specifications, in whatever manner the same may be caused, and whether or not the same be caused or arise out of the joint, concurrent or contributory negligence of any of the Indemnified Parties. The preceding indemnity shall include, but not be limited to, court costs, reasonable attorney's fees, investigation costs, defense costs, settlements, and judgments associated with such demands, claims, suits, or actions.

The Board shall not be liable for, and the successful bidder shall waive all claims against the Board and be responsible for, all loss or damage to persons or property sustained by the successful bidder, its officers, agents, or employees (except such as may arise because of the sole negligence of the Board) which may arise about the services to be performed by the successful bidder hereunder.

## 11. Governing Law

All contracts entered into as a result of this solicitation shall be governed by and construed in accordance with the substantive laws of the State of Alabama.

## 12. List of solicitation Attachments

The following documents make up this solicitation. Any difficulty locating or accessing the following documents should be immediately reported to the Issuing Officer.

- A. BWW Main Solicitation Document (This Document)
- B. Mandatory Questions
- C. Cost Worksheet(s)
- D. Appendix A (technical Specifications)





- E. Appendix B (Field Investigation Standard operating Procedures)
- F. All HUB Related Documents (Each HUB Document is Labeled as a HUB Document)
- G. Non-Discrimination Policy
- H. Conflict of Interest Form
- I. EEO Report
- J. Supplier Information Form
- K. Supplier Diversity Questionnaire
- L. Debarment Form
- M. Alabama Supplier License Form
- N. Copy of Workers' Compensation and Liability insurance
- O. Receipt of Bid Package Form



# Appendix A: Technical Specifications

## SECTION 31 23 16.13

### WATER SERVICE LINE EXCAVATION AND MATERIAL IDENTIFICATION

#### PART 1 – GENERAL

##### 1.1 DESCRIPTION

###### A. Scope:

1. This section includes all work related to the excavation to determine water service line material using hydroexcavation or traditional excavation methods, data collection, and restoration of excavated areas.

##### 1.2 QUALITY ASSURANCE

###### A. Regulatory Requirements:

1. Obtain all necessary permits for work in roads, rights-of-way, railroads, etc. Also, obtain permits as required by local, state, and federal agencies for discharging water from excavations.
2. Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

##### 1.3 SUBMITTALS

###### A. Action Submittals: Submit the following:

1. Safety Programs:
  - a. Provide a detailed Health and Safety Plan (HASP) for Owner and Engineer approval prior to commencement of any Work. HASP shall also include, but not limited, to General Safety and Personal Protective Equipment (PPE), Hand and Power Tools, Mobile Equipment, and Safety Administration
2. Product Data:
  - a. Erosion and Sediment Control Measures:  
Manufacturer's specifications with application and installation instructions.
  - b. Construction Materials:  
Provide material gradations, mix designs, and characteristic data for select fill, asphalt, concrete, topsoil, and sod materials.
  - c. Excavation Equipment:  
Provide description of hydroexcavation/traditional excavation equipment proposed to complete the Work as specified herein.

###### B. Informational Submittals: Submit the following:

1. Procedure Submittals:



- a. Proposed compaction procedure and equipment for use during backfill. Where different procedures or equipment will be used for compacting different types of material or at different locations at the Site, indicate where each procedure and equipment item will be used.

#### 1.4 DEFINITIONS

- A. Hydroexcavation: Is a process that makes use of pressurized water and a vacuum system to rapidly remove large amounts of soil from an area that requires excavation.
- B. Traditional or Conventional Excavation: Traditional excavation includes removal of earth material including soil, sand, mud, dirt, and clay using manual means using tools such as picks, shovels or using small equipment's such as mini excavators and back actors.
- C. Soft Excavation: Soft excavation includes all earth materials, including grass, soil, sand, mud, dirt, clay, rocks, or roadbed that can be excavated using hydroexcavation or conventional method. For locations that cannot be accessed by hydroexcavation, conventional method of excavation is acceptable.
- D. Hard Excavation: Hard excavation includes all hard, compacted, or cemented material including pavement, sidewalks, concrete pads etc. For locations where hard excavation is encountered, Contractor shall notify the Engineer and submit proposed excavation method for Engineer's approval prior to proceeding with the excavation. Hard excavation can be accomplished by saw cutting hard, compacted, or cemented material followed by excavating using hydroexcavation or conventional method. While awaiting Engineer's approval, Contractor shall continue to proceed with excavations at other sites where soft excavation can be carried out.

#### 1.5 SITE CONDITIONS

- A. Existing Utilities:
  1. Contractor shall be responsible for coordinating utility markout and location as required by applicable law and ordinances.
  2. Do not interrupt existing utilities serving properties identified for service line investigation. Contractor shall be responsible for repair or remedy of any utility mains or services damaged or interrupted by service line investigation activities. Repair damaged utilities to satisfaction of utility Owner.

#### 1.6 SCHEDULE

- A. Sequence of Operation & Schedule:

Contractor shall submit for Engineer approval a detailed and updated sequence of operations and schedule to the Engineer every two (2) weeks. This sequence shall be site specific and shall note significant changes to the activities on a given site (for example: type of excavation, temporary or permanent paving, landscaping, or others as appropriate). The schedule shall be assumed to be



accurate for the following two (2) weeks unless written notification is received by the Engineer. Engineer may notify the Contractor for any updates every week.

## PART 2 – PRODUCTS

### 2.1 MATERIALS

- A. Select Backfill:
  - 1. Use well-graded, granular material or bank run gravel, free from organic matter, conforming to the requirements of ALDOT #825, Type B or ALDOT #8910.
- B. Pipe Bedding:
  - 1. Material shall be ALDOT 8910 material in accordance with ALDOT Standard Specifications.
- C. Fill Sand:
  - 1. Fine sand aggregate shall be ALDOT Size No. 100 Concrete Sand meeting the requirements of Section 802. Sand shall have a high compaction rating and be natural sand except that it may include 20 percent crushed quartzite particles. A blend of two natural sands will be permitted subject to the approval of the Engineer.
- D. Topsoil Material:
  - 1. Topsoil shall contain no less than 6% and no more than 20% organic matter. Topsoil shall be loose and friable, free from refuse, stumps, wood, brush, weeds, and rocks and stones over 3/4” in diameter. Soil shall be representative of productive soil capable of sustaining vigorous plant growth.
  - 2. Topsoil shall be placed at a depth of 4-inches after natural settlement and light rolling when applied to lawn restoration and areas to receive sod.
- E. Sod:
  - 1. Sod shall be strongly rooted sod, free of weeds and undesirable native grasses and machine cut to pad thicknesses of 3 inch minimum.
  - 2. Sod shall be furnished in uniform pad sizes with a maximum 5 percent deviation in length or width.
  - 3. Sod shall be Centipede Grass, Bermuda Grass, or Bluegrass to match the existing grass at each location.
- F. Concrete:
  - 1. General:
    - a. Normal Weight: 145 pcf
    - b. Use air-entraining admixture in all concrete. Provide not less than four (4) percent, nor more than eight (8) percent, entrained air for sidewalk concrete exposed to freezing and thawing.
  - 2. Proportioning and design of Class “A” Concrete Mix:
    - a. Minimum compressive strength at 28 days: 4,500 psi
    - b. Maximum water-cement ratio by weight: 0.42
    - c. Minimum cement content: 564 pounds per cubic yard.



3. Slump Limits:
  - a. Proportioned design mixes to result in concrete slump at point of placement of not less than one (1) inch and not more than four (4) inches.
4. Adjustments of Concrete Mixes:
  - a. Concrete mix design adjustments may be requested by Contractor when warranted by characteristics of materials, site conditions, weather, or other similar circumstances.

G. Asphalt Pavement:

1. Aggregate, mineral filler, bitumen, prime coat and tack coat shall be in accordance with ALDOT 2012 Standard Specifications, Divisions 800.
2. Aggregate includes stone, gravel, slag and sand.
3. Mineral filler includes limestone dust, portland cement or other inert material.
4. Bitumen includes asphalt and tar cement.
5. Prime coat includes asphaltic cutback, tar or asphalt emulsion.
6. Tack coat required on an existing surface shall be in accordance with ALDOT 2012 Standard Specifications, Divisions 400 Section 405.

## 2.2 HYDROEXCAVATION EQUIPMENT

A. General:

1. Hydroexcavation equipment shall be designed for non-destructive excavation around buried infrastructure by loosening native subgrade materials using pressurized water and removal of slurry material via vacuum suction.
2. Hydroexcavation equipment shall provide control and emergency shutoff capabilities at the point of excavation.

B. Equipment Requirements:

1. Water Supply Tank:
  - a. Tank Volume: 1300 -gallons, minimum.
2. Water Pump:
  - a. Flow Rate: 18 gpm, minimum.
  - b. Discharge Pressure: 2,000 psi.
3. Water Heater:
  - a. Operating Temperature: 115 degrees-F at 18 gpm flow, minimum.
4. Jet Wand:
  - a. Coating: Rubberized.
  - b. Discharge Nozzle: Straight or spinning tip.
5. Suction Assembly:
  - a. Suction Hose: 8-inch diameter on remote-controlled boom with rubberized sleeve on open end.
  - b. Dig Tube: 6-inch minimum diameter, 8-inch maximum.
6. Vacuum Blower:
  - a. Capacity: 5,500 cfm at 27-inches Hg, minimum.



## PART 3 – EXECUTION

### 3.1 INSPECTION

- A. Provide Engineer with daily notice to examine areas and conditions under which service line excavations will be performed. Engineer will advise Contractor in writing when Engineer is aware of conditions that may be detrimental to proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions are corrected.

### 3.2 PREPARATION

- A. Contractor shall be responsible for site preparation including the following:
  - 1. Place a utility mark out in accordance with Alabama public utility commission regulations and other applicable law prior to commencement of the Work.
  - 2. Establish appropriate traffic control measures to protect the Work, adjacent roadways and vehicle traffic while executing the Work.
  - 3. Protect and restore existing signs, posts, and mailboxes within and adjacent to the work area.
  - 4. Protect trees, shrubs, bushes, and plantings adjacent to the Work. Tie back overhanging branches and limbs to prevent injury or damage from equipment or other operations related to the Work.
  - 5. Maintain support of and clearance from existing power, lighting, telephone, traffic control and other utility poles adjacent to the Work as required by Owners of the poles.
  - 6. Perform Work with rubber-treaded construction equipment or provide other suitable measures to prevent damage to pavement from construction equipment and vehicles.

### 3.3 EXCAVATION

- A. Grass or similar soft material excavation: Contractor shall core a plug in the grass and maintain on the side. Contractor shall proceed with the approved excavation method, complete the inspection, and restore by backfilling the hole with approved fill sand and reinstate the plug. If the plug is damaged, then Contractor shall restore the pothole per Section 2.1 for material and Section 3.9 for restoration.
- B. Soft material excavation: Excavation in soft non-grass materials shall proceed without coring a plug of the topsoil. Contractor shall proceed with the approved excavation method, complete the inspection, and restore by backfilling the hole with approved fill sand. Contractor shall restore the pothole per Section 2.1 for material and Section 3.9 for restoration.
- C. Excavation in Concrete Sidewalk: Contractor shall core a plug of concrete and maintain on the side. Contractor shall proceed with the approved excavation method, complete the inspection and restore and backfill the hole with approved material per Section 2.1 and reinstall the concrete plug with Epoxy Cement. If the plug is damaged during coring, Contractor shall cast in place the concrete to fill the 24-inch x 24-inch opening in the Sidewalk. See Section 2.1 and 3.9 for material and restoration.



- D. Excavation in Asphalt Pavement: Contractor shall proceed with the approved excavation method, complete the inspection, and restore and backfill the hole with approved material per Section 2.1 for material and Section 3.9 for restoration.

### 3.4 SERVICE LINE IDENTIFICATION

- A. Water service material determinations shall be made using hydroexcavation or conventional excavation method to expose the water service on the required side of the existing meter box as directed by the Engineer, leaving material immediately adjacent to meter box to properly support the meter box until excavations are backfilled. Contractor shall refer to SOP for step-by-step instruction.
  - 1. On the unknown utility side, service line shall be exposed 2 to 3-feet from the meter box towards the water main to allow water service material to be identified.
  - 2. On the unknown customer side, service line shall be exposed 2 to 3-feet and maximum of 6-feet from the meter box towards the building to allow water service material to be identified.
  - 3. For excavations within pavement or concrete, Contractor shall saw-cut a 24-inch by 24-inch square from the pavement prior to excavation on either side of the meter box.
  - 4. Refer to the schematic in the SOP for definition of lines from main to meter and meter to building inlet.
- B. Contractor shall coordinate with Engineer and Owner on daily work.
- C. Contractor shall be responsible for locating water service meter boxes at investigation locations specified by Engineer.
- D. Contractor shall comply with maintenance and protection of traffic measures and perform work in a manner that maintains safe and continues traffic on roadways adjacent to the Work.
- E. Construction equipment shall only be operated by Contractor personnel who are qualified to operate equipment.
- F. Contractor shall operate equipment in a manner that minimizes damage to adjacent tree roots.
- G. Contractor shall conduct excavation activities in a manner that protects surrounding areas and facilities, above- and below-grade, from damage.
- H. Equipment shall be operated according to manufacturer's operating instructions including monitoring nozzle discharge pressure to prevent damage to underground utilities and structures.
- I. Excavations shall be protected with traffic cones, plywood sheeting, or other suitable barriers upon completion of excavation until the excavation is backfilled. Excavations shall not be left open overnight.
- J. Contractor shall log in to the ArcGIS online account and input the field investigation data following the Field Maps App provided by the Engineer before, during and after the excavation, while on site,





using their tablet/ mobile phone which will include documenting and taking pictures of the site and pipe material.

- K. Contractor shall be responsible for disposing of excavation spoils in a manner consistent with applicable regulations and requirements of any authorities having jurisdiction at a suitable off-site location. Material disposal shall be managed in a way that prevents property or waterway damage.

### 3.5 MATERIAL IDENTIFICATION

Material identifications shall be made using Appendix B - Standard Operating Procedure (SOP) identified herein. This SOP applies to the customer and utility side of the service line.

### 3.6 SERVICE LINE REPLACEMENT

- A. The Contractor shall replace damaged service line and as instructed by the Engineer by removing the old pipe and installing new water service line. The pipe material shall be Copper, PEX (Cross-Linked Polyethylene) or HDPE. The Contractor shall lay and connect the new pipe along the trench, ensuring proper alignment and secure connections.
- B. After the new water service line is installed and all connections are secure, the Contractor shall backfill the trenches and compact the soil. Backfill material shall be as specified in section 2.1.
- C. Once the trench is backfilled and compacted, the Contractor shall restore any disrupted landscaping, pathways, or structures to their original condition.

### 3.7 SERVICE LINE REPAIR

- A. Contractor Shall repair the leaking in the service line as instructed by the Engineer and per the BWB standard. Contractor shall remove the old section and shall lay matching pipe material section, connect the new pipe section along the trench, ensuring proper alignment and secure connections.

### 3.8 EROSION AND SEDIMENT CONTROLS

- A. Provide temporary erosion and sediment controls in accordance with applicable standard and regulations established by Alabama Department of Environmental Management (ADEM), including but not limited to protection of stormwater catch basins, inlet structures, and watercourses adjacent to the Site.

### 3.9 RESTORATION

- A. All excavations shall be backfilled and final-graded the same day when Work is performed.
- B. Grass Area Restoration:



1. Refer to Section 3.3 for reusing the grass plug to restore the excavated area.
2. Place 6-inches of 8910 stone pipe bedding material immediately above service lines and backfill with approved fill sand material placed and compacted in 6-inch lifts.
3. If the grass is damaged during coring, Contractor shall install sod to match the type and level of existing grass.
4. Install sod to blend tight and uniformly with adjoining grass area and to be flush with surrounding areas. Immediately after installation, water with sufficient amount to saturate sod and underlying topsoil.

C. Sidewalk Area Restoration:

1. Refer to Section 3.3 for reusing the cored concrete plug to restore the excavated area.
2. Place 6-inches of pipe bedding material immediately above service lines and backfill with select fill material placed and compacted in 6-inch lifts.
3. If the concrete plug is damaged during coring, Contractor shall install 6"x6" 10/10 gauge welded wire mesh at mid depth prior to placing concrete.
4. Place concrete material to match existing sidewalk thickness/grading.
5. All edges shall be tooled to match existing sidewalk edges and shall be sloped to match existing sidewalk slope.

D. Asphalt Pavement Area Restoration:

1. Place 6-inches of pipe bedding material immediately above service lines.
2. Install temporary pavement repair in line with the existing pavement. Contractor shall install Backfill: # 57 Stone, or flowable fill on top of pipe and 4.5" cold mix placed by permittee flush w/existing pavement.
3. Minimum 30 days after temporary repair, install permanent pavement repair in accordance with the Typical Detail Asphalt Transitions included in the SOP.
4. Slope shall match existing asphalt.

E. Restore site to pre-excavation conditions, remove debris, and sweep adjacent roadways and sidewalks.

F. Post reviewing data uploaded by the Contractor via the Field Maps App regarding the service lines, Engineer and/or Owner will coordinate with Contractor every week to request clarification on any field investigations that might not seem accurate or completed, via email/ MS Teams phone call/Sequence of Operations and Schedule. Contractor shall be responsible for correcting any observed settlement or additional restoration deemed necessary within two weeks after receipt of request. Engineer will recommend to the Owner releasing full payment after monthly excavation and restoration work has been satisfactorily completed and approved.

++ END OF SECTION ++



# Appendix B: Field Investigation SOPs

## 1. BWW SERVICE LINE MATERIAL IDENTIFICATION PROCEDURE

### Investigation Checklist:

Make sure you have these items ahead **for each inspection location**.

- iPad/Tablet
- State-issued ID
- PPE
- Two Lead Check Swabs per site
- Magnet
- Key/ Screwdriver/ Blunt Object for scratch test
- Site preparation testing tools (varies per site)
- Site restoration materials (varies per site)
- Outreach Content:
  - Service Line (SL) Material Post Card
  - Customer Guide to Lead Safety Brochure
  - Water SL Inspection FAQ Factsheet
  - Right of Entry (ROE) form

### Investigation Steps:

1. Arrive at the inspection location and locate the inspection site (using site address and current location in Field Maps) in Field Maps application, click on the inspection point, and click “Edit” to document field inspection findings and photos.
2. Assess SL access points.
  - a. First and foremost, locate the customer’s meter box
    - i. Remove lid to meter box and document the interior of the meter box in the Field Maps app, including:
      1. Photo of meter box
      2. Is the service line visible within the meter box?
      3. If applicable, document the service material as observed within the meter box.
    - b. If service line is not visible in the meter box, and the house has a basement/ crawl space, knock on the door to inform the customer that an inspection is taking place and attempt obtaining a signed ROE from the customer.
      - i. When accessible from basement/crawlspace, investigate Meter-to-House portion of the service line at the point of entry to the residence.
      - ii. Water SL inspection FAQ Factsheet will be provided to Contractor to guide all conversations with customers. Contractor shall **not** deviate from FAQ information.
    - c. If service line is not visible in the meter box and a basement / crawl space inspection is not possible, attempt a soft excavation potholing inspection.
      - i. For excavation inspections of Meter-to-House portion of the service line:
        1. Locate a potholing spot at about 2-3 feet and not more than 6 feet from the Meter.
        2. If a location with soft material is not accessible within 6 feet of the meter, **do not proceed** with the excavation and obtain approval from Engineer/Owner to continue with the excavation through concrete or asphalt.
      - ii. For excavation inspections of Main-to-Meter portion of the service line:
        1. Locate a potholing spot at about 2-3 feet from the Meter.
        2. In the case that there is concrete/asphalt within 2-3 feet of the meter box, evaluate if a location with soft material (i.e., grass, dirt, gravel) is accessible



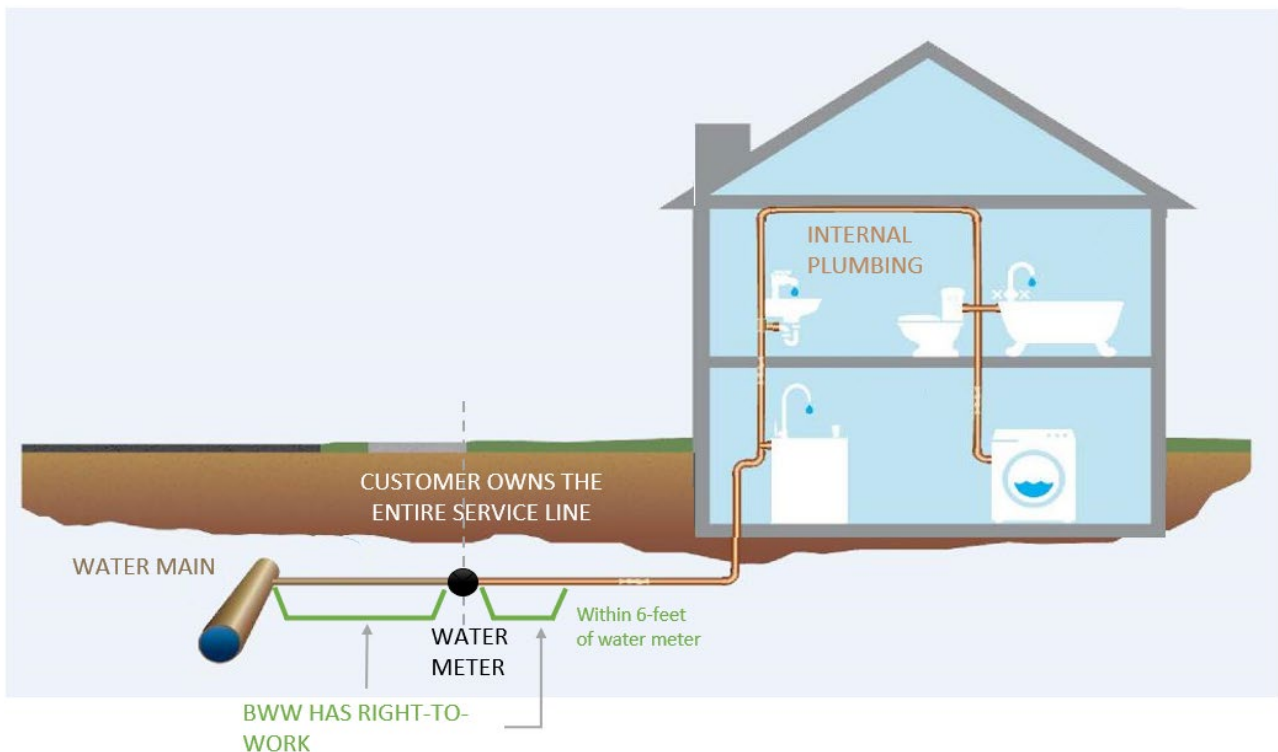
3. If a location with soft material is not accessible between the main and meter, **do not proceed** with the excavation and obtain approval from Engineer/Owner to continue with the excavation through concrete/asphalt.
3. Take photo of the “before” condition of the area that you will be inspecting—either the crawlspace area or the location you will be excavating.
4. Expose the service line through approach determined in step 2 and take pictures of the exposed service line. Clean pipe without entering the excavation. Traditional excavation should not exceed 24 x 24 inches and pothole excavation should not exceed 10-inch in diameter without gaining approval from Engineer/Owner to continue.
  - a. Visually inspect the service line and document the color and appearance.
    - i. Copper service lines are brown/orange and may have green corrosion spots.
    - ii. Plastic service lines may be white or blue.
    - iii. Lead service lines are dull grey and often curves between wall/floor and valve.
    - iv. Galvanized service lines are dark grey or black.
    - v. Brass service lines are brown and may have corrosion spots.
  - b. Use a key or screwdriver to scratch the service line, document ease of indentation and color, and take a photo of the scratch on the service line.
    - i. Lead service lines are considered to be made of a soft metal. Therefore, it is easy to scratch or make an indentation on the service line and will appear shiny silver.
    - ii. Galvanized SL are hard to scratch and remain grey after scratching.
    - iii. Brass service lines will appear a gold color when scratched.
  - c. Apply a magnet to the service line and document if the service line is magnetic.
    - i. Lead service lines are silver-grey and are *not* magnetic.
    - ii. Copper and Plastic service lines are *not* magnetic.
    - iii. Brass service lines are *not* magnetic.
    - iv. Galvanized service lines are grey and are magnetic
  - d. Use two Lead Check Swab to swab the uncovered service line. Document if the service line contains lead.
    - i. Preferred lead check swabs are 3M LeadCheck, D-Lead, and State of Massachusetts lead test kits. If Contractor is unable to procure one of these brands, approval from Engineer/Owner is **required**.
5. Log all photos and service line information within the Field Maps application during and/or after completion of the steps outlined in Step 4.
  - a. Document any additional information on the service line that is not within the provided questions within the “General Comments” field.
6. Perform restoration/cleanup of the investigation site as required for excavation methods.
  - a. For crawlspace/basement inspection of Meter-to-House portion of the service line:
    - i. Ensure that anything that was moved to reach the service line is restored to its original condition.
  - b. For traditional excavation inspection of Meter-to-House or Meter-to-Main portion of the service line:
    - i. Backfill pothole per Technical Specifications.
    - ii. If Contractor damages the service line, the repair shall be completed the day of the excavation and report shall be logged within Field Maps application.
  - c. For potholing excavation inspection of Meter-to-House or Meter-to-Main portion of the service line:
    - i. Backfill pothole per technical specification.
    - ii. See restoration section below and Technical Specifications for restoration requirements.
7. If lead or galvanized is determined to be the service line material, complete the Service Line Material Identification Card. Provide both the Service Line Material Identification Card and Customer Guide to Lead Safety to customer in-person or by leaving at the front door.
  - a. Take photo of completed documents.
8. Click “Submit” in Field Maps to save the investigation findings to the app when all required information has been input.

## Resources:

- [DC Water Service Pipe Material Identification](#)

## 2. SCHEMETIC FOR DEFINITIONS

The schematic below demonstrated the definition of service line from main to meter and meter to building inlet.



## 3. RESTORATION DETAILS

Contractor shall restore the sidewalk (or similar concrete surface) pavement in accordance with the Technical Specifications and the details as demonstrated below.

In the event that it is required to pothole through hard materials and the Contractor has been approved by Engineer to proceed, the Contractor will be required to cut through the material creating a core (Figure 1).



*Figure 1: Core Material Example*

For restoration, the Contractor will be required to use the core material, if reusable, to patch the hole. In the case this is not reusable, Contractor should have materials available to patch the hole on site. For completion of the restoration, the hole should be patched flush to grade and as per the Technical Specifications (Figure 2).



*Figure 2: Restoration Completion*



CROSS SLOPE 2% (MAX.) IN THE  
DIRECTION OF DRAINAGE

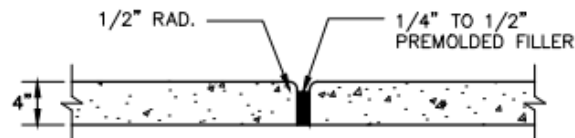
4' SIDEWALK

COMPACTED SUBGRADE 98%  
MODIFIED DENSITY

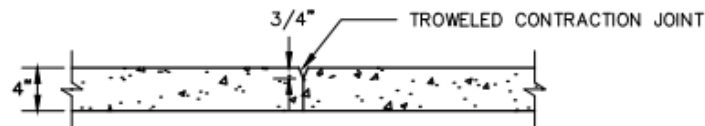
6"X6", 10/10 GAUGE WELDED  
WIRE MESH INSTALL MID DEPTH

NOTES:

1. TOOLED CONTRACTION JOINTS @ 5'-0" ON CENTER, AND 1/2" PREFORMED EXPANSION JOINTS AT 50 FT. INTERVALS AND AT JUNCTIONS OF OTHER RIGID STRUCTURES.
2. ALL EDGES SHALL BE TOOLED USING 1/8" RADIUS.
3. ALL SIDEWALKS SHALL BE ADA COMPLIANT. THE RUNNING SLOPE & CROSS SLOPE OF ADA COMPLIANT SIDEWALKS SHALL NOT EXCEED 5% AND 2% RESPECTIVELY.
4. CLASS A CONCRETE (28 DAY MIN. COMPRESSIVE STRENGTH 4000 PSI) SHALL BE USED IN CONCRETE SIDEWALK.
5. THE SUBGRADE UNDER SIDEWALKS SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DRY DENSITY AT A MOISTURE CONTENT WITHIN  $\pm 3\%$  OF THE OPTIMUM MOISTURE CONTENT.
6. EXPANSION JOINT MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 832 OF ALDOT SPECIFICATIONS.
7. AN EXPANSION JOINT SHALL BE PROVIDED WHEN A CONCRETE MEMBER JOINS ANOTHER EXISTING CONCRETE MEMBER. THIS WILL INCLUDE JUNCTIONS OF SIDEWALKS, SIDEWALKS WITH CONCRETE PADS, AND SIDEWALKS WITH CURB.



EXPANSION JOINT



CONTRACTION JOINT



