



REQUEST FOR BID
SEWER SYSTEM EVALUATION SURVEYS

Bid Number 2016-PME-13

August 2016

**CLAYTON COUNTY WATER AUTHORITY
1600 Battle Creek Road
Morrow, GA 30260**

Bid Opening: Tuesday, October 4, 2016 at 10:00 a.m. (local time)
1600 Battle Creek Road, Morrow, Georgia 30260

Non-Mandatory Tuesday, September 13, 2016 at 10:30 p.m. (local time)
Pre-Bid Meeting 1600 Battle Creek Road, Morrow, Georgia 30260

This bid has a SLBE BID DISCOUNT

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Addendum

None Issued at This Time

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Division 1

General Information

Section 1: Request for Bids

Clayton County Water Authority
1600 Battle Creek Road
Morrow, Georgia 30260

Name of Project: **Sewer System Evaluation Surveys**

The Clayton County Water Authority will open sealed bids from contractors at its office located at 1600 Battle Creek Road, Morrow, Georgia 30260, on **Tuesday, October 4, 2016 at 10:00 a.m. (local time)** for Sewer System Evaluation Surveys.

Any bids received after the specified time will not be considered.

A Non-Mandatory pre-bid meeting will be held on **Tuesday, September 13, 2016 at 10:30 a.m. (local time)** at 1600 Battle Creek Road, Morrow, Georgia, 30260.

In an effort to promote responsible environmental practices the bid package is available in electronic (Adobe PDF) format and can be requested by calling **770-960-5223**, M-F, 8:00 am - 5:00 pm or by e-mail to CCWA_Procurement@ccwa.us.

A hardcopy bid package can also be requested at a cost of \$25.

Clayton County Water Authority

By: John Chafin, Chairperson

Division 1

General Information

Section 2: General Overview

2.1 Intent and Purpose

As a part of an ongoing program to locate, prioritize and remove infiltration and inflow (I/I) from the collection system, the Clayton County Water Authority (CCWA) intends to contract for the annual services of an experienced contractor to complete sewer system evaluation surveys for the period **November 1, 2016 to October 31, 2017**.

The contract may be extended for a second and third twelve (12) month period by mutual written consent by both parties with no changes in the terms, conditions, or prices.

The work to be performed under this contract will be determined and assigned by CCWA on an “as-needed”, “when-needed” basis. CCWA does not guarantee any minimum or maximum work quantities under this contract, and reserves the right to bid any similar type work of this contract as a separate procurement at its sole discretion.

All work will be issued in the form of a Project Work Order. A Project Work Order may include a single work item, or may include a number of work items. All work items of a Project Work Order do not necessarily have to be adjacent to each other; however, it is the intent that each Project Work Order will be authorized as part of a mobilization to a common geographic location.

2.2 Bid Evaluation

To be considered responsive to this bid, bidders are required to bid on all work items listed in the Bid Form – Pay Item Schedule.

The total bid amount per bidder will be determined by taking the “unit cost” for each “work item” as shown on the “Bid Form - Pay Item Schedule” times an estimated annual quantity for each “work item”. At the time of Bid Opening, CCWA will provide a list to each bidder of the “selected” work items and “estimated annual quantities” that CCWA has selected to use in determining the “total bid amount”. Note that not all “work items” as shown on the Bid Form - Pay Item Schedule will be used in the bid evaluation process. Work items on the Bid Form – Pay Item Schedule not used in the award evaluation process will be examined by the CCWA to insure that the unit price is in line with comparable

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General Information

Section 2: General Overview

items contained in this bid and that any unit price that appear to be out of line may be used by the CCWA as a basis of denial/award of the particular bid and/or the unit price may be negotiated by CCWA. This determination will be at the sole discretion of CCWA.

This procurement has a Small Local Business Enterprise (SLBE) bid discount, which means that any and all CCWA certified SLBE participation will allow for bid discounts for evaluation purposes only. Please refer to Division 2, Section 8 of this bid package for more details.

2.3 Addendum

Bidders may submit questions regarding this bid prior to the bid opening. To be considered, all questions must be received no later than **Friday, September 23, 2016 at 10:00 a.m. (local time)** via email at (CCWA_Procurement@ccwa.us). Any and all responses to bidders' questions will be issued in the form of an Addendum by email. All addenda issued shall become part of the Bid Documents.

END OF SECTION

Division 2

Bid Requirements

Section 1: Instructions to Bidders

These instructions are to be followed by every entity bidding to provide the Clayton County Water Authority (CCWA) with goods and/or services. These instructions constitute an integral part of the Bid, and any Bidder agrees that tender of a Bid constitutes acknowledgment and acceptance of its obligation to adhere to these instructions, which are to be incorporated into and considered part of any contract the Bidder ultimately executes with the CCWA.

1. If there is any question whatsoever regarding any portion of the specifications, it shall be the Bidder's responsibility to seek clarification immediately from the CCWA, as early as possible prior to the bid opening. Regarding public works projects, requests for interpretations of specifications must be made in writing to the department proposing out the project not later than five (5) days prior to receipt of bids.
2. Unless it is otherwise stated in the bid documents, it shall be the responsibility of the bidder to inform itself as to all conditions of the work site and to make and take account thereof in calculating and submitting its bid. Documents may be made available by the CCWA during the bidding process; no warranty of accuracy is made in regard to these documents, and it is the responsibility of the bidder to make its own investigations as to the nature of the work and the conditions under which it shall be performed, and to make its own independent assumptions as to these matters. The burden of anticipating unforeseen circumstances, either hidden or latent, and the conditions of the work site and all related circumstances, and the cost of accommodating therefore should unanticipated circumstances be later encountered shall rest upon the bidder.
3. Pre-bid meeting or any other information session will be held at the location as indicated in the solicitation. Unless indicated otherwise, attendance is not mandatory; although vendors are strongly encouraged to attend. However, in the event the meeting is mandatory, then a representative of the vendor must attend the meeting in its entirety to be considered eligible for solicitation award. Late entry to the meeting will not be allowed.
4. In the event that, after the acceptance of a bid by the Board of Directors of the CCWA, any unsuccessful bidder wishes to contest such action, a written "Notice of Contest" must be filed with the General Manager no later than close of business on the 5th business day after the selection of successful bidder by the Board. Failure to timely file such notice shall forever preclude the filing of a contest of the award, or any civil action in the courts of the State of Georgia or of the United States.

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Bid Requirements

Section 1: Instructions to Bidders

5. Information submitted by the Bidder in the bid process shall be subject to disclosure after bid award in accordance with the Georgia Open Records Act. Proprietary information must be identified and be accompanied by a signed affidavit outlining the redacted information. Entire bids may not be deemed proprietary.
6. Bids must be made on the enclosed Bid Form. Unless otherwise requested, one (1) original and at least two (2) copies of the Bid Form need to be submitted, and these copies must be **typewritten or printed in ink**. All copies of any Bid Forms must be signed in ink by the person or persons authorized to sign the Bid Form. The person signing the Bid Form must initial any changes or corrections.
7. The name of the person, firm, or corporation making the Bid must be printed in ink, along with the Bidder's signature, on all separate sheets of the Bid Form. If a Bid is made by an individual, his name and post office address must be shown. If made by a firm, or partnership, the name and the post office address of each member of the firm or partnership must be shown. If made by a Corporation, the person or persons signing the Bid must show the name of the State under the laws of which the Corporation is chartered and his, or their authority for signing same. The names, titles and addresses of the President, Secretary and the Treasurer and the corporate authority for doing business in this state shall be listed and returned with the Bid Form.
8. All Bids must be hand delivered, delivered by courier service, or mailed via the United States Postal Service. No facsimiles will be accepted. The person, firm, or corporation making the Bid shall submit it in a sealed envelope on or before the date and time specified in the Bid package. The envelope shall be marked "**Sealed Bid**" and carry the Bid title, and date and time of opening as set forth in the Bid package. The envelope shall also bear the name of the party making the Bid and the party's address. Address Bids to *Clayton County Water Authority, 1600 Battle Creek Road, Morrow, Georgia, 30260*. Even if a Bid is not submitted, the Bid Form should be returned signed and with an explanation, otherwise the result will be deletion from the mailing list.
9. If published price books are a part of your Bid, one price book must be included with your Bid Form, and the successful Bidder is required to furnish additional current price books after award of the Bid.
10. Alterations to the documents are strictly prohibited and shall result in automatic disqualification of the Bidder's bid. If there are "exceptions" to the specifications or comments to any of the solicitation requirements or other language, then the bidder

Division 2

Bid Requirements

Section 1: Instructions to Bidders

may ask questions regarding those requirements or submit additional documentation as to the variation from the specifications, but may not alter any of the language contained in the solicitation.

11. In the case of goods, the person, firm or corporation making the Bid may Bid all items. All items may be considered separately, at the discretion of the CCWA.
12. Bidders for construction contracts where the laws of Georgia or the United States of America require a license in order to perform such construction must list the license number and class on the face of the bid envelope and must enclose copies of any required license with the bid.
13. When public work is let out for bid, no person shall prevent or attempt to prevent competition in such bid. Such bidders must make an oath filed with the officer who makes payments under the contract that they have not prevented or attempted to prevent competition in the bid process. Such oath must be signed by: if a partnership, all partners and any officer or agent or other person who acted on the partnership's behalf during the bid process; if a corporation, all officers, agents, or other persons who acted for the corporation in the bid process.
14. Bids shall not be withdrawn or cancelled by the bidder past the bid opening date and time. The bidder may make modifications/corrections to the bid by submitting a corrected seal bid but only if the change is prior to the bid opening. The corrected document should be clearly marked that it supersedes the bid originally submitted. No modification or corrections will be allowed subsequent to the bid opening.
15. By tendering a bid, a Bidder agrees to leave the bid open for acceptance by the CCWA for ninety (90) days after the date set for the opening thereof.
16. By tendering a bid, the bidder certifies that the bidder has carefully examined these instructions and the terms and specifications applicable to and made a part of the bid. The Bidder further certifies that the prices shown in any schedule of items on which the Bidder is proposing are in accordance with the conditions, terms and specifications of the bid and that they are aware that any exception taken thereto may disqualify the bid. Bidders are required to inform themselves fully as to the availability of materials and the conditions relating to construction and labor under which any work will be or is now being performed. No error or misjudgment nor any lack of information on local conditions, general laws or regulations on the part of the Bidder shall merit withdrawal of the bid.

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Bid Requirements

Section 1: Instructions to Bidders

17. Copies of all communication pertaining to bids must be sent to the Contracts, Compliance and Risk Management Section.
18. The purpose of this bid is to establish contract prices. Unit price extension and net total must be shown if applicable. Cash discounts should be indicated separately. The CCWA is exempt from federal or state sales taxes; do not include such amounts in the bid. Exemption certificates are furnished upon request.
19. Bidders are hereby notified and agree by submission of a Bid Form that if additional items not listed in the Bid Form become necessary and require unit prices not established by the Bid Form, the unit prices of such items shall be negotiated and shall be directly proportional to the established unit prices of similar items in the Bid Form.
20. All prices on goods shall be for delivery, our destination, f.o.b. freight prepaid Jonesboro, Georgia, and/or Morrow, Georgia, unless otherwise shown. Any deliveries shall be made as needed and requested throughout the contract period.
21. Quantities when shown are estimates only, based on anticipated needs. The CCWA reserves the right to purchase more or less based on actual need at contract price. If a Bidder intends to offer minimum or maximum shipment quantities, such intent and such quantities should be specified on the Bid Form. Otherwise, none will be assumed.
22. The time for completion of the work is stated in the Bid Form. Failure to complete the work within this period shall result in payment to the CCWA of liquidated damages in an amount provided for by contract for each calendar day in excess of the Contract time.
23. The Bidder must employ such methods and means in carrying out the work as will not cause any interruption of or interference with any other Contractor.
24. The successful Bidder must comply with the applicable Risk Management Requirements prior to beginning performance, and during the contract period.
25. The Contract between the CCWA and the Contractor shall be executed on a form provided by CCWA and will be subject to all requirements of the contract documents (which include but may not be limited to the Contract, these instructions, any Purchase Orders, and the Risk Management Requirements), and shall form a binding contract between the contracting parties.

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Bid Requirements

Section 1: Instructions to Bidders

26. Failure to execute the Contract, any required Surety Performance and Payment Bonds, or to furnish any required satisfactory proof of carriage of required insurance within ten (10) days from the date of notice of award of the Contract shall be just cause for the annulment of the award and for forfeiture of the bid guaranty to the CCWA, not as a penalty, but in liquidation of damages sustained. At the discretion of the CCWA, the award may then be made to the next lowest responsible vendor, or the work may be re-advertised or constructed by the CCWA.
27. Any Contract and Contract Bonds shall be executed in duplicate.
28. Award of this bid shall be by action of the CCWA Board at its regular monthly meeting.
29. The CCWA reserves the right, with or without notice or cause, to accept any bid regardless of the amount thereof; to reject any bid, or any number of bids; to negotiate with any Bidder for a reduction of or alterations in its bid; to reject all bids and to call for additional bids upon the same or different invitations to bid, plans or specifications; to be sole judge, in its discretion, on all questions as to whether or not a bid complies with the invitation to Bid, the plans or the specifications, and as to the solvency and sufficiency of any and all sureties on all bonds.
30. The apparent low bid for goods shall be considered to be the lowest aggregate total price of specified products at their unit prices times the estimated required quantities of these specified products.
31. Bids received from two (2) or more vendors that are identical in price, delivery and meet the requirements of the bid specifications shall be awarded on the following basis:
 - a. The bid submitted by a vendor who does not have a documented negative vendor performance record.
 - b. The bid submitted by a vendor who is located within Clayton County.
 - c. The bid submitted by a vendor who is certified by our Small Local Business Enterprise Program.
 - d. If the tie bids meet all the above criteria, and it is not in the Authority's best interest (at its sole discretion) to split the award, the bid award is based on the toss of a coin by CCWA staff in a public session. The vendors involved will be invited to attend the coin toss at a stated date and time. One or more witnesses from both CCWA Procurement and the Requesting Department

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Bid Requirements

Section 1: Instructions to Bidders

may be present. A simple coin toss (called by the vendor listed first in the alphabet) will break the tie and decide the award.

32. While price is the prime criteria, and the CCWA intends to purchase at the lowest responsible bid available, price shall not be the sole criteria utilized by the CCWA in evaluating the bid package submitted. The following criteria shall also be utilized by the CCWA in determining the lowest responsible bid:
 - a. Ability of Bidder to perform in the time frame needed by the CCWA.
 - b. Reputation of the Bidder in its industry.
 - c. Reasonableness of the bid in relation to anticipated costs.
 - d. Ongoing relationships with the CCWA based on above-average prior performance of work with the Authority.
33. Bidders are notified that the Authority reserves the right except in the case of public works contracts to include among the factors considered in awarding the contract the proximity of each Bidder's place of business to any affected Authority facility. The Authority further reserves the right to award the contract to a Bidder other than the Bidder offering the lowest price where: (a) the difference in price between the low Bidder and the preferred Bidder is nominal; and (b) the Authority's Board determines that the preferred bid provides the most cost effective option due to the closer proximity of the preferred Bidder's place of business to the affected Authority facility or facilities. In such a situation, by responding to this bid, the Bidder waives any cause of action against the Authority for frustration of bid or under any similar legal theory; furthermore, the Bidder agrees to pay all costs and expenses, including but not limited to attorney fees, incurred by the Authority in defending against any such claim.
34. It is the policy of the Clayton County Water Authority (CCWA) to promote award of sub-agreements for goods and/or services to qualified small local, minority and women-owned businesses. Bidders are encouraged to solicit small local, minority and women-owned businesses whenever they are potential sources.
35. Bidders are encouraged to utilize the services and assistance of the U.S. Small Business Administration (SBA), and the office of the Department of Commerce Minority Business Development Agency (MBDA). These agencies can provide assistance in securing the names of qualified minority and women-owned businesses. Additionally, it is encouraged that bidders access certified Small Local Business Enterprise (SLBE) vendors from Clayton County, DeKalb County, and City of Atlanta.

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Bid Requirements

Section 1: Instructions to Bidders

The Georgia Department of Transportation (DOT) has established a list of qualified Disadvantaged Business Enterprises. Information is available online under the tab for "Directories", link for "UCP Directory - Excel" at:

<http://www.dot.ga.gov/PS/Business/DBE>.

The successful Bidder will be asked to provide, along with his Request for Payment each month a list of qualified SLBE and MBE/WBE businesses utilized on this Project.

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT OF 2006

36. Pursuant to the Georgia Security and Immigration Compliance Act of 2006, the successful Contractor understands and agrees that compliance with the requirements of O.C.G.A.13-10-91 and Georgia Department of Labor Rule 300-10-02 are conditions of this bid and contract document. The Contractor further agrees that such compliance shall be attested by the Contractor and any of his Subcontractors by execution of the appropriate Affidavit and Agreement included after the Agreement Form of these documents.

END OF SECTION

Division 2

Bid Requirements

Section 2: Risk Management Requirements

The Contractor will provide minimum insurance coverage and limits as per the following: The Contractor will file with the Authority Certificates of Insurance, certifying the required insurance coverages and stating that each policy has been endorsed to provide thirty (30) day notice to the Authority in the event that coverage is cancelled, non-renewed or the types of coverage or limits of liability are reduced below those required. All bonds and insurance coverage must be placed with an insurance company approved by Authority Management, admitted to do business in the State of Georgia, and rated Secure ("B+" or better) by A.M. Best Company in the latest edition of Property and Casualty Ratings, or rated by Standard & Poors Insurance Ratings, latest edition as Secure ("BBB" or better). Worker's Compensation self-insurance for individual Contractors must be approved by the Worker's Compensation Board, State of Georgia and/or Self-Insurance pools approved by the Insurance Commissioner, State of Georgia.

CONTRACTS FOR UP TO \$50,000

Worker's Compensation – Worker's Compensation coverage on a statutory basis for the State of Georgia with an Employer's Liability limit of \$100,000 each Accident, Disease \$100,000 each employee, \$500,000 Disease policy limit.

Automobile Liability – Automobile liability coverage for owned, hired and non-owned vehicles in the amount of \$500,000 combined single limit.

Commercial General Liability – Coverage to be provided on "occurrence" not "claims made" basis. The coverage is to include Contractual liability, Per Project Limit of Liability, losses caused by Explosion, Collapse and Underground ("xcu") perils, the "Clayton County Water Authority" is to be added as an Additional Insured and Products and Completed Operations coverage is to be maintained for three (3) years following completion of work.

CONTRACTS FOR MORE THAN \$50,000

Worker's Compensation – Worker's Compensation coverage on a statutory basis for the State of Georgia with an Employer's Liability limit of \$1,000,000. The increased Employer's Liability limit may be provided by an Umbrella or Excess Liability policy.

Automobile Liability - Automobile liability coverage for owned, hired and non-owned vehicles in the amount of \$1,000,000 combined single limit.

Commercial General Liability – Coverage to be provided on "occurrence" not "claims made" basis. The coverage is to include Contractual liability, Per Project Limit of Liability, losses caused by Explosion, Collapse and Underground ("xcu") perils, the "Clayton County Water Authority" is to be added as an Additional Insured and Products and Completed Operations coverage is to be maintained for three (3) years following completion of work.

Division 2

Bid Requirements

Section 2: Risk Management Requirements

CONTRACTS FOR UP TO \$50,000

CONTRACTS FOR MORE THAN \$50,000

LIMITS OF LIABILITY:

\$1,000,000	Per Occurrence
\$1,000,000	Personal and Advertising
\$50,000	Fire Damage*
\$5,000	Medical Payments*
\$1,000,000	General Aggregate
\$1,000,000	Products/Completed Operations per Occurrence and Aggregate

**These are automatic minimums*

Owner's Protective Liability – The Authority's Management may, in its discretion, require Owner's Protective Liability in some situations.

Umbrella and/or Excess Liability – The umbrella or Excess Liability Policy may be used to combine with underlying policies to obtain the limits required. The Management of the Authority may elect to require higher limits.

Owner's Protective Liability – The Authority's Management may, in its discretion, require Owner's Protective Liability in some situations.

Division 2

Bid Requirements

Section 3: Bid Submittals

3.1 Required Bid Submittals:

The following items are required to be included as part of the bid submittal. Failure to include any of these items may result in the bid being deemed non-responsive:

- A. Bid Form, Division 2, Section 4.
- B. Bidder Qualification Information, including References. Failure to provide satisfactory references will result in the bid being deemed non-responsive.
- C. Georgia Security and Immigration Compliance Act of 2006 form.
- D. Contractor Affidavit and Agreement form.
- E. Subcontractor Affidavit form.

If a Contractor/Subcontractor will not be performing any services under this contract, the Contractor/company submitting the bid MUST also complete, sign, date, and have both Affidavit forms notarized and make proper notation of "N/A" - Not Applicable.

CCWA cannot consider any bid which does not include completed affidavits. It is not the intent of this notice to provide detailed information or legal advice concerning the Georgia Security & Immigration Compliance Act of 2006, as amended on May 11, 2009. All Bidders intending to do business with CCWA are responsible for independently apprising themselves and complying with the requirements of that law and its effect on CCWA procurements and their participation in those procurements.

- F. SLBE Forms – Bidders must submit their completed and signed SLBE Forms.
- G. Sample data deliverable for manhole inspections (Geodatabase template can be obtained by clicking [HERE](#)).
- H. Sample deliverable shall consist of five (5) manhole inspections.
- I. Sample data deliverable for smoke testing (Geodatabase template can be obtained by clicking [HERE](#)).
- J. Sample deliverable shall consist of five (5) smoke tests.
- K. Provide data on the equipment and software that will be used for CCTV work. Include software version that will be used.
- L. Provide NASSCO Software certification for CCTV.
- M. Addenda (if any issued).

END OF SECTION

Division 2 **Bid Requirements**

Section 4: Bid Form

Bid of _____,
(Hereinafter "Bidder"), organized and existing under the laws of the State of _____,

doing business as _____ (insert "a corporation," "a
partnership," or "an individual" or such other business entity designation as is
applicable).

To the Clayton County Water Authority (hereinafter "Owner").

In compliance with the Request for Bids, Bidder hereby proposes to perform all Work for
Sewer System Evaluation Surveys in strict accordance with the Contract Documents
as enumerated in the Request for Bids, within the time set forth therein, and at the
prices stated below.

By submission of this bid, Bidder certifies, and in the case of joint bid each party thereto
certifies as to the party's own organization that this bid has been arrived at
independently, without consultation, communication, or agreement as to any matter
relating to this bid with any other Bidder or with any competitor. Bidder also certifies
compliance with the Instructions to Bidders.

In submitting this bid, Bidder certifies Bidder is qualified to do business in the state of
Georgia as required by laws, rules, and regulations or, if allowed by statute, covenants
to obtain such qualification prior to contract award.

CONTRACT EXECUTION AND BONDS:

The undersigned Bidder agrees, if this bid is accepted, to enter into an Agreement with
OWNER on the form included in the Documents to perform and furnish Work as
specified or indicated in the Documents for the Contract Price derived from the bid and
within the times indicated herein and in accordance with the other terms and conditions
of the Documents.

Bidder accepts the terms and conditions of the Documents.

INSURANCE:

Bidder further agrees that bid amount(s) stated herein includes specific consideration
for the specified insurance coverages.

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Bid Requirements

Section 4: Bid Form

CONTRACT TIME:

Bidder hereby agrees to execute the agreement within fourteen (14) calendar days of Notice of Award or as specified by CCWA. Each individual project work order shall be completed within the time period as agreed to by both parties at the time of the individual project work order issuance. If said work is not completed within the time frame stated on the individual project work order, the Contractor shall be liable to pay to the Owner, as liquidated damages the amount of \$250.00 per calendar day for each and every day or part of a day thereafter that said work remains substantially incomplete for that particular individual project work order.

BID:

The undersigned proposes to complete, in all respects, sound and conformable with this Contract Document the work for the amounts as shown on the following Pay Item Schedule.

ADDENDA:

Bidder acknowledges receipt of the following Addenda:

Division 2

Bid Requirements

Section 4: Bid Form – Pay Item Schedule

NO	WORK ITEM	UNIT	UNIT COST
1	Mobilization for Project Work	EA	\$ 500.00
2	Manhole Inspection	EA	\$
2a	- Add manhole location to inspection	EA	\$
3	Trunk Line Manhole Inspection	EA	\$
4	Smoke Testing	LF	\$
5	CCTV - up to 12-inch diameter	LF	\$
6	CCTV - larger than 12-inch to 18-inch diameter	LF	\$
7	CCTV - larger than 18-inch to 24-inch diameter	LF	\$
8	CCTV - larger than 24-inch to 36-inch diameter	LF	\$
9	CCTV - larger than 36-inch to 48-inch diameter	LF	\$
10	CCTV Only, No Cleaning up to 12-inch Diameter	LF	\$
11	CCTV Only, No Cleaning Larger than 12-inch to 18-inch Diameter	LF	\$
12	CCTV Only, No Cleaning Larger Than 18-inch to 24-inch Diameter	LF	\$
13	CCTV Only, No Cleaning Larger than 24-inch to 36-inch Diameter	LF	\$
14	CCTV Only, No Cleaning Larger than 36-inch to 48-inch Diameter	LF	\$
15	Flow Bypassing - up to 12-inch diameter	Day	\$
16	Flow Bypassing - larger than 12-inch to 18-inch diameter	Day	\$
17	Flow Bypassing - larger than 18-inch to 24-inch diameter	Day	\$
18	Flow Bypassing - larger than 24-inch to 36-inch diameter	Day	\$
19	Flow Bypassing - larger than 36-inch to 48-inch diameter	Day	\$
20	Heavy Cleaning - up to 12-inch diameter	LF	\$

Division 2

Bid Requirements

Section 4: Bid Form – Pay Item Schedule

NO	WORK ITEM	UNIT	UNIT COST
21	Heavy Cleaning - larger than 12-inch to 18-inch diameter	LF	\$
22	Heavy Cleaning - larger than 18-inch to 24-inch diameter	LF	\$
23	Heavy Cleaning - larger than 24-inch to 36-inch diameter	LF	\$
24	Heavy Cleaning - larger than 36-inch to 48-inch diameter	LF	\$
25	Grease / Root Removal - up to 12-inch diameter	LF	\$
26	Grease / Root Removal - larger than 12-inch to 18-inch diameter	LF	\$
27	Grease / Root Removal - larger than 18-inch to 24-inch diameter	LF	\$
28	Grease / Root Removal - larger than 24-inch to 36-inch diameter	LF	\$
29	Grease / Root Removal - larger than 36-inch to 48-inch diameter	LF	\$
30	Dye Flood Testing	EA	\$
31	Flow Meter Inspection and Installation/Removal	EA	\$
32	Flow Meter Monthly Maintenance	EA	\$
33	Rain Gauge Inspection and Installation/Removal	EA	\$
34	Rain Gauge Monthly Maintenance	EA	\$
35	Flow Monitoring Report	EA	\$
36	Line Plugging instead of By-Passing for CCTV (each location)	EA	\$
37	Electroscan Mobilization	LS	\$
38	Electroscan Inspection	LF	\$
39	Electroscan Report	EA	\$
40	SL Rat Administration (Monthly)	EA	\$

Division 2 **Bid Requirements**

Section 4: Bid Form – Pay Item Schedule

NO	WORK ITEM	UNIT	UNIT COST
41	SL Rat Field Inspection (Each Setup)	EA	\$
42	Manhole Flow Surcharge Monitor Inspection and Installation/Removal	EA	\$
43	Manhole Surcharge Monitor Monthly Maintenance	EA	\$

Supplemental Services with pricing may be submitted with bid, but will not be used in the bid evaluation criteria. If submitting supplemental services, detailed pay item descriptions must be provided (refer to letter "T" on page 4-2.5 of this RFB package).

NO	SUPPLEMENTAL SERVICES	UNIT	UNIT COST
44			\$
45			\$
46			\$
47			\$
48			\$
49			\$
50			\$

Submitted by: _____
 (NAME OF BIDDER)

Division 2

Bid Requirements

Section 4: Bid Form

To be considered responsive, bidders are required to bid on all work items listed on the Bid Form – Pay Item Schedule.

Submitted by:

(NAME OF BIDDER)

By: _____
(SIGNATURE)

(TITLE)

(DATE)

(SEAL)
(ATTEST)

(ADDRESS)

(PHONE NUMBER)

(FAX NUMBER)

(LICENSE NUMBER) (If applicable)

(E-MAIL ADDRESS)

END OF SECTION

Division 2

Bid Requirements

Section 6: Bidder Qualification Information

COMPANY NAME OF BIDDER: _____

NUMBER OF YEARS IN BUSINESS _____

BUSINESS ADDRESS OF COMPANY: _____

TELEPHONE NUMBER: _____

FAX NUMBER: _____

POINT OF CONTACT NAME: _____

POINT OF CONTACT EMAIL ADDRESS: _____

COMPANY TAX ID NUMBER: _____

COMPANY WEBSITE: _____

- ENTITY TYPE: Individual/Sole Proprietor Employee Owned Company
 Privately Held Corporation/LLC Partnership
 Publicly Owned Company Attorney
 Other (specify): _____

NAME OF PRINCIPAL OFFICERS: _____

Division 2

Bid Requirements

Section 6: Bidder Qualification Information

REFERENCES

LIST AT LEAST THREE (3) SIMILAR SEWER SYSTEM EVALUATION PROJECTS THAT HAVE BEEN COMPLETED WITHIN THE LAST FIVE (5) YEARS, EXCLUDING CCWA.

OWNER: _____

CONTACT NAME: _____

PHONE NUMBER: _____

ADDRESS: _____

PROJECT DESCRIPTION: _____

DATE COMPLETED: _____

OWNER: _____

CONTACT NAME: _____

PHONE NUMBER: _____

ADDRESS: _____

PROJECT DESCRIPTION: _____

DATE COMPLETED: _____

OWNER: _____

CONTACT NAME: _____

PHONE NUMBER: _____

ADDRESS: _____

PROJECT DESCRIPTION: _____

DATE COMPLETED: _____

END OF SECTION

Division 2

Bid Requirements

Section 7: Contractor Affidavit & Agreement

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT OF 2006

- A. Pursuant to the Georgia Security and Immigration Compliance Act of 2006, the Contractor understands and agrees that compliance with the requirements of O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-.02 are conditions of this Agreement. The Contractor further agrees that such compliance shall be attested by the Contractor through execution of the contractor affidavit required by Georgia Department of Labor Rule 300-10-1-.07, or a substantially similar contractor affidavit. The Contractor's fully executed affidavit is attached hereto as Exhibit ____ and is incorporated into this Agreement by reference herein.
- B. By initialing in the appropriate line below, the Contractor certifies that the following employee-number category as identified in O.C.G.A. § 13-10-91 is applicable to the Contractor:
1. _____ 500 or more employees;
 2. _____ 100 or more employees;
 3. _____ Fewer than 100 employees.
- C. The Contractor understands and agrees that, in the event the Contractor employs or contracts with any subcontractor or subcontractors in connection with this Agreement, the Contractor shall:
1. Secure from each such subcontractor an indication of the employee-number category as identified in O.C.G.A. § 13-10-91 that is applicable to the subcontractor;
 2. Secure from each such subcontractor an attestation of the subcontractor's compliance with O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02 by causing each such subcontractor to execute the subcontractor affidavit required by Georgia Department of Labor Rule 300-10-1-.08, or a substantially similar subcontractor affidavit. The Contractor further understands and agrees that the Contractor shall require the executed subcontractor affidavit to become a part of the agreement between the Contractor and each such subcontractor. The Contractor agrees to maintain records of each subcontractor attestation required hereunder for inspection by the Clayton County Water Authority at any time."

Contractor _____

Authorized Signature: _____

Name: _____

Title: _____

Date: _____

Division 2

Bid Requirements

Section 7: Contractor Affidavit & Agreement

CONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with [O.C.G.A. 13-10-91](#), stating affirmatively that the individual, firm, or corporation which is contracting with the Clayton County Water Authority has registered with, is participating in, uses, and will continue to use for the duration of the contract, the federal work authorization program - EEV/Basic Pilot Program operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA), commonly known as E-Verify, in accordance with the applicability provisions established in [O.C.G.A. 13-10-91](#).

The undersigned further agrees that, in connection with the physical performance of services pursuant to this contract with the Clayton County Water Authority, the contractor will only employ or contract with subcontractor(s), who can present a similar affidavit verifying the subcontractor's compliance with [O.C.G.A. 13-10-91](#). Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the Clayton County Water Authority within five days of the subcontractor(s) presenting such affidavit(s) to the contractor.

EEV / Basic Pilot Program* User Identification Number
Enter four to six digit numbers

Name of Contractor (Printed)

BY: Authorized Officer or Agent
(Contractor Name)

Date

Title of Authorized Officer or Agent of Contractor

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS

THE _____ DAY OF _____ 20____.

Notary Public

My Commission Expires

Division 2

Bid Requirements

Section 7: Contractor Affidavit & Agreement

SUBCONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned subcontractor verifies its compliance with [O.C.G.A. 13-10-91](#), stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with _____

_____ on behalf of the Clayton County Water Authority has registered with, is participating in, uses, and will continue to use for the duration of the contract the federal work authorization program - EEV/Basic Pilot Program operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA), commonly known as E-Verify, in accordance with the applicability provisions and deadlines established in [O.C.G.A. 13-10-91](#).

The undersigned further agrees that, in connection with the physical performance of services pursuant to this contract with _____

_____ on behalf of the Clayton County Water Authority, the subcontractor will only employ or contract with sub-subcontractor(s), who can present a similar affidavit verifying the sub-subcontractor's compliance with [O.C.G.A. 13-10-91](#). The undersigned further agrees that the Subcontractor will maintain records of such compliance and provide a copy of each such verification to the Contractor within five days of the sub-subcontractor(s) presenting such affidavit(s) to the Sub-contractor.

EEV / Basic Pilot Program* User Identification Number
Enter four to six digit numbers

Name of Sub-Contractor (Printed)

BY: Authorized Officer or Agent
(Subcontractor Name)

Date

Title of Authorized Officer or Agent of Subcontractor

Printed Name of Authorized Officer or Agent

Subscribed and sworn before me on this the _____ day of _____ 20____.

Notary Public

My Commission Expires

END OF SECTION

Division 2 **Bid Requirements**

Section 8: Small Local Business Enterprises (SLBE) - General Information

8.1 Program Overview

Clayton County Water Authority (CCWA) has implemented a Small Local Business Enterprise Program to promote full and open competition in all government procurement and purchasing. Bid discounts for the use of Small Local Business Enterprises (SLBE's) are set on a contract by contract basis for each specific prime contract with subcontracting possibilities. CCWA wants to ensure that Bidders are non-discriminatory in their process of selecting sub-contractors. CCWA also wants to encourage Bidders to utilize small, minority or woman-owned businesses whenever possible. All forms included in this solicitation must be completed for Bidder to be considered responsive.

SLBE means a locally-based small business operating inside or outside of Clayton County, which meets the following criteria:

- A) Independently owned and operated business concern whose average annual gross receipts for the previous three years must not exceed (1) Construction Firms – \$18,250,000; (2) Professional Services Firms – \$5,500,000; Architectural Firms – \$3,750,000; Engineering Firms – \$7,500,000, and Goods and Services – less than 250 employees.
- B) Locally based, meaning located and operating in Clayton County or the ten (10) counties of Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, Rockdale and Spalding for at least one year prior to submitting application for certification.

If a firm is locally-based in one of the counties mentioned above, is currently certified as a small business through the DeKalb County, Clayton County, or the City of Atlanta, and can provide evidence of its certification, the firm will be provisionally accepted as a SLBE, provided that they complete the official certification application for CCWA within two (2) years following the date of provisional certification. If a firm meets these qualifications, but is not currently certified as a small business, then the firm must complete an application for certification with CCWA no later than seven (7) business days following the deadline for bid submission.

SLBE's must perform a commercially useful function, which means performance of provision of real and actual services under the contract or subcontract with CCWA. Factors such as the nature and amount of the work subcontracted; whether the SLBE has the skill and expertise to perform the work for which it has been certified; whether the SLBE actually performs, manages or supervises the

Division 2 **Bid Requirements**

Section 8: Small Local Business Enterprises (SLBE) - General Information

work; and whether the SLBE intends to purchase commodities and/or services from a non-SLBE and simply resell them will be considered in determining if the SLBE is performing a commercially useful function.

Participation in the SLBE program is not a requirement to participate in contracting with CCWA. The use of an SLBE is a requirement when bid discounts are to be sought. The Bidder will be required to complete the required forms as outlined in the following section.

8.2 SLBE Required Forms

This package contains the following forms that Bidders are required to submit along with their bids (in addition to general contractor forms):

- A) SLBE-1 – Covenant of Non-Discrimination: The signed agreement stating that the firm will not discriminate on the basis of a firm's size (revenue or employee count) with regard to prime contracting, subcontracting, or partnering opportunities.
- B) SLBE-2 – Sub-Contractor Contact Form: A list of all firms contacted to participate as SLBE sub-contractors/suppliers on a contract.
- C) SLBE-3 – SLBE Sub-Contractor/Supplier Utilization Form: A list of all firms procured as SLBE sub-contractors/suppliers to be utilized on this contract.

8.3 SLBE Optional Forms

The following form is for information and tracking purposes only, to be provided post award, at the bidder's option:

- A) SLBE-4 – Post-Award-Monthly SLBE Participation Report-Bid Discount: Report detailing amount paid to SLBE sub-contractor on the contract.

8.4 Overview of Bid Discount

Bid discounts are incentives that range between 5% and 10% for the use of a certified SLBE (prime or sub-contractor) located in Clayton County or the ten (10) counties outlined in this section. Bid discounts allow an original bid amount to be discounted by a certain percentage for purposes of evaluating and determining the low responsible responsive bid. The discounted bid amount will be used in the evaluation process of awarding to the low responsive, responsible bidder. The original bid amount will be the basis for contract award.

Division 2

Bid Requirements

Section 8: Small Local Business Enterprises (SLBE) - General Information

Example: A \$100,000 bid with a 5% bid discount would be evaluated at \$95,000. However, \$100,000 would be paid to the successful bidder.

The calculation of SLBE bid discounts shall be as follows:

There will be an applied tiered discount to bids based on what county the SLBE business is located.

- 10 percent for SLBE's in Clayton County.
 - 7.5 percent for SLBE's within the next surrounding 5 counties (DeKalb, Fayette, Fulton, Henry and Spalding).
 - 5 percent for SLBE's for the 5 outer counties (Cherokee, Cobb, Douglas, Gwinnett and Rockdale).
- (1) Discounts are given to Bidders who are SLBE Primes or Primes using a small local subcontractor.
 - (2) In the event of a tie bid between a discounted bidder and a non-discounted bidder, the discounted bidder (SLBE) will be recommended for the contract.

By signing the bid, the bidder is certifying that he/she has complied with the requirements of this program. Please contact Contracts, Compliance and Risk Management at ccwa_slbe_program@ccwa.us for a list of certified SLBE's. The list is also available through www.ccwa.us, under the tab for "Procurement", section for "Small Local Business Program".

Division 2 **Bid Requirements**

Section 8: Small Local Business Enterprises (SLBE) - General Information

FORM SLBE-1

COVENANT OF NON-DISCRIMINATION

The undersigned understands that it is the policy of the Clayton County Water Authority (CCWA) to promote full and equal business opportunity for all persons doing business with CCWA. The undersigned covenants that we have not discriminated on the basis of a firm's revenue or employee count with regard to prime contracting, subcontracting or partnering opportunities. The undersigned further covenants that we have completed truthfully and fully the required forms SLBE-2 and SLBE-3. Set forth below is the signature of an officer of the bidding entity with CCWA to bind the entity.

I, _____ (Name, Title), on behalf of _____
_____ (Company), by my signature below, do hereby promise:

1. To adopt the policies of Clayton County relating to equal opportunity in contracting on projects and contracts funded, in whole or in part, with funds of CCWA;
2. Not to otherwise engage in discriminatory conduct;
3. To provide a discrimination-free working environment;
4. That this Covenant of Non-Discrimination shall be continuing in nature and shall remain in full force and effect without interruption; and
5. That this Covenant of Non-Discrimination shall be incorporated by reference into any contract or portion thereof which we may hereafter obtain.

We understand that our failure to satisfactorily discharge any of the promises of non-discrimination as made and set forth herein shall constitute a material breach of contract.

Signature of Attesting Party

Title of Attesting Party

On this ____ day of _____, 20____, before me appeared _____,
the person who signed the above covenant in my presence.

Notary Public

My Commission Expires

[Seal]

FORM SLBE-2

SUB-CONTRACTOR CONTACT FORM – BID DISCOUNT

INSTRUCTIONS TO CONTRACTORS

The prime contractor must complete and sign the sub-contractor contact form and submit the completed and signed form with the bid. **Failure to submit this form may result in the bid being deemed nonresponsive.**

SLBE Prime Contractors: If you are the prime contractor on the project AND also the SLBE on the project and will NOT use any other SLBE firms as sub constructors, check the box at the top of the form and sign the form.

1. Name of contractor/supplier: Provide name of the contractor or supplier you contacted to perform on the contract.
2. Contact Name, Address and Phone Number: Provide the contact information of the contractor/supplier you contacted.
3. County of Clayton Business License: State if the contractor/supplier you contacted is a Clayton County Licensed business.
4. Type or work solicited for: Describe the type of work for which you are soliciting from the contractor/supplier.
5. Business Ownership (SLBE/non-SLBE): State whether the contractor/supplier you contacted is an SLBE or non-SLBE.
6. Results of Contact: Describe the results of your contact.
7. Sign and date the form.

FORM SLBE-2

SUB-CONTRACTOR CONTACT FORM

List all sub-contractors or suppliers (SLBE and Non-SLBE) that were contacted regarding this project.

IF THE PRIME IS THE SLBE ON THE PROJECT CHECK THE BOX

Name of Sub-Contractor/ Supplier	Contact Name, Address and Phone Number	County of Clayton Business License? (Yes or No)	Type of Work Solicited for	Business Ownership (Enter SLBE or Non SLBE)	Results of Contact
<i>Company ABC</i>	<i>123 Main Street Morrow, GA 30260 770-123-4567</i>	<i>Yes</i>	<i>Hauling</i>	<i>SLBE</i>	<i>Will perform as sub</i>

FORM SLBE-2

SUB-CONTRACTOR CONTACT FORM – Cont'd

List all sub-contractors or suppliers (SLBE and Non-SLBE) that were contacted regarding this project.

Name of Sub-Contractor/ Supplier	Contact Name, Address and Phone Number	County of Clayton Business License? (Yes or No)	Type of Work Solicited for	Business Ownership <small>(Enter SLBE or Non SLBE)</small>	Results of Contact

Bidder's Name: _____ **Project Name:** _____

Signature: _____ **Date:** _____

FORM SLBE-3

SMALL LOCAL BUSINESS ENTERPRISE PROJECT PARTICIPATION PLAN SUB-CONTRACTOR/SUPPLIER UTILIZATION INSTRUCTIONS TO CONTRACTORS

The prime contractor must complete the project participation plan for sub-contractor/supplier utilization and submit the form with the bid. **Failure to submit this form will result in being deemed nonresponsive.**

1. Name of contractor/supplier: Provide name of the contractor or supplier you contacted to perform on the contract.
2. Certified as SLBE: State if the subcontractor/supplier to be used on the project is an SLBE.
3. Which County? If you are using an SLBE on the project, state in which county the SLBE is located.
4. NAIC or NIGP code: List the NAIC/NIGP code that relates to the service or work to be performed by the subcontractor/supplier.
5. Type of work to be performed: Describe the type of proposed work to be performed by the subcontractor/supplier.
6. Certification number and expiration date: If using an SLBE, provide the SLBE certification number and expiration date.
7. Estimated dollar value of work: Provide the estimated dollar value of the work to be performed by the subcontractor/supplier on the project.
8. Percentage of Total Bid Amount: Enter the estimated % of the total bid amount for which the SLBE will be paid.

Estimated Dollar Value of the Work / Total Bid Amount = % of Total Bid Amount

FORM SLBE-3

**SMALL LOCAL BUSINESS ENTERPRISE PROJECT PARTICIPATION PLAN
SUB-CONTRACTOR/SUPPLIER UTILIZATION**

List all sub-contractors and suppliers, including lower tiers, to be used on this project.

IF NO SUB-CONTRACTOR/SUPPLIERS WILL BE USED PLEASE CHECK THE BOX

Name of Sub-contractor/ Supplier	Certified as Small Local Business Enterprise (SLBE)- Yes or No	If SLBE, which county-Clayton, Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Henry, Gwinnett, Rockdale, Spalding	NAIC or NIGP Code	Type of Work to be Performed	SLBE Certification No. and Expiration Date	Estimated Dollar (\$) Value of Work	Percentage of Total Bid Amount
Company ABC	Yes	Clayton	96239	Hauling	SLBE-125-463 5/01/2017	\$5500	11%

Total Estimated SLBE Sub-contractor % _____

Bidder's Company Name: _____ **Date:** _____

Bidder's Contact Number: _____ **Project Name:** _____

Signature: _____

FORM SLBE-4
POST AWARD – MONTHLY SLBE PARTICIPATION REPORT – BID DISCOUNT
INSTRUCTIONS TO CONTRACTORS

The prime contractor must complete and sign the participation report and submit the the completed and signed form with each pay application to the CCWA Project Manager in charge of the contract. Failure to submit this form may result in payment application being deemed incomplete.

1. Report Number: Reports must be consecutively numbered. It will only be necessary to submit a report in a period when the approved SLBE has performed a portion of the work that has been designated for the contract.
2. Date: Actual date of the report.
3. Prime SLBE: If you are the Prime Contractor and also the SLBE on the contract please check yes and insert assigned CCWA SLBE certification number. Note that %100 of SLBE dollars spent will be counted towards the SLBE contract or annual goal, if applicable.
4. Pay application end date: Reports must acknowledge the end date for the period for which is being reported.
5. Prior Earned Pay Application Amount: The amount previously submitted for payment on pay application.
6. Current Earned Pay Application Amount: The amount submitting with current payment application.
7. Earnings To-Date: The actual amount that each SLBE has earned to-date under the contract.
8. Total SLBE Earnings To-Date: The total is achieved by adding all payments to SLBE to date. (Previous payments reported + current payment reported)
9. Certification: The contractor's authorized representative must sign this form prior to submittal.

GENERAL INFORMATION

When the approved SLBE is to provide materials, goods or services, this completed form must be submitted to the CCWA Project Manager. The prime contractor must notify CCWA of any changes to SLBE firms.

When the prime contractor is an approved SLBE, it will only be necessary to complete the total SLBE earnings to-date. Joint ventures between non-SLBE and certified SLBE: Only that portion of the work for which the certified SLBE is responsible may be used to satisfy the requirement.

FORM SLBE-4

POST AWARD – MONTHLY SLBE PARTICIPATION REPORT – BID DISCOUNT

PROJECT NO. (S): _____

REPORT NO.: _____

CONTRACTOR: _____

DATE: _____

CONTRACT AMOUNT: \$ _____

PAY APPLICATION PERIOD END DATE: _____

PRIME SLBE CONTRACTOR? Yes No
 If Yes, insert CCWA SLBE Certification # _____

Check if final payment >>> FINAL PAYMENT

NAME OF APPROVED SLBE	DESCRIPTION OF WORK	PRIOR EARNED PAY APPLICATION AMOUNT	CURRENT EARNED APPLICATION AMOUNT	EARNINGS TO-DATE

TOTAL SLBE EARNINGS TO-DATE: _____

I HEREBY CERTIFY THAT THE ABOVE STATEMENT IS TRUE AND CORRECT AND SUPPORTING DOCUMENTATION IS ON FILE AND IS AVAILABLE FOR INSPECTION BY CCWA AT ANY TIME.

SIGNED _____
 CONTRACTOR

REMARKS _____

FOR DEPARTMENT USE ONLY:

THIS DOCUMENT HAS BEEN REVIEWED AT THAT PROJECT LEVEL BY:
 SIGNED _____ TITLE _____

THIS DOCUMENT HAS BEEN REVIEWED AT THE PROGRAM LEVEL BY:
 SIGNED _____ TITLE _____

Division 3

Contract Forms

Section 1: Agreement Form

**STATE OF GEORGIA
COUNTY OF CLAYTON**

**AGREEMENT FOR ONGOING PROVISION
OF GOODS AND SERVICES**

This Agreement made and entered into this _____ day of _____, 2016, for **Sewer System Evaluation Surveys**, between the **CLAYTON COUNTY WATER AUTHORITY** (hereinafter "the Authority") and _____ (hereinafter "the Contractor"), witnesseth:

WHEREAS, the Authority is contracting with the Contractor for the provision of certain goods and services described below for the term specified herein;

NOW THEREFORE, the parties agree as follows:

1. **DESCRIPTION OF GOODS AND SERVICES**: The Contractor shall provide the goods and services to the Authority in such quantities as the Authority requires for **Sewer System Evaluation Surveys**, as described in the Request for Bid dated August 2016.
2. **COSTS**: The Authority shall pay the Contractor the prices as stipulated in the Bid Form hereto attached as full compensation relative to the Bid dated _____, 2016, and above described goods and services. The Authority will not guarantee any minimum or maximum quantities during the contract term. Work under this contract will be authorized on an "as needed – when needed basis", and will be paid per the bid unit prices as submitted and approved.

Each individual project work order shall be completed within the time period as agreed to by both parties at the time of the individual project work order issuance. If said work is not completed within the time frame stated on the individual project work order, the Contractor shall be liable to pay to the Owner, as liquidated damages the amount of \$250.00 per calendar day for each and every day or part of a day thereafter that said work remains substantially incomplete for that particular individual project work order.

Payment for work completed will be processed upon submission of an Invoice and Affidavit of Completion by the Contractor. The invoice will be

Division 3

Contract Forms

Section 1: Agreement Form

verified by the Authority representative, and any changes/corrections to the invoice will require the contractor to correct and re-submit the invoice.

The Contractor must submit a completed and signed Form SLBE-4 (Monthly SLBE Participation Report) to the Authority with each pay application. The Authority shall pay the Contractor net 30 days upon receipt of the invoice and the completed SLBE-4 Form, and upon acceptance of the work in accordance with the specifications. Payments will be made via regular US Mail.

3. **TERM OF AGREEMENT:** The term of this Agreement shall commence on the **1st day of November, 2016**. The Agreement shall remain in effect until **October 31, 2017**.
4. **RENEWAL PROVISIONS:** The contract may be extended for a second and third 12 month period by mutual written consent by both parties with no changes in terms, conditions, and bid prices.
5. **WARRANTY ON SERVICES RENDERED:** The Contractor warrants its workmanship to be free from defects for a period of two (2) years from the date of final acceptance. The Contractor further warrants that its workmanship will conform to all specifications and will perform as specified. Upon receipt of written notice of a defect in workmanship, the Contractor shall repair the defect in a timely manner at no expense to the Authority.
6. **WARRANTY ON GOODS PROVIDED:** The Contractor warrants its goods for a period of two (2) years from the date of final acceptance. Furthermore, the Contractor warrants that goods ordered to specifications will conform thereto and to any drawings, samples, or other description furnished or adopted by the Authority, and will be fit and sufficient for the purpose intended; and that all goods are merchantable, of good material and workmanship, and free from defect. Such warranties, together with the Contractor's service warranties and guarantees, if any shall survive inspection, test, acceptance of, and payment for the goods and shall run to the Authority, its successors, assigns, customers at any tier, and ultimate user and joint users. Notices of any defect or nonconformity shall be given by the Authority to the Contractor within fifteen (15) months after acceptance by ultimate user; provided however that in the event the goods are designed by the Contractor, notice must be given within three (3) years after acceptance by ultimate user. The rights and remedies of the Authority

Division 3

Contract Forms

Section 1: Agreement Form

concerning latent defects shall exist indefinitely, and shall not be affected in clause. The Authority may, at its option, and in addition to other remedies available at law, either (i) return for credit, (ii) require prompt correction or replacement of the defective or nonconforming goods, or (iii) have the defective items corrected or replaced at the Contractor's expense and deduct the cost thereof from any monies due the Contractor. The return to the Contractor of any defective or nonconforming goods and delivery to the Authority of any corrected or replaced goods shall be at the Contractor's expense. Goods required to be corrected or replaced shall be at the Contractor's expense. Goods required to be corrected or replaced shall be subject to the provision of this paragraph and the paragraph of this Agreement entitled "inspection" on the same manner and to the same extent as goods originally delivered under this Agreement. In addition to correcting or replacing any defective or nonconforming goods, the Contractor shall also reimburse the Authority for all costs and expenses incurred by the Authority in connection with inspection and discovery of the defects, identifying and correcting the cause of such defects and all other activities reasonably undertaken by the Authority to obtain conforming goods or attempting to obtain from the ultimate user a waiver to permit the defective goods to be used with all or part of the defective conditions.

7. **INSPECTION**: The Authority shall have the right to inspect the goods supplied hereunder at any time during the manufacture or fabrication thereof at the Contractor's facilities or elsewhere. Such inspection may include, without limitation, raw materials, components, work in process, and completed products as well as drawings, specifications, and released data. Final inspection and acceptance shall be after delivery to the delivery point designated by the Authority. If any inspection or test is made by the Authority at the Contractor's facility or elsewhere, the Contractor shall provide reasonable facilities and assistance for the inspection personnel. The Authority may reject all goods supplied hereunder, which are found to be defective. Goods so rejected may be returned to the Contractor at the Contractor's expense. No inspection, examination or test, regardless of extensiveness or type, and no approval give in connection with any such inspection, examination or test, whether under this Agreement or another contract for the same or similar goods, shall relieve it, of any obligation to comply fully with all requirements of this Agreement, including the obligation to produce goods that conform to all requirements of the drawings, specifications and any other Contract Documents. At the Authority's request,

Division 3

Contract Forms

Section 1: Agreement Form

the Contractor shall repair or replace defective goods at the Contractor's expense. Failure to inspect goods, failure to discover defects in goods or payment for goods shall not constitute acceptance or limit any of the Authority's rights, including without limitation those under the WARRANTY provisions of this Agreement. In the event inspection reveals a defect or defects and schedule urgency requires that the defect or defects be corrected by the Authority to support production, all cost of such correction, including without limitation installation and removal, will be charged to the Contractor; such charges will also include time and material and appropriate indirect and overhead expenses. The Contractor shall maintain in inspection system acceptable to the Authority covering the goods furnished hereunder.

8. **CONTRACTOR'S AFFIDAVITS:** The Contractor shall issue a "Standard Contractor's Affidavit Interim Waiver and Release Upon Payment" and a "Standard Contractor's Affidavit Unconditional Waiver and Release upon Final Payment" provided by the Authority before receiving any interim or final payment for any services performed.
9. **ASSIGNMENT AND SUBCONTRACTING:** The Contractor shall not assign this Agreement or any portion of this Agreement, nor shall the Contractor sub contract for goods or completed or substantially completed services purchased hereunder without the prior express written consent of the Authority. No assignment or subcontract by the Contractor, including any assignment or subcontract to which the Authority consents, shall in any way relieve the Contractor from complete and punctual performance of this Agreement, including without limitation all of the Contractor's obligations under the WARRANTY provisions of this Agreement.
10. **THE AUTHORITY'S ASSISTANCE AND COOPERATION:** During the Contractor's performance of this Agreement, the Authority may, but has no obligation to, provide assistance to, or cooperate with, the Contractor in activities that facilitate the proper performance and completion of this Agreement by the Contractor. Such assistance and cooperation may include without limitation: (i) providing engineering or other analysis or advice on correcting problems; (ii) refraining from strict enforcement of time schedule requirements under this Agreement; (iii) permitting use of test materials or documentation not performed or produced under this Agreement. Such assistance or cooperation by the Authority shall not be construed, and the Contractor agrees that it will not claim that any such assistance or

Division 3

Contract Forms

Section 1: Agreement Form

cooperation operates, to relieve the Contractor from complete, proper and punctual performance of all the Contractor's obligations under this Agreement.

11. **WORK ON THE AUTHORITY'S DESIGNATED PREMISES:** In the event that the Contractor, the Contractor's employees or agents or the Contractor's subcontractors enter the Authority's designated premises for any reason in connection with this Agreement, the Contractor and such other parties shall observe all security requirements and all plant safety, plant protection, and traffic regulations. The Contractor shall defend, indemnify, and hold the Authority harmless from all claims, actions, demands, loss, and causes of action, arising from injury, including death, to any person, or damage to any property, when such injury or damage results in whole or in part from the acts or omissions of the Contractor, the Contractor's employees or agents or the Contractor's subcontractor, save and except damage caused by the sole negligence of the Authority. The Contractor, and any subcontractor's used by the Contractor in connection with this Agreement, shall carry Workmen's Compensation and Employees' Liability Insurance to cover the Contractor's and any subcontractor's legal liability on account of accidents to their employees. The Contractor and any subcontractor shall carry adequate Comprehensive General Liability and adequate Comprehensive Automobile Liability Insurance covering accidents to their employees. The Contractor and any subcontractor shall carry adequate Comprehensive General Liability and adequate Comprehensive Automobile Liability Insurance covering legal liability of the Contractor and any subcontractor on account of accidents arising out of the operations of the Contractor or any subcontractor and resulting in bodily injury, including death, being sustained by any person or persons, or in any damage to property. At the Authority's request, the Contractor shall furnish to the Authority certificates from the Contractor's insurers showing such coverage in effect and agreeing to give the Authority thirty (30) days prior written notice of cancellation of the coverage.
12. **RISK MANAGEMENT REQUIREMENTS:** The Contractor shall abide by the Authority's applicable Risk Management Requirements, attached to this Agreement as Exhibit A and hereby incorporated into this Agreement.
13. **TERMINATION FOR DEFAULT:**
 - (a) The Authority may, subject to the provisions of subparagraph (c) below, by written notice of default to the Contractor, terminate the whole or any

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Contract Forms

Section 1: Agreement Form

part of this Agreement in any one of the following circumstances; (i) if the Contractor fails to perform this Agreement within the time specified herein or any extension thereof; or (ii) if the Contractor fails to perform any of the other provisions of this Agreement, or so fails to make progress as to endanger performance of this Agreement in accordance with its terms, and does not cure such failure within a period of ten (10) days or longer period (as the Authority may authorize in writing) after receipt of notice from the Authority specifying such failure.

- (b) In the event the Authority terminates this Agreement in whole or in part as provided in subparagraph (a) above, the Authority may procure, upon such terms and in such manner as the Authority may deem appropriate, services, similar to those so terminated, and the Contractor shall be liable to the Authority for any Excess costs for the same, including without limitation all cost and expenses of the type specified in the "WARRANTY" paragraph of this Agreement; provided, that the Contractor shall continue the performance of this Agreement to the extent not terminated hereunder.
- (c) Except with regard to defaults of subcontractors, the Contractor shall not be liable for any excess costs if the failure to perform this Agreement arises out of causes beyond the control and without the fault of negligence of the Contractor such causes may include, but are not limited to, acts of God, or of the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, flood, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather, but in every case the failure to perform must be beyond the control and without the fault or negligence of the Contractor. If the failure to perform is caused by the default of a subcontractor, and if such default arises out of causes beyond the control of both the Contractor and the subcontractor, and without the fault of negligence of either of them, the Contractor shall not be liable for any excess costs for failure to perform, unless the services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required delivery schedule. The term "subcontractor" shall mean subcontractor at any tier.
- (d) If, after notice of termination of this Agreement under the provisions of this paragraph, it is determined for any reason that the Contractor was not in default under the provisions above or that the default was excusable under the provisions of this paragraph, the rights and

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Contract Forms

Section 1: Agreement Form

obligations of the parties shall be the same as if the notice of termination has been issued pursuant to the "Termination for Convenience" paragraph of this Agreement.

- (e) The rights and remedies of the Authority provided in this paragraph shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Agreement.

14. **TERMINATION FOR CONVENIENCE:** The Authority may at any time by written notice terminate all or any part of this Agreement for the Authority's convenience. If this Agreement is terminated, in whole or in part, for the Authority's convenience, the Contractor shall be paid an amount, to be mutually agreed upon, which shall be adequate to cover the actual and reasonable cost paid by the Contractor for the actual goods and labor reasonably used by the Contractor to perform the work under this Agreement to the effective date of termination, plus a reasonable profit thereon; provided that no amount shall be paid to the Contractor for (i) any anticipatory profits related to work under this Agreement not yet performed, or (ii) costs incurred due to the Contractor's failure to terminate work as ordered on the effective date of termination. In no event shall the total amount paid under the provisions of this paragraph exceed the prices set forth in this Agreement for the work terminated.
15. **DISPUTES:** Pending resolution of any dispute hereunder, the Contractor shall proceed diligently with the performance of work in accordance with the Authority's direction.
16. **NOTICES:** All notices required or permitted to be given hereunder shall be deemed to be properly given if delivered in writing personally or sent by United States certified or registered mail addressed to the Contractor or the Authority, as the case may be, with postage thereon fully prepaid. The effective time shall be at the time of mailing.
17. **ATTORNEYS' FEES:** The Contractor shall pay reasonable attorneys' fees to the Authority should the Authority be required to incur attorneys' fees in enforcing the provisions of this Agreement or in the collection of any monies herein required to be paid by the Contractor to the Authority.

SIGNATURES ON NEXT PAGE

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Contract Forms

Section 1: Agreement Form

IN WITNESS WHEREOF this _____ day of _____,
20_____, said parties have hereunto set their seals the day and year above first written.

Executed on behalf of:

CLAYTON COUNTY WATER AUTHORITY

BY: _____

TITLE:

[Corporate Seal]

ATTEST: _____

DATE: _____

CONTRACTOR

BY: _____

TITLE:

[Corporate Seal]

ATTEST: _____
Corporate Secretary

DATE: _____

Division 3

Contract Forms

Section 1: Agreement Form

RISK MANAGEMENT REQUIREMENTS

The Contractor will provide minimum insurance coverage and limits as per the following: The Contractor will file with the Authority Certificates of Insurance, certifying the required insurance coverage and stating that each policy has been endorsed to provide thirty (30) day notice to the Authority in the event that coverage is cancelled, non-renewed or the types of coverage or limits of liability are reduced below those required. All bonds and insurance coverage must be placed with an insurance company approved by Authority Management, admitted to do business in the State of Georgia, and rated Secure (“B+” or better) by A.M. Best Company in the latest edition of Property and Casualty Ratings, or rated by Standard & Poors Insurance Ratings, latest edition as Secure (“BBB” or better). Worker’s Compensation self-insurance for individual Contractors must be approved by the Worker’s Compensation Board, State of Georgia and/or Self-Insurance pools approved by the Insurance Commissioner, State of Georgia.

CONTRACTS FOR UP TO \$50,000

Worker’s Compensation – Worker’s Compensation coverage on a statutory basis for the State of Georgia with an Employer’s Liability limit of \$100,000 each Accident, Disease \$100,000 each employee, \$500,000 Disease policy limit.

Automobile Liability – Automobile liability coverage for owned, hired and non-owned vehicles in the amount of \$500,000 combined single limit.

Commercial General Liability – Coverage to be provided on “occurrence” not “claims made” basis. The coverage is to include Contractual liability, Per Project Limit of Liability, losses caused by Explosion, Collapse and Underground (“xcu”) perils, the “Clayton County Water Authority” is to be added as an Additional Insured and Products and Completed Operations coverage is to be maintained for three (3) years following completion of work.

CONTRACTS FOR MORE THAN \$50,000

Worker’s Compensation – Worker’s Compensation coverage on a statutory basis for the State of Georgia with an Employer’s Liability limit of \$1,000,000. The increased Employer’s Liability limit may be provided by an Umbrella or Excess Liability policy.

Automobile Liability - Automobile liability coverage for owned, hired and non-owned vehicles in the amount of \$1,000,000 combined single limit.

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Contract Forms

Section 1: Agreement Form

RISK MANAGEMENT REQUIREMENTS (Cont'd)

CONTRACTS FOR UP TO \$50,000

CONTRACTS FOR MORE THAN \$50,000

LIMITS OF LIABILITY:

\$1,000,000	Per Occurrence
\$1,000,000	Personal and Advertising
\$50,000	Fire Damage*
\$5,000	Medical Payments*
\$1,000,000	General Aggregate
\$1,000,000	Products/Completed Operations per Occurrence and Aggregate

**These are automatic minimums*

Owner's Protective Liability – The Authority's Management may, in its discretion, require Owner's Protective Liability in some situations.

Umbrella and/or Excess Liability – The umbrella or Excess Liability Policy may be used to combine with underlying policies to obtain the limits required. The Management of the Authority may elect to require higher limits.

Owner's Protective Liability – The Authority's Management may, in its discretion, require Owner's Protective Liability in some situations.

END OF SECTION

Division 3

Contract Forms

Section 1: Agreement Form

RISK MANAGEMENT REQUIREMENTS

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Automobile Liability - Automobile liability coverage for owned, hired and non-owned vehicles in the amount of \$1,000,000 combined single limit.

Commercial General Liability – Coverage to be provided on “occurrence” not “claims made” basis. The coverage is to include Contractual liability, Per Project Limit of Liability, losses caused by Explosion, Collapse and Underground (“xcu”) perils, the “Clayton County Water Authority” is to be added as an Additional Insured and Products and Completed Operations coverage is to be maintained for three (3) years following completion of work.

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Contract Forms

Section 1: Agreement Form

RISK MANAGEMENT REQUIREMENTS (Cont'd)

CONTRACTS FOR UP TO \$50,000

CONTRACTS FOR MORE THAN \$50,000

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Owner's Protective Liability – The Authority's Management may, in its discretion, require Owner's Protective Liability in some situations.

END OF SECTION

Division 3

Contract Forms

Section 4: Non-Collusion Certificate

STATE OF _____ , COUNTY OF _____

Personally appeared before the undersigned officer duly authorized by law to administer oaths

who, after being first duly sworn, depose and say that they are all the officers, agents, persons or employees who have acted for or represented

_____, and that said

in proposing or procuring the Contract with the Clayton County Water Authority on the following project: **Sewer System Evaluation Surveys**

has not by (himself, themselves) or through any persons, officers, agents or employees prevented or attempted to prevent by any means whatsoever competition in such bidding; or by any means whatsoever prevented or endeavored to prevent anyone from making a proposal therefore, or induced or attempted to induce another to withdraw a bid for said work.

ATTEST:

By: _____
Bidder

By: _____
Name

By: _____
Name

Title: _____

Title: _____

Sworn to and subscribed before me this _____ day of _____, 20 _____

Notary Public: _____

My Commission expires: _____

END OF SECTION

Division 4

Specifications

Section 1: Post Award Submittals

1.1 General

- A. This section describes the information that is required to be provided by the Contractor to facilitate work.
- B. Information, deliverables and work product prepared under this project shall become the property of CCWA.
- C. Unless otherwise noted, all survey, test, reporting and inspection data documented under this project will be provided in electronic format.
- D. The Contractor shall schedule and make submissions as to cause no delay in work.
- E. Upon receipt of a submittal, the CCWA shall complete its review and return CCWA comments to Contractor within 15 business days.

1.2 Submittal Requirements

Submittals to be provided post award

- A. Project Reporting – to be provided in electronic format (email or word.doc).

Daily

- 1. Safety issues.
- 2. Delays: e.g. labor or equipment shortage.
- 3. Missing/broken manholes, urgent maintenance/emergency repairs needed.

Weekly

- 1. Interim Progress Reporting. The Contractor shall provide a weekly email summary of work activities including but not limited to: locations and work completed for the previous week, problems encountered/assistance needed, etc. and notification of the locations and work planned for the following week.

Other

- 1. The Contractor shall document and transmit meeting minutes/conference calls documenting date, location, attendees, summary agenda topics and

Division 4

Specifications

Section 1: Post Award Submittals

significant findings, decisions and action items/responsible parties within 3 calendar days of the event.

2. Safety-Emergency Response Plan.
3. Confined Space Entry Plan for all entry personnel (as needed).
4. Samples of work reports: manhole inspections, smoke testing, CCTV, etc.
5. Notification plan and sample notification form for Smoke Testing.
6. Traffic control plan (as necessary).
7. Flow Bypassing Plan (as necessary)
8. Information on Closed Circuit Televising Software and version used
9. Copy of CCTV Operator PACP Certifications

END OF SECTION

Division 4

Specifications

Section 2: Work Assignment and Payment

2.1 General

- A. This Section describes the basis that will be used for processing applications for payment. These provisions will apply to all work of the Contract Documents in addition to specific instructions provided in the Specifications section.
- B. The work to be performed under this contract will be assigned on an as needed when needed basis as determined by the CCWA in the form of a Project Work Order. A Project Work Order may include a single item or may include a number of items. All items in a Work Order do not necessarily have to be adjacent to each other, however it is the intent that each Work Order will be authorized as a part of a mobilization to a single, common geographic location.
- C. The basis for payment will be the unit prices and/or lump sum amounts included in the Pay Item Schedule and the actual quantities of work completed by the Contractor and approved by the Owner. The Owner reserves the right to adjust the quantities up or down as necessary to address needs. Nothing in this Section shall be construed as providing for additional payment beyond the Pay Items.
- D. Prices will include all labor, equipment and materials necessary for a complete project in accordance with the Contract Documents. All incidental work necessary to complete the work and return the system to service shall be included in the price proposed. No payment will be made for partially completed Pay Items.
- E. Progress report shall be submitted monthly with Pay Application to include the following items:
 - 1. Summary report of all activities substantiating Project Work Order progress.
 - 2. Data/inspection submittals.
 - 3. Progress schedule update. A schedule update noting any authorized work remaining and a timeline to complete.

Division 4

Specifications

Section 2: Work Assignment and Payment

2.2 Pay Item Descriptions

- A. Item 1 - Mobilization is defined as all of the CONTRACTOR's administrative and preparatory operations including all labor, materials, equipment, maintenance and incidental items which are necessary to arrive on-site and initiate Sewer System Evaluation Surveys. This Work Item will be paid on a per "each" unit cost in accordance with the Pay Item Schedule (one per Project Work Order) and as accepted/approved by CCWA. The costs for demobilization, and re-mobilizations due to shut downs or suspensions of the work caused by the CONTRACTOR shall not be compensated.
- B. Items 2 & 2a - Measurement and payment for Manhole Inspections will be in accordance to the unit costs in the Pay Item Schedule and based on each complete inspection and deliverable per the specifications. Item 2a – add manhole location to inspection will be in accordance to the unit costs in the Pay Item Schedule for mapping corrections to the CCWA GIS where the x,y coordinates provided by CCWA do not match field conditions or where existing or new manholes are located.
- C. Item 3 – Measurement and payment for Trunk Line Manhole Inspection will be in accordance to the unit costs in the Pay Item Schedule and based on each complete inspection and deliverable per the specifications. Trunk Line Manhole Inspections are defined as inspections of manholes and pipes on sanitary sewer lines 18 inch diameter and larger and accessibility is difficult due to terrain or are located over 200 linear feet from the road right of way.
- D. Item 4 - Measurement and payment for Smoke Testing will be in accordance to the unit costs in the Pay Item Schedule and is defined as the CONTRACTOR providing all labor, materials, equipment, and incidental items for the introduction of smoke into the sanitary sewer pipes. Payment will be based upon total linear footage of pipeline tested.
- E. Items 5-9 - Measurement and payment for CCTV inspection will be in accordance with the unit costs in the Pay Item Schedule and based on the total linear footage as measured in the field horizontally from the center of manholes on each pipe segment and as accepted/approved by CCWA.
- F. Items 10-14 – Measurement and payment for CCTV Only, No Cleaning will be in accordance with the unit costs in the Pay Item Schedule and based on the total linear footage as measured in the field horizontally from the center of

Division 4

Specifications

Section 2: Work Assignment and Payment

- manholes on each pipe segment and as accepted/approved by CCWA. Standard cleaning will not be performed on pipe segments due to accessibility and/or pipe material, size and age.
- G. Items 15-19 - Bypass Pumping is defined as the CONTRACTOR providing all labor, materials, equipment, and incidental items and preparing a plan, operating and maintaining a complete bypass pumping system including pumps, suction/discharge piping, pipe plugs, coffer dams, fuel, etc. of the required size. This Work Item will be paid on a per “day” unit cost in accordance with the Pay Item Schedule and as accepted/approved by CCWA.
- H. Items 20-24 - Measurement and payment for Heavy Cleaning will be in accordance with the unit costs in the Pay Item Schedule and based on the total linear footage as measured in the field horizontally from the center of manholes on each pipe segment and as accepted/approved by CCWA. Heavy cleaning is defined as the debris that remains after three (3) passes of a standard jet wash/vacuum system. A detailed report of Heavy Cleaning must accompany invoiced quantities providing tangent identification and linear footage of Heavy Cleaning along with description of need for Heavy Cleaning.
- I. Items 25-29 - Measurement and payment for Grease/Root Removal will be in accordance with the unit costs in the Pay Item Schedule and based on the total linear footage as measured in the field horizontally from manhole to manhole on each pipe segment and as accepted/approved by CCWA. A detailed report of Grease/Root Removal must accompany invoiced quantities providing tangent identification and linear footage of Grease/Root Removal.
- J. Item 30 - Measurement and Payment for Dye Flood Testing will be in accordance with the unit costs in the Pay Item Schedule and is defined as the CONTRACTOR providing all labor, materials, equipment, and incidental items for the introduction of dye water into a storm sewer or ditch believed to be contributing to excessive infiltration into the sanitary sewer. Dye Flood Testing will be paid based on each location/setup and as accepted/approved by CCWA. No additional CCTV will be paid as part of Dye Flood Testing.
- K. Item 31-35 - Flow Meter and Rain Gauge is defined as the CONTRACTOR providing all labor, materials, equipment, and incidental items for the installation/removal and monthly maintenance for flow meter devices and rain

Division 4

Specifications

Section 2: Work Assignment and Payment

- gauges. The installation/removal of flow meters and rain gauges will be in accordance with the unit costs in the Pay Item Schedule and based on both installation and removal as a one-time lump sum cost. The flow meter and rain gauge monthly maintenance will be in accordance with the unit costs in the Pay Item Schedule and based on each month the units are in service. Please note the specifications in "Division 4, Section 3: General Requirements, 3.5 Temporary Wastewater Flow Monitoring" for equipment and uptime requirements. The Flow Monitoring Report will be in accordance with the unit costs in the Pay Item Schedule and based on a summary report of findings for each flow monitoring study assigned. The reports shall be stamped by a Professional Engineer.
- L. Item 36 - Line Plugging instead of By-Passing for CCTV will be in accordance with the unit costs in the Pay Item Schedule and based on each line plugged to accomplish minimal flow requirements for CCTV. Flow through plugs and 100% plugs may be used to minimize flow in the downstream sanitary sewer for a short duration as long as there is no overflow of sewerage. In the event of an overflow of sewerage the Contractor shall be responsible for cleanup of the area and all other pertinent activities as required by the Georgia Environmental Protection Division (GAEPD). All costs of these restoration/cleanup activities shall be the responsibility of the Contractor.
- M. Item 37 - Electroscan Mobilization is defined as all of the CONTRACTOR's administrative and preparatory operations including all labor, materials, equipment, maintenance and incidental items which are necessary to arrive on-site and initiate Electroscan surveys. This Work Item will be paid on a per "each" unit cost in accordance with the Pay Item Schedule (one per Project Work Order) and as accepted/approved by CCWA. The costs for demobilization, and re-mobilizations due to shut downs or suspensions of the work caused by the CONTRACTOR shall not be compensated.
- N. Item 38 - Electroscan Inspection will be in accordance with the unit costs in the Pay Item Schedule and based on the total linear footage as measured in the field horizontally from the center of manholes on each pipe segment and as accepted/approved by CCWA. Flow bypassing shall not be included in the Electroscan Inspection unit cost and will be paid per the Pay Item Schedule if needed. Other methods of achieving full submersion of the sonde will be a part of the unit cost as described in the specifications section.

Division 4

Specifications

Section 2: Work Assignment and Payment

- O. Item 39 - Electroscan Report will be in accordance with the unit costs in the Pay Item Schedule (one per Project Work Order) and based on a summary of findings from the Electroscan Inspections as per the deliverable requirements in the specification section.
- P. Item 40 - SL-RAT Administration is defined as all of the CONTRACTOR's administrative, preparatory and reporting activities which are necessary to provide the equipment and complete the work, including but not limited to the preparation and delivery of field inspection deliverables. The Work Item will be paid on a "per month" unit cost in accordance with the Pay Item Schedule when applicable as authorized/approved by CCWA.
- Q. Item 41 - SL-RAT Field is defined as providing labor, equipment and related materials to complete a pipeline inspection. The Work Item will be paid on a per "segment" unit cost in accordance with the Pay Item Schedule when applicable as authorized/approved by CCWA. For the purpose of this work a segment shall be interpreted to mean the pipeline between consecutive manholes. Where intermediate manholes are buried or not accessible, CCWA reserves the right to allow testing between more than one adjacent manhole to manhole segment, but will only be paid as one segment.
- R. Item 42 – Manhole Flow Surcharge Monitor Inspection and Installation/Removal is defined as providing labor, equipment, materials and incidental items for the installation/removal of flow surcharge monitor devices in selected manholes. The installation/removal of flow monitor devices will be in accordance with the unit costs in the Pay Item Schedule and based on both installation and removal as a one-time lump sum cost.
- S. Item 43 – Manhole Surcharge Monitor Monthly Maintenance will be in accordance to the Pay Item Schedule and based on each month the monitor devices are in service. The Flow Surcharge Monitoring will provide alarming capabilities for user defined parameters by means of email, text messaging or graphical interface.
- T. Items 44 – 50 – Supplemental Services. Description to be provided by the Bidder with bid submittal.

END OF SECTION

Division 4

Specifications

Section 3: General Requirements

3.1 General

The specifications contained herein supplement the Pay Item descriptions in the Measurement and Payment section.

- A. The Contractor shall provide a single, experienced supervisor in charge of field operations. The field supervisor shall be responsible for the safety of all site workers and site conditions, as well as ensuring that all work is conducted in conformance with these Specifications and to the level of quality specified. The field supervisor shall be responsible for reporting any safety or regulatory issue of concern immediately to CCWA. The field supervisor shall be approved by CCWA prior to commencement of work. Any change of supervision must also be approved by CCWA.
- B. CCWA operates as an agency within Clayton County and in coordination with other agencies including Clayton County and incorporated cities. The Contractor shall be responsible for coordinating the work in accordance with the requirements of local, state and federal authorities and jurisdictions as required. This includes, but is not limited to: traffic and erosion control, worker and public safety and any fees and permitting required to complete the work. The Contractor shall provide CCWA with copies of permits, certifications, etc. upon request to document compliance with these requirements.
- C. The Contractor shall be responsible for all labor, materials, equipment, maintenance and other incidental costs which are necessary to provide traffic control. Where manholes are located in streets or driveways, adequate traffic safety devices including cones, signs, flashing lights, and other necessary safety equipment must be used. Department of Transportation (D.O.T.) certified Flaggers will be required on D.O.T. controlled roadways.
- D. To support field activities a letter of introduction on CCWA letterhead for field staff identifying them as contractors, describing the project work, providing contacts for more information, etc. will be provided. The Contractor shall provide all of its staff with photo identification and use vehicles with permanent company logos/markings/identification that are prominently displayed and clearly visible at all times. Contractor shall limit field activities to regular business hours. No weekend work is permitted without prior written approval from CCWA.

Division 4

Specifications

Section 3: General Requirements

- E. The work will require access to private property. The Contractor shall be responsible for coordinating advance written notification to access property before any work begins.
- F. Entrance into any manhole is considered a Permit-Required Confined Space Entry. The Contractor shall be responsible for preparing and implementing a Confined Space Entry Plan for in accordance with the Occupational Safety and Health Administration's (OSHA's) Permit Required Confined Space standard, contained in 29 Code of Federal Regulations (CFR) 1910.146. The CCWA reserves that right to have this document submitted at any time, but the Contractor shall be fully responsible for compliance.
- G. The Contractor shall take all necessary steps to eliminate the overflow of sewerage. In the event of an overflow of sewerage the Contractor shall be responsible for cleanup of the area and all other pertinent activities as required by the Georgia Environmental Protection Division (GAEPD). All costs of these restoration/cleanup activities shall be the responsibility of the Contractor. In the event that funds are expended by the CCWA related to these activities the Contractor shall reimburse the CCWA for any and all such costs including but not limited to the costs expended by the CCWA for fines levied by the GAEPD.
- H. The Contractor shall use special care in work methods and take all necessary precautions against improper use of the cleaning equipment to avoid damaging the sewer and/or manholes or property. If, in the CCWA's opinion, the Contractor's work has caused damage, the Contractor shall repair the damage timely and to the complete satisfaction of CCWA at no additional cost. In the event that funds are expended by CCWA related to these activities the Contractor shall reimburse CCWA for any and all such costs.
- I. The Contractor shall employ the "best practicable means" to minimize and mitigate noise as well as vibration resulting from operations. Mitigation measures shall include the utilization of sound suppression devices on all equipment and machinery, particularly in residential areas and in the near vicinity of hospitals and schools and especially at night.

Division 4

Specifications

Section 3: General Requirements

3.2 Manhole Inspections

Scope

A. Manhole inspections will be performed to gather information that can be used to evaluate the sewer system with respect to potential infiltration/inflow (I/I) sources and to catalog the physical condition and defects of the manhole. Manhole inspections shall include inspection and documentation of the manhole including:

1. CCWA MH ID Number (CCWA shall provide numbers for new manholes).
2. Date of condition assessment.
3. X, Y Coordinates for manhole mapping corrections as needed.
4. Status of the manhole: found, buried, not found, inaccessible.
5. Type of manhole lid: std, bolt down, other.
6. Ring and cover: OK, broken, missing.
7. Depth of manhole from incoming pipe(s) invert to rim in feet/tenths.
8. Depth of manhole from outgoing pipe invert to rim in feet/tenths.
9. Height of manhole ring/cover from existing ground.
10. Whether or not the manhole is subject to ponding: yes, no.
11. Clock reference of each manhole connection and size (outgoing main at 6:00 o'clock).
12. Location (outgoing main at 6:00 o'clock) and nature of visible defects and obstructions, i.e., indication of structural conditions or special problems in the main/manhole.
13. Evidence of leaks and locations, along with measured or estimated sources of extraneous flows, i.e., identification and quantification of visible inflow and infiltration source.
14. Debris/Roots: yes, no.

Division 4

Specifications

Section 3: General Requirements

15. Special problems and conditions, such as overflows, bypasses: text comments.
 16. Evidence of surcharge: depth from invert (feet).
 17. New manhole, existing manhole or location correction.
- B. Where manholes authorized to be inspected cannot be located because they are buried, not visible/accessible at the ground surface or where missing/broken covers or other maintenance items are observed, the Contractor shall notify CCWA on a daily basis for follow up action. CCWA will require a minimum of three business days from date of notification for follow up action. After the structures have been made accessible the Contractor shall complete the inspection as authorized by CCWA. Payment for manhole inspections will be made based on completed and approved inspections.
- C. Where supplemental manhole location work is authorized the horizontal location shall be surveyed, including x, y coordinates to meet the minimum precision standards for mapping grade Global Positioning Systems (GPS) and as defined by the following:

Horizontal Data

1. Procedures used to collect the data will be utilized so that the precision of the measurements will meet the minimum tolerance specification of +/- one (1) meter.
2. Georgia State Plane Coordinate System, West Zone, Units Feet, North American Datum of 1983.
3. Each data point must be tracked using a minimum of four (4) satellites, a PDOP of six (6) or less and collection a minimum of twenty (20) positions for each structure.

CCWA currently operates and maintains a Virtual Reference Station (VRS) that can be made available to the Contractor as a part of this work.

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Deliverables

- Manhole Inspection
 1. Manhole inspection data collected shall be submitted in the CCWA geodatabase format and referenced by the MH ID.
 2. Digital pictures of the inspection collected to document defects observed and shall be provided in electronic (jpeg) format using a “MH ID_sequential number.jpeg” file naming convention. Pictures shall be submitted in a folder named “manhole inspections”. Pictures may be taken using pole mounted cameras or manned entry methods. Pictures shall include:
 - a) MH cover with MH ID as added by the Contractor with a legible permanent marker.
 - b) Above ground showing a general view of where the manhole is in relationship to the surroundings.
 - c) Looking down into the manhole with the outgoing pipe in the 6 o’clock position.
 - d) One picture of each pipe starting with the outgoing and moving to each subsequent pipe clockwise in the manhole.
 - e) One picture of each connecting pipe in zoom mode to characterize entry pipe conditions.
 - f) Additional pictures of any notable defects or leaks.
- Trunk Line Manhole Inspection (Polecamera Inspection)
 1. Trunk Line Manhole inspection data collected shall be in accordance with the Manhole Inspection Section 3.2 requirements stated above.
 2. In addition to the requirements above, a separate pipe inspection shall be completed on the upstream and downstream ends of the pipe segments into the manholes. This does not include service taps into the manhole. This separate pipe inspection is not a full length inspection of the pipe segment from manhole to manhole.

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- a) Pipe inspection data collected shall be submitted in the CCWA geodatabase format and referenced by the Pipe Segment Facility ID.
- b) One complete inspection will contain the manhole inspection and a separate inspection of the incoming pipe(s) and outgoing pipe of the manhole.

3.3 Smoke Testing

Scope

- A. Smoke testing is intended to identify and locate indirect inflow sources (such as broken sewer pipe directly under drainage paths or ponding areas, or faulty service connections) and direct inflow leaks (such as storm sewer cross-connections; roof leaders; cellar, yard, and area drains; fountain drains; and abandoned building sewers). Smoke shall be nontoxic, odorless, and non-staining.
- B. Smoke testing will be performed using a minimum 3,000 cfm blower and liquid smoke or mineral oil to generate a constant stream of smoke for at least 10 minutes. Up to three reaches but no more than 900 feet of sewer pipeline may be tested at one time.
- C. Smoke testing shall not be allowed on rainy days, on cloudy days following rain, or when saturated soil conditions exist. Testing shall be closely monitored on windy days. If smoke coming out of the ground is blown away so quickly as to escape accurate detection and/or photo documentation, testing shall cease until such time that conditions permit.
- D. The perimeter of each residence or commercial building shall be completely inspected, front and back, for sources of smoke. The roofs of all buildings shall be visually inspected for evidence of roof drains connected to sanitary drains.
- E. Smoke testing may affect residences and/or businesses in the area of the test. Therefore, an integral part of this work is public and emergency response agency notification. At a minimum, the following steps shall be taken:

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1. Residential/Commercial areas: Distribute advance notice flyers between 24 and 72 hours before smoke testing commences for each section of pipe.
 2. Emergency Response Agency (Fire, Police): Identify and coordinate with public safety contact person and notify daily as to area, start time, and ending time.
 3. Schools, Hospitals, Nursing Homes: Distribute advance notice flyers between 24 and 72 hours before smoke testing, and identify and coordinate with contact person and notify daily as to area, start time, and ending time.
- F. The Contractor shall keep a daily log of his contact with all affected agencies and institutions.
- G. Adequate safety procedures and traffic controls are the responsibility of the Contractor when performing smoke tests near or in roadways. Where a safe environment cannot be maintained, the Contractor shall schedule his work during low traffic times.
- H. Advance notice flyers shall be customized by the Contractor to suit this project and must be submitted for approval by the CCWA prior to project commencement.
- I. Deliverables
1. Smoke test inspections will be performed to gather information that can be used to evaluate the sewer system with respect to potential infiltration/inflow (I/I) sources. A GIS compatible ESRI spatial database noting the manhole-to-manhole segments being tested and locations of defects shall be provided to document each test. Smoke testing shall be documented to meet or exceed mapping grade GPS accuracy standards. Hardcopy or electronic files (in word.doc or PDF format) sketches, report forms and inspection data shall also be provided and shall be submitted in the CCWA geodatabase format to include:
 - a) MH-MH segment tested using CCWA Facility ID of the tangent and a smoke test ID assigned by the contractor.
 - b) Date of inspection.

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- c) Crew/personnel ID.
 - d) Locations of observed smoke (northing/easting) with a location ID assigned by the contractor with associated smoke test ID, assessment of probable defect (sewer main, lateral, sewer manhole, clean out/cap defect, storm drain, catch basin, downspout/gutter, ground, other) and severity (minor, major)
2. Multiple digital photographs shall be taken to show the general location of the defect with some other notable object/land mark in the back ground when possible. A close up picture shall be taken to with a detailed view of the defect. Digital pictures of the smoke tests to document defects observed shall be provided in electronic (jpeg) format using a “smoke test ID_location ID_”sequential number.jpeg” file naming convention. Pictures shall be submitted in a folder named “smoke testing”.

3.4 CCTV Pipeline Inspections

Scope

- A. The scope of this work is to hydraulically clean, flow bypass pump when necessary and visually inspect sections of piping using CCTV. The Contractor shall provide bypass pumping or coordinate temporary plugging as authorized by the CCWA to allow the inspection. CCTV inspections may be performed without flow bypass pumping or flow through plugs if the flow level in the line is 25% or less of the pipe diameter for lines up to 15 inches in diameter.
- B. All costs associated with Light Cleaning shall be included in unit prices for the CCTV portion of the work. Heavy cleaning is defined as the debris that remains after 3 passes of a standard jet wash/vacuum system and shall be performed as authorized by CCWA to allow the completion of inspections. Heavy cleaning will be compensated at the unit prices provided in the Pay Item Schedule.
- C. Root/Grease removal shall be paid on a linear foot basis (manhole to manhole) based on field observations where the roots and/or grease accumulations are encountered. Light Root/Grease removal shall be defined as not greater than 25% of the pipe diameter and heavy root/grease removal shall be defined as greater than 25% of the pipe diameter. Approval of these

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pay items will be recommended as needed by the CCWA assigned field inspector as these issues are encountered.

Flow Interruption

- A. Flow interruption may be utilized to minimize flow from entering a pipe during cleaning and/or CCTV work. Flow interruption may be completed using plugging, redirection/cofferdam or bypass pumping methods. Note that plugging, redirection or constructing a coffer dam to cause flow to back-up upstream are not work items eligible for payment. Flow interruption via bypass pumping is a work item eligible for payment.
- B. Dumping or free flow of sewage on private property, gutters, streets, sidewalks, or into storm sewers is prohibited. The Contractor shall perform flow interruption in such a manner as not to damage private or public property, or create a nuisance or public menace. After the work is completed, flow shall be returned to the sewer and all temporary materials/equipment removed.
- C. When flow interruption of any type is to be utilized, the Contractor shall submit a plan for approval. The plan shall indicate flow interruption method and generally include a map that shows manholes/structures affected; this includes plugging/suction points, flow discharge points, space required for pump(s) set up and route for discharge piping. When applicable, the plan shall indicate pump and piping size; pumping capacity shall be capable of handling peak flows. The Contractor shall assume the pipes flow full and can surcharge to ground level during wet weather conditions. The plan shall indicate the means by which flows from laterals are to be handled, which may include temporary piping and/or subsidiary pumping. Interruptions of lateral service shall not be allowed for more than 24 hours or as directed by the CCWA. The plan shall include an emergency response plan to be followed in the event of a failure of the system.
- D. When bypass pumping is approved, the Contractor shall furnish, install and maintain pumps, appurtenances, bypass piping and fuel required to maintain existing flows and services. All pumps used shall be fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in the priming system. The pumps may be electric or diesel powered. All pumps used must be capable of running dry. Bypass pumping systems will

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- be equipped to be operated continuously 24 hours per day. No more than two (2) pump discharge hoses shall be used for the bypass/diversion. If the flow exceeds the capacity of 2 hoses, then rigid piping shall be used. The rigid piping shall consist of HDPE or steel pipes with suitably pressure rated couplings to withstand twice the maximum system pressure or 50 psi, whichever is greater. Under no circumstances will aluminum irrigation type piping or glued PVC pipe be allowed. Pumped sewage shall be in an enclosed hose or pipe that is adequately protected from traffic.
- E. When bypass pumping, the Contractor shall provide adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. One standby pump for each size pump utilized shall be installed at the mainline flow bypassing locations, ready for use in the event of primary pump failure. The standby pump, appropriate piping, fuel, lubrication and spare parts shall be incorporated into the bypass arrangement at the site, ready for use in case of breakdown.
- F. A bypass pumping “drill” shall be performed by the Contractor to demonstrate system readiness if requested by CCWA. The drill shall demonstrate the incorporation of all standby equipment to handle flows when the main pump set is switched off. Provisions to accommodate any of the CCWA’s review comments following the drill shall be adhered to in full at no additional cost.
- G. The Contractor shall take all necessary steps to eliminate the overflow of sewerage. In the event of overflows caused by the Contractor’s work activities, the Contractor shall immediately take appropriate action to contain and stop the overflow, clean up the spillage, disinfect the area affected by the spill, and notify the CCWA in a timely manner in accordance with CCWA’s requirements and all applicable regulatory requirements and all other pertinent activities as required by the Georgia Environmental Protection Division (GAEPD). All costs of these restoration/cleanup activities shall be the responsibility of the Contractor. In the event that funds are expended by the CCWA related to these activities the Contractor shall reimburse the CCWA for any and all such costs including but not limited to the costs expended by the CCWA for fines levied by the GAEPD.
- H. The Contractor will indemnify and hold harmless the CCWA for any fines or third-party claims for personal or property damage arising out of a spill or overflow that is the responsibility of the Contractor. Should fines

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subsequently be imposed as a result of any overflow for which the Contractor is fully or partially responsible, the Contractor shall pay all such fines and all of the legal, engineering, and administrative costs in defending such fines and claims associated with an overflow.

Cleaning

- A. The Contractor shall remove all silt, debris, detritus, etc. resulting from all sewer cleaning activities at least once each working day. Such material shall be caught and collected in a suitable trap, weir, or dam within the manhole or chamber being cleaned and/or at the downstream manhole of the sewer segment being cleaned. The contractor shall place a grated type apparatus covering the downstream pipe during cleaning operations to prevent material larger than ½" from reentering the mains. The Contractor shall ensure that the capture method or methods used effectively prevent silt migration downstream.
- B. The Contractor shall be responsible for all arrangements and costs necessary to provide for the proper disposal of all materials removed from the sewers. The disposal site must be licensed to accept such materials and must be approved by the CCWA prior to commencement of the work. CCWA reserves the right to require submittals of disposal manifests. If these manifests cannot be produced by the Contractor no payment will be issued until CCWA is satisfied that all debris is being disposed of in a responsible manner.
- C. Water for pipeline cleaning will be provided by CCWA. The contractor shall comply with CCWA regulations related to Hydrant Use/Backflow Program. All details of the point of water connection, backflow protection, conveyance methods, draw-off rates, times and all local conditions regarding the use of water shall be approved by the CCWA prior to commencement of work. All equipment, labor, and material required for obtaining water for the work shall be provided by the Contractor. Where abuse or neglect of requirements of water provided occurs, CCWA reserves the right to suspend access and use of water to the Contractor. In such cases the Contractor will be responsible for providing water at no additional cost as needed to complete the work.
- D. A quality control inspection or survey of cleaned sewers shall be carried out as directed, immediately following completion of cleaning work. If a sewer or pipe line has not been cleaned as specified (based on visual inspection, tape

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review or field analysis by the CCWA), the sewer shall be re-cleaned at no additional cost to the CCWA.

CCTV Inspection

- A. The surveying/inspecting equipment shall be self-propelled and capable of surveying/inspecting a length of sewer up to 1000 feet with access from one manhole only.
- B. The CCTV system shall provide a color pan and tilt camera(s) to facilitate the survey and inspection of sewers and laterals. A 360° rotational scan indicating general condition must be implemented at every 50 feet interval (min.) along sewers, and at manholes and any notable or defect features.
- C. The speed of the CCTV camera in the sewer shall be limited to 40 feet per minute for surveys to enable the inspection to record adequate details. The Contractor shall use a suitable metering device, which enables the cable length to be accurately measured; this shall be accurate to $\pm 1\%$ or 3 inches, whichever is the greater. The Contractor shall demonstrate compliance with the accuracy tolerance if required by the CCWA. Correct adjustment of the recording apparatus and monitor shall be demonstrated by use of the test tape or other device approved by the CCWA.
- D. At the start of each sewer length being surveyed or inspected and each reverse set-up, the length of pipeline from zero footage from the center of the starting manhole, the entrance to the pipe, up to the cable calibration point shall be recorded and reported in order to obtain a full record of the sewer length. Only one survey shall be indicated in the final report. All reverse set-ups, blind manholes, and buried manholes shall be logged on a separate log. Video digits shall be recorded so that every recorded feature has a correct tape elapsed time stamp.
- E. Each log shall make reference to a start (ST) and finish (FM) manhole, unless abandonment took place because of blockage. Manhole number shall be indicated in the remark's column of the detail report. Surveys must not extend over 1 CD.
- F. At the start of each manhole length, a data generator shall electronically generate and clearly display on the viewing monitor and subsequently on the

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recording a record of data in alpha-numeric form containing the following minimum information:

- a. Automatic update of the camera's footage position from the center of the starting manhole from adjusted zero.
- b. Sewer dimensions.
- c. Manhole/pipe length reference numbers.
- d. Date of survey.
- e. Road name/location.
- f. Direction of survey and direction of sewer flow.
- g. Time of start of survey.
- h. Material of construction of the pipe.

Submittals

- A. Standby power equipment and noise control plan.
- B. Sewer plugging method and types of plugs.
- C. Method of protecting discharge manholes or structures from erosion and damage.
- D. Spill prevention and emergency response plan.

Deliverables

- A. All deliverables shall be in PACP 4.4 file format or newer as required by CCWA and require that the contractors use televising software that is also current NASSCO certified and listed on the NASSCO website. All deliverables shall be such that the CCWA can read these reports and codes using our current software (Cues Granite XP and NASSCO PACP Coding). It shall be the sole responsibility of the Contractor to insure compatibility with CCWA formats.
- B. Each inspection shall be saved as an individual file saved in a folder named by Basin ID in an electronic format using a "downstream MH ID_ upstream

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- MH ID_yymmdd.file type” naming convention. Each inspection will also reference the facility ID of the tangent under the Pipe_Segment_Reference field. Pictures shall be submitted in a folder named “CCTV testing”. Manhole and line segment identification numbers will be as assigned by CCWA.
- C. Completed manhole data sheets shall be submitted electronically.
 - D. Each DVD/CD shall be labeled by reference to the header record for the survey section completed together with the following information:
 - 1. Sequential (unique) CD number.
 - 2. Basin / catchment worked in.
 - 3. Survey company name and logo.
 - 4. Survey date.

3.5 Dye Flood Testing

Scope

- A. Dye Flood Testing is intended as a follow up to smoke testing to locate cross connections between sanitary sewer and storm sewer pipes or ditches where smoke testing results suggest a significant inflow or infiltration source.
- B. Dye Flood Testing will be performed by introducing dye water into a storm sewer or drainage ditch to simulate a storm water runoff condition. Dye Flood Testing will be performed in conjunction with CCTV to determine if dye water is present in the sanitary sewer pipes.
- C. Dye products shall be non-toxic and biodegradable designed for plumbing testing. Water used to dilute the dye shall be clean and clear to develop a brilliant color mixture.
- D. Contractor shall maintain copies of MSDS sheets of the dye products on site to respond to all inquiries for information. MSDS sheets shall be submitted to CCWA upon request.

Deliverables

- A. Results of the Dye Flood Test shall be hardcopy or electronic files (in word.doc or PDF format).

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- B. Location map of dye flood test showing location dye water was introduced and defect location if possible.
- C. Photographs shall be taken of the dye water flooding in progress and, when possible, photographs shall be made of leaks located.
- D. Weir readings of flow before and after dye flood test to determine projected gallons per day and results provided with report.
- E. Estimated volume of dye water introduced into storm sewer or drainage ditch.

3.6 Temporary Wastewater Flow Monitoring

Scope

- A. The work will include the installation and maintenance of flow monitors and rainfall gauges for a period of 3 to 6 months or until adequate rainfall is obtained. The contractor shall be responsible for assessing and selecting monitoring sites, installing and maintaining equipment and collecting, analyzing and reporting findings. The major work items include:
 - 1. Site selection plan including site assessments and recommendations for flow monitoring and rainfall gauge locations and site data sheets for each site investigated,
 - 2. Installation and maintenance of equipment including calibration and confirmations,
 - 3. Monthly processing of data and production of reports to include tables, hydrographs and scattergraphs of depth, velocity, flow and rainfall data,
 - 4. QA/QC checks of field and office procedures with supporting documentation
 - 5. Final report presenting an analysis of the data and findings/recommendations, description of the project, equipment, field procedures, data processing procedures and all data.

Equipment Requirements

- A. Flow Monitoring Equipment

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The flow monitoring equipment shall be area-velocity type meters and include; a datalogger, depth sensors (utilizing redundant ultrasonic and pressure depth sensors) and a velocity sensor. Depth and velocity sensors must measure flows in the same cross-section of pipe. Each sensor must be able to be field-calibrated individually to ensure the monitor data can be confirmed to match manual data collected during field visits. Monitors must be able to provide accurate data in free-flow, surcharge and backwater conditions and be able to measure both depths and velocities in flows as low as half an inch. Monitors shall be designed to operate in 8-inch diameter pipes without significantly restricting flow through the pipe.

B. Rainfall Gauge Equipment

Rain gauge equipment shall be tipping bucket style capable of recording 0.01 inch increments and equipped with a data logger to allow remote, automatic collection of data.

C. Software

Contractor will use standard, pre-developed software tools for managing data collection, analysis and reporting. The software shall manage raw data in a database and provide automated data reduction, site summary histories, trending, graphic hydrograph and scattergraph summaries of uploaded data and other statistical analyses.

Performance Requirements

A. Uptime Requirements

The Contractor shall maintain a minimum data retrieval of 90% of all flow level and rainfall data per individual monitor site per month. Uptime shall be defined as the number of valid 15-minute flow data points divided by total number of 15-minute intervals in the month. In the event that uptime falls below 90% at any site in a particular calendar month beginning one calendar month after equipment installation, the monthly monitoring charge shall be discounted the percentage below the uptime target per site per month. For instance, if uptime at a site is 85% on a given month, that particular month's invoice will reflect a 15% discount of the unit monthly fee for that site. To check uptime, the contractor shall provide an uptime summary chart or table, showing the number of hours that each monitor was collecting valid final flow

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data for each day that the monitor was installed during the monitoring period. Uptime submittals shall be signed and certified by the Contractor's Project Manager.

B. Site Selection Plan

The Contractor shall be responsible for performing office and field investigations to assess and select flow monitoring and rain gauge sites in optimum locations for accuracy and reliability results. If the number of flow meters recommended is deemed excessive, the Contractor shall work with CCWA to redefine the study area and/or develop other alternatives that are acceptable to CCWA. The site selection plan shall include a review of the existing collection system information provided by CCWA, field investigations and planning activities and shall result in a plan layout of flow monitors and rainfall gauges including a description of the rationale used and site performance metrics. The Contractor shall be prepared to present a draft site selection plan to CCWA in a workshop format, respond to questions/comments and prepare a final plan prior to installing any equipment.

C. Flow Monitors

1. Prior to installation the Contractor shall perform, document and submit equipment calibrations and instrumentation checks to optimize equipment reliability and data accuracy. During the installation phase, the Contractor shall perform manual depth and velocity measurements at every site in order to confirm that the sensors are actually measuring accurate depths and accurate velocities. During the monitoring period contractor shall collect at least one additional confirmation at each site for each month of monitoring including the first month.
2. The Contractor will be responsible for ensuring that the flow monitors remain in calibration. This will require the contractor to perform field confirmation of monitor performance on a routine basis. Results will be compared to confirm the monitor data remains consistent with the manual depth and velocity measurements collected in the field. Upon installation or the first post-installation site visit, the contractor will adjust the depth or velocity readings in the monitor to bring the monitor into calibration. After

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that, depth and velocity parameters shall not be changed for the remainder of the project unless new sensors are installed. If present, pressure sensor drift shall be removed from the data during post-monitoring data processing. Depending upon the flow monitoring equipment used, back-up pressure sensors may be recalibrated daily using the ultrasonic depth sensor as a benchmark. Site confirmations shall be displayed in the graphical presentation of the monthly data deliverable.

D. Rain Gauges

All rain gauges shall be installed before the flow monitors are installed. Before installation, all tipping buckets shall be calibrated on-site with at least enough water to produce 100 tips of the bucket or the equivalent of 1-inch of rain within a specified time frame as defined by the rain gauge manufacturer's calibration procedures. Rain gauges should be located away from trees, high building's roof-edges and other man-made and natural objects that create rain shadows or affect local wind currents so as to reduce rainfall capture.

E. Equipment Maintenance

1. The Contractor will be responsible for providing all the maintenance required to keep the monitoring network fully operational within the equipment specifications so as to provide accurate data. This will include all personnel, equipment, tools and software necessary to meet the requirements of the project. This will include, at minimum:
 - a. Monitoring diagnostics
 - b. Repair and or replacement of equipment and/or parts
 - c. Battery replacements
 - d. Communications repairs
2. Contractor will be responsible for collecting and reviewing the flow data frequently enough to direct maintenance efforts to meet uptime requirements specified for the network. When bad data are discovered contractor will repair or replace the monitor as soon as possible. Flow data will be reviewed by the data analysts and field crews will be directed to perform monitor or site maintenance as needed to maximize the amount of accurate data collected by the monitors.

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F. Data Processing and Analysis

1. All data collected from the network of flow monitors shall be processed and analyzed to maximize data quality, uptime and data integrity. Data shall be collected, processed, edited and analyzed by experienced staff in accordance with established standard operating procedures and work procedures and protocols. All data shall be processed and analyzed under ISO 9001 certified quality assurance procedures or similar quality management programs.
2. Rainfall data shall be collected and post processed using industry standard practices to define the impacts of I/I on the system.

G. Final Report

1. Project work shall be presented in a Final Report that is stamped by a Professional Engineer. The report shall include a description of the work that was completed, an analysis of dry and wet weather performance of the collection system (including a characterization of return year storm events) and provide sufficient detail to distinguish inflow and infiltration (I/I), prioritize and benchmark I/I against industry standards for severity and identify capacity related deficiencies in the system. The report shall include conclusions and recommendations and shall be prepared with graphics and tables that clearly summarize findings including but not limited to Peak Flow Rate (Q) vs. Peak Rainfall Intensity (I). The report shall include appendices of all raw data and relevant calculations to support the findings.
2. The Contractor shall prepare a draft report and present findings to CCWA in the format of a workshop. The Contractor shall prepare and submit six (6) hardcopies and one (1) electronic copy in Word format of the final report within thirty (30) days of receiving responses to comments, questions and input received from the draft report.

3.7 Electro-Scan

Scope

- A. The scope of this work is to inspect sections of piping using Electro-Scan testing to locate sewer pipe defects and potential inflow/infiltration sources.

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This work shall be carried out in accordance with *ASTM Standard F2550-06: Standard Practice for Locating Leaks in Sewer Pipe Using Electro-Scan – the Variation of Electric Current Flow Through the Pipe Wall*.

- B. Gravity flow pipes shall be fully submerged by the following methods but not limited to, downstream plugging, downstream flow through plug or a kite/parachute apparatus for submersion of the sonde.
- C. Flow bypassing will be considered as a separate pay item for the purpose of this work if required.

Deliverables

- A. All deliverables shall include one pdf copy and two hard copy format reports.
- B. Each report shall include but not limited to the following sections:
 - 1. Introduction.
 - 2. Sewer main description listing line segments for Electro-Scan.
 - 3. Anomaly Summary Histograms.
 - 4. Anomaly Histograms.
 - 5. Individual Line Segment Electro-Scan Processed Current Traces.
 - 6. Maps showing line segments of Electro-Scan Testing.
 - 7. Conclusion.
- C. Each inspection shall be referenced by Upstream Manhole ID to Downstream Manhole ID and Facility ID of the tangent. Manhole and line segment identification numbers will be as assigned by CCWA.

3.8 SL-RAT (Sewer Line Rapid Assessment Tool)

Scope

- A. The scope of this work is to inspect sections of piping from manhole to manhole using the Sewer Line Rapid Assessment Tool (SL-RAT) to detect blockage conditions in gravity flow sewers.

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Deliverables

- A. All deliverables shall include one electronic copy and two hard copy format reports.
- B. Each report shall include but not limited to the following sections:
 - 1. Excel Spreadsheet with the following information for each setup:
 - a) Upstream Manhole ID.
 - b) Downstream Manhole ID.
 - c) Tangent Facility ID.
 - d) Inspection Results.
 - 2. Maps showing line segments of SL-RAT Inspections.
- C. Each inspection shall be referenced by Upstream Manhole ID to Downstream Manhole ID and Facility ID of the tangent. Manhole and tangent identification numbers will be as assigned by CCWA.

3.9 Manhole Flow Surge Monitor

Scope

- A. The scope of this work is to assess and select locations on an as-needed basis to install Flow Monitor Surge Devices in sanitary sewer manholes to detect high flow levels due to surcharge from blockages or capacity issues from Inflow and Infiltration.
- B. Flow level measurement shall be made with an ultrasonic sensor.
- C. Power supply shall be non-rechargeable alkaline batteries with a minimum life of one year at 15-minute sampling rate (logging flow level)
- D. Communication shall be transmitted to host web-site by satellite or wireless/cellular connection.
- E. Data recording interval shall be standard intervals of 15 and 30 minutes.

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- A. One electronic copy and two hard copy maps of Flow Monitor locations for each work order issued.
- B. Email and/or text notification for exceeding user defined parameters.
- C. Level Trending for I&I analysis.
- D. Access to web based map interface with training with up to 10 persons as necessary.
- E. Electronic data downloads for storage and analysis by CCWA.

END OF SECTION