

# REQUEST FOR BID Cured-In-Place Pipe Work Annual Contract

**Bid Number 2025-SW-10** 

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

SCHEDULE OF EVENTS	DATE
Non-Mandatory Pre-Bid Meeting	
A Non-Mandatory Pre-Bid Conference will be hosted virtually by our staff and responsible person(s).	June 20, 2025 at 10:00 a.m.
Deadline for Questions	
Questions must be submitted online through the Bonfire Portal at: <a href="https://ccwa.bonfirehub.com/">https://ccwa.bonfirehub.com/</a> .	June 26, 2025 at 3:00 p.m.
Addendum Issued	
Answers will be answered via addendum online through the Bonfire Portal at: <a href="https://ccwa.bonfirehub.com/">https://ccwa.bonfirehub.com/</a>	July 3, 2025
Bid Opening Responses will be opened during a virtual meeting via Microsoft Teams. Solicitations must be submitted through the online Bonfire Portal at: <a href="https://ccwa.bonfirehub.com/">https://ccwa.bonfirehub.com/</a> . Submissions by other methods will not be accepted.	July 10, 2025 at 2:30 p.m.

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## **Section 1: Request for Bids**

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

Name of Project: 2025-SW-10 Cured-In-Place Pipe Work Annual Contract

The Clayton County Water Authority will open sealed bids from vendors via a Virtual Teams Meeting on **July 10, 2025 at 2:30 p.m.** for the **Cured-In-Place Pipe Work Annual Contract.** Any bids received after the specified time will not be considered.

A Non-Mandatory Pre-Bid virtual Teams Meeting will be held on **June 20, 2025 at 10:00 a.m.** 

Please use the following call-in instructions to attend the Pre-Bid and Bid Opening meeting:

## Join the meeting now

Meeting ID: 264 999 754 346 6

Passcode: yG2ws6nJ

+1 912-483-5368,,230964789# United States, Savannah

Find a local number

Phone conference ID: 230 964 789#

CCWA encourages Small Local, Minority and Women-Owned business to participate and respond t this bid request.

In an effort to promote responsible environmental practices this 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**. Bidders will need to provide contact information and an email address, and any file size transfer limits to ensure email transmittals can be made. A hardcopy bid package can also be requested at a cost of \$25.

Clayton County Water Authority

By: Marcia Jones, Purchasing Manager

# **Section 2: General Overview**

#### 2.1 General Information

The Clayton County Water Authority (CCWA) intends to contract for the annual services of experienced licensed utility contractors to install cured-in-place pipe (CIPP), centrifugally cast concrete pipe (CCCP) and complete other material installations associated with sanitary sewer and stormwater sewer piping systems. CCWA anticipates that the annual value of work to be completed through this contract will be in the range of \$2 to \$2.5 million dollars.

The CCWA reserves the right to select multiple Contractors to ensure that our requests under this annual contract can be performed as needed.

The successful contractors must self-perform no less than seventy-five percent (75%) of all labor for all CIPP and/or CCCP work. CCWA strongly encourages the use of CCWA certified Small Local Business Enterprise (SLBE) for subcontracting work under this annual contract. Additionally, CCWA reserves the right to negotiate parity for any and all costs.

Depending on the number of contractors selected to perform this work, CCWA will make an attempt to assign work equally amongst the vendors. Additional work will be assigned based on work quality and responsiveness.

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 work type of this contract as a separate procurement at its sole discretion.

Where a Project Work Order in an amount of \$100,000 or more, for work considered "Public Works" is issued as defined by O.C.G.A. § 36-91-2, Payment and Performance Bonds will be required prior to the commencement of that work.

The initial term of this contract will be for twelve (12) months. Upon written mutual consent from both parties, the contract will have renewal options for up to four (4) 12-month periods. The contract allows for a renewal adjustment as outlined in Division 3, Section 1, Clause 4, titled "Renewal Adjustments."

## 2.2 Coordination and Safety

The Contractor shall be responsible for coordinating the work in accordance with the requirements of local, state and federal authorities and jurisdictions as required. The Contractor shall provide CCWA with copies of permits, certifications, etc. upon request, to document compliance with these requirements. Also, the Contractor will need to coordinate the planned work with CCWA staff to prevent any interruptions to operations, customers and the general public.

#### 2.3 Bid Submission

Solicitations must be submitted through the online Bonfire Portal at <a href="https://ccwa.bonfirehub.com/">https://ccwa.bonfirehub.com/</a>. Submissions by other methods will not be accepted.

#### 2.4 Bid Evaluation

A contract will be awarded to the lowest responsive responsible bidders whose bid conforms to the Request for Bids specifications and will be the most advantageous to the CCWA. An evaluation will also be performed to ensure the bidder complies with the required submittals. Determination of the lowest responsive responsible bidder will be the sole judgment of the CCWA.

Contractors will be included in a rotation list, starting with the lowest responsive and responsible bidder, and will be contacted to provide services as required. This rotation system aims to ensure an equitable distribution of work and a prompt response to service requests. Contractors are expected to respond promptly to service calls and complete the work within the agreed-upon timeframe. However, the requesting department retains the discretion to bypass the rotation if it is deemed not in the best interest of the Water Authority.

To be considered responsive to this bid, bidders are required to bid on all work items listed on the Bid Form – Pay Item Schedule. An exception will be granted for Line Items #123 – #154 (Cementitious CCCP) and Line Items #155 - #186 (Geopolymer CCCP). Bidders will be required to provide unit pricing for either Cementitious CCCP or Geopolymer CCCP, or both.

Prior to the time of Bid Opening, CCWA will provide a list of "quantities", for "selected work items", that will be used for bid evaluation purposes. CCWA will multiply the unit cost for each" selected work item" by the "quantity" to establish an "extended amount". The addition of all extended amounts will determine the total bid amount. To obtain a copy of the list please refer to Division 1, Section 1: Request for Bids.

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 ensure that the unit price is in line with comparable items contained in this bid, and that any unit price that appears 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.

An evaluation will also be performed to ensure bidders comply with the required submittals. Determination of responsive responsible bidders will be the sole judgment of the CCWA.

#### 2.5 Addendum

Bidders may submit questions regarding this contract prior to the bid opening. To be considered, all questions must be submitted online through the Bonfire Portal at <a href="https://ccwa.bonfirehub.com/">https://ccwa.bonfirehub.com/</a> no later than 3:00 p.m. on June 26, 2025. Responses to all bidder inquiries will be provided in the form of an Addendum, which will be made available online through the Bonfire Portal. All issued addenda shall become an official part of the Bid Documents.

#### **Section 1: Instructions to Bidders**

These instructions are to be followed by every entity proposing 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.

- 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.

- 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 or as directed.
- 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 received by the CCWA Procurement Department electronically through the Bonfire portal at <a href="https://ccwa.bonfirehub.com/">https://ccwa.bonfirehub.com/</a>. Upon submission, all responses will be electronically time- and date- stamped once all documents have been successfully uploaded and received.
- 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 the 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 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 propose all items. All items may be considered separately, at the discretion of the CCWA.
- 12. Bids for public works whose price exceeds one hundred thousand dollars (\$100,000.00) must be accompanied by a certified check, cashier's check, or acceptable bid bond in an amount not less than five percent (5%) of the amount bid.
- 13. 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 in their bid submittal.

- 14. 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.
- 15. Bids shall not be withdrawn or cancelled by the Bidder past the bid opening date and time. No modification or corrections will be allowed subsequent to the bid opening.
- 16. 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.
- 17. 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 the withdrawal of the bid.
- 18. Copies of all communication pertaining to bids must be sent to the Contracts, Compliance and Risk Management Section.
- 19. 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. Any applicable sales taxes should be included in the unit prices for all materials to be provided by the successful Bidder.
- 20. 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.
- 21. 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.
- 22. Quantities when shown are estimates only, based on anticipated needs. 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.
- 23. 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.
- 24. 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 Bidder.
- 25. The successful Bidder must comply with the applicable Risk Management Requirements prior to beginning performance, and during the contract period.
- 26. The Contract between the CCWA and the Bidder 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. Any seals to be applied to the Contract by Bidders shall be in the form of ink seals.
- 27. 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 given to the next lowest responsible vendor, or the work may be re-advertised or constructed by the CCWA.
- 28. Any Contract and Contract Bonds shall be executed in duplicate. Any seals to be applied to the Contract or Contract Bonds shall be in the form of ink seals.
- 29. Award of this bid shall be by action of the CCWA Board of Directors at a regularly scheduled or called meeting.
- 30. The CCWA reserves the right, with or without notice or cause, to accept any bid regardless of the cost 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.
- 31. 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.

- 32. 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 CCWA'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 Request Department may be present. A simple coin toss (called by the vendor listed first in the alphabet) will break the tie and decide the award.
- 33. 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 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 CCWA based on above-average prior performance of work with CCWA.
  - e. Preference for local vendors where there is no significant variance in price or service.
- 34. Bidders are notified that CCWA 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. CCWA 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) CCWA'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 CCWA 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 CCWA in defending against any such claim.

- 35. It is the policy of the Clayton County Water Authority (CCWA) to promote award of sub-agreements for goods and/or services to qualified minority and womenowned businesses. Bidders are encouraged to solicit minority and women-owned businesses whenever they are potential sources.
- 36. 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.

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**

37. Pursuant to the Georgia Security and Immigration Compliance Act of 2006, the successful Bidder 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 Bidder further agrees that such compliance shall be attested by the Bidder and any of his Subcontractors by execution of the appropriate Affidavit and Agreement included after the Agreement Form of these documents.

**END OF SECTION** 

# **Section 2: Risk Management Requirements**

The Contractors and any potential CCWA approved Subcontractors will provide minimum insurance coverage and limits as per the following:

The Contractor/Subcontractor will file with the Clayton County Water Authority (the "Authority") Certificates of Insurance, certifying the required insurance coverage and stating that each policy has been endorsed to provide a minimum of thirty (30) day advance written notice to the Authority in the event of cancellation, material change, or nonrenewal of policies required under the contract to the Authority. All bonds and insurance coverage must be placed with an insurance company approved by the Authority, licensed, or approved to do business in the State of Georgia, and rated Secure ("A-", "VII" or better) by A.M. Best's Insurance Guide throughout the duration of the contract. The letter denotes the company's financial strength, and the Roman numeral represents the financial size of the carrier. 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. The insurer shall agree to waive all rights of subrogation against the Authority, its elected or appointed officers, officials, agents, authorized volunteers, and employees for losses paid under the terms of this policy which arise from work performed by the Named Insured for the Authority, but this provision applies regardless of whether or not the Authority has received a waiver of subrogation from the insurer.

As the Risk Management Requirements herein are minimum required insurance coverage and limits, the Authority's Risk Manager may require additional and/or increase in coverage and limits driven by the complexity of the relevant contract.

The Authority requires insurance on an "occurrence" basis whenever possible. Policies written on a "claims made" basis (e.g. cyber, professional liability and pollution liability) require the inclusion of the following provisions:

- (a) The retroactive date must be shown on the certificate of insurance (or provided a copy of the declarations page showing it).
- (b) Insurance must be maintained for at least two (2) years after completion of the work and/or contract.
- (c) If coverage is canceled or non-renewed after the work has been completed and/or the contract has ended, the contractor must purchase the extended reporting period for at least two (2) years.

Worker's Compensation - Required for all contracts, including any sole proprietor, individual consultants, or small businesses. Worker's Compensation coverage on a statutory basis for the State of Georgia with an Employer's Liability MINIMUM limits of \$500,000 bodily injury for each Accident, \$500,000 bodily injury for each Disease, and \$500,000 bodily injury by Disease for each Employee. Other States: If any work is performed out of state including any remote workers, then those states must be covered as well. Maritime endorsements: If there is an exposure of injury to any contractors or providers to any maritime exposures then coverage shall include the appropriate endorsements such as USL&H (United States Longshore and Harbor Workers Comp Act), Jones Act or other federal statutes. Waiver of subrogation: The insurer agrees to waive all rights of subrogation against the Authority, its elected or appointed officers, officials, agents, authorized volunteers, and employees for losses paid under the terms of this policy which arise from work performed by the Named Insured for the Authority, but this provision applies regardless of whether or not the Authority has received a waiver of subrogation from the insurer. An umbrella policy may increase the employer's liability limits to meet the minimum requirements.

Commercial General Liability – Required for all contracts. 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. The general aggregate and products & completed operations aggregate should be at least twice the minimum required occurrence limit. Policy shall be written on an

☐ Crime Liability – Required for all contracts involving any use, care, custody, or control of any cash, money, securities, and/or wire transfers. Any use of crypto currencies must be preapproved by the Risk Management Department.

□ Cyber Liability – Required for all software, computer hardware installation, data access, data integrations, data usage, cloud storage, SaaS, and or technology related contracts. Coverage shall include the minimum: a) Information Security & Privacy Liability; b) Regulatory Fines and Penalties; c) Payment Card Industry (PCI) if credit cards and/or banking information is obtained or accessed, and d) Ransomware. Since cyber insurance policies are written on a claims-made basis, insurance must be maintained for at least two (2) years after completion of the work and/or contract.

Professional Liability Insurance (Errors & Omissions) — Required for all professional service contracts. This shall include any consultants, medical, legal, technical, insurance agents, or other professions that require proper licenses. Since professional insurance policies are written on a claims-made basis, insurance must be maintained for at least two (2) years after completion of the work and/or contract.

□ Terrorism Liability – Required on specific contracts stated by the Risk Management Department including but not limited to: 1) all contracts involving access or use of any water, gas, electric utilities shall require third parties to have TRIA and third-party liability limits of at least \$5,000,000; and 2) all special events that are highly visible, politically sensitive, or have more than 1,000 attendees should require at least \$1,000,000 of terrorism liability for any event sponsors.

Insurance Services Office (ISO) industry form CG0001 2010 or newer. Contracts involving any youths or children under 18 should also be required to provide proof of coverage for sexual abuse & molestation coverage that it is either; clearly not excluded on the general liability or purchased as a stand-alone policy. Should the coverage be on a claims-made basis, insurance should remain in force for the life of the contract and up to the date to which the youngest youth/child at the start of the contract turns age 18 plus two years.

Automobile Liability – Required for all contracts except for products or services that are remote only or are delivered by a professional delivery service. ISO policy form CA0001 or its equivalent liability coverage. Coverage shall be included for any owned, leased, hired, or nonowned autos (ISO symbol 1 is preferred). For any contracts involving the transportation of hazardous limited materials, pollution endorsement ISO form CA9948 or its equivalent shall be on the policy. Sole proprietors shall provide the same limits as stated above via a personal auto policy plus an umbrella. Uninsured motorist coverage should be equal to the per occurrence limit except for contracts with other governmental entities.

- Aviation Liability Required for all Drones/UAV (Unmanned Aerial Vehicles), general aviation contracts, and Fixed base operators (FBO). Coverage should include owned, hired, and non-owned aircraft/aviation.
- Liquor Liability Required for all third-party services and contracts involving selling, distributing, or serving alcohol. Coverage should be full liquor liability and not "host" liquor if it is being sold.
- Sexual Abuse & Molestation Liability Required for all contracts and services involving youths, children, special needs, or senior citizens. Must be maintained for at least two (2) years after completion of the work and/or contract.
- **Builder's Risk** Recommended for most construction projects. The limit of coverage should be equal to the value of the contract or GREATER. Covered perils should be at least fire, wind, theft, vandalism, flood, and earthquake.
- ☐ Umbrella Liability Recommended for all contracts. 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. The underlying coverage shall be General Liability, Automobile Liability, and Employers Liability (Workers Compensation). Concurrent policy dates with primary liability policies except for Workers Compensation.

## MINIMUM LIMITS OF LIABILITY ON NEXT PAGE

# **MINIMUM LIMITS OF LIABILITY**

INSURANCE	COVERAGE	LIMIT
	Bodily Injury by Accident - Each Accident	\$500,000
Worker's Compensation	Bodily Injury by Disease – Each Disease	\$500,000
	Bodily Injury by Disease – Each Employee	\$500,000
	General Aggregate	\$2,000,000
	Products & Completed Operations Aggregate	\$2,000,000
Commencial Comment Linkility	Each Occurrence	\$1,000,000
Commercial General Liability	Personal & Advertising Injury	\$1,000,000
	Damages to Premises / Fire Legal	\$500,000
	Medical Payments	\$5,000
	Combined Single Limit OR	\$1,000,000
	Per Person	\$500,000
Automobile	Per Occurrence	\$500,000
	Property Damage	\$100,000
	Medical Payments	\$1,000
	Employee Dishonesty	\$1,000,000
	Funds Transfer Fraud	\$1,000,000
Crime	Money & Securities	\$100,000
	Computer Crime	\$1,000,000
	Social Engineering or its equivalent	\$100,000
	Each Claim/Wrongful Act	\$1,000,000
	Annual Aggregate	\$2,000,000
Cultion Incomes	Business Interruption	\$1,000,000
Cyber Insurance	Data Recovery	\$1,000,000
	Cyber Extortion Expenses	\$500,000
	Cyber Extortion/Ransom Payments	\$50,000
Duefeesienel Liebility	Each Claim/Wrongful Act	\$1,000,000
Professional Liability	General Aggregate	\$2,000,000
To manio m	Access/use of water, electric or gas utilities	\$5,000,000
Terrorism	Special events	\$1,000,000
	Each Occurrence	\$5,000,000
Aviation	Automobile Liability	\$1,000,000
	Pollution Liability (FBOs Only)	\$1,000,000
1	Each Occurrence	\$1,000,000
Liquor	General Aggregate	\$2,000,000
Carriel Abrica 9 Malastatian	Each Claim/Wrongful Act	\$1,000,000
Sexual Abuse & Molestation	General Aggregate	\$2,000,000

# **END OF SECTION**

# **Section 3: Required Bid Submittals**

# 3.1 Bid Submittal Requirements:

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:

For your convenience, a check box is provided next to the required items, which include but are not limited to:

A.	Bid Form – Bidders must submit their completed and signed Bid Form.	
B.	Bidder Qualification Information Form, 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. An indication of "N/A" for "not applicable" must be noted as appropriate.	
	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.	CCWA SLBE Certificate and/or required SLBE Forms (as applicable).  An indication of "N/A" for "not applicable" must be noted as appropriate.	
G.	Non-Collusion Certificate.	
Н.	Certification of Absence of Conflict of Interest.	
l.	Vendor Information Form. Company name must match the W-9 Form.	
J.	W-9 Form. Company name must match the Vendor Information Form and must be registered with the Georgia Secretary of State.	

K.	Copies of all licenses required to perform the work (if applicable).	Ц
L.	Bidder's corporate minutes that include officers' names and titles with authority to sign contracts.	
M.	Any other items as required in this RFB including but not limited to the items contained in the Instructions to Bidders, Bid Form and Specifications sections.	
N.	All addenda issued.	

# 3.2 Required Post Award Submittals:

The following is required from the successful bidder:

- a. A current Certificate of Insurance.
- b. An endorsement including CCWA as an additional insured for the Commercial General Liability only.
- c. A 30-day cancellation endorsement for ALL policies on your Certificate of Insurance.

**END OF SECTION** 

#### Section 4: Bid Form

Bid of	
(Hereinafter "Bidder"), organized and existi	ng under the laws of the State of,
doing business as partnership," or "an individual" or such othe	(insert "a corporation," "aer business entity designation as is applicable).
To the Clayton County Water Authority (he	reinafter "Owner").

In compliance with the Request for Bids, Bidder hereby proposes to perform all Work for <u>Cured-In-Place Pipe Work Annual Contract</u> 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:

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.

#### 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 \$500.00 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.

#### SURETY:

If Bidder is awarded an individual project work order for a Public Works project that is \$100,000 or more in value the Contractor under this construction contract for this Bid, will be required to provide Performance and Payment Bonds prior to the commencement of that individual project work order. Such work shall not commence until proper approval of such bonds has been given by CCWA.

#### 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 Bid Form – Pay Item Schedule.

CCWA guarantees no minimum or maximum quantities and additionally reserves the right to purchase more or less at the unit price, based on actual need.

#### **PAYMENT TERMS:**

Payment terms are Net 30 days after receipt of an invoice and acceptance of the work by CCWA.

#### ADDENDA:

Bidder acknowledges receipt of the following Addenda:

Bid Cost to be submitted on the Bonfire Portal.	
Submitted by:	
(NAME OF BIDDER)	
By:(SIGNATURE)	
(TITLE)	-
(DATE)	
(SEAL) (ATTEST)	
Is the Bidder a CCWA certified SLBE?   YES – COUNTY:	

Division 2	<b>Bid Requirements</b>
Section 5: Georgia Bid Bond BOND NO	
KNOW ALL MEN BY THESE PRESENTS, that	
herein after called the PRINCIPAL, and	
a corporation duly organized under the laws of the State of	
having its principal place of business at	

and authorized to do business in the State of Georgia as SURETY, are held and firmly bound unto Clayton County Water Authority, as OWNER, hereinafter called the OBLIGEE, in the sum of FIVE THOUSAND DOLLARS (\$5,000.00) for the payment for which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

in the State of \_\_\_

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the Principal is herewith submitting his or its Bid for <u>Cured-In-Place Pipe Work Annual Contract</u>, and said Bid, by reference thereto, being hereby made a part hereof.

WHEREAS, the PRINCIPAL contemplates submitting or has submitted a Bid to the OBLIGEE for the furnishing of all labor, materials (except those to be specifically furnished by the Owner), equipment, machinery, tools, apparatus, means of transportation for, and the performance of the work covered in the Bid and the documents, entitled: **Cured-In-Place Pipe Work Annual Contract**.

WHEREAS, it was a condition precedent to the submission of said Bid that a cashier's check, certified check, or Bid Bond in the amount of FIVE THOUSAND DOLLARS (\$5,000.00) be submitted with said Bid as a guarantee that the Bidder would, if awarded the Contract, enter into a written Contract with the Owner for the performance of said Contract, within 10 consecutive calendar days after written notice having been given of the award of the Contract.

NOW THEREFORE, the conditions of this obligation are such that if the PRINCIPAL within 10 consecutive calendar days after written notice of such acceptance, enters into a written Contract with the OBLIGEE and furnishes a Performance Bond and Payment Bond in an amount equal to 100 percent of the contract amount, satisfactory to the Owner, then this obligation shall be void; otherwise the sum herein stated shall be due and payable to the OBLIGEE and the SURETY herein agrees to pay said sum immediately upon demand of the OBLIGEE in good and lawful money of the United States of America, as liquidated damages for failure thereof of said PRINCIPAL.

Signed and sealed this	day of	, 20
	PRINCIPAL	
	Ву	
	SURETY	
	Ву	
	Attorney-In-Fact	

DIVISION 2		Bia Requirements
Section 6: Bidder Qu	alification Informat	ion
COMPANY NAME OF	BIDDER:	
NUMBER OF YEARS	IN BUSINESS	
BUSINESS ADDRES	S OF COMPANY:	
TELEPHONE NUMBE	ER:	
POINT OF CONTACT	NAME:	
POINT OF CONTACT	EMAIL ADDRESS	S:
COMPANY TAX ID NUMBER:		
COMPANY WEBSITE	Ē:	
ENTITY TYPE:	□ Privately Hel	le Proprietor
NAME OF PRINCIPA	L OFFICERS:	

# **REFERENCES**

The bid must contain at least three (3) references of similar experience in the past five (5) years. References must include a contact person, address, and phone number. **The Clayton County Water Authority should not be included as a reference.** 

COMPANY/GOV'T ENTITY NAME:	
CONTACT NAME:	
EMAIL ADDRESS:	
PHONE NUMBER:	
COMPANY/GOV'T ENTITY NAME:	
CONTACT NAME:	
EMAIL ADDRESS:	
PHONE NUMBER:	
COMPANY/GOV'T ENTITY NAME:	
CONTACT NAME:	
EMAIL ADDRESS:	
PHONE NUMBER:	
COMPANY/GOV'T ENTITY NAME:	
CONTACT NAME:	
EMAIL ADDRESS:	
PHONE NUMBER:	
COMPANY/GOV'T ENTITY NAME:	
CONTACT NAME:	
EMAIL ADDRESS:	
PHONE NUMBER:	

**Section 7: Contractor Affidavit and 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 300-1002 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 300-10-107, or a
	substantially similar contractor affidavit. The Contractor's fully executed affidavit is attached
	hereto and is incorporated into this Agreement by reference herein.

		stantially similar contractor affidavit. The Contractor's fully executed affidavit is attached eto and is incorporated into this Agreement by reference herein.
B.		initialing in the appropriate line below, the Contractor certifies that the following employeenber 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.	with sha	
	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 300-10-102 by causing each such subcontractor to execute the subcontractor affidavit required by Georgia Department of Labor Rule 300-10-108, 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 <u>Clayton County Water Authority</u> at any time."
Co	ontra	ctor
Αι	ıthor	rized Signature:
Na	ıme:	
Tit	tle:	
Da	ite:	

#### **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 <u>O.C.G.A. 13-10-91</u>. 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	Date of Authorization
Enter the four to seven-digit number	
Name of Contractor (Printed)	
BY: Authorized Officer or Agent of Contractor (Signature)	Date
bit. Authorized Officer of Agent Of Contractor (Signature)	Date
Printed Name of Contractor's Authorized Officer or Agent	
•	
Title of Authorized Officer or Agent of Contractor	
The of Mathemator of Myork of Contractor	
SUBSCRIBED AND SWORN BEFORE ME ON THIS DAY	, OE
	OF
20	
Notary Public	My Commission Expires

# SUBCONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned subcontractor verifies its compliance with <u>O.C.G.A. 13-10-91</u> , 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 p pursuant to this contract with	hysical performance of services		
Authority, the subcontractor will only employ or contract with sub-sa similar affidavit verifying the sub-subcontractor's compliance undersigned further agrees that the Subcontractor will maintain provide a copy of each such verification to the Contractor within five presenting such affidavit(s) to the Sub-contractor.	with O.C.G.A. 13-10-91. The records of such compliance and		
EEV / Basic Pilot Program* User Identification Number	Date of Authorization		
Enter the four to seven-digit number			
Name of Sub-contractor (Printed)			
Authorized Officer or Agent of Sub-contractor (Signature)	Date		
Name of Sub-contractor's Authorized Officer or Agent (Printed)			
Title of Authorized Officer or Agent of Sub-contractor			
SUBSCRIBED AND SWORN BEFORE ME ON THIS D	AY OF		
Notary Public	My Commission Expires		

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

# 8.1 Program Overview

Clayton County Water Authority (CCWA) implemented a Small Local Business Enterprise (SLBE) Program to promote full and open competition in all government procurement and purchasing.

The SLBE program provides an additional race-and gender-neutral tool for the Authority to use in its efforts to ensure that all segments of its local business community have a reasonable and significant opportunity to participate in Authority Solicitations.

SLBEs 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 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.

SLBE in CCWA refers to a locally-based small business which meets the following criteria:

- 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; (3) Architectural Firms \$3,750,000; (4) Engineering Firms \$7,500,000, and (5) Goods and Services less than 250 employees.
- 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.
- Note: Complete CCWA SLBE Certification Requirements are listed on the Provisional and General Certification Applications; https://www.ccwa.us. To be considered a CCWA SLBE Certified Firm, the vendor shall complete the Certification Process by the solicitation submission deadline.

To encourage participation in contracting regardless of company size, the Authority provides bidders with Solicitation Incentives to ensure that small businesses maintain a competitive advantage in the Authority's solicitation process. The Authority's three Solicitation SLBE Incentives; Bid Discounts, Preference Points, and SLBE Goal utilization are determined on a solicitation-by-solicitation basis.

## 8.2 SLBE Incentive Type

The purpose of this section is to communicate the use of an SLBE Incentive (Bid Discount or Preference Points) for Prime Contractors in the solicitation and provide instructions or requirements of the intended SLBE Incentive.

This solicitation offers the following SLBE Incentive: (Refer to check marked section.)

## **☑** Bid Discount

Bid discounts are incentives that allow an original bid amount to be discounted for evaluation purposes in determining the lowest responsive, responsible bidder, while the original bid amount will be the basis for contract award.

The calculation of SLBE tiered bid discounts shall be as follows:

- ➤ 10% for SLBE's in Clayton County.
- ➤ 7% for SLBE's within the 10 counties: Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, Rockdale and Spalding.

Example: A \$100,000 bid with a 7% bid discount would be evaluated at \$93,000. However, \$100,000 would be paid to the successful bidder.

## ☐ Preference Points

RFP Preference Points are point incentives that are awarded on a basis that includes factors other than the lowest price and wherein responses that are submitted by CCWA SLBE Certified Firms are awarded additional points in the evaluation process in the scoring and ranking of proposals. The awarded points are disbursed for CCWA SLBE Certified Firms proposing as a Prime Contractor and located in Clayton County or the ten (10) counties outlined in Section 8.1. RFP Preference points will be added to the total score for evaluation purposes in determining the highest ranked responsible, responsive proposer.

The calculation of tiered RFP Preference Points in this solicitation for CCWA SLBE Certified Firms will be based on the following criteria:

- > 10 Points for CCWA SLBE Firms in Clayton County.
- ➤ 7 Points for CCWA SLBE Firms within the 10 counties: Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, Rockdale and Spalding.

Example:	
General proposal requirements	(POSSIBLE TOTAL 50 POINTS)
Technical requirements	(POSSIBLE TOTAL 50 POINTS)
SBLE Preference Points	(POSSIBLE TOTAL 10 POINTS)
SLBE Proposal	NON-SLBE Proposal
SLBE Proposal General Requirements40	NON-SLBE Proposal General Requirements 40
General Requirements40	General Requirements 40

#### 8.3 SLBE Conclusion

A bidder does not have to be a CCWA SLBE Certified Firm to participate in a solicitation where Bid Discounts or Preference Points Incentives are offered.

The use of Certified CCWA SLBE Firms as subcontractors will not establish eligibility to receive Bid Discounts or Preference Points. In the event of a tie between a CCWA SLBE Certified Firm and a non-CCWA SLBE Certified firm, the CCWA SLBE Certified Firm will be recommended for the contract.

By signing the solicitation, the bidder is certifying that he/she has complied with the requirements of this program. Contact the Small Business Procurement Coordinator at <a href="mailto:cwa.us">ccwa.us</a> for more information on becoming certified.

# 8.4 Solicitation SLBE Required Form(s)

For CCWA SLBE Certified Firms claiming a Bid Discount or Preference Points, a copy of their valid CCWA SLBE Certification Letter shall be provided with their solicitation response.

Division 3
Section 1: Agreement Form **Contract Forms** 

**STATE OF GEORGIA COUNTY OF CLAYTON** 

# AGREEMENT FOR ONGOING PROVISION OF GOODS AND SERVICES

the <b>C</b> l corpor under	Agreement made and entered into this day of, 20, between LAYTON COUNTY WATER AUTHORITY, a body corporate and politic, a public ration, and a political subdivision of the State of Georgia duly created and existing the laws of the State of Georgia (hereinafter "the Authority"), and (hereinafter "the Contractor"), ime to time collectively referred to herein as "Parties", witnesseth:
	REAS, the Authority is contracting with the Contractor for the Cured-In-Place Pipe Annual Contract as provided for under the terms of this Agreement.
1.	THEREFORE, the Parties agree as follows:  DESCRIPTION OF GOODS AND SERVICES. The Authority agrees to obtain from the Contractor the goods and services described generally in Exhibit A attached hereto and, if applicable, as may be further described on any and all purchase orders issued by the Authority pursuant to Paragraph 5 of this Agreement (individually, a "PO" and collectively, the "POs") ("Goods and Services"). If any goods and services to be performed are not specifically listed in Exhibit A or herein but are reasonably necessary to accomplish the purpose of this Agreement, Contractor agrees to perform such goods and services at the direction and approval of the Authority. In the event of any conflict between the terms of Exhibit A and this Agreement, the terms of this Agreement shall control.
	Goods and Services must be provided at the times specified, and at the regularly scheduled intervals as outlined in the Request for Bid package.
2.	<u>COMPENSATION</u> . The Authority shall pay to the Contractor the prices stipulated in the Bid dated, hereto attached as <b>Exhibit B</b> ("Pricing"), as full compensation for Goods and Services. The total amount of payments by the Authority under this Agreement shall not exceed the amount identified in the Bid Form.
	The Authority shall pay the Contractor net 30 days upon receipt of an invoice and upon acceptance of Goods and Services in accordance with this Agreement.

Payments from the Authority will be delivered to the Contractor electronically or via first-class mail.

## 3. TERM OF AGREEMENT.

- a) The initial term of this Contract shall be for one (1) year, and may be renewed for four (4) one-year terms by mutual written consent by both parties with no changes in terms, conditions and bid prices.
- b) Unless otherwise specified in the applicable PO, termination of this Agreement shall not act to terminate or to cancel any PO which has been issued under this Agreement prior to the effective date of such termination of this Agreement. Any such issued PO shall remain in effect and governed by the terms and conditions of this Agreement until such time as the project or engagement initiated by such PO is completed, as determined by the Authority, or is terminated.
- 4. **RENEWAL ADJUSTMENTS.** The parties recognize that substantial changes in the economy of the nation may occur during the initial term of this Agreement and during each succeeding renewal period. Accordingly, the parties agree that the prices stipulated in the Bid Form ("Contract Price") may be adjusted on each succeeding renewal date of this Agreement in accordance with the Consumer Price Index (All Items, All Urban Consumers, 1982-1984=100), as published by the U.S. Department of Labor, Bureau of Labor Statistics ("CPI") for the calendar month preceding the month during which the renewal date falls, to the extent of change in the index as compared with the index number for the month of the commencement of this Agreement. Notwithstanding anything to the contrary herein, cost-plus pricing shall not be eligible for renewal adjustments.
- 5. **INITIATION OF INDIVIDUAL PROJECTS:** Each individual project shall begin with a Purchase Order ("PO"). The Contractor agrees to the terms and conditions contained in the PO; however, in the event of a conflict between the terms of this Agreement and the terms of the PO, the terms of this Agreement shall control.
- 6. WARRANTY ON SERVICES RENDERED. The Contractor warrants that the Contractor's services and workmanship provided under this Agreement shall be (i) free from defects for a period of two (2) years from the date of final acceptance of the good or service; (ii) performed as stipulated in the bid/proposal documents and conform to all specifications; (iii) performed by skilled personnel experienced in and capable of doing the kind of work assigned to them; and (iv) performed in accordance to all applicable federal, state, and local laws, regulations, rules, and policies. Upon receipt of written notice of a defect by the Authority, the Contractor shall repair the defect in a timely manner at no expense to the Authority.

## 7. WARRANTY ON GOODS PROVIDED.

- (a) The Contractor warrants the Contractor's goods provided under this Agreement for a period of two (2) years from the date of final acceptance of the good. Furthermore, the Contractor warrants and represents 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;
  - 2. all goods are merchantable, of good material and workmanship, and free from defect;
  - 3. the goods shall be delivered free of the rightful claim of any person arising from patent or trademark infringement; and
  - 4. the Contractor has absolute and good title to and full right to dispose of the goods, and that there are no liens, claims, or encumbrances of any kind against the goods.
- (b) The warranties provided for under subparagraph (a) of this Paragraph, together with the Contractor's service warranties and guarantees, if any shall survive inspection, test, acceptance of, and payment for the goods, 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; and provided, further, that the rights and remedies of the Authority concerning latent defects shall exist indefinitely. The Authority may, at its option, and in addition to other remedies available at law: (i) return defective or nonconforming goods 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 the 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 Paragraph 8 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.
- 8. **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 gods that conform to all requirements of the drawings, specifications and any other Contract Documents. At the Authority's request, 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.
- 9. <u>CONTRACTOR'S AFFIDAVITS</u>: 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.

## 10. **RELATIONSHIP OF THE PARTIES.**

(a) <u>Independent Contractors</u>. Nothing contained herein shall be deemed to create any relationship other than that of independent contractor between the Authority and the Contractor. This Agreement shall not constitute, create, or otherwise imply an employment, joint venture, partnership, agency or similar arrangement between the Authority and the Contractor. It is expressly agreed that the

- Contractor is acting as an independent contractor and not as an employee in providing Goods and Services under this Agreement.
- (b) Employee Benefits. The Contractor shall not be eligible for any benefit available to employees of the Authority including, but not limited to, workers' compensation insurance, state disability insurance, unemployment insurance, group health or life insurance, vacation pay, sick pay, severance pay, bonus plans, pension plans, or savings plans.
- (c) <u>Payroll Taxes</u>. No income, social security, state disability, or other federal or state payroll tax will be deducted from payments made to the Contractor under this Agreement. The Contractor shall be responsible for all FICA, federal and state withholding taxes, and workers' compensation coverage for any individuals assigned to perform the Services for the Authority.
- (d) Conformance with Laws. The Contractor shall perform Goods and Services in compliance with all applicable laws. The Contractor shall be responsible for the cost of obtaining, maintaining, and complying with, and paying all fees and taxes associated with, all applicable licenses, authorizations, consents, approvals, and permits required of the Contractor for Good and Services and in complying with this Agreement.
- 11. **ASSIGNMENT AND SUBCONTRACTING:** The Contractor shall not assign this Agreement or any portion of this Agreement, nor shall the Contractor subcontract 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.
- 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 cooperation operates, to relieve the Contractor from complete, proper and punctual performance of all the Contractor's obligations under this Agreement.
- 13. <u>WORK ON THE AUTHORITY'S DESIGNATED PREMISES</u>. 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 observer all security

requirements and all plant safety, plant protection, and traffic regulations.

- 14. **INDEMNIFICATION.** To the fullest extent permitted by law, the Contractor agrees to indemnify, defend, and hold harmless the Authority and its board members, directors, officers, officials, employees, agents, and legal representatives (collectively, the "Authority Indemnitees") from and against any and all liabilities, demands, losses, damages, fines, penalties, costs or expenses, including, but not limited to, reasonable attorney's fees and costs or fines or penalties charged by any governmental entity, incurred by the Authority or any Authority Indemnitees as a result of or arising out of (i) the wrongful misconduct or negligence, including, but not limited to, fraud, of Contractor or its employees, agents, or representatives in performing this Agreement; (ii) a material breach by Contractor of its covenants; or (iii) failure by Contractor or its employees, agents, or representatives to comply with all applicable federal, state, or local law, rule or regulation in connection with Goods and Services under this Agreement. Contractor expressly understands and agrees that any bond or insurance protection required by this Agreement, or otherwise provided by Contractor, shall in no way limit the responsibility to indemnify, keep and hold harmless and defend the Authority or Authority indemnitees as provided herein. These obligations provided for under this paragraph shall survive termination of this Agreement.
- 15. <u>RISK MANAGEMENT REQUIREMENTS</u>: 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.

## 16. **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 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 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.
- 17. **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.

- 18. **CONFLICTS OF INTEREST.** Contractor warrants and represents that:
  - (a) The Goods and Services performed under this Agreement will not create an actual or apparent conflict of interest with any other work Contractor is currently performing or may perform during the term of this Agreement;
  - (b) Contractor is not presently subject to any agreement with a competitor of the Authority or with any other party that will prevent Contractor from performing in full accord with this Agreement;
  - (c) Contractor is not subject to any statute, regulation, ordinance, or rule that will limit Contractor's ability to perform its obligations under this Agreement. The parties agree that Contractor shall be free to accept work other than work from the Authority during the term hereof; provided, however, that such other work shall not interfere with the provision of Services hereunder; and
  - (d) Contractor shall immediately notify the Authority in writing specifically disclosing any and all potential or actual conflicts of interests which arise or may arise during the execution of its work in the fulfillment of the requirements of the Agreement.
- 19. CONTRACTOR AS CONSULTANT AND CONFLICTS OF INTEREST. In addition to the duties and responsibilities set forth herein, in the event any work requires the Contractor to develop or draft specifications or requirements for a solicitation or to serve in a consultative role during a bid or proposal evaluation or negotiation process, the Contractor agrees to the following:
  - (a) The Contractor shall avoid any appearance of impropriety and shall follow all policies and procedures of the Authority.
  - (b) The Contractor shall not have any interest, nor shall the Contractor acquire any interest, directly or indirectly, which would conflict in any manner with the performance of consulting services required under such work.
  - (c) The Contractor shall immediately disclose to the Authority any material transaction or relationship, including, but not limited to, that of the Contractor, its employees, agents, or subsidiaries, that reasonably could be expected to give rise to a conflict of interest, including, but not limited to, past, present, or known prospective engagements; involvement in litigation or other dispute; client relationships; or other business or financial interest, and shall immediately disclose any material transaction or relationship subsequently discovered during the pendency of the contract or arrangement.

Contractor acknowledges that any violation or threatened violation of the provisions of this paragraph may cause irreparable injury to the Authority, entitling the Authority to seek injunctive relief in addition to all other legal remedies.

20. **DISPUTES.** Pending resolution of any dispute hereunder, the Contractor shall proceed diligently with the performance of work in accordance with the Authority's direction.

21. **NOTICES.** Any notices under this Agreement shall be in writing and sent to the respective party at the following address:

# To the Authority:

To the Contractor:

Attention: Purchasing Manager Clayton County Water Authority 1600 Battle Creek Road Morrow, Georgia 30260

Attention:	 	 	

Any notice sent pursuant to this paragraph shall be deemed delivered: (i) when delivered by hand or courier or by overnight delivery with signature receipt required; (ii) when sent by confirmed facsimile or email to a party with a copy sent by another means specified in this paragraph; or (iii) three (3) days after the date of mailing by United States certified mail, return receipt requested, postage prepaid. A party may change its address for communications by notice in accordance with this paragraph.

22. **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.

# 23. **CONFIDENTIAL INFORMATION.**

(a) <u>Disclosure of Confidential Information</u>. The Contractor acknowledges that the Contractor may have access to and become acquainted with confidential information, including, but not limited to, any information the disclosure of which is limited by state or federal law. Unless approved in advance and in writing or is required to be disclosed by court order, subpoena, or otherwise by law, neither the Contractor nor any of its employees shall disclose, transfer, distribute, or allow access to any confidential information of the other party to third parties. If the Contractor is required to disclose any information that it has access to or became acquainted with as a result of this Agreement, the Contractor shall provide the Authority with at least thirty-six (36) hours prior notice of its intent to disclose such information, describing the content of the information to be disclosed and providing a copy of the pleading, instrument, document, communication, or other written item compelling disclosure with the name, address, phone number, and email address of the person requesting disclosure.

- (b) Security Breach Notification. If the Contractor becomes aware of a security breach or any other event that compromises the security, confidentiality, or integrity of information that it has access to or became acquainted with as a result of this Agreement, the Contractor shall take appropriate actions to contain, investigate, and mitigate the security breach or other compromising event. The Contractor shall notify the Authority of a security breach or other compromising event as soon as reasonably possible, but in no event later than seventy-two (72) hours after the Contractor becomes aware of such security breach or other compromising event.
- (c) <u>Survival</u>. The obligations provided for under this paragraph shall survive termination of this Agreement.
- 24. GOVERNING LAW AND CONSENT TO JURISDICTION. This Agreement is made and entered into in the State of Georgia, and this Agreement and the rights and obligations of the parties hereto shall be governed by and construed according to the laws of the State of Georgia without giving effect to the principles of conflicts of laws. The jurisdiction for resolution of any disputes arising from this Agreement shall be in the State Court of Clayton County, Georgia.
- 25. **NON-WAIVER.** The failure by either party to enforce any provision of this Agreement shall not be construed as a waiver or limitation of that party's right to subsequently enforce and compel strict performance with every provision of this Agreement.
- 26. **SEVERABILITY.** If any provision of this Agreement is held to be unenforceable for any reason, the unenforceability thereof shall not affect the remainder of this Agreement, which shall remain in full force and effect, and enforceable in accordance with its terms.
- 27. <u>INTERPRETATION</u>. The Parties acknowledge that this Agreement and all the terms and conditions herein have been fully reviewed and negotiated by the Parties. Having acknowledged the foregoing, the Parties agree that any principle of construction or rule of law that provides that, in the event of any inconsistency or ambiguity, an agreement shall be construed against the drafter of the agreement shall have no application to the terms and conditions of this Agreement.
- 28. **AMENDMENTS.** Any and all modifications or changes to this Agreement must be in writing and signed by the parties to this Agreement.
- 29. **COUNTERPARTS.** This Agreement may be executed in multiple counterparts, each of which shall constitute the original, but all of which taken together shall constitute one and the same Agreement.
- 30. <u>ELECTRONIC SIGNATURES.</u> Pursuant to O.C.G.A. Section 10-12-7, this Agreement may be executed and delivered by the Parties by electronic transmission. For purposes of this Agreement, any page signed and transmitted electronically shall be treated as an original document, and the electronic signature of the Parties

- thereon, for purposes hereof, shall be considered as an original signature and the document transmitted electronically shall be considered to have the same binding effect as an original signature on an original document.
- 31. **ENTIRE AGREEMENT.** This Agreement, which includes the exhibits attached hereto, contains the entire agreement and understanding of the Parties with respect to the subject matter hereof, and supersedes and replaces any and all prior discussions, representations and understandings, whether oral or written. In case of conflict between any term of the Contractor's Bid/Proposal and this Agreement, the terms of this Agreement shall control unless otherwise stated herein.
- 32. **CAPTIONS.** The organization of this Agreement into articles, sections, paragraphs, or subparagraphs or the use of headings and subheadings are for convenience and reference only and will not modify or affect the meaning, interpretation, construction, or effect of this Agreement nor the rights, obligations, or liabilities of the parties under this Agreement.
- 33. CALCULATION OF TIME PERIODS. Unless otherwise provided herein, whenever this Agreement calls for or contemplates a period of time for the performance of any term, provision, or condition of this Agreement, all of the days in such period of time shall be calculated consecutively without regard to whether any of the days falling in such period of time shall be a Saturday, Sunday, or other non-business day; provided, however, if the last day of any period of time shall happen to fall on a Saturday or Sunday or legal holiday observed by the State of Georgia, the last day shall be extended to the next succeeding business day immediately thereafter occurring.

[SIGNATURES ON NEXT PAGE]

IN WITNESS WHEREOF thisda said parties have hereunto set their seals the d	
Executed on behalf of:	
CLAYTON COUNTY WATER AUTHORITY	CONTRACTOR
By: Name: Title:	By: Name: Title:
Attest: Name: Title:	Attest:Name:Title:

# EXHIBIT A SCOPE OF GOODS AND SERVICES

# EXHIBIT B PRICING

# EXHIBIT C RISK MANAGEMENT REQUIREMENTS

Division 3 Contract Forms

#### **Section 2: Performance Bond**

KNOW ALL MEN BY THESE PRESENTS THAT
(as CONTRACTOR, hereinafter referred to as the
Principal"), and(as SURETY COMPANY
nereinafter referred to as the "CONTRACTOR'S SURETY"), are held and firmly bound unt
he Clayton County Water Authority (as OWNER, hereinafter referred to as "CCWA"), for the
use and benefit of any "Claimant" as hereinafter defined in the sum o
Dollars (\$
awful money of the United States of America, for the payment of which the Principal an
he Contractor's Surety bind themselves, their heirs, executors, administrators, successor
and assigns, jointly and severally, firmly by these presents.
WHEREAS, the Principal has entered, or is about to enter, into a certain writte
agreement with CCWA, dated, which is incorporated herein b
reference in its entirety (hereinafter referred to as the "CONTRACT"), for the construction o
a project known as <u>Cured-In-Place Pipe Work Annual Contract</u> (hereinafter referred to a
the PROJECT").

# **NOW THEREFORE**, the conditions of this obligation are as follows:

That if the Principal shall fully and completely perform each and all of the terms, provisions and requirements of the Contract, including and during the period of any warranties or guarantees required thereunder, and all modifications, amendments, changes, deletions, additions, and alterations thereto that may hereafter be made; and if the Principal and the Contractor's Surety shall indemnify and hold harmless CCWA from any and all losses, liability and damages, claims, judgments, liens, costs and fees of every description, including but not limited to, any damages for delay, which CCWA may incur, sustain or suffer by reason of the failure or default on the part of the Principal in the performance of any and all of the terms, provisions and requirements of the Contract, including all modifications, amendments, changes, deletions, additions, and alterations thereto and any warranties or guarantees required thereunder, then this obligation shall be void; otherwise to remain in full force and effect:

In the event of a failure of performance of the Contract by the Principal, which shall include, but not be limited to, any breach of default of the Contract;

a. The Contractor's Surety shall commence performance of its obligations and undertakings under this Bond no later than thirty (30) days after written notice from CCWA to the Contractor's Surety;

b. The means, method or procedure by which the Contractor's Surety undertakes to perform its obligations under this Bond shall be subject to the advance written approval of CCWA.

The Contractor's Surety hereby waives notice of any and all modifications, omissions, additions, changes and advance payments or deferred payments in or about the Contract, and agrees that the obligations undertaken by this Bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, and advance payments or deferred payments. The Parties further expressly agree that any action on this Bond may be brought within the time allowed by Georgia law for suit on contracts under seal.

their corporate seals and caused or attorneys-in-fact, this		heir duly authorized officers			
(Name of Principal)	(Name	(Name of Contractor's Surety)			
By: Name Printed: Title:	Name Printed:				
Attest:  Name:  Date:	Date:				
[Corporate Seal]	[Corporate Seal]	1			

(ATTACH SURETY'S POWER OF ATTORNEY)

2025-SW-10 Cured-In-Place Pipe Work Annual Contract

Division 3 Contract Forms

### **Section 3: Payment Bond**

	KNOW ALL MEN	BY THESE PI	RESENTS 1	THAT				
(as	CONTRACTOR,	hereinafter	referred	to	as	the	"Principal"),	and
		(as	SURETY C	OMPA	ANY, ł	nereina	fter referred to	as the
100°	NTRACTOR'S SURE	TY"), are held	d and firmly	bound	d unto	the Cl	layton County	Water
Auth	ority (as OWNER, h	ereinafter refe	red to as "(	CCWA	"), for	the us	e and benefit	of any
"Clai	mant" as hereinafter	defined in the	sum of					
		Dolla	rs (\$		), lav	vful mo	oney of the	United
State	es of America, for the	payment of w	hich the Pr	incipal	and t	he Cor	ntractor's Sure	ty bind
them	selves, their heirs,	executors, ad	ministrators	, succ	essor	s and	assigns, joint	ily and
seve	rally, firmly by these	presents.						
WHE	<b>EREAS</b> , the Principal	has entered, o	or is about t	o ente	r, into	a certa	in written agre	ement
with	CCWA, dated		, which is	incor	porate	ed here	in by referenc	e in its
entire	ety (hereinafter referr	ed to as the "C	ONTRACT'	), for tl	ne cor	nstructio	on of a project	known
as <u>(</u>	Cured-In-Place Pip	e Work Anr	nual Contr	<u>act</u> (ł	nerein	after r	eferred to a	s "the
PRO	JECT").							

**NOW THEREFORE,** the condition of this obligation is such, that if the Principal shall promptly make payment to any Claimant, as hereinafter defined, for all labor, services and materials used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise to remain in full force and effect.

"Claimant" shall be defined herein as any subcontractor, person, party, partnership, corporation or other entity furnishing labor, services or materials used or reasonably required for use in the performance of the Contract, without regard to whether such labor, services or materials were sold, leased or rented, and without regard to whether such Claimant is or is not in privity of the Contract with the Principal or any subcontractor performing work on the Project.

In the event of any claim made by the Claimant against CCWA, or the filing of a Lien against the property of CCWA affected by the Contract, the Contractor's Surety shall either settle or resolve the Claim and shall remove any such Lien by bond or otherwise as provided in the Contract.

The Parties further expressly agree that any action on this Bond may be brought within the time allowed by Georgia law for suit on contracts under seal.

	e Principal and Contractor's Surety have hereunto ed this obligation to be signed by their duly authorized
officers on this day of	
(Name of Principal)	(Name of Contractor's Surety)
By:	By:
Name Printed:	Name Dintad
Title:	Title:
Attest:	Attest:
Name:	Name:
Date:	Date:
[Corporate Seal]	[Corporate Seal]

(ATTACH SURETY'S POWER OF ATTORNEY)

**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: 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: Name By: Name Title: Title: Sworn to and subscribed before me this day of , 20 Notary Public: My Commission expires:

Division 3

Division 3 Contract Forms

### Section 5: Certification of Absence of Conflict of Interest

Required for each contract or arrangement to prepare or develop specifications or requirements (O.C.G.A. § 36-80-28)

The undersigned Contractor (Consultant), who is entering into a contract or arrangement with the Clayton County Water Authority (CCWA) to prepare or develop specifications or requests for bids, requests for proposals, purchase order, or any other type of solicitation for CCWA, by signing below acknowledges and certifies to follow the requirements below:

- (1) Contractor shall avoid any appearance of impropriety and shall follow all of CCWA's policies and procedures related to the project.
- (2) Contractor shall immediately disclose to CCWA any material transaction or relationship, including, but not limited to the Consultant, Consultant's employees, agents or subsidiaries, that reasonably could be expected to give rise to a conflict of interest, including, but not limited to, past, present, during the pendency of the contract or arrangement, or known prospective engagements, involvement in litigation or other dispute, client relationships, or other business or financial interest.
- (3) Contractor acknowledges that any violation or threatened violation of the agreement may cause irreparable injury to CCWA entitling CCWA to seek injunctive relief in addition to all other legal remedies.

Any person may bring an action to declare null and void any purchase in violation of this Code section or to seek injunctive relief and damages against a person who makes any type of solicitation in violation of this Code section.

DISCLOSURES (Write "N/A" if No	on-Applicable):
Name of Contractor	Name of Contractor's Authorized Official
	Signature of Contractor's Authorized Official
	Date

# **Section 1: Work Assignment and Measurement for Payment**

#### 1.1 General

A. The Contractor shall provide all labor, equipment, tools, materials (unless indicated otherwise as detailed in Division 4, Section 2) and incidental items to complete the Work Items in accordance with the Contract Documents.

- B. The basis for payment will be the bid unit cost amounts included in the "Pay Item Schedule" and the actual quantities of work completed by the Contractor and approved by the CCWA.
- C. Nothing in this Section shall be construed as providing for additional payment beyond the Work Items. The Contractor shall be paid only for the quantity of a Work Item that is completed and authorized/approved by CCWA. No payment will be made for the completion of excessive quantities of a Work Item as determined by the CCWA.
- D. The CCWA reserves the right to adjust the quantity of a Work Item up or down as necessary to address needs. Work Items and quantities of a Work Item not completed will be removed from the Project Work Order.

# 1.2 Work Assignment

A. Work to be performed under this annual contract will be assigned on an as needed when needed basis as determined by the CCWA in the form of a Project Work Order.

## Project Set-Up for Non-Emergency Work

- 1. CCWA shall prepare draft work items and quantities for Contractor review.
- Contractor shall provide comments on the draft work items and quantities to CCWA within 7 calendar days of issuance by CCWA in order that a Project Work Order can be issued or mutually agreed upon start date.
- 3. Contractor shall commence work on-site within 7 calendar days of receipt of a Project Work Order.

# Project Set-Up for Emergency Work

- 1. CCWA shall prepare draft work items and quantities for Contractor review.
- 2. Contractor shall provide comments on the draft work items and quantities to CCWA within 24 hours of notice of emergency mobilization by CCWA in order that a Project Work Order can be issued.
- 3. Contractor shall commence work on-site within 24 hours of notice of emergency mobilization by CCWA. CCWA shall issue Project Work Order prior to or concurrently with the start of work. A Project Work Order will be for work

items that are in a common geographic location. A common geographic location may be considered a sanitary sewer drainage basin, business/industrial park, city block or residential subdivision.

B. Work of a Project Work Order shall be completed within the number of consecutive work days mutually agreed to by the Contractor and the CCWA prior to the start of the work. Unless approved by the CCWA in advance, the Contractor shall not leave the work site to complete work for others.

# 1.3 Application for Payment Submittals

- A. An application for payment (invoice) shall conform to requirements provided by CCWA. CCWA will provide a template as a go-by.
- B. Provide document(s) to support each invoice for payment as follows. An invoice can be submitted to CCWA once per week per job.
  - 1. Provide one (1) copy of the invoice.
  - 2. Provide one (1) copy of the applicable Waiver and Release Upon Payment Affidavit with original signatures.
  - 3. Additional items to be included with each invoice are as follows.
    - a) Manufacturer's warranty.
    - b) Post CIPP CCTV data.
    - c) Field and lab test data, as authorized.
    - d) Cure logs (Typed).

#### 1.4 Work Items and Measurement

- A. The descriptions below provide an explanation of the work that is to be completed as part of each Work Item and how the Work Item will be measured for payment.
  - 1. Work Item descriptions incorporate work shown on the Construction Details or Construction Drawings/Detailed Site Map when applicable and all related work/specifications referenced in Division 4, Section 3.
  - 2. The Work Items correspond to the Work Items listed on the "Pay Item Schedule" of the Bid Form.

**Work Item 1. Mobilization:** Defined as the Contractor's administrative and preparatory operations which are necessary to initiate and start work on a project site within 7 calendar days of issuance of a Project Work Order. The Work Item will be paid at (2%) two percent of the total value of Work Items completed for a Project Work Order as authorized/approved by CCWA with a not to exceed amount of \$2,000.00 for any Project Work Order. The costs for demobilization, and re-mobilizations due to

shut downs or suspensions of the work caused by the Contractor shall not be compensated. When the Contractor expends administrative and preparatory labor time to assess a project at the request of the CCWA and no subsequent Project Work Order is authorized by CCWA, the Contractor will be entitled to receive compensation for said hourly labor only in accordance with Hourly Labor Work Items.

Work Item 2. Emergency Mobilization: Defined as the Contractor's administrative and preparatory operations which are necessary to arrive on-site and initiate and start work on a project site within 24 hours of a notice of an Emergency Mobilization request. The Work Item will be paid for a Project Work Order in accordance with the Pay Item Schedule and applicable Detail when authorized/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. When the Contractor expends administrative and preparatory labor time to assess a project at the request of the CCWA and no subsequent Project Work Order is authorized by CCWA, the Contractor will be entitled to receive compensation for said hourly labor only in accordance with Hourly Labor Work Items.

**Work Item 3. Performance and Payment Bonds:** Defined as the Contractor obtaining and providing to the CCWA Performance and Payment Bonds in the required amounts for a Public Works project costing \$100,000 or more in value. This Work Item will be paid for a Project Work Order in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Item 4. PE Stamped Design Calculations: Defined as all the Contractor's cost which are necessary to provide CIPP design calculations in accordance with the reference standards prepared and stamped by an independent, third party, licensed professional engineer experienced with the work. The Work Item will be paid for a Project Work Order in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

**Work Items 5 – 24. Pumping:** Defined as the Contractor providing, operating and maintaining a complete pumping system that includes pumps, suction/discharge piping, pipe plugs, coffer dams, fuel, etc. of the minimum size to meet peak flow conditions for by-pass flow purposes. Where Single is indicated, one pumping system is to be provided. Where Redundant is indicated, one additional pumping system of the same size and equipped with automatic calling features is to be provided and integrated with the Single Pump. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

**Work Items 25 - 26. CCTV (Sanitary Sewer Pipe):** Defined as the Contractor removing and re-installing (at surface grade) existing structures' ring and covers, catch basin tops or solid tops as necessary, completing a CCTV inspection of sanitary

sewer pipe using Pipeline Assessment and Certification Program<sup>©</sup> (PACP) practices, or view the pipe using only video. The Work Item includes the removal and proper disposal of all soil, silt, rocks, other granular material, grease, roots, scale, as well as other foreign debris from the pipeline using three (3) passes of appropriate water jet cleaning nozzles that produce a maximum pressure of 2,500 pounds per square inch (psi) at 80 gallons per minute (gpm). The work will be completed so that no materials are allowed to pass beyond the downstream structure of the authorized work. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail with cost based on a minimum two-man crew using either the "With PACP Assessment" or using the "Without PACP Assessment" as measured in the pipe horizontally from where the pipe starts to where the pipe ends and as accepted/approved by CCWA.

Work Items 27 - 28. CCTV (Stormwater Pipe): Defined as the Contractor removing and re-installing (at surface grade) existing structures' ring and covers, catch basin tops or solid tops as necessary, completing a CCTV inspection of stormwater pipe using Pipeline Assessment and Certification Program<sup>©</sup> (PACP) practices, or view the pipe using only video. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail with cost based on a minimum two-man crew using either the "With PACP Assessment" or using the "Without PACP Assessment" as measured in the pipe horizontally from where the pipe starts to where the pipe ends and as accepted/approved by CCWA.

**Work Item 29. CCTV (Standby):** Defined as the Contractor remaining on-site idle in order to complete CCTV inspection work. Remaining on-site idle shall only be performed at the request of the CCWA. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail with cost based on time remaining on-site idle and as accepted/approved by CCWA.

Work Items 30 - 35. Heavy Cleaning (Sanitary Sewer Pipe) – Up to 60-inch Diameter: Defined as the Contractor removing and re-installing (at surface grade) existing structures' ring and covers, tops as necessary, completing the removal and proper disposal of all soil, silt, rocks, other granular material, grease, roots, scale and as well as other foreign debris from the pipe that remains in the pipe after completing three (3) passes of appropriate water jet cleaning nozzles that produce a maximum pressure of 2,500 psi at 80 gpm. The work will be completed so that no materials are allowed to pass beyond the downstream structure of the authorized work. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as measured in the pipe horizontally from where Heavy Cleaning starts to where cleaning equipment and debris is removed from within the pipe and as accepted/approved by CCWA. Heavy cleaning shall only be performed at the request of the CCWA.

Work Items 36 - 50. Cleaning (Stormwater Pipe) - Up to 48-inch Diameter: Defined as the Contractor removing and re-installing (at surface grade) existing structures' ring and covers, catch basin tops or solid tops as necessary, completing the removal and proper disposal of all soil, silt, rocks, other granular material, roots and as well as other debris from the pipe. The complete removal will include a final water rinse of the pipe. The work will be completed so that no materials are allowed to pass beyond the downstream structure of the authorized work. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail with percent (%) of diameter determined by measuring the depth of soil/debris in the pipe as compared to pipe's diameter prior to the start of cleaning and linear footage as measured in the pipe horizontally from where cleaning starts to where cleaning stops in the pipe and as accepted/approved by CCWA. The percent (%) of pipe diameter selected to be cleaned for a particular pipe shall be effective throughout the length of that pipe segment without adjustment after cleaning has commenced.

Work Item 51. Cleaning (Stormwater Pipe) – Larger than 48-Inch Diameter: Defined as the Contractor removing and re-installing (at surface grade) existing structures' ring and covers, catch basin tops or solid tops as necessary, completing the removal and proper disposal of all soil, silt, rocks, other granular material, roots and all other debris from the pipe. The complete removal will include a final water rinse of the pipe. The work will be completed so that no materials are allowed to pass beyond the downstream structure of the authorized work. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail with cost based on a minimum two-man crew removing debris from the pipe and as accepted/approved by CCWA.

Work Items 52 - 53. Cleaning Structure: Defined as the Contractor removing and re-installing (at surface grade) existing structures' ring and covers, catch basin tops or solid tops as necessary, completing the removal and proper disposal of all soil, silt, rocks, other granular material, roots and all other debris from the structure. The work will be completed prior to initiation of any work upstream of the structure being cleaned. Work shall be completed so that no materials are allowed to pass downstream of the structure being cleaned. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail with depth being measured from the top of structure to structure invert and quantity of soil/debris removed based on the total in-place cubic footage of material as measured in the structure and as accepted/approved by CCWA.

**Work Items 54 - 67. Pre-Liner:** Defined as the Contractor installing a pre-liner to properly prepare the host pipe for CIPP installation. Pre-liners may also be used as recommended by the Contractor and as approved by the CCWA to control leakage and allow installation of the CIPP. The Work Items will be paid in accordance with the

Pay Item Schedule and applicable Detail as measured in the pipe horizontally from where the pipe starts to where the pipe ends and as accepted/approved by CCWA.

**Work Item 68. Reinstatement of Existing Services:** Defined as the Contractor locating, cutting, trimming and reconnecting an existing service connection after the completion of CIPP. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 69 – 72. Cured-In-Place Pipe Service Laterals: Defined as the Contractor installing and curing the CIPP service lateral, inspecting and returning the pipe line to service. The Work Item will be paid for the connection to the sewer main and first six linear feet of lateral CIPP in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA. The Work Items will be paid for additional linear footage beyond six linear feet in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

**Work Items 73 – 122. Cured-In-Place Pipe:** Defined as the Contractor completing the following work:

- a) Provide CIPP design calculations prepared under the supervision of a licensed Professional Engineer in accordance with the reference standards.
- b) Remove and re-install ring and covers, catch basin tops or solid tops as necessary.
- c) Cut and prepare ends of pipe within structures as necessary to successfully install required materials.
- d) Remove and properly dispose of all soil, silt, rocks, other granular material, grease, roots, scale, as well as other foreign debris from the pipeline using three (3) passes of appropriate water jet cleaning nozzles that produce a maximum pressure of 2,500 pounds per square inch (psi) at 80 gallons per minute (gpm). The work will be completed so that no materials are allowed to pass beyond the downstream structure of the authorized work and complete pre-CCTV for documentation.
- e) Plug upstream pipes as necessary when flow bypass pumping is not utilized.
- f) Install and cure the CIPP.
- g) Complete post CCTV inspections of the work.
- h) Collect and deliver samples for testing as directed by CCWA, provide submittals and return the pipeline to service.
- i) Remove from site and dispose of all associated waste material.

The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as measured in the pipe horizontally from where the pipe starts to the where the pipe ends and as accepted/approved by CCWA. Where design calculations indicate a change in thickness from the base thickness, then the per linear foot cost of the base thickness will be modified on a per "linear foot" unit cost in accordance with the Pay Item Schedule and applicable Detail as measured in the pipe horizontally from where the pipe starts to the where the pipe ends and as accepted/approved by CCWA.

Work Items 123 – 186. Centrifugally Cast Concrete Pipe: Defined as the Contractor completing the following work:

- a) Provide CCCP design calculations prepared under the supervision of a licensed Professional Engineer in accordance with the reference standards.
- b) Remove and re-install ring and covers, catch basin tops or solid tops as necessary.
- c) Cut and prepare ends of pipe within structures as necessary to successfully install required materials.
- d) Remove and properly dispose of all soil, silt, rocks, other granular material, grease, roots, scale, as well as other foreign debris from the pipeline using three (3) passes of appropriate water jet cleaning nozzles that produce a maximum pressure of 2,500 pounds per square inch (psi) at 80 gallons per minute (gpm). The work will be completed so that no materials are allowed to pass beyond the downstream structure of the authorized work and complete pre-CCTV for documentation.
- e) Plug upstream pipes as necessary when flow bypass pumping is not utilized.
- f) Install and cure the CCCP.
- g) Complete post CCTV inspections of the work.
- h) Collect and deliver samples for testing as directed by CCWA, provide submittals and return the pipeline to service.
- i) Remove from site and dispose of all associated waste material.

The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as measured in the pipe horizontally from where the pipe starts to where the pipe ends and as accepted/approved by CCWA. Where design calculations indicate a change in thickness from the base thickness, then the per linear foot cost of the base thickness will be modified on a per "linear foot" unit cost in accordance with the Pay Item Schedule and applicable Detail as measured in the pipe horizontally from where the pipe starts to the where the pipe ends and as accepted/approved by CCWA.

**Work Items 187 - 190. Sampling and Testing:** Defined as the Contractor preparing samples, delivering samples to the independent testing laboratory and providing certified report results for material, structural/flexural, thickness, etc. properties in accordance with the reference standards.

For pipelines up to 15-inches in diameter, field samples shall be based on taking a restrained sample of the actual CIPP as installed and cured in situ with the new CIPP. Samples for CIPP larger than 15-inch diameter shall be based on taking plate samples. Thickness testing for CIPP larger than 15-inch diameter and supplemental thickness testing as directed by CCWA shall be based on core drilling a minimum 2-inch diameter test coupon in the installed CIPP; repair of the core drilling shall be included in the Pay Item cost. Field sampling and third-party independent laboratory testing shall be provided as directed by the CCWA.

For CCCP, a minimum of six (6) cylinder samples are to be taken at a position as close as practical to the discharge and placement point of the mixture on the pipe. CCCP thickness verification can be done with a mass balance calculation where you calculate the amount of material that went in over the surface area to get an average depth. Small indicator tabs or screws can be attached to the structure to verify the property thickness is achieved. These are positioned to be just below the specified thickness and are left in place when sprayed over. Field sampling and third-party independent laboratory testing shall be provided as directed by the CCWA.

The Work Items will be in accordance with the Pay Item Schedule and applicable Detail and as accepted/approved by CCWA. No payment will be made for samples for work that is not accepted/approved by CCWA.

Work Items 191. Brush Removal: Defined as the Contractor removing from the work site and disposing brush, undergrowth, small trees, limbs, stumps, tap roots and other roots exceeding 1-inch in diameter to a depth of at least 18 inches. A small tree is considered any tree or plant growth less than 4 inches in diameter as measured 54 inches up from adjacent bare ground surface. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 192 - 195. Tree Removal: Defined as the Contractor removing from the work site and disposing, trees, limbs, stumps, tap roots and other roots exceeding 1-inch in diameter to a depth of at least 18 inches. A tree is considered a tree when its diameter is 4 inches or greater as measured 54 inches up from adjacent bare ground surface. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 196 – 199. Fence Work: Defined as the Contractor removing chain-linked fencing, wired fencing, wood privacy fencing and posts and disposing or subsequent reinstallation. Where reinstallation is required, Contractor shall provide necessary fasteners to match existing to complete the work. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 200 - 203. General Excavation: Defined as the Contractor completing the excavation of soils and/or removal of structures, pipe and/or removal of debris to a required grade, dewatering as necessary and stockpiling or disposing. The Work Items may only be used when work cannot be completed through other Work Items of the Contract. The depth of work shall be determined by measuring from original ground surface to bottom of excavation. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 204 – 208. General Fill/Backfill: Defined as the Contractor placing soil and/or stone of varying sizes as listed in the Pay Item Schedule in excavations or other areas and dewatering as necessary or reinstalling previously removed structures. When placing soil, soil will be compacted to 95% of its maximum dry density as determined by a Standard Proctor Analysis. The Work Items may only be used when work cannot be completed through other Work Items of the Contract. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 209 - 217. Stone Placement: Defined as the Contractor placing stone of varying sizes as listed in the Pay Item Schedule to construct and/or add to sloped grade, access road or parking area at requested layer thickness. Stone shall be compacted using vibratory equipment. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Item 218. Geotextile Fabric Installation: Defined as the Contractor installing and anchoring geotextile fabric at a requested location. Geotextile Fabric shall be of woven or nonwoven fabric materials used to reinforce or separate soil and other materials. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 219 - 221. Sediment Barrier: Defined as the Contractor installing silt fence or hay bales as requested in accordance with "The Manual for Erosion and Sediment Control in Georgia", latest Edition. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Item 222. Sediment Barrier Removal: Defined as the Contractor removing and disposing sediment barriers and stabilizing any subsequent disturbed soil in accordance with Work Items "Soil Stabilization", as applicable. The Work Item will be paid in accordance with the Pay Item Schedule and applicable as authorized/approved by CCWA.

Work Items 223 - 227. Soil Stabilization: Defined as the Contractor returning the disturbed soil grade to match existing conditions, removing and disposing all rocks and dirt clogs 3/4-inch in size and larger and installing straw mulch, seed and straw mulch, seed and matt blanket or sod to match existing grass type. Soil stabilization measures shall include lime and fertilizer and shall be installed in accordance with "The Manual for Erosion and Sediment Control in Georgia", latest Edition. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 228 - 232. Remove Asphalt Pavement: Defined as the Contractor saw cutting through asphalt surfaces, removing asphalt pavement from work site and disposing. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 233 - 238. Remove Concrete Flat Work: Defined as the Contractor saw cutting through concrete surfaces, removing concrete from work site and disposing. The Work Items shall be used where asphalt material is found to be over concrete material. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Item 239. Pavement Striping: Defined as the Contractor installing painted line of the appropriate color to asphalt and concrete surfaces of parking lots and roads. The Contractor shall provide a water-based paint, fast dry, formulated for pavement application; dry to the touch in 5 minutes, ready for traffic in 15 minutes. Sufficient paint shall be applied so that no asphalt or concrete color is visible through paint. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Item 240. Pavement Marking: Defined as the Contractor installing painted handicap symbol, complying with Figure 3B-22 of the Manual on Uniform Traffic Control Devices, of the appropriate color to asphalt and concrete surfaces of parking lots. The Contractor shall provide a water-based paint, fast dry, formulated for pavement application; dry to the touch in 5 minutes, ready for traffic in 15 minutes. Sufficient paint shall be applied so that no asphalt or concrete color is visible through paint. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

**Work Item 241. Pressure Washing:** Defined as the Contractor using a minimum 3,500 psi pressure washer and removing soil / mud and stains from asphalt and concrete surfaces. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 242 - 243. Remove Concrete Structure: Defined as the Contractor removing a subgrade concrete structure from work site and disposing. The Work Items will be paid on a per "in-place cubic foot" (CF) unit cost or on a per "square foot" (SF) unit cost in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 244 - 245. Remove Brick Structure: Defined as the Contractor removing a subgrade brick structure from work site and disposing. The Work Items will be paid on a per "in-place cubic foot" (CF) unit cost or on a per square foot (SF) unit cost in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 246 – 247. Asphalt Patching: Defined as the Contractor preparing and compacting existing stone base and installing/compacting to a final 3-inch thick layer of Type E asphalt. Where a more or less than 3-inch thick layer of asphalt is required, layer shall be added or reduced in 1-inch thick increments. Comply with "Typical Asphalt Replacement" Detail. The Work Item will be paid in accordance with the Pay Item Schedule and applicable Detail as accepted/approved by CCWA. Where more or less asphalt is required the Work Item will be paid on a per "square foot" unit cost in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 248 – 249. Asphalt Paving: Defined as the Contractor preparing and compacting existing stone base and using a mechanical/hydraulic spreader machine and vibratory roller to install/compact to a final 3-inch thick layer of Type E asphalt. Where a more or less than 3-inch thick layer of asphalt is required, layer shall be added or reduced in 1-inch thick increments. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as accepted/approved by CCWA. Where more or less asphalt is required the Work Item will be paid on a per "square foot" unit cost in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 250 – 251. Concrete Curb and Gutter: Defined as the Contractor preparing ground surface, installing necessary formwork and placing commercial grade 3,000 psi concrete. Control joints shall be installed at interval spacing not to exceed 10 feet. Control joints shall be installed by hand tooling during finishing. Concrete shall be finished with a brush finish parallel to road direction. Upon completion, formwork, wasted concrete and other debris shall be removed from the

work site and disposed. Comply with "Slab-On-Grade" Detail. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 252 - 259. Concrete Slab-On-Grade: Defined as the Contractor excavating to grade where necessary, preparing ground surface, installing necessary formwork, installing wire mesh or steel reinforcing as requested by CCWA and placing commercial grade 3,000 psi concrete of varying thickness and area to a required grade. Placed concrete shall be vibratory consolidated prior to finishing. Control joints shall be installed at interval spacing of 1-1/2 times slab width or at maximum spacing of 10 feet, whichever is closer. Control joints, ¼ of slab thickness, shall be installed by hand tooling during finishing or saw cut within 24 hours of initial placement. Concrete exposed to walking traffic shall be finished with a brush finish perpendicular to walking direction. Concrete not exposed to walking traffic shall be finished with a smooth steel trowel finish. Upon completion, formwork, wasted concrete and other debris shall be removed from the work site and disposed. The "Wire Mesh" description is for 4x4 – W2.1xW2.1 wire mesh. The "Steel Reinforcement" description is for No. 4 or No. 5, Grade 60 bars spaced at 6 inches on-center each way supported on chairs and secured using tie wire. Install reinforcement in accordance with the Concrete Reinforcement Steel Institute (CRSI) manual for placing reinforcing bars, latest edition. Comply with "Slab-On-Grade" Detail. The Work Items for concrete will be paid on a per "square foot" (SF) unit cost in accordance with the Pay Item Schedule and applicable depth Detail as authorized/approved by CCWA. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 260 - 499. Pipe Installation - Open Cut: (CCWA Provides Pipe, Gaskets and Necessary Fittings and Contractor Delivers to Site) Defined as the Contractor completing excavation work to the required depth, cutting and removing existing pipe of various types from excavation and disposing as necessary, installing required bedding, installing PVC, DI, RC, HDPE, or CM pipe, solid sleeves / couplings or fittings of requested size at necessary grade, making all necessary connections and completing excavation backfill to original grade with soil compacted to 95% of its maximum dry density. Comply with "Pipe Installation on Grade – PVC and HDPE" Detail, "Pipe Installation on Grade - DI, RC, CM" Detail and "Lateral Connection" Detail. Gaskets for piping shall be standard rubber or Field-Lock®. Where Point Repair is indicated, up to 20 feet (length) of pipe and/or including a service connection at a single location is to be installed. Where Additional Footage is indicated, pipe is installed at a linear footage beyond 20 feet. The depth of work shall be determined by measuring from original ground surface to bottom of excavation and along the length of the excavation. Linear foot shall refer to the length of pipe installed including connecting couplings. The Work Items detailed as "Point Repair" will be paid on a per "each" unit cost in accordance with the Pay Item Schedule and applicable depth Detail as authorized/approved by CCWA. The Work Item "Additional Footage" will be paid on a per "linear foot" unit cost in accordance with the Pay Item Schedule and applicable depth Detail as authorized/approved by CCWA.

**Work Items 500 - 501. Internal Point Repair:** Defined as the Contractor completing the reshaping of pipe (up to ten feet per repair as measured longitudinally, upstream to downstream) or the removal of a protruding pipe from another pipe and disposing of debris. The Work Items will be in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 502 – 505. Flared End Section Installation: (CCWA Provides Material and the Contractor Delivers to Site) Defined as the Contractor completing excavation to grade and removing existing flared end section as may be required and disposing, installing a new flared end section or repositioning an existing flared end of RC, HDPE or Metal and of the indicated size and backfilling excavation to original grade with soil compacted to 95% of its maximum dry density. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 506 – 518. Precast Headwall Installation: (CCWA Provides Precast Headwall Material and Contractor Delivers to Site) Defined as the Contractor completing excavation to grade and removing existing headwall as may be required and disposing, installing a new precast concrete headwall or repositioning an existing precast concrete headwall of the indicated size and backfilling excavation to original grade with soil compacted to 95% of its maximum dry density. Where a double barrel headwall is to be installed, this Work Item may be used, and the work will be considered as two installations. Contractor shall provide and install brick and mortar to seal annular space between headwall and piping and/or space between adjacent headwall sections. Brick shall conform to ASTM C32-11, Grade MS and MM, plain textured surface. Mortar shall conform to ASTM C270, Type S. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 519 – 533. Precast Manhole Installation: (CCWA Provides Precast Manhole and Contractor Delivers to Site) Defined as the Contractor completing excavation to required grade, dewatering as necessary, installing precast concrete manhole of requested size and backfilling excavation to original grade with soil compacted to 95% of its maximum dry density. Contractor shall provide and install mortar to seal lift holes and sectional joints. Where applicable, Contractor shall provide and install brick and mortar to seal annular space between manhole and piping and/or space between adjacent headwall sections. Brick shall conform to ASTM C32-11, Grade MS and MM, plain textured surface. This Work Item may also

be used to excavate and install additional riser sections or remove / replace riser sections. Comply with "Manhole Sections" Detail and "Dog House Manhole" Detail. Where Constructed Height is indicated, height is measured from top of structure to structure's invert. For the first 6 Feet of completed structure, the Work Items will be paid on a per "each" unit cost in accordance with the Pay Item Schedule and applicable Detail as accepted/approved by CCWA. For additional height over 6 feet, the Work Items will be paid on a per "vertical foot" unit cost in accordance with the Pay Item Schedule as authorized/approved by CCWA.

Work Items 534 – 537. Concrete Catch Basin Single and Double Wing Top Slabs and Spillways (GA DOT): (CCWA Provides Ring and Cover and Contractor Delivers to Site) Defined as the Contractor excavating to grade where necessary and preparing ground surface for a spillway, installing necessary formwork, ring and cover, steel reinforcement and placing commercial grade 4,000 psi concrete to sizes in accordance with Georgia Department of Transportation (GA DOT) standards for a basin top slab and a basin spillway. Placed concrete shall be vibratory consolidated prior to finishing. Concrete for spill way shall be finished smooth. Concrete for top slab shall be finished with a brush finish. Upon completion, formwork, wasted concrete and other debris shall be removed from the work site and disposed. Steel reinforcement shall be No. 5, Grade 60 bars spaced at 6 inches on-center each way, supported on wire chairs and secured using annealed tie wire; other No. 3 bar reinforcement as required. Install reinforcement in accordance with the CRSI manual for placing reinforcing bars, latest edition. Comply with "GA DOT 1033D" and "GA DOT 1034D" Details; catch basin top slab and spillway with protruded back is not applicable. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 538 – 539. Concrete Catch Basin Top Slabs and Spillways Varying Sizes: (CCWA Provides Ring and Cover and Contractor Delivers to Site) Defined as the Contractor excavating to grade where necessary and preparing ground surface for a spillway, installing necessary formwork, ring and cover, steel reinforcement and placing commercial grade 4,000 psi concrete to varying sizes in general accordance with GA DOT standards for a basin spillway and a basin top. Placed concrete shall be vibratory consolidated prior to finishing. Concrete for spill way shall be finished smooth. Concrete for top slab shall be finished with a brush finish. Upon completion, formwork, wasted concrete and other debris shall be removed from the work site and disposed. Steel reinforcement shall be No. 5, Grade 60 bars spaced at 6 inches oncenter each way, supported on wire chairs and secured using annealed tie wire; other No. 3 bar reinforcement as required. Install reinforcement in accordance with the CRSI manual for placing reinforcing bars, latest edition. Comply in general with "GA DOT 1033D" and "GA DOT 1034D" Details. The Work Items will be paid in

accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

**Work Item 540. Catch Basin Spillway Throat:** Defined as the Contractor excavating to grade where necessary, preparing ground surface, installing necessary formwork and placing commercial grade 3,000 psi concrete. Concrete shall be finished with a brush finish perpendicular to road direction. Upon completion, formwork, wasted concrete and other debris shall be removed from the work site and disposing. Comply with "GA DOT 1033D" and "GA DOT 1034D" Details. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 541 – 543. Concrete Structure Top / Lid: (CCWA Provides Ring and Cover or Hatch and Contractor Delivers to Site) Defined as the Contractor installing necessary formwork, steel reinforcing, ring and cover or hatch and placing commercial grade 4,000 psi concrete of varying thickness and sizes over an existing structure. Placed concrete shall be vibratory consolidated prior to finishing. Concrete shall be finished with a brush finish. Upon completion, formwork, wasted concrete and other debris shall be removed from the work site and loaded for disposal. Steel reinforcement shall be No. 4 or No. 5, Grade 60 bars spaced at 6 inches on-center each way, supported on wire chairs and secured using annealed tie wire. Install reinforcement in accordance with the CRSI manual for placing reinforcing bars, latest edition. Comply with "Concrete Structure Top / Lid" Detail, "Reinforcement in Top / Lid at Circular Opening" and "Reinforcement in Top / Lid at Rectangular Opening". The area of a ring and cover or hatch is not deducted from the overall square footage. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 544 - 547. Concrete Core: Defined as the Contractor coring a hole of a requested size through existing concrete / steel reinforced concrete of varying thicknesses, removing concrete core piece and disposing and installing a Kor-N-Seal manhole to pipe connector or other seal required for the work. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 548 – 551. Brick Work Wall Construction: Defined as the Contractor installing brick and mortar to form walls of varying thickness and constructing boxes / vaults of requested sizes. Brick shall conform to ASTM C32-11, Grade MS and MM, plain textured surface. Mortar shall conform to ASTM C270, Type S. The "Brick Deep Wall Construction" description indicates the number of bricks used to construct the depth of the wall. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 552 - 553. Ring and Cover Installation: (CCWA Provides Ring and Cover and Contractor delivers to Site) Defined as the Contractor installing traffic rated or non-traffic rated cast iron ring and cover, setting ring to grade in formwork or with brick and mortar on structure as required, grouting ring to structure or brick work and backfilling excavation to original grade with soil compacted to 95% of its maximum dry density. Brick shall conform to ASTM C32-11, Grade MS and MM, plain textured surface. Mortar shall conform to ASTM C270, Type S. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 554 – 555. Manhole/Structure Invert Construction: Defined as the Contractor installing concrete or brick and mortar channels of the necessary shape and size in manholes to direct flow. Concrete shall be commercial grade 3,000 psi compressive strength. Brick shall conform to ASTM C32-11, Grade SS and SM, smooth surface on both ends and face side. Mortar shall conform to ASTM C270, Type S. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 556 - 558. Cementitious Invert Lining: Defined as the Contractor placing minimum 5,000 psi (24-hour compressive strength) grout, filling voids and lining pipe invert with a consistent grout cross-section to stabilize pipe's structural capacity such that pipe may still receive CIPP, removing and disposing any waste material. The "Grout Mixed By Hand" description is where mixture is provided in a sack, water is added at the work site and mixture and water are combined and mixed together using hand tools; cubic foot quantity is indicated on the sack. The "Grout Mixed By Plant" description is where mixture and water are combined at a plant and mixed in a cement truck. The "Pump Mobilization" description is where a pump is utilized to place grout. The Work Item Detail "Grout Mixed By Hand" will be paid on a per "cubic foot" unit cost in accordance with the Pay Item Schedule as accepted/approved by CCWA. The Work Item Detail "Grout By Plant Mixing" will be paid on a per "cubic yard" unit cost in accordance with the Pay Item Schedule as accepted/approved by CCWA. The Work Item Detail "Pump Mobilization" will be paid once for a Project Work Order on a per "each" unit cost in accordance with the Pay Item Schedule as authorized/approved by CCWA.

Work Items 559 – 561. Cementitious Grouting: Defined as the Contractor installing necessary piping and/or bulk heads to facilitate the work, placing minimum 200 psi grout and completely filling pipe, repairing pipe invert, swiping joints, swiping annular space between host pipe and structure or other work as may be necessary and disposing any waste material. The "Grout Mixed By Hand" description is where mixture is provided in a sack, water is added at the work site and mixture and water are combined and mixed together using hand tools; cubic foot quantity is indicated

on the sack. The "Grout Mixed By Plant" description is where mixture and water are combined at a plant and mixed in a cement truck. The "Pump Mobilization" description is where a pump is utilized to place grout. The Work Item Detail "Grout Mixed By Hand" will be paid on a per "cubic foot" unit cost in accordance with the Pay Item Schedule as accepted/approved by CCWA. The Work Item Detail "Grout By Plant Mixing" will be paid on a per "cubic yard" unit cost in accordance with the Pay Item Schedule as accepted/approved by CCWA. The Work Item Detail "Pump Mobilization" will be paid once for a Project Work Order on a per "each" unit cost in accordance with the Pay Item Schedule as authorized/approved by CCWA.

Work Items 562 – 563. Chemical Grouting: Defined as the Contractor installing necessary fittings, placing chemical grout to stop infiltration in concrete structures and/or fill voids in soil or other work as may be necessary and removing and disposing any waste material. The Work Item Detail "Grout Application" will be paid on a per "gallon" unit cost in accordance with the Pay Item Schedule as accepted/approved by CCWA. The Work Item Detail "Pump Mobilization" will be paid once for a Project Work Order in accordance with the Pay Item Schedule as authorized/approved by CCWA.

Work Items 564 - 568. Hourly Labor: Work Items shall be utilized on a case-by-case basis only when work cannot be completed using other Work Items. Defined as the Contractor providing and utilizing the indicated labor position to complete work as requested for a certain amount of time. Only the time the labor position is on the work site and working will be considered for payment. The hourly rate shall be the Contractor's total expense per hour for the indicated labor position. Contractor shall provide documentation showing Project hourly costs. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

Work Items 569 - 580. Hourly Equipment: Work Items shall be utilized on a case-by-case basis. Defined as the Contractor providing and utilizing the indicated piece of equipment to complete work as requested for a certain amount of time. Only the time the piece of equipment is in operation will be considered for payment. The hourly rate shall be the Contractor's total expense per hour for the indicated piece of equipment. Contractor shall provide documentation showing Project hourly costs. The Work Items will be paid in accordance with the Pay Item Schedule and applicable Detail as authorized/approved by CCWA.

**Work Item 581. Equipment Rental:** Work Item shall be utilized on a case-by-case basis. Defined as the Contractor furnishing equipment not included as part of other Work Items or listed in the Work Item "Hourly Equipment", to complete work. The Contractor may furnish equipment through a rental company or through the Contractor's company. Where the Contractor furnishes the equipment through the

Contractor's company, industry standard rental rates for equivalent equipment shall apply. Contractor shall provide invoice from Vendor showing Project costs. The Work Item will be paid at invoice cost plus a Contractor's 10% percent markup in accordance with the Pay Item Schedule as authorized/approved by CCWA.

**Work Item 582. Special Material:** Work Item shall be utilized on a case-by-case basis. Defined as the Contractor furnishing material, not included as part of other Work Items, needed to complete the work. Contractor shall provide invoice from Vendor showing Project costs. The Work Item will be paid at invoice cost plus a Contractor's 10% percent markup in accordance with the Pay Item Schedule as authorized/approved by CCWA.

**Work Item 583. Special Services:** Work Item shall be utilized on a case-by-case basis. Defined as the Contractor furnishing services through another firm, for work related to this Contract, that is not included on the Pay Item Schedule that is needed to complete the work. Contractor shall provide invoice from Vendor showing Project costs. The Work Item will be paid at invoice cost plus a Contractor's 10% percent markup in accordance with the Pay Item Schedule as authorized/approved by CCWA.

# **Section 2: Material Requirements**

#### 2.1 General

- A. This section describes in general the materials that are to be provided for the work.
  - 1. Where a material is required and not specifically described below, the material shall be provided by the Contractor
  - 2. All materials provided shall be new and domestically manufactured unless approved otherwise.
- B. An indication is provided in each below section of whether the material is to be provided by the Contractor or provided by CCWA.
- C. The material conformance reference forms a requirement of the specification and shall be of the latest edition.

### 2.2 Material Submittals

- A. Submit, for CCWA approval to use, product information on all materials required to be provided by the Contractor unless noted otherwise.
  - 1. Submittals shall be sequentially numbered. Resubmission of a submittal shall have the original submittal number with sequential alphabetic suffix. Each submittal or resubmittal shall be provided with the following minimum information:
    - a) Project title.
    - b) Contractor name.
    - c) Submittal number.
    - d) Date of submittal.
    - e) Reference the material to the specific "Material Requirements" section.
  - 2. For each material supplied, provide the following minimum information.
    - Shop drawings and manufacturer's data showing compliance with Contract Documents.
    - b) Identify any deviation from Contract Documents.
    - c) Resubmission of a submittal shall clearly identify the correction or change made.
    - d) Handling and storage instructions, as applicable.
    - e) Installation instructions, as applicable.
    - f) Manufacturer's Warranty, as applicable.
  - 3. Additional information may be requested as indicated in the Specifications herein.
- B. Materials provided by the Contractor not approved by the CCWA shall be subject to rejection without further justification.

## 2.3 Cured-In-Place Pipe

- A. Material provided by Contractor.
- B. Material conformance reference.
  - 1. ASTM F1216: Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.
  - 2. ASTM D790: Standard Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials.
  - 3. ASTM D2122: Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings.
  - 4. ASTM D5813: Standard Specification for Cured-in Place Thermosetting Resin Sewer Pipe.

## C. Fabric Tube description.

- 1. The fabric tube shall consist of one or more layers of absorbent non-woven felt fabric, felt/fiberglass or fiberglass.
- The fabric tube shall be capable of absorbing and carrying resins, constructed to withstand installation pressures and curing temperatures and have sufficient strength to bridge missing pipe segments, and stretch to fit irregular pipe sections.
- 3. The wet-out fabric tube shall have a uniform thickness and excess resin distribution that when compressed at installation pressures will meet or exceed the design thickness after cure.
- 4. The fabric tube shall be manufactured to a size and length that when installed will tightly fit the internal circumference of the original pipe. Allowance shall be made for circumferential stretching during installation.
- 5. The tube shall be properly sized to the diameter of the existing pipe and the length to be rehabilitated and be able to stretch to fit irregular pipe sections and negotiate bends.
- 6. The outside and/or inside layer of the fabric tube shall be coated with an impermeable, flexible membrane that will contain the resin and facilitate, if applicable, vacuum impregnation and monitoring of the resin saturation during the resin impregnation (wet-out) procedure.
- 7. No material shall be included in the fabric tube that may cause de-lamination in the cured cured-in-place pipe (CIPP). No dry or unsaturated layers shall be acceptable upon visual inspection as evident by color contrast between the felt fabric and the activated resin containing a colorant.
- 8. The wall color of the interior pipe surface of CIPP after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made. The hue of the color shall be

- dark enough to distinguish a contrast between the fully resin saturated felt fabric and dry or resin lean areas.
- 9. Seams in the fabric tube, if applicable, shall meet the requirements of ASTM D5813.
- 10. The outside of the fabric tube shall be marked a minimum of every 5 feet with the name of the manufacturer, manufacturing lot, diameter and thickness.
- 11. The minimum length of the fabric tube shall be that deemed necessary by the installer to effectively span the distance from the starting manhole/access point to the terminating manhole/access point, plus that amount required to run-in and run-out for the installation process.
- 12. The nominal fabric tube wall thickness shall be constructed, as a minimum, to the nearest 0.5 mm increment, rounded up from the design thickness for that section of installed CIPP. Wall thickness transitions, in 0.5 mm increments or greater as appropriate, may be fabricated into the fabric tube between installation entrance and exit access points.
- 13. The quantity of resin used in the impregnation shall be sufficient to fill all of the felt voids for the nominal felt thickness.

### D. Resin description.

- The resin shall be a corrosion resistant polyester "Filled" resin or vinyl ester resin and catalyst system that when properly cured within the tube composite meets the physical properties herein, and those, which are to be utilized in the design of the CIPP.
- 2. The resin shall produce CIPP which will comply with or exceed the structural and of this specification and suitable for a sanitary sewer environment.

### E. Structural requirement description.

- 1. The CIPP shall exhibit a consistent quality which meets or exceeds the minimum properties specified herein.
- 2. The CIPP design shall assume no bonding to the original pipe wall.
- 3. The design shall set the long term (50 year extrapolated) Creep Retention Factor at 50% of the initial design flexural.
- 4. The CIPP shall, at a minimum, meet or exceed the structural properties, as listed below.

#### MINIMUM STRUCTURAL PROPERTIES

Property	Test Method	Cured Composite Per ASTM F1216
Flexural Modulus of Elasticity (Short Term)	ASTM D-790	250,000 psi
Flexural Strength (Short Term)	ASTM D-790	4,500 psi

5. The required structural CIPP wall thickness shall be based, as a minimum, on the physical properties of the cured composite and per the design of the manufacturer and in accordance with the Design Equations contained in the appendix of the ASTM standards, and the following design parameters:

Design Safety Factor	2.0	
Creep Retention Factor	50%	
Ovality	2% or as measured by field inspection	
Constrained Soil Modulus	Per AASHTO LRFD Section 12 and AWWA Manual M45	
Groundwater Depth	As specified or indicated on the Plans	
Soil Depth (above the crown)	As specified or indicated on the Plans	
Live Load	Highway, railroad or airport as applicable	
Soil Load (assumed)	120 lb/cu. Ft.	
Minimum service life	50 years	

- 1. Manufacturer's Quality Control Plan. Provide a detailed description of materials, manufacturing and field procedures, sampling and testing schedules and documentation that are used to maintain product quality.
- 2. Sample warranty certification.
- 3. Curing schedule for each CIPP cure method.
- 4. Provide a description of the procedures used to remove defective products and/or remedy defects.
- 5. Published catalog data for the CIPP lateral methods/products to be used.
- 6. Use of CIPP pre liner justification.
- 7. Published catalog data for pre-liner material/products to be used.

## Acceptable Manufacturers

As Approved.

# 2.4 Centrifugally Cast Concrete Pipe

- A. Material provided by Contractor.
- B. Material conformance reference.
  - 1. ASTM C76: Standard specification for Fly Ash content in Reinforced Concrete Culverts, Storm Drain, and Sewer.
  - 2. ASTM C109: Standard Test Methods for Compressive Strength of Hydraulic Cement Mortars.
  - 3. ASTM C157: Modified Standard Test Methods for Length Change of Hardened Hydraulic Cement Mortar and Concrete.
  - 4. ASTM C403: Standard Test Method for Time of Setting of Concrete Mixtures by Penetration Resistance
  - 5. ASTM C666: Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
  - 6. ASTM C1609: Standard Test Method for Flexural Strength of Concrete (Using Seiple Beam with Center-Point Loading)
  - 7. ASTM D4783: Standard Test Methods for Resistance of Adhesive Preparation in Container to Attack by Bacteria, Yeast and Fungus.

## C. Cementitious Lining Material.

- 1. The cementitious lining material shall be a high strength, high build, abrasion resistant and corrosion resistant mortar, based on advanced cements and additives. When mixed with the appropriate amount of water, a paste-like material which can be sprayed, cast or pumped into area ¼ inch and larger shall be obtainable.
- 2. The hardened, finished liner shall be a dense and highly impermeable pipe within a pipe. The above stated performance shall be achieved by a complex formulation of mineral, organic and densifying agents and sophisticated chemical admixtures including rust inhibitors. Graded quartz sands are to be used to enhance particle packing and further improve the fluidity and hardened density. The resultant composition shall possess excellent think-section toughness, a high modulus of elasticity in flexure and strong self-bonding capabilities. Fibers are to be added as an aid to the centrifugal casting process, for increased cohesive and to enhance flexural strength.
- 3. The water content shall be adjusted to achieve consistencies ranging from plastic to modeling clay. The lining mortar shall be capable of being cast against soil, metals, wood, plastic or other normal construction materials.

#### D. Geopolymer Lining Material.

1. The geopolymer lining material shall be a micro-fiber reinforced ultra-dense geopolymer. This material provides a high strength fiber reinforced mortar

- specifically designed for ease of mechanical pumping, spraying and spin casting.
- 2. The nano-ceramic geopolymer liner shall not clog spinner heads or spray equipment.
- 3. The geopolymer liner can also be used to repair, resurface, or rebuild pits, sumps, trenches, tunnels, bridges, piers or any concrete structure that has experienced deterioration.
- 4. The geopolymer liner shall be designed to produce a liner with improved compressive and flexural strength, high adhesion to damp surfaces, lower permeability, and increased resistance to aggressive chemical attack.
- 5. This fiber reinforced formula shall be engineered to improve hydraulic abrasion resistance, provide dimensional stability, and protect against penetration by substances such as fats, oils, gases, chloride ions found in marine applications, and where high corrosion exists within a sewer system
- 6. Additional materials including chemical grouts and hydraulic cements necessary to stop infiltration and create a surface for the geopolymer lining be applied to may be necessary. Specific materials must be compatible with the geopolymer lining and the Owner reserves the right to require preapproval of such materials.
- E. The structural centrifugally cast lining rehabilitation system shall be designed based on observed soil loads, HS20 traffic loads, factor of safety of 2.0, and in accordance with a "fully deteriorated gravity pipe condition". The Contractor shall submit liner thickness calculation to CCWA. These calculations will be performed by a third party registered professional engineer. The liner thickness calculations shall include the total weight of dry material needed to complete the installation.
- F. The minimum installed centrifugally cast liner thickness shall be one inch (1.0). This thickness shall be measured from the high point of the repeating undulations in coated in coated metal pipe (CMP). For structural plate culvert materials, the cover over the projecting bolts shall be a minimum of ½ inch, making the minimum applied thickness for these culverts 1.0-inch. The liner thickness shall be applied to the thickness specified by the third party registered professional engineer, but at no point shall it be less than the required minimum of 1.0-inch.
- G. Structural requirement description.
  - The liner shall be designed in accordance with the material manufacturer Design Guide. The design shall be based on a fully deteriorated pipe condition and shall be designed to withstand the structural requirement within these specifications and designed for a minimum service life of not less than 50 years.

- 2. The Manufacturer and Contractor shall certify and provide structural calculations that the product at the installed thickness will adequately support all loads.
- 3. The centrifugally cast lining material shall conform to the following minimum requirements:

Physical Property	ASTM Reference	Requirements
Compressive Strength	ASTM C39 or C109	2,500 psi @ 1 day 8,000 psi @ 28 days
Flexural Strength	ASTM C78	600 psi @ 7 days 800 psi @ 28 days
Tensile Strength	ASTM C496	650 psi @ 28 days
Modulus of Elasticity	ASTM C469	1,000,000 psi @ 1 day 3,560,000 @ 28 days
Bond Strength	ASTM C882	900 psi @ 1 day 2,100 psi @ 28 days
Freeze Thaw Durability	ASTM C666	Zero loss 300 cycles
Set Time	ASTM C403 (C) ASTM C807 (G)	Initial – Less than 150 mins Final – Less than 240 mins Initial – Less than 75 mins Final – Less than 120 mins

(C) – Cementitious Lining Material (G) – Geopolymer Lining Material

- 4. Manufacturer's Quality Control Plan. Provide a detailed description of materials, manufacturing and field procedures, sampling and testing schedules and documentation that are used to maintain product quality.
- 5. Sample warranty certification.
- 6. Curing schedule for each CCCP cure method.
- 7. Provide a description of the procedures used to remove defective products and/or remedy defects.

As Approved.

## 2.5 Ductile Iron Pipe and Fitting

- A. Material provided by CCWA.
- B. Material conformance reference.
  - 1. ANSI/AWWA C151/A21.51: Ductile-Iron Pipe, Centrifugally Cast.
  - 2. ANSI/AWWA C115/A21.15: AWWA Standard for Flanged Ductile-Iron Pipe with Threaded Flanges.
  - 3. ANSI/AWWA C110/A21.10: Ductile-Iron and Gray-Iron Fittings.
  - 4. ANSI/AWWA C153/A21.53: American National Standard for Ductile-Iron Compact Fittings for Water Service.
  - 5. ANSI/AWWA C111/A21.11: Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings.
  - 6. ANSI/AWWA C104/A21.4: Cement-Mortar Lining for Ductile-Iron Pipe and Fittings.
  - 7. ANSI/AWWA C116/A21.16: Protective Fusion-Bonded Coatings for the Interior and Exterior Surfaces of Ductile-Iron and Gray-Iron Fittings.
  - 8. ASTM A563: Standard Specification for Carbon and Alloy Steel Nuts.
  - 9. ASTM A307: Standard Specification for Carbon Steel Bolts, and Studs.

## C. Pipe description.

- 1. Push-on joint pipe four (4) inches and six (6) inches in diameter shall be Class 51.
- 2. Push-on joint pipe eight (8) inches in diameter and larger shall be Class 50.
- 3. Flanged pipe shall have a minimum pressure rating of 250 psi.
- 4. Restrained-joint pipe shall be of the flex-ring type having a welded bead lock ring or similar having a minimum pressure rating of 250 psi.
- 5. The following information shall be cast in or stamped on each pipe.
- a) Weight, class or nominal thickness.
- b) Casting period.
- c) Manufacturer's identifying mark.
- d) Year the pipe was manufactured.
- e) The letters "DI" or "DUCTILE".
  - 6. Nominal length per joint of pipe is 18 feet or 20 feet.
  - 7. Joint lubricant as provided by the pipe manufacturer.

## D. Fitting description.

- 1. Mechanical fittings for use with push-on joint pipe shall be standard mechanical, compact series, having a minimum pressure rating of 250 psi.
- 2. Flanged fittings shall have a minimum pressure rating of 250 psi.
- 3. Restrained-joint fittings shall be of the flex-ring type or similar having a minimum pressure rating of 250 psi.

## E. Gasket description.

- 1. Gaskets for push-on and standard mechanical joints shall be plain rubber (Styrene Butadiene Copolymer).
- 2. Gaskets (FIELD LOK®) and (MJ FIELD LOK®) used to restrain push-on joint pipe and/or standard mechanical joint fittings, respectively, shall be plain rubber (Styrene Butadiene Copolymer) modified with stainless steel teeth.
- 3. Gaskets for restrained joint pipe of the flex-ring type and restrained joint fittings of the flex-ring type or similar shall be plain rubber (Styrene Butadiene Copolymer) modified with ductile iron segments.
- 4. Gaskets for flanged joints shall be 1/8-inch thick, full-faced, clothed reinforced rubber.

## F. Retaining glands and adapter coupling description.

- 1. Retaining gland where joint restraint is not required shall be standard mechanical.
- 2. Retaining gland (MEGALUG®) where the gland acts as the restraining mechanism, shall include gripping wedges with torque limiting twist-off nuts.
- 3. Retaining gland (MJ FIELD LOK®) where the gasket acts as the restraining mechanism shall be suited for application.
- 4. Adapter coupling (Foster Adapter®) shall be a bolt-through positive restraining connector between two standard mechanical joints.

### G. Bolt description.

- 1. Bolts and nuts used for standard mechanical connections shall be tee head type with heavy hex nut.
- 2. Bolts and nuts used for flanged connections shall be hex type of low carbon steel, cadmium plated, or zinc plated.

### H. Coating and lining description.

1. Pipe and fittings placed on or beneath the ground surface shall have an exterior coating of asphalt (one mil).

- 2. Pipe and fittings placed above the ground surface shall have an exterior manufacturer applied universal phenolic primer (one mil) capable of accepting an epoxy coating.
- 3. Pipe that crosses or runs parallel to a gas transmission main, which is or may be catholically protected, shall be encased in polyethylene tubing, eight (8) mil minimum thickness, overlapped 12 inches and taped.
- 4. Pipe and fittings used in the distribution of potable water shall be cement lined.
- 5. Pipe and fittings used in sanitary sewer systems shall be cement lined and cement lining sealed with asphalt or lined with 401 Protecto<sup>TM</sup> ceramic epoxy.
- 6. Fittings in lieu of an asphalt coating and cement lining may be coated and lined with five (5) to eight (8) mils of fusion bonded epoxy. Fittings shall be listed by a certifying agency that the coating complies with ANSI/NSF 61.

## Acceptable Manufacturers - Model

- ➤ U.S. Pipe.
- American Cast Iron Pipe Company.
- > As Approved.

# 2.6 Polyvinyl Chloride Pipe and Fitting

- A. Material provided by CCWA.
- B. Material conformance reference.
  - 1. ASTM D3034: Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings. Pipe requirements, gravity
  - 2. ASTM F679: Standard Specification for Poly(Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings.
  - AWWA C900: Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings,
     In. Through 12 In. (100 mm Through 300 mm), for Water Transmission and Distribution. Pipe requirements, pressure
  - 4. AWWA C905: Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 14 In. 48 In. (350 mm 1,200 mm). Pipe requirements, pressure (large diameter).
  - ASTM D1784: Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds.
  - 6. ASTM D3139: Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.
  - 7. ASTM D3212: Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
  - 8. ASTM D2412: Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate.

- ASTM F477: Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
- C. Pipe and fitting description.
  - 1. Pipe for gravity flow applications shall be standard dimension ratio/pipe stiffness SDR 26 / PS115 push-on joint type.
  - 2. Pipe for pressure flow applications shall be C900/C905 dimension ratio DR 18 push-on joint type.
  - 3. The following information shall be stamped on each pipe.
    - a) Class identifier.
    - b) ASTM designation.
    - c) Manufacturer's identifying mark.
  - 4. Nominal length per joint of pipe is 14 feet or 20 feet.
  - 5. Pipe shall be green in color for sanitary sewer service.
  - 6. Joint lubricant as provided by the pipe manufacturer.
- D. Gasket and restrained joint description.
  - 1. Gaskets shall be plain rubber suitable for sanitary sewer service.
  - 2. Gaskets used to restrain joint may be modified with stainless steel teeth.
  - 3. Pipe bell used to restrain joint may be fabricated with internal lock ring (removable).

> As Approved.

### 2.7 Reinforced Concrete Pipe

- A. Material provided by CCWA.
- B. Material conformance reference.
  - 1. ASTM C76: Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
  - 2. AASHTO M170: Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
  - 3. ASTM C443: Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
  - 4. AASHTO M198: Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
- C. Pipe description.
  - 1. Pipe shall be push-on joint, round or arched, Class III with a shell thickness designation "Wall B".

- 2. Manufacturer shall be listed on the Qualified Products List (QPL-4) by the Office of Material and Research, Georgia Department of Transportation.
- 3. The following information shall be cast or painted on the interior of each pipe.
  - a) Weight, class or nominal thickness.
  - b) Manufacturer's identifying mark.
  - c) Pipe diameter.
  - d) Stamped with a G.D.T. (Georgia Department of Transportation) or C.P.T. (Certified Pipe/Precast Technician) number.
- 4. Nominal length per joint of pipe is 8 feet.
- 5. Plastic / rubber inserts to plug lifting holes as provided by manufacturer.
- 6. Joint lubricant as provided by manufacturer.
- D. Gasket description.
  - 1. Gaskets shall be Type "A" plain rubber suitable for storm water service.

> As Approved.

# 2.8 High Density Polyethylene Pipe and Fitting

- A. Material provided by CCWA.
- B. Material conformance reference.
  - 1. ASTM D3350: Standard Specification for Polyethylene Plastics Pipe and Fittings Materials.
  - 2. AASHTO M252 Type S: Standard Specification for Corrugated Polyethylene Drainage Pipe.
  - 3. AASHTO M294 Type S: Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter.
  - 4. ASTM F477: Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
- C. Pipe and fitting description.
  - 1. Pipe shall be push-on, soil tight joint.
  - 2. Bell and spigot connections shall utilize a spun-on or welded bell and valley or saddle.
  - 3. Pipe configuration shall be of integrally formed smooth waterway with circular cross-section braced circumferentially by circular ribs.
  - 4. Manufacturer shall be listed on the Qualified Products List (QPL-51) by the Office of Material and Research, Georgia Department of Transportation.
  - 5. The following information shall be stamped or painted on each pipe.

- a) Manufacturer's identifying mark.
- b) Pipe diameter.
- c) Pipe must be pre-inspected and stamped, by means of a thermal branding iron on the interior wall of each pipe section with a P.P.T (Plastic Pipe Technician) number.
- 6. Nominal length per joint of pipe is 20 feet.
- 7. Joint lubricant as provided by manufacturer.
- D. Gasket description.
- 1. Gaskets shall be plain rubber suitable for storm water service.
- 2. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris.

As Approved.

# 2.9 Corrugated Metal Pipe

- A. Material provided by CCWA.
- B. Material conformance reference.
  - 1. ASTM A760: Standard Specification for Corrugated Steel Pipe, Metallic-Coated for Sewers and Drains.
  - 2. AASHTO M36: Standard Specification for Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains.
  - 3. ASTM A929: Standard Specification for Steel Sheet, Metallic-Coated by the Hot-Dip Process for Corrugated Steel Pipe.
  - 4. AASHTO M218: Standard Specification for Steel Sheet, Zinc-Coated (Galvanized), for Corrugated Steel Pipe.
  - 5. AASHTO M274: Standard Specification for Steel Sheet, Aluminum-Coated (Type 2), for Corrugated Steel Pipe. (aluminized)
- C. Pipe description.
  - 1. Pipe shall be 16-gauge in thickness, round and manufactured with continuous locked seams.
  - 2. Pipe ends shall be annular corrugated for use with soil tight coupling bands.
  - 3. The following information shall be stamped or painted on each pipe.
    - a) Manufacturer's identifying mark.
    - b) Pipe thickness.
    - c) Weight of coating.
  - 4. Nominal length per joint of pipe is 20 feet.

As Approved.

# 2.10 Transition Coupling (Rigid)

- A. Material provided by CCWA.
- B. Material conformance reference.
  - ASTM A513: Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing
  - 2. ASTM A635: Standard Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Hot-Rolled, Alloy, Carbon, Structural, High-Strength Low-Alloy, and High-Strength Low-Alloy with Improved Formability
    - 3. ASME SA36: Rigid follower requirement
  - 4. AWWA C111/ANSI A21.11: American National Standard for Ductile-Iron and Gray-Iron Fittings, 3 In. Through 48 In. (76 mm through 1,219 mm), for Water
- C. Coupling description.
  - 1. Middle ring, bolts and nuts shall be carbon steel, fusion bonded epoxy coating for buried service.
  - 2. Followers shall be ductile iron.
  - Gaskets shall be Buna (S blend).

## Acceptable Manufacturers

- Dresser.
- > Smith Blair.
- > As Approved.

# 2.11 Transition Coupling (Flexible Rubber)

- A. Material provided by CCWA.
- B. Material conformance reference.
  - ASTM D5926: Standard Specification for Poly (Vinyl Chloride) (PVC) Gaskets for Drain, Waste, and Vent (DWV), Sewer, Sanitary, and Storm Plumbing Systems.
  - 2. ASTM C1173: Standard Specification for Flexible Transition Couplings for Underground Piping Systems.
- C. Coupling description
  - 1. Manufactured of elastomeric polyvinyl chloride.
  - 2. Tightening bands shall be Series 316 stainless steel, torque setting 60 inchpounds.

3. Maximum test pressure is 4.3 psi.

## Acceptable Manufacturers

- > Fernco.
- As Approved.

## 2.12 Transition Coupling (Flexible Woven Mastic)

- A. Material provided by CCWA.
- B. Material conformance reference.
  - 1. ASTM C877: Standard Specification for External Sealing Bands for Concrete Pipe, Manholes and Precast Box Sections.
  - 2. ASTM D3212: Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.

## C. Coupling description

- Coupler is a reinforced rubberized mastic with a woven polypropylene component.
  - a) Polypropylene shall have tensile strength: 4,000 psi minimum.
  - b) Polypropylene shall have a tear resistance: 1,500 psi minimum.
- 2. Coupler is sealed to pipe via mastic using mechanical compression strap.

## Acceptable Manufacturers

- Mar Mac.
- As Approved.

## 2.13 Hydrophilic End Seal

- A. Material provided by Contractor.
- B. Material conformance reference.
  - 1. ASTM D412: Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers Tension
  - 2. ASTM D297: Standard Test Methods for Rubber Products Chemical Analysis
- C. End Seal description.
  - 1. Designed for use with CIPP and manhole terminations.
  - 2. Seal material is hydrophilic neoprene.
  - 3. Seal is molded seamlessly and fitted with a spring-loaded retaining band.

### Acceptable Manufacturers

- LMK Technologies.
- As Approved.

## 2.14 Utility Marking Tape

- A. Material provided by CCWA.
- B. Material conformance reference.
  - 1. ASTM D2103: Standard Specification for Polyethylene Film and Sheeting.
  - 2. ASTM D882: Standard Test Method for Tensile Properties of Thin Plastic Sheeting.

## C. Description.

- 1. Tape shall have a minimum overall thickness of 5 mils and a width as follows.
  - a) 2-inch width for pipes up to 12 inches in diameter.
  - b) 3-inch width for pipes greater than 12 to 24 inches in diameter.
  - c) 6-inch width for pipes greater than 24 inches in diameter.
- 2. Tape shall have a 0.35 mil solid aluminum foil core with a reverse print laminate to the aluminum foil.
- 3. Tape shall have a tensile strength of 35 pounds per inch.
- 4. Tape shall be color-coded in accordance with the American Public Works Association as follows.
  - a) "Blue" for potable water and associated lines.
  - b) "Green" for sanitary sewer and associated lines.

### Acceptable Manufacturers

As Approved.

### 2.15 Concrete Structures

- A. Material provided by CCWA.
- B. Material conformance reference.
  - 1. ASTM C478: Standard Specification for Circular Precast Reinforced Concrete Manhole Sections.
  - 2. AASHTO M199: Standard Specification for Precast Reinforced Concrete Manhole Sections.
  - 3. ASTM A615: Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
  - 4. ASTM D4101: Standard Specification for Polypropylene Injection and Extrusion Materials.
  - 5. Fed. Spec. SS-S-00210: Sealing Compound, Preformed Plastic, For Expansion Joints and Pipe Joint.

- 6. ASTM C990: Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
- 7. ASTM C923: Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals.
- 8. ASTM C1478: Standard Specification for Storm Drain Resilient Connectors between Reinforced Concrete Storm Sewer Structures, Pipes, and Laterals.
- 9. ASTM F2510: Standard Specification for Resilient Connectors between Reinforced Concrete Manhole Structures and Corrugated High-Density Polyethylene Drainage Pipes.
- 10. ASTM C1244: Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill.
- 11. ASTM A48: Standard Specification for Gray Iron Castings.
- 12. AASHTO M306-10: Standard Specification for Drainage, Sewer, Utility, and Related Castings.
- 13. ASTM D4833: Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products.
- 14. ASTM D6693: Standard Test Method for Determining Tensile Properties of Nonreinforced Polyethylene and Nonreinforced Flexible Polypropylene Geomembranes.
- 15. ASTM D1004: Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting.
- C. Manhole and Structure Description.
  - 1. Manholes shall be cylindrical and constructed of steel reinforced pre-cast concrete.
  - 2. Minimum compressive 28-day strength of concrete in all sections shall be 4,000 psi.
  - 3. Manholes shall have a minimum inside diameter of four (4) feet or as indicated on the Construction Drawings.
  - 4. Pre-cast sections shall consist of a base section (base slab monolithically poured with vertical wall), riser section, reducer section (as applicable) and eccentric cone top or flat slab top section. The sections shall form a continuous uniform assembly.
  - 5. Joints shall be tongue and groove.
  - 6. Each section shall have not more than two (2) holes for purposes of handling.
  - 7. Ring and cover shall be integrally cast in the top cone section unless indicated otherwise.

## D. Step Description.

- 1. Manhole/structure sections shall be fitted with polypropylene plastic-coated steel steps unless indicated otherwise.
  - a. Manholes sections larger than 4-foot diameter for sanitary sewer service shall not be fitted with steps.
- 2. Steps shall be integrally cast into manhole sections.
- 3. Steps shall be twelve (12) inches wide and spaced at 1'-0" on center.

## E. Joint Sealant Description.

- 1. Joints between each section shall be sealed water tight with a preformed semisolid butyl plastic.
- Gasket shall be provided in such size so that when installed, "squeeze out" of the gasket material, can be observed along the entire joint when the joint is completed.

## F. Boot Connector Description.

- 1. Connector for sealing pipe to precast concrete structure opening shall be flexible natural or synthetic rubber suitable for sanitary sewer service.
- 2. A sleeve/boot connector when used shall be fitted with series 300 stainless steel internal expansion sleeve components and series 300 stainless steel external compression take-up clamps, all constructed utilizing no welds.
- 3. A gasket connector when used shall be integrally cast into the concrete section by the manhole manufacturer.

### G. Cast Iron Frame and Cover Description

- 1. Manhole frame shall provide a nominal opening of twenty-four (24) inches in diameter and be either traffic rated or non-traffic rated.
- 2. Frame, cover, grate shall meet load specifications of AASHTO H-20 and H-25.
- 3. Manhole cover shall have the word "WATER" or "SEWER" or "STORM", according to the service, cast on top in letters two (2) inches high.
- 4. Manhole cover required to be bolt-down shall be secured with not less than four (4) stainless steel bolts as provided by the manufacturer.
- 5. Grate and cover shall be nominal twenty-four (24) inches by thirty-six (36) inches and be either traffic rated or non-traffic rated.

#### H. Composite Frame and Cover Description.

- 1. Composite material shall be comprised of a polymer containing 45 to 70% fiber reinforcement with a thermoset resin matrix.
- 2. All components of the ring and cover shall be resistant to the effects of hydrogen sulfide gas.

- 3. Manhole frame shall provide a nominal opening of twenty-four (24) inches in diameter and be either traffic rated or non-traffic rated.
- 4. Ring and cover shall meet load specifications of AASHTO H-20 and H-25.
- 5. Ring and cover shall have an integrated gasket system, lockable with a camtype assembly and have a combined weight not to exceed 100 pounds.
- 6. Cover shall have the word "SEWER" cast on top in letters 2 inches in size.
- 7. Provide a lock wrench with each cover as provided by the ring and cover manufacturer.
- I. High Density Polyethylene (HDPE) Liner Description.
  - 1. Where called for lining on manhole structures shall be provided on all vertical riser walls, cone sections and underside of reducer slabs.
  - 2. Liner shall have a mechanical bond to the concrete structure.
  - 3. Liner shall return through each opening created for pipe penetration.
  - 4. Liner color shall be yellow in color.
  - 5. Liner shall have a minimum thickness of 2 mm and resist a back pressure of 29 psi.
  - 6. Section joints shall be sealed water-tight with suitable strips of liner material, extrusion welded by a representative of the liner manufacturer or section joints shall be sealed water-tight by providing a liner that returns over the section joint and by providing a joint sealant that contacts the entire lined surface of the return and is suitable to resist degradation by hydrogen sulfide.

- Structure As Approved.
- ➤ Ring, Frame, Cover As Approved.
- ➤ HDPE Liner Agru America (HDPE AGRU Sure Grip).

## 2.16 Concrete and Reinforcement

- A. Material provided by Contractor.
- B. Material conformance reference.
  - ACI 318: Building Code Requirements for Reinforced Concrete: Concrete Mix Requirement.
  - 2. ASTM C150: Standard Specification for Portland Cement.
  - 3. ASTM C33: Standard Specification for Concrete Aggregates.
  - 4. ASTM A615: Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.

- 5. ASTM A185: Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
- C. Concrete Mix Description.
  - 1. Design mix shall be in accordance with ACI 318, latest revision.
  - 2. Provide readily available commercial mix.
  - 3. 28-Day Strength: 3,000 psi, unless otherwise noted.
  - 4. Type: Normal Weight.
  - 5. Slump Range: 3 inch to 5 inch.
  - 6. Weight: 135 pcf to 160 pcf.
  - 7. Air Content: 5% to 7%.
  - 8. Water-Cement Ratio: 0.45 Maximum.
- D. Concrete Materials Description.
  - 1. Portland cement: Type I, natural color. Use only one brand of cement throughout project.
  - Fine Aggregates: Meeting ASTM C33.
  - 3. Coarse Aggregates: Meeting ASTM C33, No. 57 Stone.
  - 4. Water: Clean, potable and free from deleterious amounts of alkalis, acids and organic matter.
- E. Steel Reinforcement Description.
  - 1. Reinforcement Bar: No. 4 size, Grade 60.
  - 2. Welded Wire: 4x4 W2.1xW2.1wire mesh.
  - 3. Tie Wire: 16-1/2 or 16-gauge black soft annealed wire.
  - 4. Bar supports, chairs and spacers shall comply with the CRSI "Recommended Practice for Placing Reinforcing Bars".

As Approved.

#### 2.17 **Grout**

- A. Material provided by Contractor.
- B. Description.
  - 1. Minimum 200 psi, cement/sand high-flow mixture, commercial readily available.

### Acceptable Manufacturers

As Approved.

#### 2.18 Brick and Mortar

- A. Material provided by Contractor.
- B. Material conformance reference.
  - 1. ASTM C32: Standard Specification for Sewer and Manhole Brick (Made From Clay or Shale).
  - 2. ASTM C270: Standard Specification for Mortar for Unit Masonry.
  - 3. ASTM C144: Standard Specification for Aggregate for Masonry Mortar.

## C. Description.

- 1. Brick shall be either solid or cored, medium hard or better, Grade SS and SM, plain textured surface for sewer service
- 2. Mortar shall be comprised of one (1) part Portland cement to two (2) parts clean sand. Mortar shall be Type S.
- Sand shall conform to ASTM C-144.
- 4. Water shall be clean, potable and free from deleterious amounts of alkalis, acids and organic matter.

## Acceptable Manufacturers

As Approved.

## 2.19 Asphalt

- A. Material provided by Contractor.
- B. Material conformance reference.
  - 1. Georgia Department of Transportation "Asphalt Pavement Selection Guidelines. November 2006".
- C. Description.
  - 1. Aggregate shall be Group II.
  - 2. Asphalt cement shall be grade PG64-22, PG67-22 or PG76-22.
  - 3. Hot mix asphalt type shall be Mix Type 9.5, Type I or Type II.

# Acceptable Manufacturers

As Approved.

## 2.20 Pavement Striping Paint

- A. Material provided by Contractor.
- B. Description.
  - 1. Water-based paint intended for use for pavement application.

- 2. Paint shall be fast dry, dry to the touch in 5 minutes, ready for traffic in 15 minutes.
- 3. Color as required to match existing striping.

As Approved.

### 2.21 Construction Stone

- A. Material provided by Contractor.
- B. Material conformance reference.
- 1. ASTM D2321: Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.
  - 2. ASTM D2487: Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
  - ASTM C33: Standard Specification for Concrete Aggregates.
- C. Description.
  - 1. Stone size shall be as indicated on Details or Construction Drawings.
  - 2. Stone shall be Class I embedment or backfill material consisting of manufactured aggregates (crushed stone).
  - 3. Stone shall be clean, tough, uniform quality, durable fragments of crushed rock, free from flat, elongated, soft or disintegrated pieces, or other objectionable matter occurring either free or as coating on stone.

#### Acceptable Manufacturers

As Approved.

### 2.22 Erosion and Sedimentation Control Materials

- A. Material provided by Contractor.
- B. Description.
  - 1. Materials shall be in accordance with the Manual for Erosion and Sediment Control in Georgia, 2016 Edition.

### Acceptable Manufacturers

As Approved.

Division 4 Specifications

#### Section 3: Construction Standards

#### 3.1 General Requirements

Construction Details are included in this contract. Construction Drawings or Detailed Site Maps may also be provided as part of the work to show requirements that are to be followed. Where contradictions may arise between the Construction Standards below and Construction Details, Drawings or Site Maps, the Construction Standards shall govern.

# 3.1.1 Project Submittals

- A. The Contractor shall schedule and submit required information for CCWA review as to cause no delay in the work and/or Time for Completion of a Job.
- B. Submittal review by CCWA will not commence until a Notice to Proceed date is determined for the contract.
- C. Upon receipt of a submittal, CCWA shall complete its review and return CCWA comments to Contractor within 10 business days.
- D. Submittals may be provided via email. Where hard copy submittals are provided, three (3) copies of final approved material data will be required; one (1) copy of approved product material will be returned to the Contractor.

# 3.1.2 Differing Subsurface or Physical Conditions

- A. If Contractor believes that any subsurface or physical condition at or contiguous to the site that is uncovered or revealed either:
  - 1. Is of such a nature as to require a change in the Contract Documents; or
  - 2. Differs materially from that shown or indicated in the Contract Documents: or
  - 3. Is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

Then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any work in connection therewith except in an emergency, notify CCWA in writing about such condition. Contractor shall not further disturb such condition or perform any work in connection therewith (except as aforesaid) until receipt of written order to do so by CCWA. In the case of

- emergency, the Contractor must notify CCWA immediately, not to exceed 12 hours, of becoming aware of the condition.
- B. After receipt of required written notice, the CCWA and Contractor shall promptly review the pertinent condition, determine the necessity of obtaining additional exploration or tests with respect thereto, and determine a mutually accepted course of action.
- C. The contract price or the contract times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor cost of, or time required for, performance of the Work; subject, however, to that the condition meets above Section 3.1.3, Part A.

## 3.1.3 Weather Delays

- A. When no pipe installation work and/or no manhole installation work can be performed on a particular day due to measurable precipitation, freezing temperatures or frozen ground surface conditions, then the Work Order is subject to a time extension of one (1) day only. The Contractor cannot charge for labor, overday, equipment or incidental expenses due to a weather delay.
- B. When any pipe installation work and/or manhole installation work is performed on a particular day and measurable precipitation, freezing temperatures or frozen ground surface conditions do occur, then the Contract shall not be subject to a time extension.
- C. Weather recording devices shall be situated on the Project site.
- D. Contractor shall deliver a written Work Order time extension request to CCWA for a weather delay within 24 hours of measuring the weather event. A time extension shall not be granted should a written request not be received by CCWA as indicated.

#### 3.1.4 Site Access and Work Times

- A. The work may require access to private property. The CCWA shall be responsible for coordinating and providing access to the area(s) of work. The Contractor shall contain work within area designated by CCWA.
- B. The work may be accessed on paved surfaces or non-paved surfaces. Contractor shall provide equipment capable of maneuvering all surfaces. CCWA shall not be responsible for Contractor's equipment that becomes un-maneuverable due to site conditions.
- C. Work on a site shall be allowed Monday through Friday from 7:30 a.m. to 6:00 p.m.; other times may be allowed with CCWA permission only. CCWA shall not compensate Contractor for labor, equipment or incidental

expenses should work be required to be completed during times other than Monday through Friday from 7:30 a.m. to 6:00 p.m.

- D. No work shall be allowed on the following CCWA recognized Holidays:
  - 1. Martin Luther King Jr. Day
  - 2. Memorial Day
  - 3. Juneteenth
  - 4. Independence Day
  - 5. Labor Day
  - 6. Veterans Day
  - 7. Thanksgiving Day and the following Friday.
  - 8. Christmas Eve and Christmas Day
  - 9. New Year's Day

## 3.1.5 Site Safety and Precaution

- A. Construction shall comply with the Department of Labor, Occupational Safety and Health Administration (OSHA), 29 Code of Federal Regulations Part 1926, latest revision.
- B. The Contractor shall be responsible for preparing and implementing a Confined Space Entry Plan in accordance with 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.
- C. The Contractor shall provide all staff with photo identification and use vehicles with permanent company logos/markings/identification that are prominently displayed and clearly visible at all times.
- D. The Contractor shall provide an experienced supervisor in charge of field operations and subcontractors. 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 Contractor's superintendent or foreman shall be on-site at all times when any work is being performed, including any work being performed by their subcontractors.
- E. The Contractor shall be responsible for site security. Contractor shall remove as necessary fences and gates and/or other controls to facilitate work. Removed fences shall be reinstalled no later than at the end of that day the fence was removed.

- F. The Contractor shall use special care in work methods and take all necessary precautions against improper use of equipment to avoid damaging pipe and/or structures or CCWA, public and private property. If, in 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.
- G. The CCWA shall not be responsible or compensate the Contractor for the damage to and/or loss of Contractor's equipment as result of the work.
- H. Note that some job site areas are situated within flood zone and flood during low frequency storm events. Take precautions to protect work, equipment and materials. The CCWA shall not be responsible or compensate the Contractor for the damage to and/or loss of Contractor's equipment as result of flooding.

## 3.1.6 Construction Facilities and House Keeping

- A. The Contractor may utilize areas within the "construction limits" designation as shown on the Construction Drawings for Project use.
- B. The Contractor or any other worker may not establish quarters for the purpose of overnight stay or temporary residency on the Project site or other CCWA property.
- C. The Contractor shall employ the "best practicable means" to minimize and mitigate noise as well as disturbance 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.
- D. The Contractor shall remove and dispose of papers, plastics, tin cans and general garbage from the site on a daily basis. Keep the Project site clean.
- E. The Contractor shall remove and dispose all construction related debris associated with their work.
  - 1. Where in these specifications the term "disposal of" is used, the contractor shall dispose of the material/debris off of the project site in accordance with local and state regulations.
- F. The burning of materials is not permitted on the Project site or other CCWA property.

## 3.1.7 Temporary Utilities

- A. CCWA shall provide the Contractor a meter/backflow device to collect potable water from a nearby fire hydrant at no cost to the Contractor.
  - The Contractor shall be responsible for and return the meter/backflow device to CCWA in the same condition as received. Should the Contractor damage or lose the meter/backflow device, then the Contractor shall be responsible for compensating CCWA for the damages.
  - 2. The Contractor shall be responsible for moving water to Project site area.
- B. The Contractor shall provide and maintain sanitary sewer facilities for Contractor's employees, subcontractors and all other on-site employees. Service, clean and maintain facilities and enclosures.
- C. Contractor shall provide any necessary electrical power.

## 3.1.8 Material Handling and Storage

- A. CCWA intends for all material (supplied by CCWA) to be delivered to the CCWA Warehouse Building "B" located at 7340 Southlake Parkway in Morrow, Clayton County. Material delivered to the Warehouse Building "B" location will require Contractor pickup.
- B. In some cases, material may be delivered to the Project site area.
- C. Prior to accepting (unloading) any material on a Project site, the Contractor shall complete a thorough inspection of the material for contract compliance and damages.
  - Once the Contractor takes possession of materials at a CCWA facility or an unloading process on a project site of materials provided by CCWA has started, the Contractor is responsible for storage and protection of the material until Final Acceptance by CCWA.
  - 2. Any material found to be out of compliance with contract conditions or damaged shall be immediately reported to CCWA and its manufacturer for further inspection.
  - 3. Should CCWA agree to accept a material that is out of compliance with contract conditions or damaged, then the Contractor shall not be responsible for the material.
- D. The Contractor shall furnish equipment and facilities for loading, unloading and material distribution on a Project site.
  - 1. The Contractor shall handle the material in accordance with the manufacturer's instructions.

2. Any pipe, piping component or material dropped, dumped or damaged by the Contractor during handling procedures shall be subject to rejection by the CCWA without further justification and replaced at the expense of the Contractor.

## 3.1.9 Material Testing Services

- A. CCWA shall contract with a materials testing laboratory and provide soil compaction and concrete strength material testing services.
  - 1. Testing shall be performed at intervals selected by CCWA.
  - 2. The Contractor shall cooperate and facilitate material testing services' work.
- B. Testing and reporting shall be performed in accordance with applicable ASTM standards.
  - 1. Testing services shall promptly notify CCWA of irregularities or deficiencies in the work.
  - 2. Testing services shall provide CCWA and the Contractor copies of field reports and test results.
- C. The testing of pipe and manhole components is described in later sections and is not included as part of CCWA's provided material testing services.

### 3.2 CCTV Work

### 3.2.1 General

- A. As requested, perform spot or continuous length inspections of pipe using CCTV.
- B. As necessary, provide all-terrain equipment that can access non paved areas.

# 3.2.2 Equipment

- A. The CCTV system shall provide a color pan and tilt camera(s) to facilitate the survey and inspection of sewers and laterals.
  - 1. A 360° rotational scan indicating general conditions must be implemented at every 50 feet interval (min.) along sewers, and at manholes and any notable or defect features.
  - 2. In the case of bellies in the line, the pipe shall be cleared of any standing water to provide continuous visibility during the inspection.
- B. CCTV equipment shall be self-propelled and capable of surveying/inspecting a length of sewer up to 1,000 feet with access from one manhole only.

- 1. Transponder accessory shall be available to locate CCTV equipment from ground surface.
- 2. The speed of the CCTV camera shall be limited to 40 feet per minute for surveys to enable the inspection to record adequate details.
- 3. The Contractor shall use a suitable metering device, which enables the cable length to be accurately measured; this shall be accurate to ±1% or 3 inches, whichever is the greater. The Contractor shall demonstrate compliance with the accuracy tolerance at the start of each day or as 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.

## 3.2.3 Inspection and Submittal

- A. Complete a continuous length pipe inspection and condition assessment in accordance NAASCO PACP standards and best practices, PACP 6.0 format.
  - 1. All video shall be in a MPEG format.
  - 2. The Contractor shall insure compatibility with CCWA formats.
- B. At the start of each pipe length being surveyed or inspected and each reverse set-up, the length of pipeline from the entrance to the pipe shall be recorded and reported in order to obtain a full record of the sewer length.
  - 1. Only one survey shall be indicated on a final report. All reverse setups, blind manholes, and buried manholes shall be recorded on a separate report.
  - 2. Video shall be recorded so that every recorded feature has a correct tape measurement and elapsed time stamp.
  - 3. Each report shall make reference to a start (ST) and finish (FM) manhole/structure, unless abandonment took place because of blockage
  - 4. Manhole/structure number shall be indicated in the remark's column of the detail report.
- C. A data generator shall electronically generate and clearly display on the viewing monitor and subsequently on the recording a record of data in alpha-numeric form containing the following minimum information:
  - 1. Project name/location.
  - 2. Date of survey.
  - 3. Time of start of survey.

- 4. Pipe/manhole/structure ID reference numbers.
- 5. Material of construction of the pipe.
- 6. Pipe dimensions.
- 7. Automatic update of the camera's footage position from the opening of the pipe from adjusted zero.
- 8. Direction of survey and direction of sewer flow.
- D. Each inspection shall be saved as an individual file in an electronic format using a "Facility Identification Number \_ yymmdd.file type" naming convention. Facility Identification Numbers will be as assigned by CCWA.
- E. For each job, submit CCTV data to CCWA on a flash drive labeled with the Contractor's Company Name and Job Name.

## 3.3 Cured-In-Place Pipe Work

## 3.3.1 Design Submittal

- A. A design shall be prepared that meets the structural requirements of the CIPP for the anticipated installation condition.
  - 1. The existing host pipe's condition shall be assumed to be fully deteriorated.
  - 2. Design calculations and an indication of the required CIPP thickness shall be submitted to CCWA prior to installation.
  - 3. CCWA may request the design be reviewed by a third-party engineer with experience in CIPP design.
- B. The following items as a minimum shall be submitted to CCWA for review as part of the design.
  - 8. Use of CIPP preliner justification.
  - 9. Curing schedule for CIPP cure method.
  - 10. List of possible CIPP defects and a description of the procedures used to remove and/or remedy defects.
  - 11. Name and contact information for the Independent Testing Laboratory that will be used.

### 3.3.2 Cleaning

- A. Clean existing pipe and remove all internal debris from the pipe line that will interfere with the installation and the final product of the CIPP.
  - 1. Perform CCTV work while performing cleaning activities.
  - 2. Take precaution to avoid damaging the pipe.

- 3. Clean pipe using high pressure water cleaning techniques. Other cleaning techniques may be utilized upon CCWA approval.
- 4. Any loose debris that would produce visible lumps, bumps or protrusions into the CIPP shall be removed.
- 5. Any debris resulting from the cleaning shall not enter any adjacent piping system.
- B. Perform post-cleaning video in accordance with current NASSCO and PACP guidelines.
  - 1. CCWA will view all video work with the Contractor as the work is being performed.
- C. Contractor should notify CCWA immediately of any concerns.

#### 3.3.3 Installation Work

- A. Install preliner, as necessary, and wet-out tube into the host pipe and cure per the manufacturer's specifications.
  - 1. The wet-out tube shall be positioned in the host pipe using the method specified by the manufacturer.
    - a) The tube shall be inverted through an existing structure and fully extend to the next designated structure.
    - b) The wet-out tube shall be positioned such that no air gap exists between the host pipe and the finished CIPP.
- B. A seal, consisting of a resin mixture or hydrophilic seal compatible with the installed CIPP shall be installed at host pipe's ends in accordance with the CIPP System manufacturer's recommendations.
- C. Prior to installation, remote temperature gauges or sensors as recommended by the CIPP manufacturer shall be placed inside the host pipe to monitor the temperatures during the cure cycle. Liner and/or host pipe interface temperature shall be monitored and logged during curing of the liner.
- D. Curing shall be accomplished by utilizing hot water or steam in accordance with the manufacturer's recommended cure schedule.
  - 1. The curing source (in and output temperatures) shall be monitored during the cure cycles.
  - 2. Temperatures and curing data shall be monitored throughout the installation process.
  - 3. All monitoring and curing data shall be recorded (typed) and submitted to CCWA.

- E. The Contractor shall cool the CIPP in accordance with the approved CIPP manufacturer's recommendations.
- F. The Contractor shall manage the curing/cool down process so that no water/liquid/steam/resin/work debris shall be released downstream.
  - 1. Water released downstream shall not exceed a temperature of 90 degrees Fahrenheit.

#### 3.3.4 Service Reinstatement

- A. At structures, cut the CIPP neat and square and no more than 1-inch beyond from the end of the host pipe.
- B. At internal services, cut the CIPP using a remote cutting tool with CCTV camera.
  - 1. The machined opening shall be at least 95 percent of the service connection opening and the bottom of both openings must match.
  - 2. The opening shall not be more than 100 percent of the service connection opening. The edges of the opening shall not have pipe fragments or liner fragments, which may obstruct flow or snag debris.
  - 3. In the event that connection reinstatements result in openings that are greater than 100 percent of the service connection opening, the Contractor shall install a CIPP type repair, sufficiently in size to completely cover the over-cut service connection. No additional compensation will be paid for the repair of over-cut service connections.
- C. All cut CIPP material shall be collected and disposed of off site.

#### 3.3.5 Post CCTV and Submittal

- A. Perform a continuous length inspection in accordance with ASTM and NAASCO standards and best practices after installation of the CIPP and reinstatement of the existing services.
- B. Flow control shall be provided to minimize flow from entering the line during the inspection. In the case of bellies in the line, the pipe shall be cleared of any standing water to provide continuous visibility during the inspection.
- C. Immediately prior to conducting the CCTV inspection, thoroughly clean the newly installed liner and remove all debris and buildup that may have accumulated.
- D. Complete a CCTV inspection of the line using a radial view (pan and tilt) TV camera.

- 1. The camera shall be panned 360 degrees around the circumference of the pipe and along the wall of the finished pipe at 10 foot intervals.
- 2. The data shall note the inspection date, location of all reconnected side sewers, debris, as well as any other defects in the liner, including, but not limited to, gouges, cracks, bumps, or bulges.
- 3. CCWA will view the video as the inspection is being performed.
- E. Submit unedited digital documentation of the inspection to the CCWA.

## 3.3.6 Testing Submittal and Acceptance

- A. The physical properties of the installed CIPP shall be verified through field sampling and laboratory testing.
  - 1. Samples for testing shall be prepared and delivered to a third party laboratory by the Contractor.
  - 2. Testing shall be performed by an independent third party laboratory selected by the CCWA and as recommended by the CIPP manufacturer.
  - Tests shall be in accordance with applicable ASTM test methods to confirm compliance with the requirements specified in these contract documents.
- B. Take samples from the actual installed CIPP and test samples for comparison to structural requirements.
  - 1. The sample shall be cut from a section of cured CIPP that has been inverted or pulled through a like diameter pipe which has been held in place by a suitable heat sink.
  - 2. For pipelines greater in diameter than 15-inches, plate samples may be cured with the CIPP. Plate samples tested shall be of fabric tube and the specific resin proposed for actual construction.
  - 3. All curing, cutting and identification of samples will be witnessed by the CCWA.
  - 4. The laboratory results shall identify the test sample location as referenced to the nearest manhole and station.
- C. Take samples from the actual installed CIPP and test samples for comparison to design thickness.
  - 1. Thickness measurements shall be taken from non-destructive, restrained samples.
  - 2. The liner thickness shall have a tolerance of minus 5% plus 10%. Where liner thickness does not meet the tolerances of the approved

- design, additional samples may be taken at the Contractor's expense and averaged to determine thickness.
- 3. Results of measurements must show samples exhibit a thickness within the listed tolerances.
- 4. Liners installed that are thicker than required designed will not be approved for additional payment.
- D. CIPP shall be accepted when all of the following exist.
  - 1. The finished liner is continuous over the entire length of the installation and free of visual damage, holes, leaks and other defects.
  - 2. Samples from the CIPP show that structural properties meet or exceed material requirements.
  - 3. Samples from the CIPP show that thickness tolerances meet the required design thickness.
- E. Submit all laboratory documentation and test results to CCWA.
- F. CIPP not being accepted by CCWA will be removed and disposed of at the Contractor's expense.

#### 3.4 General Site Work

The prime contractor shall have a representative from the prime contractor's company on site whenever any work is being performed on a project.

# 3.4.1 Permits and Utility Locates

- A. CCWA will procure the necessary Land Disturbance Activity permits, Georgia Department of Transportation permits, Natural Gas permits and Rail Road permits.
- A. Contractor shall display permits and contact respective agencies as required by applicable permit conditions.
- B. Contractor shall locate existing utilities in accordance with local and state regulations.

#### 3.4.2 Traffic Control

- A. Traffic control shall be provided as required to maintain a safe work site.
- B. Contractor should assume that traffic control is required for all work. The cost of traffic control shall be incorporated into the pricing of Work Items to complete the work.
  - 1. Provide to the applicable local authority for approval a traffic control plan in accordance with the Manual on Uniform Traffic Control

- Devices (MUTCD), latest revisions, when any work is being performed in the road right of way.
- 2. Provide the approved traffic control plan to CCWA a minimum of five (5) business days in advance of the start of work.

# 3.4.3 Clearing and Grubbing

- A. Construction Limits shall be staked/flagged in advance of the Contractor's work. Contractor shall not remove stakes or clear those flagged trees/brush.
- B. Area within the permanent easement, road right-of-way or 20-foot width centered over the pipe shall be cleared of all trees, stumps, other limbs affecting the work area, buried logs, brush, grass and other unsatisfactory debris unless indicated otherwise.
- C. Areas outside the permanent easement but within the construction limits may be cleared at the Contractor's discretion.
- D. Trees to remain in or near work area shall be protected from clearing activities. Should trees left remaining in the construction limits at the discretion of the Contractor subsequently die during the warranty period, then the Contractor shall be responsible for their removal and disposal and any related restoration work.
- E. All damaged trees over three (3) inches in diameter shall be repaired by an experienced nursery expert.
- F. Tap roots and other projections exceeding 1-inch in diameter shall be grubbed out to a depth of at least 18 inches.
- G. All holes remaining after grubbing activities shall be filled with suitable material and properly compacted in layers to density required for in-place backfill.
- H. All materials cleared and grubbed shall be disposed of off-site in accordance with applicable local, state and federal regulations.
- I. Burning of any material or debris shall not be permitted.
- J. Prior to and upon completion of clearing and grubbing activities, install erosion control measures as identified on the construction drawings.

# 3.4.4 Topsoil Stockpiling

- A. Remove topsoil to full depth encountered in areas to be graded and stockpile soil.
- B. Soil shall be placed such that the integrity of an excavation or proposed excavation is not jeopardized.

C. Stockpile shall be shaped to drain or covered to keep dry and install appropriate erosion control measures.

# 3.4.5 Existing Utilities

A. Remove and subsequently replace at same grade and elevation existing utility pipes and associated components.

# 3.4.6 Removing Pavement

- A. Roadway pavement shall be removed for the entire lane width or as indicated on the Construction Drawings. Removal of roadway pavement shall be performed so as not to endanger roadway activity. Work shall be coordinated and in compliance with the appropriate road and highway agencies.
- B. Driveways shall be removed to their full width from the edge of road pavement to the back of right-of-way or construction lane whichever is greatest distance from edge of road pavement, unless indicated otherwise.
- C. Sidewalks shall be removed to their full width from the edge of curb, road pavement or construction/control joint to the nearest adjacent construction/control joint.
- D. Curbs shall be removed for the entire length from control joint to control joint.
- E. Pavement shall be marked squarely and neatly to size as indicated on Construction Drawings.
- F. Pavement shall be scored and broke along the marked lines using a rotary saw and jackhammer. Pavement shall not be machine pulled for initial brake.
- G. Adjacent pavement damaged during construction shall be removed as described above and replaced in accordance with the Construction Drawings at the expense of the Contractor.
- H. Upon removal, asphalt and concrete shall be loaded and disposed of offsite the same day of removal.

### 3.4.7 Grading

- A. Finish grade areas to lines and elevations indicated as existing grades on drawings or to surrounding surface grades.
- B. Graded areas shall be within 0.10 foot of required subgrade elevation and shall not permit the ponding of water.

- C. In areas to receive grassing, redistribute stockpiled topsoil over graded areas to a minimum depth of four (4) inches. Provide additional topsoil to achieve required depth.
- D. Where finish grade meets or abuts curbs, walks or pavement, uphill grades shall be slightly higher than curb or pavement to permit drainage.
- E. In yard, right-of-way and mowed areas, remove rocks and dirt clods ¾-inch in size and larger.
- F. Excess soil, rock and debris shall be removed from the project site.

#### 3.4.8 Erosion Control

- A. Install perimeter erosion control measures (when necessary) prior to initiating any work.
- B. Stabilize Project site areas in accordance with the erosion control plans and details and/or the "Manual for Erosion and Sediment Control in Georgia", latest edition.

## 3.4.9 Clean-Up

- A. Upon completion of each day's work, broom sweep/pressure wash as necessary any dirt/mud/debris from sidewalk, curb and pavement surfaces and dispose.
- B. Upon site being stabilized with vegetation, all erosion control measures and any remaining debris (i.e. silt fence, stakes, hay bales) shall be removed from site areas.

## 3.5 Flow Interruption

#### 3.5.1 General

- A. Flow interruption may be completed using plugging and/or bypass pumping methods.
- B. Flow interruption methods shall be capable of handling peak flow conditions as determined by CCWA.
- C. The Contractor shall take all necessary steps to eliminate the overflow of sewage. 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.

- D. The Contractor shall be responsible for damage to public or private property due to flow interruption. All costs of 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.
- E. The Contractor will indemnify and hold harmless the CCWA for any fines or third-party claims for personal or property damage arising from flow interruption that is the responsibility of the Contractor. Should fines subsequently be imposed as a result of any flow interruption 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 flow interruption.

# 3.5.2 Flow Interruption Submittal

- A. Submit a flow interruption plan for CCWA approval whenever flow interruption of any type is to be utilized.
- B. CCWA will provide flow rates.
- C. Indicate flow interruption method and 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.
- D. Indicate pump and piping size; pumping capacity shall be capable of handling peak flows.
- E. Include an emergency response plan to be followed in the event of a failure of the system.

# 3.5.3 Pumping System

- A. Furnish, install and maintain a primary pumping system and a redundant pumping system with automated emergency call services, appurtenances, bypass piping and fuel required to maintain anticipated flows and services.
- B. 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 be equipped to be operated continuously 24 hours per day.
- C. Each pump shall have an individual suction line. Suction lines of two or more pumps cannot be manifolded together. No more than two (2) pump discharge hoses shall be used for the bypass/diversion. If the flow exceeds the capacity of two (2) hoses, then rigid piping shall be used.

- 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.
- D. Pumped sewage shall be in an enclosed hose or pipe that is adequately protected from traffic. Install traffic rated hose/ramp assemblies where discharge crosses paved surfaces and entrances to business/residential properties.
- E. All bypass pumps shall be installed with the bottom of the skids out of or above the 100-year flood elevation. Piping crossing swamps and creeks shall be installed above the 100-year flood elevation and secured to a ridged structure. All other piping within the 100-year flood elevation shall be secured to prevent pipe movement during rain events and flooding.
- F. All pump/engine assemblies shall be fully enclosed and equipped with sound suppression systems.
- G. All bypass pump suction point locations and discharge point locations shall be covered/sealed to prevent odor.
- H. 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, including callout services, 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.
- I. Install temporary fence (8-feet in height) around bypass pumps, suction point locations and discharge point locations to provide precautionary measures for the protection of persons or property.

#### 3.6 Dewatering

- A. Provide dewatering systems as necessary to maintain excavations dry at all times during construction.
- B. Water withdrawn from excavations or dewatering systems shall be filtered using containerized sedimentation systems, filter bags and/or filter tubes.
- C. Install appropriate erosion control measures as may be necessary.
- D. Sediment collected within the systems shall be disposed of offsite.

#### 3.7 Excavation

#### 3.7.1 Shoring

- A. The Contractor shall assume the responsibility for design and construction of excavation shoring and bracing capable of supporting excavations and construction loads.
  - 1. Where depths require, provide shore design and details stamped and sealed by a Professional Engineer Licensed in the State of Georgia for CCWA review.
- B. Use trench boxes, steel sheets, and/or sheet piles wherever possible to prevent the weakening of surrounding soils.
- C. Use trench boxes, steel sheets, and/or sheet piles when digging next and near power/utility poles.

#### 3.7.2 Pit and Trench

- A. Excavation shall include those measures necessary to establish trench widths and required grades.
  - 1. Excavation shall include removal and disposal off-site of all pipe and manhole materials encountered in the proposed locations of new pipe and manholes.
  - Excavation should be completed to natural undisturbed soil. Where unsuitable material is encountered, over excavate through unsuitable material and backfill to required grade with Surge Stone or No. 57 stone. The CCWA Inspector shall determine depth of over excavation.
- B. Excavated soil shall be placed in a location such that the integrity of the excavation is not jeopardized.
- C. Excavated soil shall be kept dry for subsequent use. Install appropriate protection measures and erosion control measures.
- D. The excavation shall provide space for inspection of utilities and appurtenances.
- E. Maintain excavations dry at all times using pumps, well points or other dewatering means.
- F. When laying pipe, limit trenching to not greater than 100 feet ahead of completely backfilled work.
- G. Open excavations shall be made safe at all times. Contractor should assume that traffic plating will be required on all jobs.

- When work on a site is not ongoing (construction not actually occurring), cover all excavations with traffic plating or barricade with concrete barrier wall or other safety related barrier wall and rope-off with identifying tape as approved by CCWA; only staking and use of caution tape is not acceptable.
- 2. Install steel traffic plates where applicable to facilitate ongoing construction, e.g. to cover excavations overnight, to cover placed concrete during cure, to cover excavations in roadways, to provide access to property, to cover backfilled excavations in heavy traffic areas as determined by CCWA, etc.

#### 3.7.3 Rock

- A. Rock is defined as removing and disposing of solid material being greater than one (1) cubic yard in size which by actual demonstration cannot, in the opinion of the CCWA Engineer, be reasonably excavated with a minimum 135 horsepower excavator, in good condition and equipped with manufacturer's standard boom and rock points or similar approved equipment; and which must be systematically drilled and blasted or broken by power-operated hammer, hydraulic rock breaker or expansive compounds.
- B. Excavation shall include those measures necessary to establish grades indicated on drawings for utilities and appurtenances. Rock shall be excavated to a minimum depth of six (6) inches below grades indicated on drawings.
- C. The Contractor shall be responsible for determining methods required for removal of rock or hard materials (i.e. systematically drilled and blasted or broken by power-operated hammer, hydraulic rock breaker or expansive compounds).
- D. A licensed explosive contractor shall perform blasting operations.
- E. Blasting operations shall be conducted in accordance with all local, state and federal regulations. The Contractor is responsible for repairs and/or replacement of damaged property(s) resulting from the work.
- F. Excavated rock shall not be used as backfill in excavations. Contractor shall replace volume of excavated rock with suitable soil.

#### 3.8 Open Excavation Pipe Work

#### 3.8.1 Bedding

A. Pipe bed shall be established to elevations and grade as shown on the Construction Drawings or to match a requested condition.

- B. Pipe bed material and depth shall be as indicated on the Construction Detail / Construction Drawings. Stone shall be shovel sliced from beneath the pipe up to one-third (1/3) the pipe diameter. The entire length of barrel shall be fully supported with stone.
- C. Stone shall be used to backfill pipe to a height of six (6) inches above the top of the pipe.
- D. When installing pipe in areas of excavated rock, pipe shall be placed on a bed of stone, minimum six (6) inches in depth.
- E. Soil determined to be unsuitable by the CCWA Inspector shall be removed to a determined depth and replaced with stone to desired grade.

#### 3.8.2 Pipe Installation

- A. Comply with manufacturer's installation instructions.
- B. Install pipe of material type and size as shown on the Construction Details or Construction Drawings.
- C. Prior to placement, the interior of pipes and fittings shall be cleaned free of dirt and debris.
- D. Pipe, fittings and accessories shall not be laid or jointed in water.
- E. Pipe, fittings and accessories shall be handled and lowered into their respective positions using choker straps.
- F. A slight hole shall be dug where pipes are to be jointed to relieve pipe bell of any load. Pipe barrel shall be supported for its entire length.
- G. Install compression type full-face gasket coupling or solid sleeve style coupling on pipe to ensure proper joint sealing. The pipe mating ends and coupling shall be thoroughly cleaned and soaped before jointing. The mating ends shall be aligned in accordance with the manufacturer's tolerance and carefully shoved together using a steady force.
- H. Install polyethylene tube plastic on piping at locations where natural gas transmission mains exist as directed by CCWA.
- I. Where casing is being installed in an open excavation, casing lengths shall be as long as practicable and joined by single grooved butt weld for the entire circumference of the casing.
- J. Prior to joining consecutive pipe, backfill previously jointed pipe with sufficient material to prevent movement.
- K. Backfill pipe trench to the required grade in accordance with backfill and compaction requirements.

- 1. Install warning tape over buried piping during backfill operations. Detection tape shall be installed centered, approximately 24 inches above the pipe.
- 2. Install tracer wire taped to pipe and terminated at locations determined by CCWA.
- L. New pipe and existing pipe shall be cut to lengths as required in accordance with manufacturer instructions using a rotary-type saw. Prepare cut ends in accordance with manufacturer instructions.
- M. When installing a pipe into a manhole or box structure, pipe end shall not extend greater than 12-inches beyond the inside face of the structure as measured at the 3 or 9 o'clock position.
- N. When installing a pipe into a headwall, pipe end shall be flush with the outlet face of the structure.
- O. Place a plug in the open end of uncompleted laid piping at the end of each day.
- P. When installing water mains/piping, piping shall be laid to above existing grade and to direction as requested by CCWA to facilitate flushing. CCWA shall perform all flushing operations and Contractor shall provide access/cooperate to facilitate the work. Upon completion of flushing, mains/piping shall be laid to required grade.
- Q. Pipe shall not be placed in service until all testing has been accepted by CCWA.
- R. Pipe not laid to the requested grade/alignment shall be removed and subsequently laid to the requested grade/alignment and the expense of the contractor.

#### 3.8.3 Pipe Testing

- A. Testing shall be performed when backfill to finished grade and compaction are complete and dewatering has been discontinued for a minimum 24-hour period at the location of the test.
  - 1. All pipe installed shall be tested as indicated below.
  - 2. Contractor shall document all testing in such manner as necessary to show completion of the work.
  - 3. A CCWA Inspector must be present and witness any type of testing for acceptance.
  - 4. Any pipe not passing required testing shall be replaced or repaired at the Contractor's expense.
- B. <u>Air Pressure Testing</u>: Sanitary sewer gravity-flow pipe installed between new manholes shall be subjected to a low air pressure test at each joint.

- Pipe shall be free of dirt and debris prior to testing. The internal air pressure of the pipe shall be raised to approximately four (4) psi. The test shall begin when the stabilized pressure is at a minimum of 3.5 psi. Test and pipe shall be considered acceptable when an air pressure equivalent to the stabilized pressure is maintained for a period of five (5) minutes.
- C. <u>Deformation Testing</u>: All pipe shall be tested for deformation. Pipe shall be free of dirt and debris. Any measured location may not show deformation of more than three (3) % of the pipe's manufactured published inside diameter.
  - 1. The diameter of other pipe shall be determined by using a mandrel measuring device being pulled throughout the entire length of the pipe segments.
- D. <u>Televising Testing</u>: All pipe shall be televised to ensure integrity and document installed condition. Pipe shall be free of dirt and debris prior to televising. A video recording in general compliance with ASTM and National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program (PACP) standards shall be completed through the pipe from manhole to manhole to show completed work. A video recording of each segment laid shall be provided to CCWA.

#### 3.9 Concrete Structure Work

#### 3.9.1 Structure Installation

- A. Install structures of required sizes and at locations and elevations as shown on Construction Drawings. Structures shall be set atop stone as indicated on the Construction Drawings/Details.
- B. The bed shall be prepared so that the structure is set level.
- C. Sections shall be handled with lifting straps or hooked cables using a minimum of two (2) of the manufactured manhole lifting holes.
- D. Sections shall be positioned such that influent and effluent piping enter the center of their respective opening not pinching the rubber boot seal. Pipe shall not rest on invert of opening.
- E. Sections shall be stacked level and plumb at all times.
- F. Prior to joining consecutive sections, tongue-and-grooved ends shall be cleaned free of dirt and debris.
- G. Tongue-and-grooved ends shall be fitted with preformed gasket sealing compound. Sealing compound shall be installed in such manner that when consecutive sections are stacked, sealing compound can be visually observed "squeezing out" from all sections of the joint.

- H. Lifting holes shall be plugged with rubber stoppers or sealed using nonshrink grout throughout the entire depth of hole.
- I. Seal annulus between pipe and core opening using rubber boot in accordance with the manufacturer's instructions or brick and mortar when applicable.
- J. Upon completion of visual testing activities, where applicable, install HDPE cap over joint locations.
- K. Manholes may not be placed in service until all testing has been accepted by CCWA.
- L. Structures not set to the requested grade/alignment shall be removed and subsequently set to the requested grade/alignment and the expense of the contractor.

#### 3.9.2 Invert Construction

- A. Clean base free of dirt and debris before constructing invert.
- B. Construct "U-shape" style smooth invert from brick and mortar or cast-inplace concrete to size and elevation as shown on the Construction Drawings and as necessary to direct flow.
- C. Special care shall be taken such that the finished invert does not touch any pipe material.
- D. Invert construction shall have sufficient time to cure as not to be affected by in-service conditions.

#### 3.9.3 Manhole Testing

- A. Testing shall be performed when backfill to finished grade and compaction are complete and dewatering has been discontinued for a minimum 24-hour period at the location of the test.
  - 1. Every newly installed manhole shall be tested.
  - 2. Contractor shall document all testing in such manner as necessary to show completion of the work.
  - 3. A CCWA Inspector must be present and witness any type of testing for acceptance.
  - 4. Any manhole not passing required testing shall be replaced or repaired at the Contractor's expense.
- B. <u>Visual Water Infiltration Testing</u>: Manhole testing shall be performed by visually observing for water infiltration at all manhole sections, at all pipe / rubber boot seal connections, at all manhole / rubber boot seal

- connections. Test shall be considered acceptable when no water infiltration is observed at any described observation points.
- C <u>HDPE Liner Testing</u>: Holiday test HDPE caps at joints using applicable voltage spark test. Test shall be considered acceptable when spark test reveals no holidays. Other testing procedure may be considered.

#### 3.10 Backfill and Compaction

#### 3.10.1 Backfill

- A. Excavations shall be backfilled using suitable material in accordance with the Construction Drawings or applicable Details.
- B. Place no backfill until any poured concrete has sufficient compressive strength.
- C. Place backfill against below grade walls (i.e. manhole sections) in uniform level lifts to prevent wedging action.
- D. When backfilling areas to be paved, the final 6 inches is to be filled with graded aggregate base. Prior to paving, remove required aggregate and dispose.
- E. Backfill shall not be placed on surfaces that are saturated, frozen or containing frost or ice.
- F. Place backfill in excavations as follows.
  - 1. Backfill in loose lifts not exceeding 6 inches when compacting using manual tamping devices (jumping jack).
  - 2. Backfill in loose lifts not exceeding 12 inches when compacting using vibrating/ramming devices (sheep-foot vibratory roller).
- G. Any settlement shall be filled and compacted to conform to adjacent surfaces.

#### 3.10.2 Compaction

- A. Backfill shall be compacted using manual tamping devices or vibrating/ramming devices.
- B. Use manual tamping devices to compact soil as follows, otherwise use vibratory devices.
  - 1. When area is inaccessible to vibrating devices and within 2 feet of below grade walls (includes manholes).
  - 2. From bottom of pipe trench to twelve (12) inches above the top of pipe.

- C. Compaction requirements are as follows.
  - Backfill in road right-of-way shall be compacted the entire depth to a minimum of 95% of the maximum dry density as determined by a Standard Proctor Analysis.
  - 2. Backfill not described above shall be compacted for the entire depth to a minimum of 90% of the maximum dry density as determined by a Standard Proctor Analysis.
  - 3. Soil installed and not meeting the compaction requirements shall be removed and re-installed and compacted or replaced with other approved material and compacted at the expense of the contractor.

#### 3.10.3 Compaction Testing

- A. Samples from the proposed construction area shall be analyzed for maximum dry density in accordance with ASTM 698 Method C or applicable GDOT standard.
- B. The extent of testing required shall be dependent upon soil conditions, Contractor's methods of construction and regulatory requirements.
- C. Minimum compaction testing shall be as follows.
  - 1. Backfill in excavations shall be tested at 2-foot lift intervals per 1,000 square feet of fill or as deemed necessary by the CCWA Inspector.
  - 2. Backfill in trench excavations shall be tested at 2-foot intervals per 400 linear feet of fill or as deemed necessary by the CCWA Inspector.
- D. Soil failing compaction tests shall be subsequently retested. Any retests shall be performed by the CCWA provided material testing company at the expense of the contractor.

#### 3.11 Asphalt and Concrete Placement

#### 3.11.1 Asphalt Placement

- A. Compact existing base and/or add and compact necessary aggregate base/concrete material in accordance with the Construction Drawings.
- B. Cut edges of existing asphalt neat and square.
- C. Apply prime / tack coat as necessary to facilitate asphalt placement.
- D. Install asphalt using mechanical spreader machine and compact to thicknesses as shown on the Construction Drawings or to thickness to match existing asphalt.

E. Install within thickness layers as described in Table 3 of Georgia DOT document "Asphalt Pavement Selection Guidelines", November 2006.

#### 3.11.2 Concrete Placement

- A. Construct formwork to lines and elevations as shown on Construction Drawings.
- B. Clean forms of dirt and debris prior to each use.
- C. Install steel reinforcement and/or wire, support on chairs and secure to prevent movement.
- D. Concrete shall not be placed on loose, saturated or frozen soil.
- E. Concrete shall be placed only when ambient temperature is at 40° F and rising.
- F. Place concrete to thicknesses as shown on the applicable Details or to thickness to match existing concrete using suitable means and consolidate concrete with vibrator of suitable vibrations per minute.
- G. Screed slabs / curbs by use of straight edge or screed board.
- H. Saw control joints as soon as concrete can be traveled by foot without leaving impressions.
  - 1. Control joints shall be installed at interval spacing of 1-1/2 times slab width or at a maximum spacing of 10 feet, whichever is closer.
  - 2. Saw joint depth shall be \( \frac{1}{4} \) of the slab depth.
- I. Concrete shall be finished with a slight broom finish perpendicular to the travel path.
- J. Begin curing after placement and finishing of concrete as soon as free water has disappeared from concrete surface.
  - 1. Curing methods shall be by the continuous application of water for 72 hours or by applying a liquid membrane forming curing-sealing compound to the fresh concrete surface.
- K. Removal of formwork shall take place no sooner than 24 hours after placement of concrete.

#### 3.11.3 Concrete Testing

- A. Concrete from each truck shall be subjected to a slump test in accordance with ASTM C172 and C143.
  - 1. Concrete arriving on the Project site and not exhibiting the required slump may be rejected at the discretion of the CCWA inspector.

- B. Concrete shall be laboratory tested for compressive strength at the discretion of the CCWA Inspector.
  - 1. Samples shall be collected in accordance with ASTM C172 and ASTM C31.
  - 2. Samples shall be tested for compressive strength in accordance with ASTM C39.
  - 3. Concrete placed not meeting the required compressive strength shall be subject to rejection and removal at the discretion of the CCWA inspector.

#### 3.12 Acceptance

- A. CCWA Inspector shall inspect all components of work for compliance with the Contract. The Contractor shall, at all times, permit and facilitate inspection of work by the CCWA. The presence of a CCWA Inspector or other CCWA staff on the site of work shall not be construed to, in any manner, relieve the Contractor of their responsibility for strict compliance with the Contract. The CCWA Inspector shall inform the Contractor when work is deficient from the Contract. Deficiencies shall be addressed in a timely manner as determined by the CCWA Inspector.
- B. Final Acceptance of the work by the CCWA shall be when the Contractor has met all terms and conditions as set forth by the Contract. The date of Final Acceptance shall be no later than the date the CCWA approves the Contractor's final request for payment. Where applicable, Final Acceptance shall be written, signed and dated by the CCWA.

# EXHIBIT A DETAILS SEE SEPARATE ATTACHMENT

#### **ATTACHMENTS**

#### ATTACHMENT A W9

#### Form W-9 (Rev. March 2024) Department of the Treasury Internal Revenue Service

### Request for Taxpayer Identification Number and Certification

Go to www.irs.gov/FormW9 for instructions and the latest information.

Give form to the requester. Do not send to the IRS.

Befor	you begin. For guidance related to the purpose of Form W-9, see F	urpose of Form, below.	1				
	1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregard entity's name on line 2.)				egarded		
	2 Business name/disregarded entity name, if different from above.						
age 3.	3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only one of the following seven boxes.			certain en	4 Exemptions (codes apply only to certain entities, not individuals;		
ig no s	☐ Individual/sole proprietor ☐ C corporation ☐ S corporation ☐ Partnership ☐ Trust/estate			see instru		nan-kenser i	3):
Print or type.	LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership)  Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.			Exempt payee code (if any)  Exemption from Foreign Account Tax Compliance Act (FATCA) reporting			
rint	Other (see instructions)			code (if any)	1		
Print or type. See <b>Specific Instructions</b> on page 3.	3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions				(Applies to accounts maintained outside the United States.)		
See	5 Address (number, street, and apt. or suite no.). See instructions.		Requester's name	equester's name and address (optional)			
	6 City, state, and ZIP code						
	7 List account number(s) here (optional)		1				
Par	Taxpayer Identification Number (TIN)						
Enter	our TIN in the appropriate box. The TIN provided must match the na	me given on line 1 to av	oid Social s	ecurity numbe	r		
	withholding. For individuals, this is generally your social security nu		or a	C.			
	nt alien, sole proprietor, or disregarded entity, see the instructions for s, it is your employer identification number (EIN). If you do not have a						
TIN, la		number, see now to ge	or				
53500		1. Ol 1//+ M	W	er identification	ı numl	ber	
Note: If the account is in more than one name, see the instructions for line 1. See also What Name and Number To Give the Requester for guidelines on whose number to enter.			and	-			
Par	The state of the s						
	penalties of perjury, I certify that:						
2. I an Ser	number shown on this form is my correct taxpayer identification num i not subject to backup withholding because (a) I am exempt from ba vice (IRS) that I am subject to backup withholding as a result of a failu onger subject to backup withholding; and	ckup withholding, or (b)	I have not been i	notified by the	e Inter		
3. I am a U.S. citizen or other U.S. person (defined below); and							
	FATCA code(s) entered on this form (if any) indicating that I am exem						
becau acquis	cation instructions. You must cross out item 2 above if you have been se you have failed to report all interest and dividends on your tax return. tition or abandonment of secured property, cancellation of debt, contribund han interest and dividends, you are not required to sign the certification,	For real estate transactions to an individual ret	ons, item 2 does r irement arrangem	not apply. For lent (IRA), and	mortg: , gene	age inter rally, pay	est paid ments
Sign Here	Signature of U.S. person	ſ	Date				
Ger	neral Instructions	New line 3b has b	een added to this	s form. A flow	-throu	ıgh entit	y is
Section	n references are to the Internal Revenue Code unless otherwise	required to complete foreign partners, ow	e this line to indic ners, or beneficia	ate that it has ries when it p	s direc provide	t or indi	rect orm W-9
noted.  Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.iss.gov/FormW9.		to another flow-thro change is intended regarding the status beneficiaries, so tha requirements. For ex	to provide a flow- of its indirect for it it can satisfy an	through entit eign partners y applicable r	y with , owner eporti	informa ers, or ng	tion
	it's New	partners may be rec Partnership Instructi	uired to complete	e Schedules I	K-2 an	d K-3. S	ee the
Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.		Purpose of Form					
		An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they					

Cat. No. 10231X Form **W-9** (Rev. 3-2024)

Form W-9 (Rev. 3-2024) Page **2** 

must obtain your correct taxpayer identification number (TIN), which may be your social security number (SSN), individual taxpayer identification number ((TIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- . Form 1099-INT (interest earned or paid).
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds).
- Form 1099-NEC (nonemployee compensation).
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers).
- Form 1099-S (proceeds from real estate transactions).
- Form 1099-K (merchant card and third-party network transactions).
- Form 1098 (home mortgage interest), 1098-E (student loan interest), and 1098-T (tuition).
- Form 1099-C (canceled debt).
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

Caution: If you don't return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

#### By signing the filled-out form, you:

- 1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued);
- 2. Certify that you are not subject to backup withholding; or
- 3. Claim exemption from backup withholding if you are a U.S. exempt payee; and
- 4. Certify to your non-foreign status for purposes of withholding under chapter 3 or 4 of the Code (if applicable); and
- 5. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting is correct. See *What Is FATCA Reporting*, later, for further information.

**Note:** If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding. Payments made to foreign persons, including certain distributions, allocations of income, or transfers of sales proceeds, may be subject to withholding under chapter 3 or chapter 4 of the Code (sections 1441–1474). Under those rules, if a Form W-9 or other certification of non-foreign status has not been received, a withholding agent, transferee, or partnership (payor) generally applies presumption rules that may require the payor to withhold applicable tax from the recipient, owner, transferor, or partner (payee). See Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities.

The following persons must provide Form W-9 to the payor for purposes of establishing its non-foreign status.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the disregarded entity.
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the grantor trust.
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust and not the beneficiaries of the trust.

See Pub. 515 for more information on providing a Form W-9 or a certification of non-foreign status to avoid withholding.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person (under Regulations section 1.1441-1(b)(2)(iv) or other applicable section for chapter 3 or 4 purposes), do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515). If you are a qualified foreign pension fund under Regulations section 1.897(i)-1(d), or a partnership that is wholly owned by qualified foreign pension funds, that is treated as a non-foreign person for purposes of section 1445 withholding, do not use Form W-9. Instead, use Form W-8EXP (or other certification of non-foreign status).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a saving clause. Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

- 1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
- 2. The treaty article addressing the income.
- 3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
- 4. The type and amount of income that qualifies for the exemption from tax.
- $\,$  5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

**Example.** Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if their stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first Protocol) and is relying on this exception to claim an exemption from tax on their scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

#### **Backup Withholding**

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include, but are not limited to, interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third-party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

#### Payments you receive will be subject to backup withholding if:

- 1. You do not furnish your TIN to the requester;
- 2. You do not certify your TIN when required (see the instructions for Part II for details);
- 3. The IRS tells the requester that you furnished an incorrect TIN;
- 4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only); or
- 5. You do not certify to the requester that you are not subject to backup withholding, as described in item 4 under "By signing the filledout form" above (for reportable interest and dividend accounts opened after 1983 only).

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Certain payees and payments are exempt from backup withholding. See Exempt payee code, later, and the separate Instructions for the Requester of Form W-9 for more information.

See also Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding, earlier.

#### What Is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all U.S. account holders that are specified U.S. persons. Certain payees are exempt from FATCA reporting. See Exemption from FATCA reporting code, later, and the Instructions for the Requester of Form W-9 for more information.

#### **Updating Your Information**

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you are no longer tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

#### **Penalties**

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

**Misuse of TINs.** If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

#### Specific Instructions

#### Line 1

You must enter one of the following on this line; do not leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

• Individual. Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note for ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040 you filed with your application.

- Sole proprietor. Enter your individual name as shown on your Form 1040 on line 1. Enter your business, trade, or "doing business as" (DBA) name on line 2.
- Partnership, C corporation, S corporation, or LLC, other than a disregarded entity. Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.
- Other entities. Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. Enter any business, trade, or DBA name on line 2.
- Disregarded entity. In general, a business entity that has a single owner, including an LLC, and is not a corporation, is disregarded as an entity separate from its owner (a disregarded entity). See Regulations section 301.7701-2(c)(2). A disregarded entity should check the appropriate box for the tax classification of its owner. Enter the owner's name on line 1. The name of the owner entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For

example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2. If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TilN.

#### Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, enter it on line 2.

#### Line 3a

Check the appropriate box on line 3a for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3a.

IF the entity/individual on line 1 is a(n)	THEN check the box for
Corporation	Corporation.
<ul><li>Individual or</li><li>Sole proprietorship</li></ul>	Individual/sole proprietor.
LLC classified as a partnership for U.S. federal tax purposes or LLC that has filed Form 8832 or 2553 electing to be taxed as a corporation	Limited liability company and enter the appropriate tax classification:  P = Partnership, C = C corporation, or S = S corporation.
Partnership	Partnership.
Trust/estate	Trust/estate.

#### Line 3b

Check this box if you are a partnership (including an LLC classified as a partnership for U.S. federal tax purposes), trust, or estate that has any foreign partners, owners, or beneficiaries, and you are providing this form to a partnership, trust, or estate, in which you have an ownership interest. You must check the box on line 3b if you receive a Form W-8 (or documentary evidence) from any partner, owner, or beneficiary establishing foreign status or if you receive a Form W-9 from any partner, owner, or beneficiary that has checked the box on line 3b.

Note: A partnership that provides a Form W-9 and checks box 3b may be required to complete Schedules K-2 and K-3 (Form 1065). For more information, see the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

If you are required to complete line 3b but fail to do so, you may not receive the information necessary to file a correct information return with the IRS or furnish a correct payee statement to your partners or beneficiaries. See, for example, sections 6698, 6722, and 6724 for penalties that may apply.

#### **Line 4 Exemptions**

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to

#### Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third-party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space on line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2).

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- 2-The United States or any of its agencies or instrumentalities.
- 3—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5-A corporation.
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or territory.
- $7\!-\!A$  futures commission merchant registered with the Commodity Futures Trading Commission.
- 8-A real estate investment trust.
- $9\!-\!\text{An}$  entity registered at all times during the tax year under the Investment Company Act of 1940.
- 10-A common trust fund operated by a bank under section 584(a).
- 11 A financial institution as defined under section 581.
- 12-A middleman known in the investment community as a nominee or custodian.
- $13-A \ trust$  exempt from tax under section 664 or described in section 4947.

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for	THEN the payment is exempt for
Interest and dividend payments	All exempt payees except for 7.
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4.
<ul> <li>Payments over \$600 required to be reported and direct sales over \$5,000<sup>1</sup></li> </ul>	Generally, exempt payees 1 through 5.2
Payments made in settlement of payment card or third-party network transactions	Exempt payees 1 through 4.

<sup>&</sup>lt;sup>1</sup>See Form 1099-MISC, Miscellaneous Information, and its instructions.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) entered on the line for a FATCA exemption code.

- $A\!-\!An$  organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37).
- B-The United States or any of its agencies or instrumentalities.
- $C\!-\!A$  state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.
- D-A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i).
- E-A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i).

- F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state.
- G-A real estate investment trust.
- H-A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940.
- I-A common trust fund as defined in section 584(a).
- J-A bank as defined in section 581.
- K-A broker
- L A trust exempt from tax under section 664 or described in section 4947(a)(1).
- M-A tax-exempt trust under a section 403(b) plan or section 457(g) plan.

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

#### Line

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, enter "NEW" at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

#### Line 6

Enter your city, state, and ZIP code.

#### Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have, and are not eligible to get, an SSN, your TIN is your IRS ITIN. Enter it in the entry space for the Social security number. If you do not have an ITIN, see How to get a TIN below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). If the LLC is classified as a corporation or partnership, enter the entity's EIN.

**Note:** See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/EIN. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or Form SS-4 mailed to you within 15 business

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and enter "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, you will generally have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

**Note:** Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon. See also *Establishing U.S.* status for purposes of chapter 3 and chapter 4 withholding, earlier, for when you may instead be subject to withholding under chapter 3 or 4 of the Code.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

<sup>&</sup>lt;sup>2</sup> However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Form W-9 (Rev. 3-2024)

#### Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

- Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.
- 2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.
- Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.
- 4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third-party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).
- 5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

#### What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account <sup>1</sup>
Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
Custodial account of a minor     (Uniform Gift to Minors Act)	The minor <sup>2</sup>
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee <sup>1</sup>
<ul> <li>b. So-called trust account that is not a legal or valid trust under state law</li> </ul>	The actual owner <sup>1</sup>
Sole proprietorship or disregarded entity owned by an individual	The owner <sup>3</sup>
7. Grantor trust filing under Optional Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))**	The grantor*

For this type of account:	Give name and EIN of:
Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity <sup>4</sup>
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
<ol> <li>Grantor trust filing Form 1041 or under the Optional Filing Method 2, requiring Form 1099 (see Regulations section 1.671-4(b)(2)(i)(B))**</li> </ol>	The trust

List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup>You must show your individual name on line 1, and enter your business or DBA name, if any, on line 2. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

<sup>4</sup>List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.)

\* Note: The grantor must also provide a Form W-9 to the trustee of the trust.

\*\* For more information on optional filing methods for grantor trusts, see the Instructions for Form 1041.

**Note:** If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

#### **Secure Your Tax Records From Identity Theft**

Identity theft occurs when someone uses your personal information, such as your name, SSN, or other identifying information, without your permission to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN.
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax return preparer

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity, or a questionable credit report, contact the IRS Identity Theft Hotline at 800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

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Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 877-777-4778 or TTY/TDD 200-290-4069

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.ldentityTheft.gov and Pub. 5027.

Go to www.irs.gov/ldentityTheft to learn more about identity theft and how to reduce your risk.

#### **Privacy Act Notice**

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and territories for use in administering their laws. The information may also be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payors must generally withhold a percentage of taxable interest, dividends, and certain penalties may also apply for providing false or fraudulent information.

# ATTACHMENT B VENDOR INFORMATION FORM



### CLAYTON COUNTY WATER AUTHORITY FINANCE DEPARTMENT

1600 BATTLE CREEK ROAD | MORROW, GEORGIA 30260

Phone: (770) 960-5880 | Web Site: <u>www.ccwa.us</u>

#### **VENDOR INFORMATION FORM**

**Purpose of this Form:** The *Vendor Information Form* is used by the Clayton County Water Authority (CCWA) to add Vendors/Suppliers to its financial database system and add business designations when applicable.

<u>Important Note:</u> What name will appear on the Invoice? Invoice name shall be reflected on the *Vendor Information Form* and match the *W-9 Form*.

PURCHASING DATA				
NIGP CODE(s):		CCWA REQUESTING DEPARTM	ENT CONTACT:	
	W RESIDUAL VENIMANIANIA	SAN ANDERSKYDE I GESK		
	VENDOR INF	FORMATION		
VENDOR NAME:				
PRINCIPAL CONTACT:		EMAIL ADDRESS:	PHONE NO.	
MAILING ADD	RESS	REMIT TO A	DDRESS	
Street		Street		
City		City		
State	Zip Code	State	Zip Code	
PAYMENT REMITTANCE INFORMATION				
PAYMENT TERMS:		PAYMENT TYPE:		
□ NET 30		□ PAPER CHECK		
		□ ACH PAYMENT (If selected, ACH Authorization Form		
		will be e-mailed to the awarded vendor).		
BUSINESS CLASSIFICATION				
☐ CCWA SLBE ☐ WBE	CCWA SLBE			

FOR OFFICE USE ONLY: CCWA Procurement & Contract Specialist shall e-mail the awarded vendor's *Vendor Information Form* and *W-9 Form* to <a href="mailto:ccwa">ccwa</a> newvendorrequest@ccwa.us.

### STATE OF GEORGIA COUNTY OF CLAYTON

# WAIVER AND RELEASE OF LIEN AND PAYMENT BOND RIGHTS UPON INTERIM PAYMENT

The undersigned mechanic and/or materialman hauthority to furnish:		County Water
[describe materials and/or labor] for the construction	ion of improvements known as:	
	[title of the project or building	ng];
which is located in the City of by the Clayton County Water Authority and more		_, and is owned
		<del>-</del> -
[describe the property upon which the improveme the project, metes and bounds description, or the Attachment: □ yes □ no	_	
Upon the receipt of the sum of \$	ens or claims of liens it has upor labor and/or material bond throug ing those rights and liens that the m	the foregoing gh the date of echanic and/or
by the undersigned to or on account of said contra		,

NOTICE: WHEN YOU EXECUTE AND SUBMIT THIS DOCUMENT, YOU SHALL BE CONCLUSIVELY DEEMED TO HAVE WAIVED AND RELEASED ANY AND ALL LIENS AND CLAIMS OF LIENS UPON THE FOREGOING DESCRIBED PROPERTY AND ANY RIGHTS REGARDING ANY LABOR OR MATERIAL BOND REGARDING THE SAID PROPERTY TO THE EXTENT (AND ONLY TO THE EXTENT) SET FORTH ABOVE, EVEN IF YOU HAVE NOT ACTUALLY RECEIVED SUCH PAYMENT, 90 DAYS AFTER THE DATE STATED ABOVE UNLESS YOU FILE AN AFFIDAVIT OF NONPAYMENT PRIOR TO THE EXPIRATION OF SUCH 90 DAY PERIOD. THE FAILURE TO INCLUDE THIS NOTICE LANGUAGE ON THE FORM SHALL RENDER THE FORM UNENFORCEABLE AND INVALID AS A WAIVER AND RELEASE UNDER O.C.G.A. § 44-14-366.

transmission or electronic signature shall be deen page.	ned as effective as an original executed signature
GIVEN UNDER HAND AND SEAL THIS DA	Y OF, 20
(Signature of Deponent)	(SEAL)
(Printed/Typed Name and Title)	
Deponent, individually, and as duly authorized Company.	d agent and duly elected and acting officer of
(Company Name)	
(Witness)	(Address)
County, the Deponent, who, being personall	a Notary Public in and for said State and y known to the undersigned and being duly within and foregoing statements are true and, 20
Notary Public	
Commission Expiration Date:	
(NOTARY SEAL)	

**COUNTERPARTS AND ELECTRONIC SIGNATURES:** This Waiver may be executed in one or more counterparts, each of which will be deemed to be an original, but all of which together will constitute one and the same instrument. An executed signature page delivered via facsimile

## STATE OF GEORGIA COUNTY OF CLAYTON

# WAIVER AND RELEASE OF LIEN AND PAYMENT BOND RIGHTS UPON FINAL PAYMENT

The undersigned mechanic and/or materia Authority to furnish:		County Water
[describe materials and/or labor] for the cor	nstruction of improvements known as:	
	[title of the project or buildin	<b>g</b> ];
which is located in the City of	, County of	, and is owned
by the Clayton County Water Authority and	more particularly described as follows:	<del>-</del>
[describe the property upon which the improproject, metes and bounds description, or to Attachment: $\square$ yes $\square$ no	_	
Upon the receipt of the sum of: \$	d all liens or claims of liens it has upon nd/or material bond on account of labor o on account of Clayton County Water Aut	the foregoing or materials, or

NOTICE: WHEN YOU EXECUTE AND SUBMIT THIS DOCUMENT, YOU SHALL BE CONCLUSIVELY DEEMED TO HAVE WAIVED AND RELEASED ANY AND ALL LIENS AND CLAIMS OF LIENS UPON THE FOREGOING DESCRIBED PROPERTY AND ANY RIGHTS REGARDING ANY LABOR OR MATERIAL BOND REGARDING THE SAID PROPERTY TO THE EXTENT (AND ONLY TO THE EXTENT) SET FORTH ABOVE, EVEN IF YOU HAVE NOT ACTUALLY RECEIVED SUCH PAYMENT, 90 DAYS AFTER THE DATE STATED BELOW UNLESS YOU FILE AN AFFIDAVIT OF NONPAYMENT PRIOR TO THE EXPIRATION OF SUCH 90 DAY PERIOD. THE FAILURE TO INCLUDE THIS NOTICE LANGUAGE ON THE FORM SHALL RENDER THE FORM UNENFORCEABLE AND INVALID AS A WAIVER AND RELEASE UNDER O.C.G.A. § 44-14-366.

**COUNTERPARTS AND ELECTRONIC SIGNATURES:** This Waiver may be executed in one or more counterparts, each of which will be deemed to be an original, but all of which together will constitute one and the same instrument. An executed signature page delivered via facsimile transmission or electronic signature shall be deemed as effective as an original executed signature page.

**PERSONALLY, APPEARED BEFORE ME**, the undersigned officer, duly authorized by law to administer oaths, comes \_\_\_\_\_\_ (the "Deponent"), who after first being duly sworn according to law, deposes and says under oath as follows:

- 1. That Deponent is the duly authorized agent and duly elected and acting officer of (the "Contractor"), and is duly authorized to execute this Final Contractor's Affidavit, Lien Waiver and Indemnification (this "Affidavit") in a representative capacity on behalf of Contractor, as well as in Deponent's individual capacity, and Deponent has made diligent inquiry into and is personally familiar with and has full knowledge of all facts set forth herein.
- 2. That Contractor acted as the sole general contractor in charge of and directly responsible for the building and construction of all improvements (the "Work") located as reflected above (the "Property"), all of which Work was performed pursuant to the terms of that certain agreement dated \_\_\_\_\_\_ (the "Agreement") by and between Contractor and the Clayton County Water Authority as the owner or agent of the owner of the Property (the "Owner"). The Work includes, without limitation, all Work under or related to the Agreement and all change orders to the Agreement, and all supplemental contracts and subcontracts, whether oral or written, for any extra, additional or replacement labor or materials. Contractor is, and performed the Work as, an independent general contractor and Contractor is not an agent of Owner, and all of the Work was furnished and performed at the instance of Contractor as general contractor.
- **3.** That the Work has been fully and finally completed in strict accordance with the terms of the Agreement, and Contractor has at all times since the commencement of the Work been in direct charge of all aspects of the Work, and Contractor has obtained a current valid permanent certificate of occupancy for the Property and the Work, and the Work has been completed within the boundary lines of the Property.
- **4.** Upon receipt of the sum reflected above, Contractor acknowledges that Owner has paid in full to Contractor the full contract price under the Agreement (the "Contract Price"), which Contract Price includes, without limitation, all amounts and bills for all labor, materials, fixtures and supplies of any type whatsoever used in the Work. Upon receipt of these monies, all contractors, subcontractors of subcontractors, materialmen, suppliers and laborers will be paid in full the agreed price or reasonable value for all materials and supplies ordered, used or furnished and services and labor rendered in connection with or as a part of the Work, and none of such parties have or will have any claim, demand or lien against the Property, and all of the amounts paid by Owner to Contractor under the Agreement have been and will be used to pay for labor or materials used in the Work when no liens or claims of lien were filed or outstanding. There are no disputes regarding the Agreement or any other contracts or subcontracts with respect to the Work or the Property,

and, except for bills associated with these final monies, there are no amounts due or unpaid bills of any nature, either for labor or services related to the Work or the Property or any materials which have been or may have been placed upon, or applied or delivered to the Property, and Contractor does hereby unconditionally agree to hold harmless and indemnify Owner from and against all claims for mechanic's or materialman's liens or claims of lien, including, without limitation, any attempted foreclosure thereof, which in any way arise out of or are related to the Work or the Property, including, without limitation, any attorney's fees incurred in connection therewith.

- **5.** That Contractor does hereby for itself, and its employees, suppliers, subcontractors, mechanics and materialmen and all other persons acting for, through, or under Contractor, waive, remise, relinquish and release all right to file or to have filed or to maintain any materialman's or mechanic's lien or liens or claim or claims against the Property or arising out of or related to the Work. This Affidavit is executed and given in favor of and for the benefit of, and may be relied upon by, Owner and each and every party legally or equitably, now or hereafter, owning or holding any interest in the Property.
- **6.** That this Affidavit is a sworn statement made under the provisions of Official Code of Georgia Annotated Section 44-14-361.2, and is made for the purpose of inducing Owner to pay to Contractor the balance of the Contract Price pursuant to the terms of the Agreement.

GIVEN UNDER HAND AND SEAL THIS	DAY OF, 20
(Signature of Deponent)	(SEAL)
(Printed/Typed Name and Title)	
(Witness)	(Address)
NOTARY ACK	KNOWLEDGMENT
Deponent, who, being personally known to	ary Public in and for said State and County, the the undersigned and being duly sworn and or foregoing statements are true and correct this
Notary Public	<del></del>
Commission Expiration Date:	(NOTARY SEAL)