

CLAYTON COUNTY WATER AUTHORITY

Request for Bid

FLINT RIVER OUTFALL REPLACEMENT – PHASE 1A

Bid Opening: **Tuesday, August 4, 2015 at 2:00 p.m. (local time)**
1600 Battle Creek Road, Morrow, Georgia 30260

A D D E N D U M # 1

Dated: July 28, 2015

<p><i>Acknowledgment of receipt of this addendum MUST BE SIGNED AND INCLUDED IN YOUR RESPONSE TO THE RFB.</i></p>
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REVISIONS:

1. Replace existing Table of Contents, pages i through iv, with revised pages iR through ivR provided with this Addendum.
2. Replace existing Bid Form (pages 2-4.1 – 2-4.5) with revised Bid Form (pages 2-4.1R – 2-4.5R) provided with this Addendum. The estimated quantity of Work Items No. 3 and 4 has been increased to 11,700.
3. Replace existing page 2-8.2 with revised page 2-8.2R provided with this Addendum.
4. Replace existing pages 2-2.2 and 3-1.11 with revised pages 2-2.2R and 3-1.11R provided with this Addendum.
5. Replace existing pages 4-2.4 and 4-2.5 with revised pages 4-2.4R and 4-2.5R provided with this Addendum.
6. Replace existing Drawings ES-1 and ES-2 with revised Drawings ES-1 and ES-2 provided with this Addendum.

QUESTIONS:

1. **Would a HDPE turnback be allowed as an alternate to the cap strip method specified in Division 4, Section 2.D.5 for sealing the manhole joints?**

Answer: Yes. Please refer to Revision number 5 above.

2. **Manhole bid quantities and sizes on bid form do not match plans.**

Answer: Manhole installations at locations defined as Work Items “Tie-In No. 1” and “Tie-In No. 2” are included as part of those Work Items.

3. **Please clarify where cost for composite ring and cover should be included on bid form.**

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Answer: Cost for composite ring and cover could be included at the discretion of the Contractor as part of the 4-ft diameter riser cost.

- 4. Will a monolithic base section with no joint between base slab and walls be required for all manholes to ensure no infiltration occurs at a cold joint?**

Answer: Yes. Refer to Revision number 5 above.

- 5. In Division 2, Section 2 Risk Management, it states CCWA may require an umbrella and/or excess liability policy. It also states that CCWA may at their discretion require an Owner's Protective Liability policy. Since this additional insurance could affect the Contractor's cost, can confirm whether these policies will be required for this project?**

Answer: CCWA is requiring a \$5,000,000 Umbrella or Excess Liability Policy. An Owner's Protective Liability Policy is not required. Refer to Revision number 4 above.

- 6. Division 4, Section 3.7.4B requires air testing of the new sewer. Air testing a 60" sewer line presents serious safety considerations. Will the Owner consider infiltration/exfiltration testing in lieu of air testing?**

Answer: Infiltration/exfiltration testing will not be accepted in lieu of air testing. Air testing each individual joint is a preferred method.

- 7. Regarding crossing #1, the specifications call for the contractor to complete a trenchless cased-crossing of Flint River Road and the plans show it to be in the same trench and partially in the same alignment as the existing 24" sewer. Would the county allow the contractor to change the alignment of this crossing? If this was allowed, there would be much less by-pass pumping needed during the installation of the crossing and it is not exactly feasible to bore where an existing pipe is already. Also, the question was asked at the pre-bid meeting, but to confirm, CCWA will only provide the material for crossing #2 and it is the responsibility of the contractor to provide the material for crossing #1, is this correct?**

Answer: CCWA will consider a re-alignment at the Cased Crossing No. 1 location. Any re-alignment will stay within existing permanent easements

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between the existing 24-inch and 48-inch sanitary sewers. The Contractor will be required to submit for CCWA and CCTD approval a drawing showing the proposed changes to the existing plan and profile. Any additional materials beyond those shown on the existing plans and labor necessary to complete the re-alignment and demolition will be at the expense of the Contractor and be in compliance with project specifications.

CCWA will provide the casing for Cased Crossing No. 2. The Contractor will provide all materials for Cased Crossing No. 1.

- 8. Primary MH #8, which will require a large excavation, is located close to the fence and gate at the entrance to the plant off Roberts Road. What restrictions or requirements are there regarding the operation of the gate and also the perimeter security of the plant?**

Answer: Refer to Division 4, Section 3.1.8, Item E of the Request for Bid package. CCWA will coordinate with Contractor and restrict plant access at Roberts Road as necessary.

- 9. What is the pay width for the line item “Rock Excavation”? It calls for payment to include 6” under the invert of the pipe, but I do not see the width, for example if it is the diameter of the pipe (60”) plus three feet for a total of eight feet or what.**

Answer: A maximum width of rock excavation is not defined. The Contractor should excavate only that reasonable width that is necessary for an installation.

- 10. Under the “Work Items and Measurement” section for “Cased Crossing No. 1” it states that any concrete placement or erosion and sediment control installation will be paid from other work items, but does not mention if rock is encountered. Does this mean that if rock is encountered in cased crossing no. 1 that it is the responsibility of the contractor and no separate pay item will be issued?**

Answer: Refer to Division 4, Section 3.1.3 of the Request for Bid package.

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11. In regards to the by-pass pumping, what will be required during non-working hours? Will it have to be manned at all times or will an emergency call pump system be sufficient? Will a back-up pump be required to be on-site that can handle peak flows? Under Construction Facilities and House Keeping, it discusses minimizing noise by best practicable means and especially at night and especially in residential areas. Is there a certain distance within residential areas or what specific requirements would be included in this?

Answer: Refer to Division 4, Section 3.4, Items D and E of the Request for Bid package. Provide sound suppression devices as indicated in Division 4, Section 3.1.10, Item D; a required distance will be determined as necessary.

12. In the instructions to Bidders (2-1.2) #7 states “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” however of the five pages of the bid form, only the last sheet has a designated place for signature. Is sheet #5 of the bid form the only one that must be signed or do the other four sheets need to be signed as well?

Answer:

Only the last page of the Bid Form must be signed.

SIGNATURE

COMPANY NAME

DATE

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Geotechnical Report: Geotechnical Investigation Report, Clayton County Water Authority, Flint River Outfall Replacement, Jonesboro, Clayton County, Georgia, dated January 16, 2015.

Interim Waiver and Release Upon Payment
Waiver and Release Upon Final Payment

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Addendum

Addendum #1

Construction Plan

Construction Drawings
(Include revised Drawings ES-1 and ES-2)

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Division 2

Bid Requirements

Section 4: Bid Form - Revised

Bid of _____

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

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

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

In compliance with the Request for Bids, Bidder hereby proposes to perform all Work for **Flint River Outfall Replacement – Phase 1A** in strict accordance with the Contract Documents as enumerated in the Request for Bids, within the time set forth therein, and at the prices stated below.

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

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

CONTRACT EXECUTION AND BONDS:

The undersigned Bidder agrees, if this bid is accepted, to enter into an Agreement with CCWA 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 coverage.

CONTRACT TIME:

Bidder hereby agrees to commence work within fourteen (14) calendar days under this contract or on a date to be specified in the Notice to Proceed. The total time for the Bidder to complete this project shall not exceed two-hundred ten (210) calendar days. The Bidder

Division 2

Bid Requirements

Section 4: Bid Form - Revised

and CCWA recognize that time is of the essence in completing this work and that there are delays, expense and difficulties involved in resolving a dispute related to a loss suffered by CCWA if the Work is not completed on time. Accordingly, instead of requiring such proof, CCWA and Bidder agree that as liquidated damages for delay (but not as a penalty), the Bidder shall pay to CCWA, as liquidated damages the amount of \$500.00 per calendar day for each and every day or part of a day thereafter that any work as described in the Contract Documents remains incomplete and/or not accepted by CCWA.

PAYMENT TERMS:

Payment terms are net 30 days after approval of completed work and receipt of a detailed payment application.

RETAINAGE:

Bidder accepts the provisions in the Agreement Form as to retainage.

ADDENDA:

Bidder acknowledges receipt of the following Addenda:

SURETY:

The project work will require Performance and Payment Bonds prior to the commencement of the work. Such work shall not commence until 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 Pay Item Schedule.

Division 2

Bid Requirements

Section 4: Bid Form - Revised

PAY ITEM SCHEDULE

No.	Work Item	Detail	Unit	Estimated Quantity	Unit Price	Extended Total
1	Mobilization	N/A	LS	1	\$	\$
2	Easement Clearing	N/A	LF	3,657	\$	\$
3	Silt Fence Installation	N/A	LF	11,700	\$	\$
4	Silt Fence Removal	N/A	LF	11,700	\$	\$
5	Erosion and Sediment Control Installation	N/A	LF	4,214	\$	\$
6	Permanent Grassing	N/A	SF	160,000	\$	\$
7	NPDES Monitoring and Reporting	N/A	LS	1	\$	\$
8	Permanent Fence Replacement	N/A	LF	300	\$	\$
9	Asphalt Placement	N/A	SF	3,572	\$	\$
10	Concrete Placement	N/A	CF	2,500	\$	\$
11	Concrete Curb Replacement	N/A	LF	200	\$	\$
12	Tie-In No. 1	N/A	LS	1	\$	\$
13	Tie-In No. 2	N/A	LS	1	\$	\$
14	Cased Crossing No. 1	Cased Crossing	LF	120	\$	\$
15		Pipe and Grout	LF	120	\$	\$
16	Cased Crossing No. 2	N/A	LF	140	\$	\$
17	Primary Pipe Installation	0 Feet to 12 Feet	LF	1,090	\$	\$
18		>12 Feet to 16 Feet	LF	2,278	\$	\$
19		>16 Feet to 20 Feet	LF	414	\$	\$
20	Secondary Pipe Installation	N/A	LF	127	\$	\$
21	Service Re-Connection	Initial 20 Feet	EA	10	\$	\$
22		Additional Footage	LF	58	\$	\$

Division 2

Bid Requirements

Section 4: Bid Form - Revised

PAY ITEM SCHEDULE

No.	Work Item	Detail	Unit	Estimated Quantity	Unit Price	Extended Total
23	Primary 10-ft Diameter Manhole Installation	Base	EA	20	\$	\$
24		Riser	VF	251	\$	\$
25	Primary 4-ft Diameter Manhole Installation	Riser	VF	60	\$	\$
26	Secondary 4-ft Diameter Manhole Installation	Base	EA	6	\$	\$
27		Riser	VF	54	\$	\$
28	Manhole Invert Construction	10-Foot Diameter	EA	25	\$	\$
29		8-Foot Diameter	EA	1	\$	\$
30		4-Foot Diameter	EA	8	\$	\$
31	Unsuitable Soil Excavation	N/A	CF	20,500	\$	\$
32	Rock Excavation	N/A	CF	2,000	\$	\$
33	Pipe Collar Installation	N/A	EA	5	\$	\$
34	Demolition No. 1	N/A	LS	1	\$	\$
35	Demolition Pipe Grouting	N/A	CF	30,000	\$	\$
36	Demolition Bulkhead Installation	48-Inch Pipe	EA	27	\$	\$
37		24-Inch Pipe	EA	19	\$	\$
38	Demolition Manhole Abandonment	Riser Removal	VF	42	\$	\$
39		Gravel Fill 8-Foot x 8-Foot Box	VF	32	\$	\$
40		Gravel Fill 4-Foot Diameter Riser	VF	12	\$	\$
41	Unforeseen Existing Conditions Allowance		LS	1	\$ 100,000.00	\$ 100,000.00
TOTAL BID AMOUNT (Add Lines 1 through 41)					\$	

N/A = Non-applicable; LS = Lump Sum; LF = Linear Foot; SF = Square Foot; CF = Cubic Foot; EA = Each; VF = Vertical Foot.

Submitted by: _____
 (COMPANY NAME OF BIDDER)

Division 2

Bid Requirements

Section 4: Bid Form - REVISED

I have read and understand the requirements of this request for bid and agree to provide the required goods and services in accordance with this bid and all attachments, exhibit(s), and drawings.

Submitted by:

(COMPANY NAME OF BIDDER)

By: (OFFICER NAME)

(SIGNATURE)

(TITLE)

(DATE)

(COMPANY ADDRESS)

(CITY, STATE, ZIP CODE)

PHONE NUMBER:

FAX NUMBER:

EMAIL ADDRESS:

WEBSITE:

DATE:

LICENSE NUMBER:

END OF SECTION

Division 2

Bid Requirements

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

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.

Although participation in the SLBE program is not a requirement to participate in contracting with CCWA, it is a requirement to comply with making the “good faith effort” procedures and forms as outlined in the following sections.

If the participation does not meet the SLBE goals, the bidder will be required to submit evidence demonstrating that “good faith efforts” were made to meet the goal.

8.2 SLBE Required Forms

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

- A) SLBE-1 – Covenant of Non-Discrimination: The signed agreement stating that the firm will not discriminate on the basis of a firm’s size (revenue or employee count) with regard to prime contracting, subcontracting, or partnering opportunities.
- B) SLBE-2 – Sub-Contractor Contact Form: A list of all firms contacted to participate as SLBE sub-contractors/suppliers on a contract.
- C) SLBE-3 – SLBE Sub-Contractor/Supplier Utilization Form: A list of all firms procured as SLBE sub-contractors/suppliers to be utilized on a contract.
- D) SLBE-4 – Statement of Good Faith Efforts (Including the Checklist): Documented efforts to seek and procure the utilization of SLBE’s as sub-contractors/suppliers on a contract where a goal is required.

To be submitted post-award:

- E) SLBE-5 – Post Award – Monthly SLBE Participation Report – Contract Goal: Report detailing percentage of SLBE participation (work performed) and payments to SLBE’s on a contract.

By signing the bid, the bidder is certifying that he/she has complied with the requirements of this program. Please contact Contracts, Compliance and Risk Management at ccwa_slbe_program@ccwa.us for a list of certified SLBE’s. For your convenience, the list is provided by clicking [here](#).

8.3 Participation Goal

The participation goal for this procurement is **15%**.

Division 2

Bid Requirements

Section 2: Risk Management Requirements - REVISED

RISK MANAGEMENT REQUIREMENTS (Cont'd)

CONTRACTS FOR UP TO \$50,000

CONTRACTS FOR MORE THAN \$50,000

LIMITS OF LIABILITY:

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

**These are automatic minimums*

Owner's Protective Liability – CCWA's Management may, in its discretion, require Owner's Protective Liability in some situations. However, it is not required for this project.

Umbrella and/or Excess Liability – The Umbrella or Excess Liability Policy may be used to combine with underlying policies to obtain the limits required. The Management of the CCWA is requiring a \$5,000,000 Umbrella or Excess Liability Limit for this project.

Owner's Protective Liability – CCWA's Management may, in its discretion, require Owner's Protective Liability in some situations. However, it is not required for this project.

END OF SECTION

Division 3

Contract Forms

Section 1: Agreement Form - REVISED

RISK MANAGEMENT REQUIREMENTS (Cont'd)

CONTRACTS FOR UP TO \$50,000

CONTRACTS FOR MORE THAN \$50,000

LIMITS OF LIABILITY:

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

**These are automatic minimums*

Owner's Protective Liability – CCWA's Management may, in its discretion, require Owner's Protective Liability in some situations. However, it is not required for this project.

Umbrella and/or Excess Liability – The Umbrella or Excess Liability Policy may be used to combine with underlying policies to obtain the limits required. The Management of the CCWA is requiring a \$5,000,000 Umbrella or Excess Liability Limit for this project.

Owner's Protective Liability – CCWA's Management may, in its discretion, require Owner's Protective Liability in some situations. However, it is not required for this project.

END OF SECTION

Division 4

Specifications

Section 2: Material Requirements - Revised

2.6 Steel Casing Pipe

- A. Provided by CCWA.
- B. Casing pipe shall have a nominal diameter of 42 inches with a minimum wall thickness of 0.375-inch and be in accordance with ASI standards.
- C. Casing pipe shall not have coatings or linings.

Acceptable Manufacturers

As Approved.

2.7 Miscellaneous Pipe

- A. Provided by CCWA.
- B. Miscellaneous type stormwater pipe/fittings of various sizes (concrete, HDPE, corrugated metal) and process pipe/fittings of various sizes (schedule 40 PVC).

Acceptable Manufacturers

As Approved.

2.8 Manhole

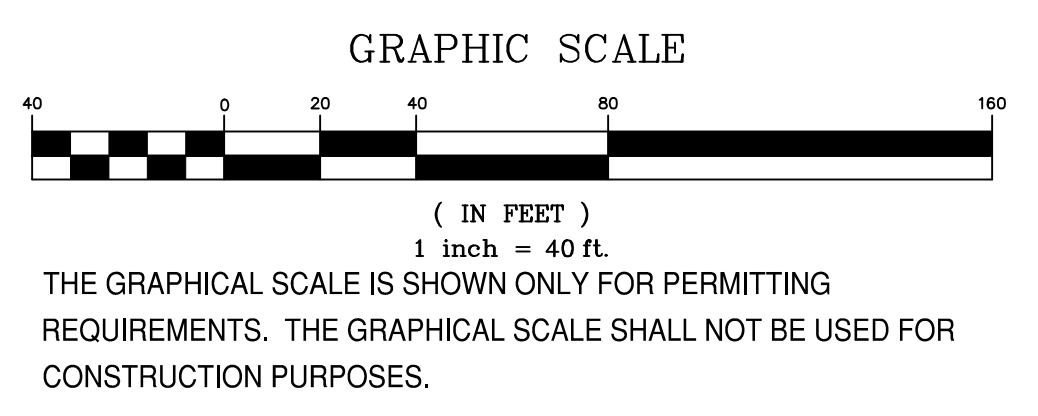
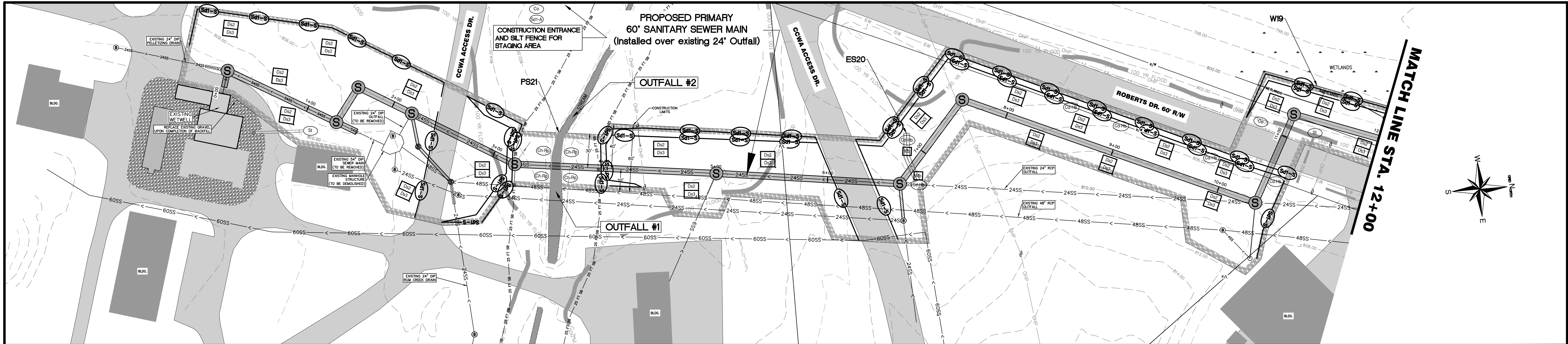
- A. Provided by Contractor.
- B. Manholes shall be cylindrical and constructed of steel reinforced pre-cast concrete. Pre-cast sections shall be manufactured, tested and marked in accordance with ASTM C478. Minimum compressive 28-day strength of concrete in all sections shall be 4,000 psi.
- C. Manholes shall have a minimum inside diameter as indicated on the Construction Drawings.
 - 1. Note that large diameter manholes reduce in size near surface grade to match plan drawings and be fitted at grade with a composite ring and cover.
 - 2. 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.
 - 3. Each section shall have not more than two (2) holes for purposes of handling.
 - 4. Ring and cover shall be integrally cast in the top cone section unless noted otherwise.

Division 4

Specifications

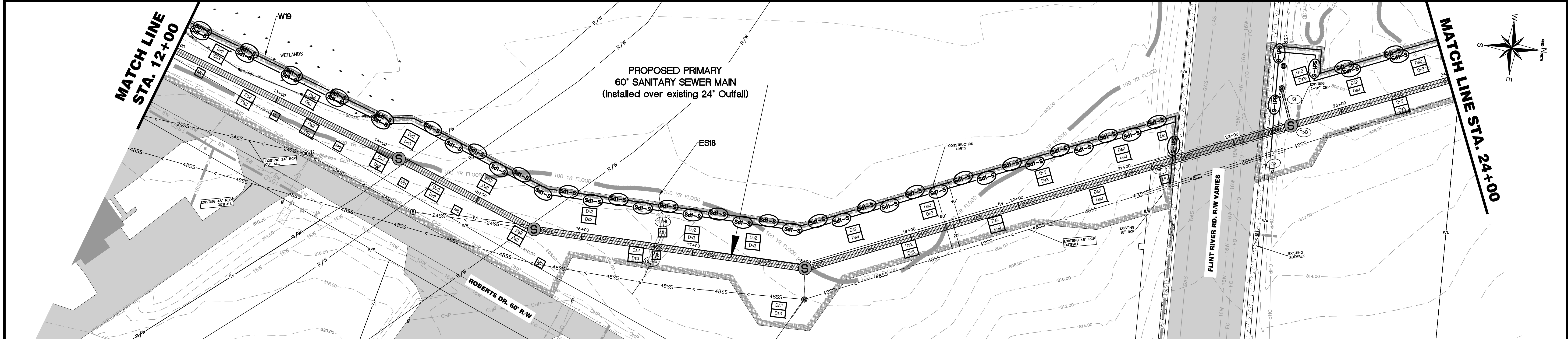
Section 2: Material Requirements - Revised

- D. High Density Polyethylene (HDPE) liner for lining manhole structures shall be provided on all vertical riser walls, cone sections and underside of reducer slabs and be in accordance with ASTM D6693, ASTM D1004 and ASTM D4833.
 - 1. Liner shall have a mechanical bond to the concrete structure.
 - 2. Liner shall return through each opening created for pipe penetration.
 - 3. Liner color shall be yellow in color.
 - 4. Liner shall have a minimum thickness of 2 mm and resist a back pressure of 29 psi.
 - 5. 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 from hydrogen sulfide.
- E. Manhole sections on four (4) feet diameter Secondary Manholes only shall be fitted with polypropylene plastic coated steel steps conforming to ASTM A615, ASTM C478, AASHTO M199 and ASTM D-4101 and shall be integrally cast into manhole sections. Steps shall be twelve (12) inches wide and spaced at 1'-0" on center.
- F. Joints between each section shall be tongue and groove type, sealed with a preformed semi-solid butyl plastic meeting the Federal Specification SS-S-00210 and ASTM C990. 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.
- G. Connecting boot for sealing pipe to precast concrete structure opening shall be a flexible natural or synthetic rubber suitable for sanitary sewer service. The connector 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. Connecting boot and components shall meet ASTM C923, ASTM C1478, ASTM F2510 and ASTM C1244.
- H. Composite material manhole ring and cover shall be comprised of a polymer containing 45 to 70% fiber reinforcement with a thermoset resin matrix conforming to ASTM C1028.
 - 1. All components of the ring and cover shall be resistant to the effects of hydrogen sulfide gas.



LEGEND

(S)	EXISTING SANITARY SEWER MANHOLE	MB	EXISTING MAIL BOX	—G—G—	EXISTING GAS MAIN & SIZE	[]	EROSION MATTING AND BLANKETS
(S)	PROPOSED SANITARY SEWER MANHOLE	WM	EXISTING WATER METER	25 FT 5R	25 FT STREAM BUFFER	(C)	CONSTRUCTION EXIT
(V)	EXISTING WATER VALVE	WV	EXISTING WATER VALVE	X X	EXISTING FENCE	(H)	HAY BALE CHECK DAM
(H)	EXISTING FIRE HYDRANT	CM	CORRUGATED METAL PIPE	—LL—LL—	LAND LOT LINE	(S)	CHANNEL STABILIZATION WITH RIP-RAP
(S)	EXISTING STREET SIGN	RP	REINFORCED CONCRETE PIPE	—OTS—OTS	EXISTING OVERHEAD TRAFFIC SIGNAL LINES	(S)	STREAM BANK STABILIZATION RIP-RAP & LIVE STAKING
(P)	EXISTING LAMP POST	DP	DUCTILE IRON PIPE	—UTS—UTS	EXISTING UNDERGROUND TRAFFIC SIGNAL LINES	(P)	PIPE AILET SEDIMENT TRAP
(U)	EXISTING UTILITY POLE	FO	EXISTING CABLE TV	—FO—FO	EXISTING UNDERGROUND CABLE TV	(P)	PIPE OUTLET TO FLAT AREA
(T)	EXISTING POWER TRANSFORMER	LOP	EXISTING UNDERGROUND POWER LINES	—LOP—LOP	EXISTING UNDERGROUND POWER LINES	(D)	DISTURBED AREA STABILIZATION W/WOOD
(S)	EXISTING STORM JUNCTION BOX	DHP	EXISTING UNDERGROUND POWER LINES	—DHP—DHP	EXISTING UNDERGROUND POWER LINES	(S)	DROP AILET SEDIMENT TRAP
(H)	EXISTING STORM HEADWALL	LOT	EXISTING UNDERGROUND TELEPHONE CONDUIT	—LOT—LOT	EXISTING UNDERGROUND TELEPHONE CONDUIT	(T)	TEMPORARY/PERMANENT VEGETATION COVER
(S)	EXISTING STORM CATCH-BASIN	UTV	EXISTING UNDERGROUND CABLE TV	—UTV—UTV	EXISTING UNDERGROUND CABLE TV		
(S)	EXISTING STORM DROP INLET	SN	EXISTING SEWER FORCE MAIN	—SN—SN	EXISTING SEWER FORCE MAIN		
(S)	EXISTING TELEPHONE SWITCH BOX	BS	EXISTING SEWER MAIN, SIZE & FLOW DIRECTION	—BS—BS	EXISTING SEWER MAIN, SIZE & FLOW DIRECTION		
(M)	EXISTING TELEPHONE CABLE MARKER	RP	EXISTING WATER MAIN & SIZE	—RP—RP	EXISTING WATER MAIN & SIZE		
(W)	EXISTING GUIDE WIRE	W	EXISTING WATER MAIN OR SERVICE	—W—W	EXISTING WATER MAIN OR SERVICE		
(P)	IRON PIN/PROPERTY CORNER MARKER		PROPOSED SEWER MAIN	—S—S	PROPOSED SEWER MAIN		
(S)	EXISTING TRAFFIC SIGNAL BOX		EXISTING STORM MAIN SIZE & FLOW DIRECTION	—S—S	EXISTING STORM MAIN SIZE & FLOW DIRECTION		
(M)	EXISTING GAS METER		DEMOLITION / REMOVE PIPE AND MANHOLE	[]	DEMOLITION / REMOVE PIPE AND MANHOLE		
(V)	EXISTING GAS VALVE		DEMOLITION / GROUT FILL	[]	DEMOLITION / GROUT FILL		
(R/W)	RIGHT OF WAY		DEMOLITION / GRAVEL FILL	[]	DEMOLITION / GRAVEL FILL		
(P/L)	PROPERTY LINE		SILT FENCE TYPE AS SPECIFIED	[]	SILT FENCE TYPE AS SPECIFIED		
(E/P)	EDGE OF PAVEMENT		CONSTRUCTION LIMITS	[]	CONSTRUCTION LIMITS		



PLANS PREPARED BY:

CLAYTON COUNTY WATER AUTHORITY
1600 BATTLE CREEK ROAD
MORROW, GEORGIA 30260

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PROJECT NAME:
FLINT RIVER OUTFALL REPLACEMENT
PHASE 1A
 LAND LOT 243 DISTRICT 13 &
 LAND LOT 243 DISTRICT 5
 CLAYTON COUNTY, GEORGIA

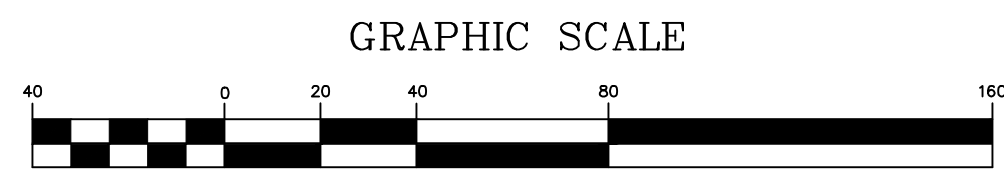
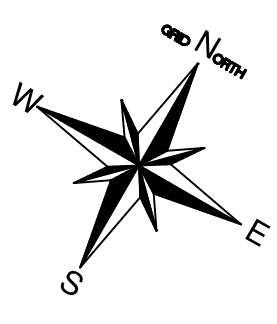
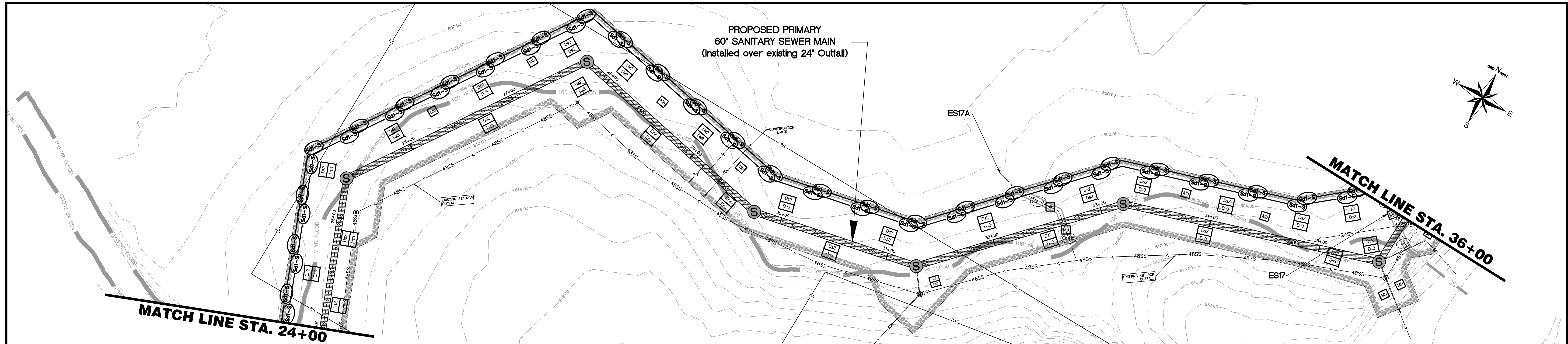
SEAL:

REVISIONS:

DATE:	NO.:	DESCRIPTION:
7/2/2015	1	PROVIDE DOUBLE ROW OF SILT FENCE AS SHOWN ON DRAWINGS

SHEET TITLE:
EROSION CONTROL PLAN

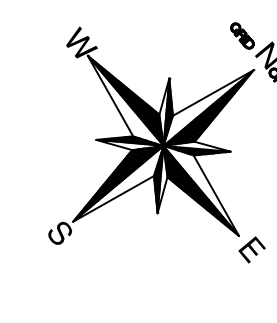
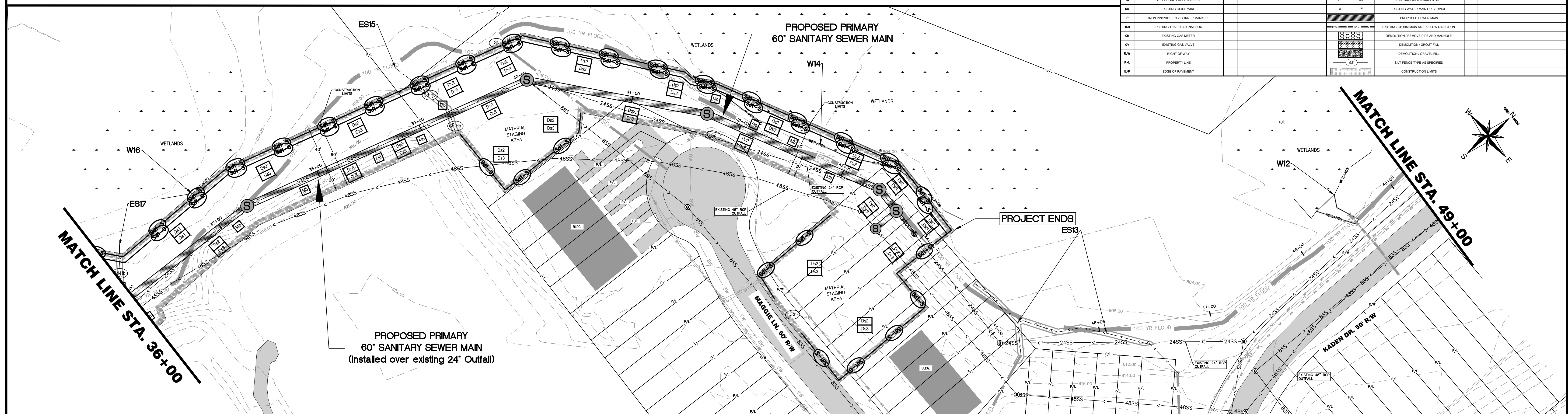
DESIGN BY:	DATE:	04/15/2015
CCWA	JOB #:	814-08
DRAWN BY:	DRAWING #:	ES-1
WVB	SCALE:	1" = 40'
CHECKED BY:	SHEET NUMBER	12 OF 18




THE GRAPHICAL SCALE IS SHOWN ONLY FOR PERMITTING REQUIREMENTS. THE GRAPHICAL SCALE SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.



LEGEND			
	EXISTING SANITARY SEWER MANHOLE		EXISTING GAS MAN & SIZE
	PROPOSED SANITARY SEWER MANHOLE		20 FT STREAM BUFFER
	EXISTING WATER VALVE		EXISTING FENCE
	EXISTING FIRE HYDRANT		CORRUGATED METAL PIPE
	EXISTING STREET SIGN		REINFORCED CONCRETE PIPE
	EXISTING LAMP POST		DUCTILE IRON PIPE
	EXISTING UTILITY POLE		EXISTING CABLE TV BOX
	EXISTING POWER TRANSFORMER		EXISTING STORM DROP INLET
	EXISTING STORM JUNCTION BOX		EXISTING TELEPHONE SWITCH BOX
	EXISTING STORM HEADWALL		EXISTING TELEPHONE CABLE MARKER
	EXISTING STORM CATCH BASIN		EXISTING WIRE
	EXISTING STORM DROP INLET		IRON PIN/PROPERTY CORNER MARKER
	EXISTING TELEPHONE SWITCH BOX		EXISTING TRAFFIC SIGNAL BOX
	EXISTING TELEPHONE CABLE MARKER		EXISTING GAS METER
	EXISTING WIRE		EXISTING GAS VALVE
	IRON PIN/PROPERTY CORNER MARKER		RIGHT OF WAY
	EXISTING TRAFFIC SIGNAL BOX		PROPERTY LINE
	EXISTING GAS METER		EDGE OF PAVEMENT
	EXISTING GAS VALVE		EXISTING SANITARY SEWER MANHOLE
	RIGHT OF WAY		PROPOSED SANITARY SEWER MANHOLE
	PROPERTY LINE		EXISTING STORM MAN & SIZE & FLOW DIRECTION
	EDGE OF PAVEMENT		DEMOLITION/REMOVE PIPE AND MANHOLE
	EXISTING SANITARY SEWER MANHOLE		DEMOLITION/GROUT FILL
	PROPOSED SANITARY SEWER MANHOLE		DEMOLITION/GRAVEL FILL
	EXISTING STORM MAN & SIZE & FLOW DIRECTION		SILT FENCE TYPE AS SPECIFIED
	DEMOLITION/REMOVE PIPE AND MANHOLE		CONSTRUCTION LIMITS
	DEMOLITION/GROUT FILL		EROSION MATTING AND BLANKETS
	DEMOLITION/GRAVEL FILL		CONSTRUCTION EXIT
	SILT FENCE TYPE AS SPECIFIED		HAY BALE CHECK DAM
	CONSTRUCTION LIMITS		CHANNEL STABILIZATION WITH RIP-RAP
	EROSION MATTING AND BLANKETS		STREAM BANK STABILIZATION RIP-RAP & LIVE STAKING
	CONSTRUCTION EXIT		PIPE INLET SEDIMENT TRAP
	HAY BALE CHECK DAM		PIPE OUTLET TO FLAT AREA
	CHANNEL STABILIZATION WITH RIP-RAP		DISTURBED AREA STABILIZATION W/SOIL
	STREAM BANK STABILIZATION RIP-RAP & LIVE STAKING		DROP INLET SEDIMENT TRAP
	PIPE INLET SEDIMENT TRAP		TEMPORARY/PERMANENT VEGETATION COVER
	PIPE OUTLET TO FLAT AREA		
	DISTURBED AREA STABILIZATION W/SOIL		
	DROP INLET SEDIMENT TRAP		
	TEMPORARY/PERMANENT VEGETATION COVER		



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PROJECT NAME:
FLINT RIVER OUTFALL REPLACEMENT PHASE 1A

LAND LOT 243 DISTRICT 13 &
 LAND LOT 243 DISTRICT 5
 CLAYTON COUNTY, GEORGIA



FLINT RIVER OUTFALL REPLACEMENT - PHASE 1A
SEAL:

REVISIONS:

DATE:	NO.:	DESCRIPTION:
7/2/2015	1	PROVIDE DOUBLE ROW OF SILT FENCE AS SHOWN ON DRAWINGS

SHEET TITLE:
EROSION CONTROL PLAN

DESIGN BY: CCWA	DATE: 04/15/2015
DRAWN BY: WWB	JOB #: 814-08
CHECKED BY:	DRAWING #: ES-2
	SCALE: 1" = 40'
SHEET NUMBER 13 OF 18	