

**ALBANY AVENUE  
WIDENING AND RESURFACING  
TRANSPORTATION INVESTMENT ACT OF 2010  
PROJECT SGRC-153, P.I. 0016312  
CONTRACT ID: IGTA2000541**

**CITY OF WAYCROSS, GEORGIA  
BID NO. FY 21-17**

**BIDS DUE March 30, 2021; 2:00 PM Local Time**

**ADDENDUM NO. 2  
March 22, 2021**

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**THE PLANS, SPECIFICATIONS AND BIDDING DOCUMENTS FOR THE PROJECT NAMED ABOVE ARE HEREBY AMENDED AS DESCRIBED ON THE FOLLOWING PAGES. THE BIDDER MUST ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACES PROVIDED ON THE BID FORM. FAILURE TO DO SO MAY RESULT IN REJECTION OF THE BID.**

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**CLARIFICATIONS**

The following clarifications are offered in response to questions asked at the non-mandatory Pre-Bid Meeting:

**Question:** Will a separate bid item for traffic control be added to the bid form?

**Response:** A separate bid item for traffic control **will not** be added to the bid form. The Bid Item Descriptions found in Section 1.4 of Specification Section 01270 state that both mobilization/demobilization and traffic control are among the items to be included in the unit prices bid.

**Question:** If the existing sewer line between Church Street and Plant Avenue, to be cleaned and televised under this contract, needs replacement, how will such replacement be paid for?

**Response:** Payment for replacement of this line and associated sewer services, if required, will be made at the unit prices for same stated in the bid form under Items 2.3A or 2.3B.

**Question:** If pipe bursting is to be offered for consideration how will you know it is feasible without first televising the lines.

**Response:** The unit price bid for pipe bursting will include, among other items, a CCTV inspection to locate sewer service connections, sags, humps, obstructions, or pipe materials that may prevent the existing pipe from being pipe burst properly. A method of payment for necessary point repairs will be included.

**Question :** Has CSX approval or permits been obtained.

**Response:** Reference the **CSX Railroad Special Provisions** as noted on the plans requiring compliance with the CSXT Public Projects Manual. The bidder shall include all associated costs in the applicable bid prices.

**Question:** If a notice to proceed (NTP) for Division One could be delayed for up to 210 days, how can bidder be expected to anticipate the future cost of asphalt in todays bidding climate? Has use of the GDOT Asphalt Index been considered?

**Response:** The **GDOT Asphalt Index** is typically used when projects are planned to span over several years. This resurfacing project is scheduled to be completed within one year, therefore it is not anticipated to utilize the **index**.

## **SPECIFICATIONS**

### **DIVISION 00**

#### **SECTION 00020 – TABLE OF CONTENTS**

On Page 2 of 3 under Division 2 add the following:

- 02956 Pipe Bursting Gravity Sewer Mains with HDPE Pipe
- 02957 Sanitary Sewer Point Repairs
- 02958 Sanitary Sewer Manhole Rehabilitation

#### **SECTION 00410 – BID FORM**

Delete this section in its entirety and insert SECTION 00410 (Revised per Addendum No. 2) attached herewith in its place.

### **DIVISION 01**

#### **SECTION 01270 – MEASUREMENT AND PAYMENT**

On Page 14 of 21 delete the heading which reads “**2.3 – SANITARY SEWER IMPROVEMENTS**” and substitute the following in its place: “**2.3A – SANITARY SEWER IMPROVEMENTS – EXCAVATE & REPLACE**”

On Page 18 of 21, add the following:

#### **2.3B – SANITARY SEWER IMPROVEMENTS – PIPE BURST & REHAB**

##### **(a) Heavy Clean & CCTV Existing 8” Sewer**

This item shall be measured and paid for based on the contract unit price amount per linear foot as shown on the Bid Form. The unit price bid shall include all labor, materials and equipment required for internal CCTV inspection of existing sanitary sewer mains including, but not limited to, mobilization/demobilization; traffic control; heavy cleaning; CCTV inspection; report preparation that confirms pipe size, type and condition, identifies and locates service connections; clean-up and surface restoration, and all other work and appurtenances required.

**(b) Pipe Burst from Existing 8" VCP to 10" with HDPE Pipe**

This item shall be measured and paid for based on the contract unit price per linear foot as shown on the Bid Form. The unit price bid shall include all labor, materials and equipment required to pipe burst the existing 8-inch VCP sewer to 10-inch using HDPE pipe including, but not limited to, mobilization/demobilization; traffic control; initial cleaning and CCTV inspection of existing lines to locate service connections, sags, humps or other obstructions that will prevent the existing pipe from being pipe burst properly; excavation, backfill and compaction of insertion pits including saw cutting, removal and replacement of asphalt base and pavement; By-pass pumping; furnishing and assembling 10-inch HDPE pipe using the butt-fusion method; insertion of HDPE pipe behind the bursting head; HDPE pipe connections to existing sanitary sewer manholes; clean-up and surface restoration; and all other work and appurtenances required.

**(c) Re-Establish Sewer Services**

This item shall be measured and paid for based on the actual number of services re-established at the contract unit price bid shown on the Bid Form. The unit price bid shall include all labor, materials and equipment required including, but not limited to, mobilization/demobilization; traffic control; excavation, backfill and compaction of window cuts including saw cutting, removal and replacement of asphalt base and pavement; by-pass pumping; furnishing and installing Inserta-Tee or electro-fusion type fittings; furnishing and installing new SDR-26 PVC sewer pipe and fittings of the size and type required to reconnect the service; detection tape, clean-up and surface restoration, and all other work and appurtenances required.

**(d) Point Repairs**

Measurement for point repairs shall be made along the centerline of the pipe from beginning of repair to end of the repair. Payment for point repairs shall be at the unit price bid for the first 12-feet of the repair. The unit price bid shall include all labor, materials and equipment required including, but not limited to, mobilization/demobilization; traffic control; excavation, backfill and compaction of window cuts including saw cutting, removal and replacement of asphalt base and pavement; by-pass pumping; repair and removal damaged pipe or obstruction; trench preparation; installation of new pipe; clean-up and surface restoration; and all other work and appurtenances required.

**(e) Clean, Line and Coat Existing SSMH**

This item shall be measured and paid for based on the number of existing sanitary sewer manholes rehabilitated using cementitious coatings at the unit price shown on the Bid Form. The unit price bid shall include all labor, materials and equipment required including, but not limited to, mobilization/demobilization; traffic control; by-pass pumping; manhole cleaning and preparation including removal of old liner and repair of loose riser section where called for; liner application, testing, cleanup, complete surface restoration and all other work and appurtenances required.

**(f) Replace Existing Manhole Frames & Covers**

This item will be measured and paid for based on the number of sanitary sewer manhole frames and covers removed and replaced at the Contract unit price shown on the Bid Form. The unit price bid shall include all materials, labor and equipment required including, but not limited to, mobilization/demobilization; traffic control; saw cutting and removal of existing pavements and base to limits required; removal and disposal of existing ring and cover; repairs to chimney or corbel; grade rings; furnishing and installing new frame and cover; excavation; furnishing and installing new base material; backfill; compaction; cleanup; complete surface restoration and all other work and appurtenances required.

**(g) CCTV Inspection of new 10" HDPE Sewer**

This item shall be measured and paid for based on the contract unit price amount per linear foot as shown on the Bid Form. The unit price bid shall include all labor, materials and equipment required for internal CCTV inspection of new sanitary sewer mains including, but not limited to, mobilization/demobilization; traffic control; cleaning as required; CCTV inspection; report preparation that confirms pipe size, type and condition, identifies and locates service connections; clean-up and surface restoration, and all other work and appurtenances required.

**DIVISION 02**

Add the following Specification attached herewith:

**Section 02956** Pipe Bursting Gravity Sewer Mains with HDPE Pipe

Add the following Specification attached herewith:

**Section 02957** Sanitary Sewer Point Repairs

Add the following Specification attached herewith:

**Section 02958** Sanitary Sewer Manhole Rehabilitation

**ATTACHMENTS**

MINUTES OF NON-MANDATORY PRE-BID MEETING  
SPECIFICATION SECTION 00410 – BID FORM (REVISED PER ADDENDUM NO. 2)  
SPECIFICATION SECTION 02956 – PIPE BURSTING GRAVITY SEWER MAINS WITH HDPE PIPE  
SPECIFICATION SECTION 02957 – SANITARY SEWER POINT REPAIRS  
SPECIFICATION SECTION 02958 – SANITARY SEWER MANHOLE REHABILITATION

**END OF ADDENDUM NO. 2**

**PRE-BID MEETING MINUTES  
ALBANY AVENUE WIDENING AND RESURFACING  
TRANSPORTATION INVESTMENT ACT OF 2010  
PROJECT SGRC-153, P.I. 0016312  
CONTRACT ID: IGZIA2000541  
BID NO. FY 21-17**

**Tuesday March 16, 2021  
2:00 PM Local Time**

**OWNER**

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City of Waycross, Georgia  
417 Pendleton Street  
Waycross, GA 31502-0099  
Phone: (912) 287-2945

**ENGINEER**

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Coastal Engineering Consultants, Inc.  
P.O. Box 20306 St. Simons Isl., GA 31522  
Contact Person: N. John Hunkele, Jr., P.E.  
Phone: (912) 223-0647  
E-mail: [johnh@cec-ga.com](mailto:johnh@cec-ga.com)

### **Opening Remarks by John Hunkele**

This is a non-mandatory pre-bid conference for the Albany Avenue Widening and Resurfacing project, funded in part by GDOT under the Transportation Investment Act (TIA) of 2010. The purpose of this meeting is to present a few important points regarding the preparation and submission of a bid as well as some of the special provisions of the contract documents.

We will entertain questions and comments at the end of this meeting, however any responses presented will be non-binding and without legal effect. All questions about the meaning or intent of the plans, specifications and bidding documents must be submitted to the Engineer in writing no less than five (5) working days prior to the date set for opening of bids (March 23, 2021). Such questions will be answered by formal addenda issued to all registered plan holders.

### **Introductions**

The following were in attendance:

Linda Jones	City of Waycross
Steve Pope	City of Waycross
Charlie Bridges	ESG Engineering
John Hunkele	Coastal Engineering Consultants, Inc.
Joshua Leach	Thrift Brothers, LLC
Harris Echols	Underground Excavating, Inc.
Kyle Spivey	East Coast Asphalt
Kelly Murray	East Coast Asphalt

John Hunkele made the following presentation/remarks.

## DESCRIPTION OF WORK

The work of **Division 1** consists of asphalt milling and resurfacing beginning at the intersection of Plant Avenue and continuing west along **Albany Avenue** approximately **7,100 LF** to the Waycross City Limits east of Waller Street. More specifically the work of **Division 1** includes, but is not limited to, mobilization/demobilization; asphalt milling and re-surfacing; grade adjustments at affected manhole and valve box covers; traffic control; pavement markings; raised reflective pavement markers and stop bars; complete surface restoration; and all other work and appurtenances required.

The work of **Division 2** consists of drainage, water distribution and sanitary sewer improvements beginning at the intersection of Plant Avenue and continuing west along **Albany Avenue** approximately **7,100 LF** to the Waycross City Limits east of Waller Street. More specifically the work of Division 2 includes, but is not limited to, mobilization/demobilization; traffic control; demolition of existing storm and sanitary sewer systems; removal and replacement of damaged curb & gutter and sidewalks; installation of new concrete curb & gutter and valley gutters; installation of ADA compliant curb ramps; installation of approximately 50 new storm drain structures; installation of approximately 2500 LF of new RCP storm drain pipe ranging in size from 15" to 30"; installation of approximately 5950 LF of new 8" PVC water main with related valves, fittings and appurtenances; **installation of approximately 3200 LF of new 8" and 10" PVC sewer mains with associated manholes and appurtenances**; re-establishment of water and sewer services; complete surface restoration; and all other work and appurtenances required.

**A second option for the sanitary sewer improvements using trenchless technologies (pipe bursting) will be added by addendum in the bid form for the Owner's consideration.**

## CONTRACTOR PRE-QUALIFICATION

Any Contractor submitting a bid must be a licensed Utility Contractor in the State of Georgia. The license number must be written on the outside of the sealed envelope containing the bid.

## SUBMISSION OF BIDS

Please see Paragraph 7.0 of Section 00200 INSTRUCTION TO BIDDERS for detailed instructions on how to prepare and submit a responsive bid for this project.

## SPECIAL PROVISIONS

### **Existing Facility Operations**

Notify the Owner's Project Representative at least 72-hours prior to relocating any piping or taking any utility system out of service.

### **Project Schedule**

Total Project:	270 Consecutive Calendar Days from NTP
Division One	60 Consecutive Calendar Days from NTP
Division Two	210 Consecutive Calendar Days from NTP

If Divisions one and two are awarded separately, the NTP for Division One will be delayed up to 210 days or until completion of Division Two.

**Contractor's Warranty**

Contractor shall warrant/guarantee all materials and workmanship for a period of one year from date of acceptance by Owner.

**Material Storage Areas**

Storage of materials and parking of vehicles or construction equipment on private property requires written approval of the property owner.

**Existing Utility Locations**

The Contractor is responsible for calling for utility locations prior to the start of work. It shall be the Contractor's responsibility to coordinate his work with any utility owner whose utility may conflict with his work. No claims for additional compensation will be considered.

**Incidental Work**

It is the intent of this Contract for each unit or lump sum price bid to include all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with bidding documents, specifications, and terms of this Contract. Any item of work required but not specifically called for shall be considered incidental to the work and the cost of such items shall be included in the unit or lump sum prices bid. No claims for additional compensation will be considered.

Division Two contains a Utility Relocation or Contingency allowance to be used for unforeseen utility relocation or other items required for the correction of unforeseen conditions not covered by other bid items. **IT IS NOT INTENDED AS, NOR WILL IT BE USED AS, A METHOD OF PAYMENT FOR ITEMS INCIDENTAL TO THE WORK.**

**Traffic Control**

The Contractor will be required to prepare and submit for approval a traffic control plan in accordance with GDOT requirements and the latest edition of the Manual on Uniform Traffic Control Devices.

**CSX Railroad Special Provision**

All work on, over, under or adjacent to CSXT RW shall be done in accordance with the CSX special provisions found in the CSXT Public Projects Manual.

**Working Hours**

Limited to Monday through Friday from 7:30 AM to 4:30 PM unless prior approval is obtained from the City of Waycross Engineering Department.

**Public Access**

Access to residential and commercial properties must be always maintained. Lane closures must be coordinated with the City of Waycross and must be in accordance with the approved traffic control plan.

### **Site Clean-up**

Project Housekeeping and site clean-up shall be performed daily.

### **Erosion Control and Grassing**

All disturbed areas shall be revegetated immediately after construction in accordance with the ***Manual for Erosion and Sediment Control in Georgia***. Contractor shall be responsible for the design and installation of structural and vegetative practices (BMP's) to prevent the escape of sediment from the areas of construction.

### **QUESTIONS RECEIVED**

**Question (East Coast Asphalt):** Will a separate bid item for traffic control be added to the bid form?

**Response:** A separate bid item for traffic control **will not** be added to the bid form. The Bid Item Descriptions found in Section 1.4 of Specification Section 01270 state that both mobilization/demobilization and traffic control are among the items to be included in the unit prices bid.

**Question (Thrift Brothers, LLC):** If the existing sewer line between Church Street and Plant Avenue, to be cleaned and televised under this contract, needs replacement, how will such replacement be paid for?

**Response:** Payment for replacement of this line and associated sewer services, if required, will be made at the unit prices for same stated in the bid form.

**Question (Underground Excavating, Inc):** If pipe bursting is to be offered for consideration how will you know it is feasible without first televising the lines.

**Response:** The unit price bid for pipe bursting will include, among other items, a CCTV inspection to locate sewer service connections, sags, humps, obstructions, or pipe materials that may prevent the existing pipe from being pipe burst properly. A method of payment for necessary point repairs will be included.

**Question (East Coast Asphalt):** Has CSX approval or permits been obtained.

**Response:** Reference the **CSX Railroad Special Provisions** as noted on the plans requiring compliance with the CSXT Public Projects Manual. The bidder shall include all associated costs in the applicable bid prices.

**Question (East Coast Asphalt):** If a notice to proceed (NTP) for Division One could be delayed for up to 210 days, how can bidder be expected to anticipate the future cost of asphalt in today's bidding climate?

**Response:** No response was offered at this time.

There being no further questions, the meeting was adjourned.



SECTION 00410  
BID FORM  
BID NO. FY 21-17  
ALBANY AVENUE WIDENING AND RESURFACING  
TRANSPORTATION INVESTMENT ACT OF 2010  
PROJECT SGRC-153, P.I. 0016312  
CONTRACT ID: IGTA2000541

WAYCROSS, GEORGIA

SUBMITTED TO:

City of Waycross  
417 Pendleton Street  
Waycross, Georgia 31502

SUBMITTED BY:

Company Name:

\_\_\_\_\_

Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Georgia Utility Contractor's License Number:

\_\_\_\_\_

Acknowledge Receipt of Addenda Numbers:

\_\_\_\_\_

The undersigned as **BIDDER** hereby declares that the only person or persons interested in the Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in the proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person or parties making a Proposal, and that it is in all respects fair and in good faith without collusion or fraud.

The **BIDDER** declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the plans and specifications for the work and the documents relative thereto; and has read all General Conditions, and Supplementary Conditions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed.

The **BIDDER** proposes and agrees, if the Proposal is accepted, to contract with the **City of Waycross, Georgia** to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor to complete the work in full and complete accordance with the shown, noted, described and reasonably intended requirements of the plans, specifications and contract documents to the full and entire satisfaction of the **City of Waycross, Georgia** with a definite understanding that no

money will be allowed for extra work except as set forth in the attached General Conditions and contract documents for the prices set forth on the following pages.

**DIVISION 1 – STREET RESURFACING**

Furnish all labor, materials, and equipment necessary for street resurfacing beginning at the intersection of Plant Avenue and continuing west along **Albany Avenue** approximately **7,100 LF** to the Waycross City Limits east of Waller Street. More specifically the work of **Division 1** includes, but is not limited to, mobilization/demobilization; asphalt milling and re-surfacing; grade adjustments at affected manhole and valve box covers; traffic control; pavement markings; raised reflective pavement markers and stop bars; complete surface restoration; and all other work and appurtenances required for the following prices:

ITEM	QTY	UNITS	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<b>1.1</b>			<b>STREET RESURFACING</b>		
a	31500	SY	Full Width Variable Depth Asphalt Milling (2.5" Minimum)	\$	\$
b	29250	SY	Bituminous Single Surface Treatment	\$	\$
c	4730	TNS	12.5 mm HMA SuperPave	\$	\$
d	1800	GAL	Bituminous Tack Coat	\$	\$
e	15900	LF	5" Single Solid White Pavement Stripe	\$	\$
f	6970	LF	5" Single Solid Yellow Pavement Stripe w/Raised Pvmt Markers	\$	\$
g	3280	LF	5" Double Yellow Solid Pavement Stripe w/Raised Pvmt Markers	\$	\$
h	7100	LF	5" Skip Yellow Stripe 10' Seg 30' Gap w/Raised Pvmt Markers	\$	\$
i	400	LF	5" Skip White Stripe 2' Seg 6' Gap	\$	\$
j	450	LF	24" Wide Solid White Thermoplastic Stop Bar	\$	\$
k	40	LF	5" Skip White Stripe 10' Seg 30' Gap w/Raised Pvmt Markers	\$	\$
l	3	EA	Railroad Crossing Pavement Markings	\$	\$
m	425	SY	GDOT T-11A Pedestrian Crosswalk Markings	\$	\$
n	22	EA	GDOT T-12B Turn Arrows	\$	\$
o	65	SY	Cross Hatching GDOT T-14 Diagonal Yellow Detail B	\$	\$
p	1	EA	GDOT T-13A Type 1 Pavement Marking Words	\$	\$
q	24	EA	Adjust Existing Valve Box Covers to Match New Pavement	\$	\$
r	2	EA	Traffic Loop Connection & Restoration	\$	\$
s	7	EA	Adjust Existing SSMH Covers to Match New Pavement	\$	\$
<b>SUB-TOTAL DIVISION 1 ITEM 1.1 – STREET RESURFACING</b>					<b>\$</b>

ITEM	QTY	UNITS	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<b>1.2</b>			<b>EXTRA WORK IF ORDERED BY OWNER</b>		
a	100	SY	Remove & Replace Concrete Sidewalk	\$	\$
b	100	SY	Remove & Replace Concrete Driveway	\$	\$
c	100	LF	Remove & Replace Concrete Curb & Gutter or Valley Gutter	\$	\$
d	30	SY	Complete Asphalt & Subgrade Repair	\$	\$
e	1	EA	Rebuild Catchbasin Top & Throat	\$	\$
<b>SUB-TOTAL DIVISION 1 ITEM 1.2 – EXTRA WORK IF ORDERED BY OWNER</b>					<b>\$</b>

<b>TOTAL AMOUNT OF BID - DIVISION 1 BID ITEMS 1.1 THROUGH 1.2</b>	
_____	\$
_____ Dollars	

**DIVISION 1 – DEDUCTIVE ALTERNATIVE**

If the OWNER provides the necessary labor and equipment to collect from the jobsite, transport and keep the asphalt millings, the Bidder agrees to provide the following deduct from the total amount bid for Division 1:

<b>TOTAL AMOUNT OF DEDUCTION:</b>	
_____	\$
_____ Dollars	

The **BIDDER** understands that items listed under **ITEM 1.2 – EXTRA WORK IF ORDERED BY OWNER** are intended to provide a basis of payment for performance of any work required or correcting work associated with any unforeseen circumstances encountered during construction and are to be performed only upon the written authorization of the **OWNER**. The **BIDDER** must enter a price for each line item and for the Division 1 Deductive Alternate

**DIVISION 2 – DRAINAGE, WATER DISTRIBUTION AND SANTARY SEWER IMPROVEMENTS**

Furnish all labor, materials, and equipment necessary for constructing drainage, water distribution and sanitary sewer improvements beginning at the intersection of Plant Avenue and continuing west along **Albany Avenue** approximately **7,100 LF** to the Waycross City Limits east of Waller Street. More specifically the work of Division 2 includes, but is not limited to, mobilization/demobilization; traffic control; demolition of existing storm and sanitary sewer systems; removal and replacement of damaged curb & gutter and sidewalks; installation of new concrete curb & gutter and valley gutters; installation of ADA

compliant curb ramps; installation of approximately 50 new storm drain structures; installation of approximately 2500 LF of new RCP storm drain pipe ranging in size from 125" to 30"; installation of approximately 5950 LF of new 8" PVC water main with related valves, fittings and appurtenances; installation of approximately 3200 LF of new 8" and 10" PVC sewer mains with associated manholes and appurtenances; re-establishment of water and sewer services; complete surface restoration; and all other work and appurtenances required, for the following prices:

**-CONTINUED ON FOLLOWING PAGE-**

ITEM	QTY	UNITS	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<b>2.1</b>			<b>DRAINAGE IMPROVEMENTS</b>		
a	1850	LF	Saw Cut and Remove Existing Concrete Curb & Gutter	\$	\$
b	1500	SY	Saw Cut and Remove Existing Asphalt Pavement	\$	\$
c	450	SY	Saw Cut and Remove Existing Concrete Sidewalk/Driveway	\$	\$
d	31	EA	Remove Existing Drainage Structure	\$	\$
e	65	LF	Remove Existing 12" Clay Pipe Culvert	\$	\$
f	50	LF	Remove Existing 12" CMP Culvert	\$	\$
g	120	LF	Remove Existing 12" RCP Culvert	\$	\$
h	60	LF	Remove Existing 15" Clay Pipe Culvert	\$	\$
i	360	LF	Remove Existing 15' RCP Culvert	\$	\$
j	75	LF	Remove Existing 18" CMP Culvert	\$	\$
k	450	LF	Remove Existing 18" RCP Culvert	\$	\$
l	6	EA	Cut & Plug Existing 15" RCP Culvert to be Abandoned	\$	\$
m	1	EA	Cut & Plug Existing 24" RCP Culvert to be Abandoned	\$	\$
n	1	EA	Connect New 18" RCP Culvert to Existing Curb Inlet	\$	\$
o	4100	LF	Install New Concrete Curb & Gutter	\$	\$
p	750	SY	Install New Concrete Sidewalk/Driveway	\$	\$
q	4000	LF	Install New Concrete Valley Gutter	\$	\$
r	29	EA	Install New ADA Compliant Curb Ramps	\$	\$
s	15	LF	Install New 12" RCP Culvert	\$	\$
t	330	LF	Install New 15" RCP Culvert	\$	\$
u	290	LF	Install New 12" x 18" Elliptical RCP Culvert W/4" Conc Encasement	\$	\$
v	710	LF	Install New 18" RCP Culvert	\$	\$
w	1020	LF	Install New 24" RCP Culvert	\$	\$
x	350	LF	Install New 30" RCP Culvert	\$	\$
y	25	EA	Install New Type 1 Curb Inlet	\$	\$
z	4	EA	Install New Type 2 Curb Inlet	\$	\$
aa	8	EA	Install New Type 3 Curb Inlet	\$	\$
bb	1	EA	Install New Type 1 Junction Box	\$	\$
cc	4	EA	Install New Type 2 Junction Box	\$	\$
dd	3	EA	Install New Type 1 Gutter Inlet	\$	\$
ee	1	EA	Install New Type 2 Gutter Inlet	\$	\$
ff	3	EA	Install New Drop Inlet	\$	\$
gg	1	EA	Install New 15" GDOT Standard 1120 Flared End Section	\$	\$
<b>SUB-TOTAL DIVISION 2 ITEM 2.1 – DRAINAGE IMPROVEMENTS</b>					<b>\$</b>

ITEM	QTY	UNITS	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<b>2.2</b>			<b>WATER DISTRIBUTION IMPROVEMENTS</b>		
a	25	EA	Cut and Plug Existing 4" Pipe to be Abandoned	\$	\$
b	1	EA	Cut and Plug Existing 6" Pipe to be Abandoned	\$	\$
c	2	EA	Connect New 8" PVC to Existing 12"	\$	\$
d	1	EA	Connect New 8" PVC to Existing 10"	\$	\$
e	1	EA	Connect New 8" PVC to Existing 6"	\$	\$
f	2	EA	Connect New 8" PVC to Existing 8"	\$	\$
g	10	EA	Connect New 6" PVC to Existing 6"	\$	\$
h	2	EA	Connect New 4" PVC to Existing 4"	\$	\$
i	5950	LF	Install New 8" AWWA C900 PVC Water Main w/Harness Restraints	\$	\$
j	80	LF	Install New 8" Ductile Iron Water Main w/Harness Restraints	\$	\$
k	265	LF	Install New 6" AWWA C900 PVC Water Main w/Harness Restraints	\$	\$
l	100	LF	Install New 4" AWWA C900 PVC Water Main w/Harness Restraints	\$	\$
m	1615	SY	Remove and Replace Asphalt Base and Pavement	\$	\$
n	39	EA	Re-Establish Long Side Water Services	\$	\$
o	43	EA	Re-Establish Short Side Water Services	\$	\$
p	2	EA	Install New 4" MJ Gate Valve & Valve Box	\$	\$
q	8	EA	Install New 6" MJ Gate Valve & Valve Box	\$	\$
r	34	EA	Install New 8" MJ Gate Valve & Valve Box	\$	\$
s	5	EA	Remove Existing Fire Hydrant Assemblies	\$	\$
t	5	EA	Re-Connect Existing Fire Hydrant Assemblies to New 8" Main	\$	\$
u	5	EA	Install New Fire Hydrant Assemblies	\$	\$
v	5	EA	Install 8"x8" MJ Tee with Restrained Joints	\$	\$
w	1	EA	Install 8"x6" MJ Cross with Restrained Joints	\$	\$
x	8	EA	Install 8"x6" MJ Tee with Restrained Joints	\$	\$
y	2	EA	Install 8"x4" MJ Tee with Restrained Joints	\$	\$
z	33	EA	Install 8" MJ 45° Bend with Restrained Joints	\$	\$
aa	1	EA	Install 6" MJ 45° Bend with Restrained Joints	\$	\$
bb	2	EA	Install 4" MJ 45° Bend with Restrained Joints	\$	\$
cc	3	EA	Install 8" MJ Sleeve with Restrained Joints	\$	\$
dd	10	EA	Install 6" MJ Sleeve with Restrained Joints	\$	\$
ee	4	EA	Install 4" MJ Sleeve with Restrained Joints	\$	\$
ff	1	LS	Testing and Disinfection	\$	\$
<b>SUB-TOTAL DIVISION 2 ITEM 2.2 – WATER DISTRIBUTION IMPROVEMENTS</b>					<b>\$</b>

ITEM	QTY	UNITS	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<b>2.3A</b>			<b>SANITARY SEWER IMPROVEMENTS – EXCAVATE &amp; REPLACE</b>		
a	435	LF	Heavy Clean & CCTV Existing 8" Sewer	\$	\$
b	3200	LF	Remove Existing 8" VCP Sewer Conflicting w/New Sewer	\$	\$
c	7	EA	Remove Existing SSMH	\$	\$
d	13	EA	4'-0" Diameter Standard Precast Manhole Base	\$	\$
e	1	EA	4'-0" Diameter Precast Outside Drop Manhole Base	\$	\$
f	85	LF	4'-0" Diameter Precast Manhole Riser Section	\$	\$
g	14	EA	Cast Iron Manhole Frame and Cover	\$	\$
h	4	EA	Re-Connect Existing 8" Sewer to New SSMH	\$	\$
i	2	EA	Re-Connect Existing 10" Sewer to New SSMH	\$	\$
j	1	EA	Connect New 8" SDR-26 PVC Sewer to Existing 8" PVC Sewer	\$	\$
k	2	EA	Connect New 8" SDR-26 PVC Sewer to Existing 8" VCP Sewer	\$	\$
l	82	EA	Re-Establish Sewer Services	\$	\$
m	130	LF	8" SDR-26 PVC Sewer Main 0' to 6' Cut	\$	\$
n	60	LF	10" SDR-26 PVC Sewer Main 0' to 6' Cut	\$	\$
o	1300	LF	10" SDR-26 PVC Sewer Main 6' to 8' Cut	\$	\$
p	1710	LF	10" SDR-26 PVC Sewer Main 8' to 10' Cut	\$	\$
q	1	EA	Storm Sewer Conflict Box (36" RCP)	\$	\$
r	2840	SY	Remove & Replace Asphalt Base and Pavement	\$	\$
s	130	LF	CCTV Inspection of New 8" PVC Sewer	\$	\$
t	3070	LF	CCTV Inspection of New 10" PVC Sewer	\$	\$
u	1	LS	Low Pressure Air Testing	\$	\$
<b>SUB-TOTAL DIVISION 2 ITEM 2.3A – SANITARY SEWER IMPROVEMENTS – EXCAVATE &amp; REPLACE</b>					<b>\$</b>

-CONTINUED ON FOLLOWING PAGE-

ITEM	QTY	UNITS	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<b>2.3B</b>			<b>SANITARY SEWER IMPROVEMENTS – PIPE BURST &amp; REHAB</b>		
a	435	LF	Heavy Clean & CCTV Existing 8" Sewer	\$	\$
b	3200	LF	Pipe Burst from Existing 8" VCP to 10" with HDPE Pipe	\$	\$
c	82	EA	Re-Establish Sewer Services	\$	\$
d	12	EA	Point Repairs	\$	\$
e	14	EA	Clean, Line & Coat Existing SSMH	\$	\$
f	14	EA	Replace Existing Manhole Frames & Covers	\$	\$
g	3100	LF	CCTV Inspection of New 10" HDPE Sewer	\$	\$
h	1	LS	By-Pass Pumping	\$	\$
<b>SUB-TOTAL DIVISION 2 ITEM 2.3B – SANITARY SEWER IMPROVEMENTS – PIPE BURST &amp; REHAB</b>					<b>\$</b>

ITEM	QTY	UNITS	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<b>2.4</b>			<b>EROSION AND SEDIMENT CONTROL</b>		
a	3700	SY	Disturbed Area Stabilization – Type Ds1, Ds2, & Ds3	\$	\$
d	3170	LF	Silt Fence – Type Sd1-NS	\$	\$
c	44	EA	Inlet Protection – Sd2	\$	\$
d	3	EA	Storm Drain Outlet Protection - St	\$	\$
<b>SUBTOTAL DIVISION 2 BID ITEM 2.4 – EROSION AND SEDIMENT CONTROL</b>					<b>\$</b>

ITEM	QTY	UNITS	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<b>2.5</b>			<b>EXTRA WORK IF ORDERED BY OWNER</b>		
a	5	EA	Relocate Existing Water Meter	\$	\$
d	40	EA	Sewer Service Cleanouts at Property Line	\$	\$
c	1	EA	Rebuild Catch Basin Top and Throat	\$	\$
d	1	LS	Utility Relocation Allowance		\$ 100,000.00
<b>SUBTOTAL DIVISION 2 BID ITEM 2.5 - EXTRA WORK IF ORDERED BY OWNER</b>					<b>\$</b>



<b>TOTAL AMOUNT OF BID - DIVISION 2 USING BID ITEMS 2.1, 2.2, 2.3A, 2.4 and 2.5</b>  <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <div style="text-align: right; margin-bottom: 5px;">Dollars</div>	\$
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<b>TOTAL AMOUNT OF BID - DIVISION 2 USING BID ITEMS 2.1, 2.2, 2.3B, 2.4 and 2.5</b>  <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <div style="text-align: right; margin-bottom: 5px;">Dollars</div>	\$
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The **BIDDER** understands that items listed under **ITEM 2.5 – EXTRA WORK IF ORDERED BY OWNER** are intended to provide a basis of payment for performance of any work required or correcting work associated with any unforeseen circumstances encountered during construction and are to be performed only upon the written authorization of the **OWNER**. The **BIDDER** must enter a price for each line item. The Owner reserves the right to select either item **2.3A** or **2.3B**.

The **BIDDER** agrees to perform all work for the unit price or lump sum prices stated above. Items of work not listed but required for a complete installation shall be included in the price of related items. The **BIDDER** further agrees and understands that the quantities shown for unit price items are approximate and, as such, are subject to either increase or decrease, and that the **BIDDER** will be paid for actual quantities installed at the unit prices stated in the bid form. Lump sum prices stated above are subject to increase or decrease only by a properly executed change order.

Bidders may bid Division 1 only, Division 2 only, or both Divisions 1 and 2. The **BIDDER** understands that City of Waycross reserves the right to delete one or more Bid Items for the purpose of making an award; the right to award each division independently; the right to select either item **2.3A** or **2.3B** under Division 2 and the right to reject any or all bids including without limitation, the right to reject any or all nonconforming, nonresponsive, unbalanced or conditional Bids; and to make an award in the best interest of the City of Waycross.

The **BIDDER** further proposes and agrees to commence work under this contract, with adequate force and equipment, on a date to be specified in a written order of the Owner. All work associated with Divisions 1 and 2 must be completed within **270** consecutive calendar days. All work associated with Division 2 (if awarded separately) must be completed within **210** consecutive calendar days from receipt of written Notice to Proceed. If Division 2 is awarded separately, the successful Bidder for Division 1 understands that a Division 1 Notice to Proceed may be delayed up to 210 days or until completion of Division 2 and agrees to hold pricing for said 210 days. In such instance the time for completion of Division 1 would be 60 days from receipt of written Notice to Proceed.

The undersigned **BIDDER** further agrees that, in case of failure on his part to execute the said Contract and Bonds within fifteen (15) consecutive calendar days after written notice being given of the award of the Contract, the check or bid bond accompanying this Bid and the monies payable thereto, shall be paid into the funds of the **City of Waycross, Georgia** as liquidated damages for such failure, otherwise, the check or bid bond accompanying this Bid shall be returned to the undersigned.

The undersigned agrees to abide by all conditions of this Advertisement for Bids and certifies that he/she is authorized to sign this Bid for the **BIDDER**.

This the \_\_\_\_\_ day of \_\_\_\_\_, 2021.

**Company Name (Please type or Print):**

**Person Authorized to Sign:**

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Street: \_\_\_\_\_

Signature: \_\_\_\_\_

City: \_\_\_\_\_

Title: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

**RELEVANT PROJECT EXPERIENCE:**

Please provide relevant project experience information on the following page. Project experience should be reflective of the work proposed under this contract. Please limit projects to those completed within the past ten (10) years and provide all information requested. Do not list more than three (3) relevant projects.

**NAME OF PROJECT:** \_\_\_\_\_

**DESCRIPTION OF WORK PERFORMED:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**CONTRACT AMOUNT:** \_\_\_\_\_

**COMPLETION DATE:** \_\_\_\_\_

**OWNER'S NAME AND CONTACT:** \_\_\_\_\_

**ENGINEER'S NAME AND CONTACT:** \_\_\_\_\_

**NAME OF PROJECT:** \_\_\_\_\_

**DESCRIPTION OF WORK PERFORMED:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**CONTRACT AMOUNT:** \_\_\_\_\_

**COMPLETION DATE:** \_\_\_\_\_

**OWNER'S NAME AND CONTACT:** \_\_\_\_\_

**ENGINEER'S NAME AND CONTACT:** \_\_\_\_\_

**NAME OF PROJECT:** \_\_\_\_\_

**DESCRIPTION OF WORK PERFORMED:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**CONTRACT AMOUNT:** \_\_\_\_\_

**COMPLETION DATE:** \_\_\_\_\_

**OWNER'S NAME AND CONTACT:** \_\_\_\_\_

**ENGINEER'S NAME AND CONTACT:** \_\_\_\_\_

**SECTION 02956**  
**PIPE BURSTING GRAVITY SEWER MAINS WITH HDPE PIPE**

**PART 1 – GENERAL**

**1.01 SCOPE**

The work of this section consists of providing for the rehabilitation of gravity sewer mains with high density polyethylene (HDPE) pipe using pipe bursting methods and technology including connecting to existing sewer mains, connecting to existing services or installing house connections. The Contractor will furnish all labor, equipment, materials, tools and appurtenances necessary or proper for the performance and completion of the Contract.

**1.02 DEFINITIONS**

A. Pipe Bursting

Method of trenchless construction in which a bursting tool splits/fractures the existing pipe while simultaneously installing a new polyethylene pipe of the same size or larger using a static or pneumatic pipe bursting technique.

B. Owner

The City of Waycross, Georgia

C. Contractor

A firm engaged in the construction of underground utility lines and with demonstrated competency using pipe bursting methods for the installation of sewer pipelines.

D. Engineer

Consulting Engineering Firm (if any) retained by the OWNER to provide design, bidding and/or construction phase services related to this project.

E. Owner's Representative

Owner's day to day manager of the Contracted Services.

**1.03 SAFETY**

Contractor shall be solely responsible for safety during the performance of the work. Contractor shall perform all work in accordance with the latest OSHA confined space entry regulations.

#### **1.04 PROTECTION OF EXISTING FACILITIES**

Contractor shall take satisfactory precautions to protect sewer segments and appurtenances from damage that might be inflicted upon them by the use of pipe bursting equipment. Any damage to sewer segments or other public or private property resulting from the pipe bursting operations shall be promptly repaired by the Contractor without additional compensation. Access to residential and commercial properties must be maintained at all times.

#### **1.05 PERMITS AND TRAFFIC CONTROL**

The Contractor shall be responsible for all traffic control requirements of the agency having jurisdiction.

#### **1.06 MINIMUM QUALIFICATIONS**

The pipe bursting Contractor will have actively engaged in the installation of pipe using pipe bursting for a minimum of three (3) years and have installed, as a company, a minimum of 50,000 linear feet in similar conditions.

Field supervisory personnel employed by the pipe bursting Contractor will have a least three (3) years of documented experience in the performance of the work and tasks as stated in the contract documents.

#### **1.07 SUBMITTALS**

The Contractor shall submit documentation verifying the minimum qualification requirements as described in Paragraph 1.06 above. Information for each supervisor and company must include date of work, location, pipe information (length, diameter, depth of installation, pipe material, etc.), and project owner information (name, address, contact person and telephone number).

The Contractor shall also submit certifications of personnel involved in butt fusion welding, shop drawings, catalog data, manufacturer's technical data showing complete information on material composition, physical properties, and dimensions of new pipe and fittings. Included shall be the manufacturer's recommendations for handling, storage, and repair of pipe and fittings damaged.

### **PART 2 – PRODUCTS**

#### **2.01 MATERIALS**

##### **A. Delivery, Storage and Handling**

Contractor shall deliver and store materials at the job site in a manner prescribed by the manufacturer of those materials. New pipe and fittings damaged before or during installation shall be replaced at the Contractor's expense.

## B. Materials

### 1. High Density Polyethylene (HDPE) Pipe

HDPE pipe, fittings, and related appurtenances (manholes, tees, gaskets, etc.) meeting the requirements of this section will be used in the work. All pipe installed by pipe bursting will be joined by butt fusion, electro fusion, or full circle repair clamp as specified elsewhere in this specification.

HDPE pipe used for pipe bursting shall be ductile iron pipe size outside diameter, SDR 11 high performance, high molecular weight, high density polyethylene pipe, and shall conform to ASTM D1248 (Type III C, Category 5, P34). Minimum cell classification values shall be 345434C as referenced in ASTM D3350. Pipe will be legibly marked at intervals of no more than five (5) feet with the manufacturer's name, trademark, pipe size, cell classification, date of manufacture and point of origin.

All pipe resin shall be manufactured by the same company that manufactures the pipe itself in accordance with these specifications to ensure complete resin compatibility and total product accountability. The pipe shall be homogeneous throughout and shall be free of visible cracks, holes, foreign matter, blisters, or other deleterious faults. Pipe color shall be black unless otherwise specified herein.

### 2. Pipe Joining for Terminal Sections of HDPE pipe

- a. HDPE pipe shall be assembled and joined at the site using the butt fusion method to provide a leak proof joint. Threaded or solvent-cement joints and connections are not permitted. All equipment and procedures used shall be in strict compliance with the manufacturer's recommendations. Fusing shall be accomplished by personnel certified as fusion technicians by a manufacturer of HDPE pipe and/or fusing equipment.
- b. Terminal sections may also be joined by Electrofuse Couplings by Central Plastic Company, Friatec, or approved equal.
- c. Terminal sections may also be joined by full circle repair clamps by Smith Blair, JCM or approved equal.

### 3. Service Connections

Fittings for service connections shall be Inserta-Tee or electro-fusion type fittings only.

#### 4. Materials for Sealing Manholes

The annular space at each manhole may be sealed with oakum saturated Avanti 202 or approved equal and covered with a quick setting grout. The annular space may also be sealed with a water stop gasket by Fernco Company or approved equal and finished with a quick setting grout.

### **2.02 EQUIPMENT**

The pipe bursting unit shall be designed and manufactured to force its way through the existing line by fracturing the pipe and compressing the broken pieces into the surrounding soil as the equipment progresses. The bursting unit shall generate sufficient force to burst and compact the existing pipeline. In each case the pipe bursting unit shall pull the polyethylene pipe with it as it moves forward.

## **PART 3- EXECUTION**

### **3.01 GENERAL**

#### A. Bypass Pumping

Bypass pumping shall be accomplished when and where necessary. The Contractor shall provide flow diversion with pumps adequate in size and capacity to handle all flows generated during the pipe bursting operations. All costs for bypass pumping shall be incidental unless specific pay items for this work are included in the Bid Form.

#### B. Insertion Pits

Insertion pits shall be located and excavated by the Contractor. Pits shall be of sufficient length to allow the bursting head and new HDPE pipe to enter the host pipe at an angle that will maintain the grade of the existing sewer line.

### **3.02 PREPARATION**

All sewer service connections shall be located prior to pipe bursting by CCTV inspection. If CCTV inspection reveals sags, humps, obstructions or pipe materials that will prevent the existing pipe from being pipe burst properly and cannot be removed by conventional cleaning equipment, a point repair will be made by the Contractor, upon approval by the OWNER. Such work is not considered incidental to the pipe bursting process and separate payment will be made for this work in accordance with the Contract Documents.

Prior to excavation for any purpose, the Contractor shall notify the Utilities Protection Center (UPC) at 1-800-282-7411 to request underground utility locate service. The protection of existing utilities shall be solely the responsibility of the Contractor. The Contractor shall excavate and

visually verify the existence, size and location of all existing utilities, and shall indemnify and hold harmless the ENGINEER and OWNER, their officers, agents and employees from any claims or actions for damages to any existing utility or any liability which may arise therefrom.

### **3.03 INSTALLATION**

#### **A. Assembly**

The HDPE pipe shall be assembled and joined at the site using the butt-fusion method to provide a leak proof joint. Threaded or solvent-cement joints and connections are not permitted. All equipment and procedures used shall be in compliance with the manufacturer's recommendations. Fusing shall be accomplished by personnel certified as fusion technicians by a manufacturer of HDPE pipe and/or fusing equipment.

The butt-fused joint shall be in true alignment and shall have uniform rollback beads resulting from the use of proper temperature and pressure. The joint shall be allowed cooling time before removal of pressure. The fused joint shall be watertight and shall have tensile strength equal to that of the pipe. All defective joints shall cut out and replaced at the Contractor's expense.

#### **B. Insertion**

The new HDPE pipe shall be inserted immediately behind the bursting head in accordance with the manufacturer's recommended procedures. The bursting tool shall be specifically designed and manufactured for the type of insertion process being used. It shall be utilized to guide and assist the bursting head during the operation. A pushing machine may be utilized to aid pipe insertion from the rear.

If concrete encasements are encountered, a point repair shall be performed (upon approval of the OWNER) to excavate and break out any concrete prior to the bursting operation to allow the steady and free passage of the pipe bursting head. Such work is not considered incidental to the pipe bursting process and separate payment will be made for this work in accordance with the Contract Documents.

New HDPE pipe shall extend a minimum of 6-inches into each manhole. The annular space shall be sealed at each manhole with oakum saturated with Avanti 202 or a water stop gasket and finished with a quick setting grout.

A relaxation period (appropriate with and dependent upon site conditions as determined by the Contractor) shall be allowed prior to making service connections and connecting to manholes.



### C. Service Reconnections

Service connections to the HDPE shall be made with materials as specified in Paragraph 2.01 B (3) of this section. Services shall be reconnected so as to minimize service disruptions. Services shall match existing pipe sizes.

#### **3.04 TESTING AND ACCEPTANCE**

After the new HDPE pipe has been installed and all services reconnected, the CONTRACTOR will perform a CCTV inspection for approval and acceptance of the line. The newly installed pipe shall be visibly free of defects which may affect the integrity or strength of the pipe. If, in the opinion of the OWNER, such defects exist the pipe shall be repaired or replaced at the Contractor's expense.

**END OF SECTION**

**SECTION 02957**  
**SANITARY SEWER POINT REPAIRS**

**PART 1 – GENERAL**

**1.01 SCOPE**

The work of this section includes furnishing all labor, materials and equipment (including bypass pumping in pipe sections affected by the proposed construction) required to complete sanitary sewer point repairs as indicated on the drawings, exhibits or other sections of these bidding documents.

**1.02 DEFINITIONS**

A. Point Repair

Method of construction required to correct a severe problem at a specified location in a sewer line which cannot be corrected by internal sewer line grouting or other trenchless technologies. Point repairs will be line replacements from three (3) to twelve (12) feet in length at locations previously identified during internal CCTV sewer inspections. If additional length is required, beyond twelve (12) feet, such that an appropriate connection to sound pipe is possible, the Contractor (at OWNER's discretion) may be directed to replace additional pipe sections. Payment for additional replacement over twelve (12) feet will be made at the unit price bid.

B. Owner

The City of Waycross, Georgia

C. Contractor

Firm engaged in the construction of underground utility lines that is a licensed utility contractor in the State of Georgia.

D. Engineer

Consulting Engineering Firm (if any) retained by the OWNER to provide design, bidding and/or construction phase services related to this project.

E. Owner's Representative

Owner's day to day manager of the Contracted Services.

### **1.03 SAFETY**

Contractor shall be solely responsible for safety during the performance of the work. Contractor shall perform all work in accordance with the latest OSHA confined space entry regulations.

### **1.04 PROTECTION OF EXISTING FACILITIES**

Contractor shall take satisfactory precautions to protect sewer segments and appurtenances from damage that might be inflicted upon them by the construction of point repairs. Any damage to sewer segments or other public or private property from the construction operations shall be promptly repaired by the Contractor without additional compensation. Access to residential and commercial properties must be maintained at all times.

### **1.05 PERMITS AND TRAFFIC CONTROL**

The Contractor shall be responsible for all traffic control requirements of the agency having jurisdiction.

### **1.06 MINIMUM QUALIFICATIONS**

The Contractor shall be a licensed utility contractor in the State of Georgia.

## **PART 2 – PRODUCTS (SEE SECTION 02531 – SANITARY SEWERS)**

## **PART 3- EXECUTION**

### **3.01 GENERAL**

#### **A. Bypass Pumping**

Bypass pumping shall be accomplished when and where necessary. The Contractor shall provide flow diversion with pumps adequate in size and capacity to handle all flows generated during the point repair operations. All costs for bypass pumping shall be incidental unless specific pay items for this work are included in the Bid Form.

#### **B. Existing Utilities and Other Facilities**

Contractor shall carefully protect from damage all existing sewer lines, water lines, gas lines, sidewalks, curbs, gutters, pavements, electrical lines and other utilities and structures in the vicinity of the work.

### **C. Cleanup**

After completing each section of the sewer line repair, remove all debris, construction materials and equipment from the work site; grade and smooth over the surface of both sides of the line; reseed and/or repave as required. The entire right-of-way shall be left in a clean, neat and serviceable condition.

## **3.02 MAIN LINE POINT REPAIRS**

### **A. Preparation**

Locate all existing underground utilities before beginning excavation for main line and service connection repairs from the manhole of reference. Where a point repair is to be made underneath existing pavements or concrete, the surface to be excavated shall be saw cut in straight lines. Where point repair is to be made within an easement, any fences or other interferences shall be removed. The Contractor is responsible for replacement of such interferences in the same or better condition than found.

### **B. Installation**

#### **1. Pipe Removal**

Exercise reasonable care during the initial excavation of the defective pipe so as not to disturb existing acceptable pipe that is to remain. After the defective pipe has been exposed, as much additional pipe shall be uncovered as is necessary to allow space for workers and the installation of new pipe. The defective pipe shall be saw cut in such a way that the ends are straight, smooth and free of chips or cracks so that a smooth plain end spigot exists at both ends to receive replacement section. The defective pipe shall be removed from the trench and the former bedding materials of that pipe excavated to 6-inches below pipe grade. The bottom of the trench shall then be filled with 6-inches of 1/2-inch to 3/4 -inch crushed stone.

#### **2. Trench Preparation**

Trench bottoms found unsuitable for foundations shall be corrected and brought to exact line and grade as required. Excavations shall be kept dry. Do not allow water to run in the trench sufficient to cause a washing of the bedding material or backfill into the line. Do not open up at any time more trench than available pumping facilities are able to dewater.

Bell holes shall be of sufficient size to allow ample room for properly making the pipe joints. The bottom of the trench between bell holes shall be carefully graded so that each pipe barrel will rest on a solid foundation for its entire length.

### 3. Installing New Pipe

No pipe shall be laid except in the presence of the OWNER's representative. Before new sewer pipe is placed in position, carefully prepare the bottom and sides of the trench and install any necessary bracing and sheeting required. Each replacement pipe section shall be accurately placed at the exact same line and grade as the existing sewer line

Wherever dissimilar pipe materials are joined, the replacement pipe shall be cut to a length 1-inch less than the overall length of the section being replaced. The pipe shall then be placed in the trench and compression couplings installed. After installation, the work shall be checked to ensure that the replacement pipe is vertically and horizontally aligned with the existing pipe and that the compression couplings are tight and evenly fitted.

### 4. Service Connections

If the point repair work occurs in an area of construction adjacent to or that is part of a service line connection, the existing service line(s) shall be reconnected to the new line using new tees, wyes or other fittings as required. Service lines shall be replaced from the tee or tap up to sound pipe. If necessary, and at the direction of the OWNER's representative, service lines shall be replaced to the property line. Payment for service line replacement will be made at unit price stated in the Bid Form. Service lines cut and temporarily plugged to facilitate point repairs or sewer line replacement shall be reconnected and placed back into service the same day. Maintain existing sewage flow from the service connections during construction.

## **C. Crossing Water Lines and Storm Sewers**

Sewer Lines must cross under water lines with a minimum separation of 18-inches. No joints in the sewer line shall be located closer than ten (10) feet horizontal distance from the water line. Exceptions require the approval of the OWNER's Representative. Sewer lines crossing under storm drains requires a minimum separation of 12-inches.

## **D. Manhole Connections**

Replace connections to existing manholes by removing all connecting pipe and existing mortar, inserting a length of sewer pipe into the hole, sliding a pipe gasket onto the pipe such that the gasket will be centered within the manhole wall, filling around same with grout or hydraulic cement and troweling the inside and outside surfaces of the joint to a neat finish.

### **3.03 MEASUREMENT AND PAYMENT (SEE SECTION 01270)**

### **3.04 TESTING AND ACCEPTANCE**

After the point repairs have been completed and all services reconnected, the Contractor will perform a CCTV inspection for approval and acceptance of the line. The newly installed pipe shall be visibly free of defects which may affect the integrity or strength of the pipe. If, in the opinion of the OWNER, such defects exist the pipe shall be repaired or replaced at the Contractor's expense.

**END OF SECTION**

**SECTION 02958**  
**SANITARY SEWER MANHOLE REHABILITATION**

**PART 1 – GENERAL**

**1.01 SCOPE**

The work of this section includes furnishing all labor, materials and equipment (including bypass pumping around manholes and pipe sections affected by the proposed construction) required to complete sanitary sewer manhole rehabilitation as indicated on the drawings, exhibits or other sections of these bidding documents.

**1.02 RELATED WORK SPECIFIED ELSEWHERE**

01340 Shop Drawings  
01600 Substitutions  
02220 Demolition  
02230 Abandonment of Sewer Mains  
02320 Trench Excavation, Bedding and Backfill  
02531 Sanitary Sewers  
02956 Pipe Bursting Gravity Sewer Mains with HDPE Pipe  
02957 Sanitary Sewer Point Repairs

**1.03 DEFINITIONS**

***Manhole Rehabilitation:*** Method of construction required to correct a severe problem at a specified manhole location by sealing of the manhole base, walls, corbel/cone and chimney of brick, block or precast manholes; sealing of precast manhole barrel joints when general structural sealing is not required; sealing of the manhole frame joint area and the chimney above the cone; sealing of manhole covers by either replacement, conversion or by installing a manhole insert; and inspection and testing of the various types of work to ensure compliance. Acceptable methods of sealing manholes, as appropriate for the location or as specified, include chemical grouting, or spray-on cementitious coating materials.

***Owner:*** The City of Waycross, Georgia

***Contractor:*** Firm engaged in the construction of underground utility lines that is a licensed utility contractor in the State of Georgia.

***Engineer:*** Consulting Engineering Firm (if any) retained by the Owner to provide design, bidding and/or construction phase services related to this project.

***Owner's Representative:*** Owner's day to day manager of the Contracted Services.

#### **1.04 QUALITY ASSURANCE**

- A. The Contractor shall be a licensed utility contractor in the State of Georgia.
- B. The Contractor's personnel involved in the installation of materials shall be certified by the manufacturer that they have successfully completed training in handling, applying and finishing the materials used.
- C. For a product to be considered commercially proven, a minimum of 1,000 vertical feet of manhole rehabilitation must have been completed over a period of at least 2 years with the material proposed, by the Contractor or by other Contractors. Submit a description of each product including material used, vertical feet of manhole rehabilitated and Owner's contact information.

#### **1.05 SUBMITTALS**

Prior to commencing work the following items must be submitted and approved by the Owner in accordance with Section 01340 of these specifications:

- A. By-pass pumping plan indicating the intake manhole,, receiving manhole, expected flows, pump size, piping layout, description of backup equipment and procedure for monitoring. The bypass pumping plan shall also include an emergency plan to be followed in event of pump failures, sewer overflows and spills and service backups.
- B. Complete data on materials to be used (grout, cementitious and epoxy coatings, patching materials, chimney seals and manhole liners) including the following at a minimum:
  - Material type and manufacturer to be used including catalog data showing manufacturer's clarifications and updates, ASTM references, material composition, specifications, physical properties and chemical resistance, manufacturer's recommended mix, additives and set time
  - Manufacturer's detailed description of recommended procedures for handling and storing of materials to include use of strip recorder to monitor temperature at storage location
  - Manufacturer's detailed description of processes to execute the use of material including equipment required
  - Detailed description of field testing procedures
  - Certification that backup equipment is available and deliverable to project sites within 24-hours
- C. Shop drawings and manufacturer's installation requirements for internal rubber sleeve chimney seals
- D. Certified statement from material manufacturer that Contractor is an approved installer of the material or system with certificates of training for each crew member involved.



### 1.06 SAFETY

Contractor shall be solely responsible for safety during the performance of the work. Contractor shall perform all work in accordance with the latest OSHA confined space entry regulations.

### 1.07 PROTECTION OF EXISTING FACILITIES

Contractor shall take satisfactory precautions to protect sewer segments and appurtenances from damage that might be inflicted upon them by the construction of point repairs. Any damage to sewer segments or other public or private property from the construction operations shall be promptly repaired by the Contractor without additional compensation. Access to residential and commercial properties must be maintained at all times.

### 1.08 PERMITS AND TRAFFIC CONTROL

The Contractor shall be responsible for all traffic control requirements of the agency having jurisdiction.

## PART 2 – PRODUCTS

### 2.01 DELIVERY, STORAGE AND HANDLING

Protect, store and handle during transportation and delivery in accordance with manufacturer's instructions. Material found to be defective or damaged during shipment shall be rejected, removed from the project site and replaced with new materials. Maintain temperature less than 120°F while in storage.

### 2.02 MATERIALS

The Contractor shall furnish materials in accordance with the material specifications below. All references to industry standards (ASTM, ANSI, AWWA, etc.) shall be to the latest revision unless stated otherwise. All materials shall be new.

#### A. Cementitious Coatings

Cementitious coating shall be **SEWPERCOAT®PG** or approved equal.

Cementitious mortars shall be composed entirely of calcium aluminates designed to coat both new and existing wastewater structures including manholes, lift stations, wetwells, etc. The mortar shall be designed specifically to provide an abrasion and corrosion resistant protective lining that can withstand severe biogenic corrosion caused by the hydrogen sulfide found in wastewater environments. Such coatings shall meet the following specifications.

#### *Mortar Properties*

Vibration Flow	0 min	120 – 160 %
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	30 min	110 – 160 %
Penetrometer Final Set		4 – 10 hours
Compressive Strength		>5,500 psi @ 24 hours

**Sieve Analysis**

	<u>Minimum % Retained</u>	<u>Maximum % Retained</u>
# 8 (2.36 mm)	0	0
# 16 (1.18 mm)	1.5	9.5
# 30 (600 µm)	22	32
# 50 (300 µm)	38	52
#100 (150 µm)	48	62
#200 ( 75 µm)	52	68
Pan (Passing #200)	32	48

**Aggregate Size:** #14 mesh and finer (0 – 1.4 mm)

**Working Time:** 2 hours @ 68°F

**Wet Density:** 148 – 155 LB/CF ((2.4 – 2.5 g/cc) @ 68°F

**Warranty:** The manufacturer shall warrant to the OWNER that the product, when installed in compliance with the recommended guidelines, will protect the manhole from hydrogen sulfide corrosion and prevent leakage for a minimum of 10 years after final acceptance.

B. Precast Concrete Manholes

Precast concrete manholes shall be in accordance with the requirements of Section 02531 of these specifications.

C. Manhole Frames and Covers

Manhole frames and covers shall be in accordance with the requirements of Section 02531 of these specifications.

**PART 3 - EXECUTION**

**3.01 GENERAL**

A. Maintenance of Service

Service to properties served by sewer lines and manholes undergoing rehabilitation shall be maintained at all times. Coordinate service outages with the OWNER Systems Pumping and Maintenance Division.

Bypass pumping shall be accomplished when and where necessary. The Contractor shall provide flow diversion with pumps adequate in size and capacity to handle all flows generated

during the manhole rehabilitation operations. All costs for bypass pumping shall be incidental unless specific pay items for this work are included in the Bid Form.

**B. Existing Utilities and Other Facilities**

Contractor shall carefully protect from damage all existing sewer lines, water lines, gas lines, sidewalks, curbs, gutters, pavements, electrical lines and other utilities and structures in the vicinity of the work.

**C. Cleanup**

After completing manhole rehabilitation at each location, remove all debris, construction materials and equipment from the work site; grade and smooth over the surface of both sides of the manhole; reseed and/or repave as required. The entire right-of-way shall be left in a clean, neat and serviceable condition.

**3.02 MANHOLE PREPARATION**

Prepare manholes in accordance with the manufacturer's instructions for the rehabilitation products being used. This shall include, but is not limited to, the following:

- Divert flow from channel.
- Prevent extraneous material from entering sewer lines during cleaning and rehabilitation work.
- Clean interior manhole surfaces of debris, dirt, oil, grease, remains of old coating materials, and any other extraneous materials.
- Pressure wash interior of manholes to remove loose mortar, concrete and debris.
- Repair irregularities and missing material in manhole forming a smooth surface.
- Stop leakage into manhole. Minor leaks shall be stopped using a quick setting specially formulated infiltration control product mixed and applied per manufacturer's recommendations. Some leaks may require weep holes to localize the infiltration during the application, after which the weep holes shall be plugged with the quick setting infiltration product prior to final liner application. When severe infiltration is present, drilling may be required in order to pressure grout using a cementitious or chemical grout. Manufacturer's recommendations shall be followed when pressure grouting is required.
- Remove all manhole steps by neatly cutting steps flush with the wall prior to any liner installation.

**3.03 CEMENTITIOUS LINER INSTALLATION**

Prior to liner application, prepare manholes in accordance with Paragraph 3.02 above. Cover manhole bench area with plywood sections, which conform to the internal dimensions of the manhole, to prevent accumulation of liner material on bench.

If ambient temperatures are in excess of 95°F, precautions shall be taken to keep the mix temperature at time of application below 90°F. Mix water temperature shall not exceed 85°F. Chill with ice if necessary.

A. Mixing

For each bag of product, use the amount of water specified by the manufacturer and mix for 30 to 60 seconds after all materials have been placed in the mixer, using equipment per manufacturer's recommendation.

Empty the mixed material into the holding hopper and prepare another batch without timing such that the nozzle-man can spray in a continuous manner without interruption until each application is complete.

B. Spraying

**First Application:** The surface prior to spraying shall be damp without noticeable free water droplets or running water, but totally saturated. Materials shall be spray applied from the bottom of the wall to the top, to a minimum uniform thickness to ensure that all cracks, crevices and voids are filled and a relatively smooth surface remains after light troweling. The light troweling is performed to compact the material into voids and to set the bond.

**Second Application:** A second application is to be applied after the first application has begun to take an initial set (as evidenced by the disappearance of surface sheen which could be 15 minutes to 1 hour depending on ambient conditions) to ensure a minimum total thickness of  $\frac{1}{2}$  to  $\frac{3}{4}$ -inches. Again application shall be from the bottom up. The surface shall then be troweled to a smooth finish being careful not to over trowel so as to bring additional water to the surface and weaken it. Follow manufacturer's recommendations when more than 24 hours have elapsed between applications.

**Bench Application:** The plywood covers shall be removed and the bench sprayed such that a gradual slope is produced from the walls to the invert with the thickness at the edge of invert being no less than  $\frac{1}{2}$ -inch. The wall bench intersection shall be rounded to a uniform radius equal to the full circumference of the intersection.

C. Curing

Use caution to minimize exposure of applied product to sunlight and air movement. If application of second coat is to be longer than 15 minutes after completion of the first coat, the manhole cover shall be set back in place. At no time shall the finished product be exposed to sunlight or air movement for longer than 15 minutes before replacing manhole cover.

The final application shall have a minimum of 4 hours cure time before being subjected to active flow. Traffic shall not be allowed over manholes for 6 hours after rehabilitation is complete.

D. Testing

Four 3-inch by 6-inch test cylinders or six 2-inch cubes shall be cast each day from every 50 bags of product used. The test specimen shall be properly labeled and sent in for testing in

accordance with the manufacturer's directions for compression strength testing as described in ASTM C495.

### **3.04 MANHOLE FRAME AND COVER REPLACEMENT**

The Contractor shall remove and dispose of existing manhole frames and covers where indicated or directed by the OWNER. It shall be the responsibility of the Contractor, at no additional cost to the OWNER, to repair any damage to the chimney or corbel caused by the removal of the existing manhole frame. New replacement frames and covers shall be in accordance with the requirements of Section 02531 of these specifications.

The Contractor shall take all necessary precaution to prevent falling debris from damaging the manhole trough and/or entering the sewer line. The damaged or deteriorated portions of the existing manhole chimney and corbel shall be removed and properly disposed of by the Contractor.

The chimney and corbel shall be rebuilt or repaired with new brick or precast concrete grade rings as appropriate to reconstruct the chimney to the height needed for the new frame and cover to meet the required grade. The manhole frame shall be sealed using either a manufactured or applied sealing method.

#### **A. Paved Areas**

The removal of the manhole frame shall be accomplished by making a square cut of sufficient size in the pavement. Material in the exposed area shall be dug out to a sufficient depth to permit the required repairs.

Backfill shall be placed and compacted to prevent settlement and to restore the setting to a condition equal to or better than that found. The surfacing needed to cover the exposed area (concrete or asphalt) shall conform to and match the existing pavement section. It shall be placed to the same elevation and grade and have a thickness equal to or greater than the existing pavement. Replacement of pavements not satisfactorily performed by the Contractor shall be reworked at no additional cost to the OWNER.

#### **B. Unpaved Areas**

Only necessary excavation around the manhole shall be performed. Backfill shall be placed and compacted to prevent settlement and to restore the setting to a condition equal to or better than that found.

Any private property (mailboxes, landscaping, etc.) which is removed for access to the manhole shall be replaced by the Contractor to existing or better condition and to the entire satisfaction of the property owner and the OWNER.

### **3.05 FINAL ACCEPTANCE**

After the various types of manhole rehabilitation have been completed, the work shall be visually inspected for compliance by the Contractor in the presence of the OWNER'S representative. The

OWNER reserves the right to inspect the rehabilitated manholes at any time during the warranty period. Any defects or leakage found in the work as a result of such inspections shall be corrected by the Contractor within 30 days of written notice by the OWNER and at no additional cost to the OWNER.

**END OF SECTION**