

ADDENDUM NO. 2

DUPONT PARKWAY PUMP STATION AND BASIN IMPROVEMENTS, PHASE I
CITY OF CHATTANOOGA, TENNESSEE

The following changes shall be made to the Contract Documents, Specifications, and Drawings:



I. VOLUME I OF II

A. DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

1. **Section 00 11 16, Advertisement for Bid.**

The following question was asked, “Do we still need to solicit DBEs (send out letters as specified in the bid documents) to bid with us if we already have one bidding with us?” The response received from the State of Tennessee, SRF Loan Program Management was, “Yes.”

Note: See Disadvantaged Business Enterprises (DBE) Requirements on Page 00 11 16-2.

2. **Section 00 41 00, Bid Form.** DELETE the Bid Form in its entirety (Pages 00 41 00-1.1 through 13.1) and SUBSTITUTE the attached Pages 00 41 00-1.2 through -13.2.
3. **Section 00 80 00.14, Wage Rate General Decision.** DELETE General Decision Number: TN150146 09/25/2015 and SUBSTITUTE the attached General Decision Number: TN160146 01/08/2016.

B. DIVISION 01 – GENERAL REQUIREMENTS

1. **Section 01 22 00, Measurement and Payment**

- a. Page 01 22 00–6.1, Article 1.09, Paragraph Q. ADD the following sentences:

“New laterals shall be 4-inch PVC and shall extend a minimum of 1 foot past the pavement edge or curb line. The cost of lateral replacement shall be incorporated in the unit price per linear foot of sewer line replaced.”

- b. Page 01 22 00-7.1, Article 1.10. DELETE Paragraph D and SUBSTITUTE the following:

“D. Locating and re-instating service laterals by Electrofusion Saddle will be measured separately for payment and paid for at the unit price in the bid schedule.”

II. VOLUME II OF II

A. DIVISION 33 – UTILITIES

1. **Section 33 01 30.83, Subsurface Manhole Rehabilitation**

- a. Page 33 01 30.83-6. Article 3.3 – MANHOLE COATING. ADD the following words to the title “(FULL DEPTH MANHOLE LINING)”
- b. Page 33 01 30.83-8, Paragraph C, Item 2: In the first line, DELETE “0.75” and SUBSTITUTE “1.0.”

2. **Section 33 01 30.84, Surface Manhole Rehabilitation**

- a. Pages 33 01 30.84-2 and -3, Article 2.01. DELETE Paragraph B in its entirety and INSERT the following:

“B. Manhole Frame- Cone Seal – A plural component, urethane internal manhole frame-chimney sealant shall be used in all manholes in this project where called out on the drawings for sealing frame to cone or provide chimney seal.

1. System Description - The sealant shall be designed to prevent leakage of water through the frame-chimney area of the manhole throughout its design life. The manhole frame-chimney sealant shall remain flexible and bonded to the inside surfaces of the manhole frame and masonry throughout its design life.
2. Chimney Sealant – Manhole frame-chimney sealant consisting of a plural component, spray applied, quick setting urethane material.
 - a. Manufacturer – Cretex Specialty Products
 - b. Other acceptable products meeting intent of these specifications:
 - 1) Flex-Seal Utility Sealant by Sealing Systems, Inc.
 - 2) Spray Shield Green I by Sprayroq Protective Lining Systems.
3. Qualifications – The Contractor (or subcontractor) shall have successfully completed the application of selected sealant on a minimum of 100 manholes. The Contractor may provide a minimum 4 hours on-site training by an approved representative of the manufacturer in lieu of the experience requirement for application. The training must take place in the presence of the Engineer or designated representative.
4. Surface Preparation – All loose and protruding mortar and brick that would prevent proper application of the sealant shall be removed and the appropriate areas of the manhole frame, chimney and/or cone cleaned and prepared. All areas to be sealed shall be free of surface contaminates, be dry and free of any excessive voids or defects. If an adequate sealing surface does not exist on the masonry, approved repair materials shall be used to fill voids and profile the chimney area of the manhole. All surface preparation shall be completed in strict accordance with the frame-chimney sealant manufacturer’s published instructions.
5. Application of Frame-Chimney Sealant – The internal frame-chimney sealant shall be applied in strict accordance with the manufacturer’s published instructions and provide an approximate thickness of one hundred (100) mils.
6. Measurement and Payment - shall be on a per unit basis as noted on the Bid Form Items 12.e and 12.f.”

III. DRAWINGS

- A. **DELETE Drawings 85, 86, 87, 88, and 89. SUBSTITUTE the attached Drawings 85.1, 86.1, 87.1, 88.1, and 89.1.**

Note: Full depth manhole lining has been added to Manhole Rehabilitation Tables A, B, C, D, and E on the above noted replacement pages.

- B. Full depth manhole lining shall be provided in the following areas:

1. North Chickamauga Creek 3 Service Area (10 Manholes)

S091M020	(8.9 feet)	Sheet No. 47
S100D013	(10.6 feet)	Sheet No. 49
S100D009	(12.1 feet)	Sheet No. 49
S100D028	(17.9 feet)	Sheet No. 49
S100D029	(20.1 feet)	Sheet No. 49
S100D038	(13.8 feet)	Sheet No. 49
S100E060	(7.1 feet)	Sheet No. 55
S100L036	(5.2 feet)	Sheet No. 55
S100L040	(20.7 feet)	Sheet No. 55
S110D006	(36.8 feet)	Sheet No. 60

2. Tennessee River 10 Service Area (11 Manholes)

S109M004	(8.4 feet)	Sheet No. 72
S109M082	(8.6 feet)	Sheet No. 72
S109M084	(8.0 feet)	Sheet No. 72
S109M085	(9.3 feet)	Sheet No. 72
S109M086	(7.9 feet)	Sheet No. 72
S109M702	(8.6 feet)	Sheet No. 72
S109M114	(10.7 feet)	Sheet No. 78
S109M060	(8.1 feet)	Sheet No. 78
S109M061	(6.2 feet)	Sheet No. 78
S109M064	(9.1 feet)	Sheet No. 78
S109M067	(10.1 feet)	Sheet No. 78

Bidder Must Acknowledge Receipt of this Addendum on Bid Form

Addendum Prepared by
CTI ENGINEERS, INC.
January 29, 2016

**DUPONT PARKWAY PUMP STATION AND BASIN IMPROVEMENTS - PHASE I
CONTRACT NUMBER W-12-026-201**

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

City of Chattanooga, Tennessee
Purchasing Department
101 E. 11th Street, Suite G13
Chattanooga, Tennessee 37402

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for period of time after the Bid opening as stated in the Advertisement for Bids, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities)

that have been identified in SC-4.02 as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in SC-4.06 as containing reliable "technical data."

- E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- J. Where this Bid Form contains the provision for a bid based on a lump sum price, the Bidder shall be responsible for having prepared its own estimate of the quantities necessary for the satisfactory completion of the Work specified in these Contract Documents and for having based the lump sum price bid on its estimate of quantities.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Description	Estimated Qty.	Unit	Unit Price	Total Price
SCHEDULE A					
1.	48-Inch Sewer Rehabilitation				
a.	Pre-Installation Cleaning – Normal	2,900	LF	\$	\$
b.	Pre-Installation Cleaning - Heavy (add on)	700	LF	\$	\$
c.	28.5 mm CIPP	800	LF	\$	\$
d.	34.5 mm CIPP	2,100	LF	\$	\$
e.	Bypass Pumping System Necessary to Prepare and Install CIPP	1	LS	\$	\$
2.	24-Inch Sewer Rehabilitation				
a.	Pre-Installation Cleaning – Normal	3,000	LF	\$	\$
b.	Pre-Installation Cleaning - Heavy (add on)	700	LF	\$	\$
c.	13.5 mm CIPP	300	LF	\$	\$
d.	16.5 mm CIPP	2,700	LF	\$	\$
e.	Point Repair (0' - 10' depth of cut)	1	EA	\$	\$
f.	Bypass Pumping System Necessary to Prepare and Install CIPP & Point Repair	1	LS	\$	\$
3.	15/16-Inch Sewer Rehabilitation				
a.	Pre-Installation Cleaning – Normal	1,400	LF	\$	\$
b.	Pre-Installation Cleaning - Heavy (add on)	400	LF	\$	\$
c.	9 mm CIPP	1,400	LF	\$	\$
d.	Point Repair (0' - 15' depth of cut)	1	EA	\$	\$
e.	Bypass Pumping System Necessary to Prepare and Install CIPP & Point Repair	1	LS	\$	\$
4.	12-Inch Sewer Rehabilitation				
a.	Pre-Installation Cleaning – Normal	400	LF	\$	\$
b.	Pre-Installation Cleaning - Heavy (add on)	100	LF	\$	\$
c.	7.5 mm CIPP in place, including Bypass Pumping, etc. for Complete Installation.	400	LF	\$	\$
d.	Point Repair (0 - 15' depth of cut) in place, including Bypass Pumping, etc. for Complete Repair.	1	EA	\$	\$
5.	10-Inch Sewer Rehabilitation				
a.	Pre-Installation Cleaning – Normal	1,000	LF	\$	\$
b.	Pre-Installation Cleaning - Heavy (add on)	250	LF	\$	\$
c.	Point Repair (0' - 10' depth of cut) in place, including Bypass Pumping, etc. for Complete Repair.	3	EA	\$	\$

Item No.	Description	Estimated Qty.	Unit	Unit Price	Total Price
6.	8-Inch Sewer Rehabilitation				
b.	Pre-Installation Cleaning - Heavy (add on)	1,200	LF	\$	\$
c.	6 mm CIPP in place, including Bypass Pumping, etc. for a Complete Installation.	5,700	LF	\$	\$
d.	Point Repair (0' - 10' depth of cut) in place, including bypass pumping, etc. for Complete Repair.	31	EA	\$	\$
e.	Point Repair (11' - 15' depth of cut) in place, including Bypass Pumping, etc. for a Complete Repair.	4	EA	\$	\$
f.	Point Repair (16' - 20' depth of cut) in place, including Bypass Pumping, etc. for Complete Repair.	1	EA	\$	\$
g.	Epoxy Patch in place, including bypass pumping, etc. for Complete Patch.	2	EA	\$	\$
7.	6-Inch Sewer Rehabilitation				
a.	Pre-Installation Cleaning – Normal	50	LF	\$	\$
b.	Pre-Installation Cleaning - Heavy (add on)	50	LF	\$	\$
c.	Point Repair (0' - 10' depth of cut) in place, including Bypass Pumping, etc. for Complete Repair.	1	EA	\$	\$
8.	Open Cut Sewer Replacement				
a.	Remove Existing 8-Inch Diameter Sewer and Replace with 8-Inch Diameter PVC Pipe Sewer (0'-10' depth of cut); including Bypass Pumping (if required), Excavation, Removal of Old Sewer Pipe, Standard Bedding, Installation of New Sewer Pipe, Backfill of Trench from Top of Bedding to Base of Pavement (including Mineral Aggregate Base) per details, flowable fill (if required),etc. for a complete installation (Sheet 22). Existing Pavement Removal and Pavement Replacement Costs shall be included in Item 15.	40	LF	\$	\$
b.	Connect to Existing Manholes with 8-Inch Sewer.	4	EA	\$	\$
c.	Remove Existing 10-Inch Diameter Sewer and Replace with 12-Inch Diameter PVC Pipe Sewer (0'-10'); including Bypass Pumping (if required), Excavation, Removal of Old Sewer Pipe, Standard Bedding, Installation of New Sewer Pipe including up to 8 -12" x 4" Tees, 4" PVC service laterals , Backfill of Trench from Top of Bedding to Base of Pavement (including Mineral Aggregate Base) per details, flowable fill (if required),etc. for a complete installation (Strawberry Lane - Sheet 29). Existing Pavement Removal and Pavement Replacement Costs shall be included in Item 15.	270	LF	\$	\$

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Item No.	Description	Estimated Qty.	Unit	Unit Price	Total Price
d.	Remove Existing 18-Inch Diameter Sewer and Replace with 24-Inch Diameter PVC Pipe Sewer (0'-12'); including Excavation, Removal of Old Sewer Pipe, Standard Bedding, Installation of New Sewer Pipe including 47 - 24" x 4" Tees, 4" PVC service laterals, Backfill of Trench from Top of Bedding to Base of Pavement (including Mineral Aggregate Base) per details, flowable fill (if required),etc. for a complete installation (Atlanta Drive - Sheets 36 & 37). Existing Pavement Removal and Pavement Replacement Costs shall be included in Item 15.	1,625	LF	\$	\$
e.	Bypass Pumping System Necessary to Prepare and Install 24-inch Diameter PVC Pipe Sewer (Atlanta Drive - Sheets 36 & 37).	1	LS	\$	\$
9.	Sewer Replacement by Pipe Bursting				
a.	Replace Existing 8-Inch Gravity Sewer with 8-Inch HDPE Pipe Sewer in place, including Bypass Pumping, All Annulus Sealing Materials, Launching Pits, New Pipe, Backfill, etc. for a Complete Installation (Sheet 24). Existing Pavement Removal and Pavement Replacement Costs shall be included in Item 15.	800	LF	\$	\$
10.	Sewer CCTV Inspection				
a.	Pre-Installation - 48-Inch Sewer	2,900	LF	\$	\$
b.	Post-Installation - 48-Inch Sewer	2,900	LF	\$	\$
c.	Pre-Installation - 24-Inch Sewer	3,000	LF	\$	\$
d.	Post-Installation - 24-Inch Sewer	3,000	LF	\$	\$
e.	Pre-Installation - 15/16-Inch Sewer	1,400	LF	\$	\$
f.	Post-Installation - 15/16-Inch Sewer	1,400	LF	\$	\$
g.	Pre-Installation - 12-Inch Sewer	400	LF	\$	\$
h.	Post-Installation - 12-Inch Sewer	400	LF	\$	\$
i.	Pre-Installation - 10-Inch Sewer	1,000	LF	\$	\$
j.	Post-Installation - 10-Inch Sewer	1,000	LF	\$	\$
k.	Pre-Installation - 8-Inch Sewer	5,800	LF	\$	\$
l.	Post-Installation - 8-Inch Sewer	5,800	LF	\$	\$
m.	Pre-Installation - 6-Inch Sewer	50	LF	\$	\$
n.	Post-Installation - 6-Inch Sewer	50	LF	\$	\$
11.	Service Lateral Rehabilitation				
a.	Service Lateral Reinstatement by Coring and Brushing on 48-Inch Sewer	13	EA	\$	\$
b.	Service Lateral Reinstatement by Coring and Brushing on 24-Inch Sewer	10	EA	\$	\$
c.	Service Lateral Reinstatement by Coring and Brushing on 18-Inch Sewer	47	EA	\$	\$
d.	Service Lateral Reinstatement by Coring and Brushing on 15/16-Inch Sewer	4	EA	\$	\$
e.	Service Lateral Reinstatement by Coring and Brushing on 12-Inch Sewer	1	EA	\$	\$

Item No.	Description	Estimated Qty.	Unit	Unit Price	Total Price
f.	Service Lateral Reinstatement by Coring and Brushing on 8-Inch Sewer	48	EA	\$	\$
g.	Service Lateral Reinstatement with Electrofusion Saddle on 8-Inch Sewer	5	EA	\$	\$
h.	Trim Tap	4	EA	\$	\$
i.	Chemical Grout at 4" Lateral Connection	15	EA	\$	\$
j.	Chemical Grout at 6" Lateral Connection	4	EA	\$	\$
k.	Additional Sealing by Chemical Grout	20	GAL	\$	\$
l.	Sewer Lateral Repair CIPP (T-liner) at 4" Lateral Connection (from main 36 inches into lateral)	6	EA	\$	\$
12.	Manholes - Surface Rehabilitation				
a.	Replace Existing Frame and Cover with New Standard Frame and Cover	9	EA	\$	\$
b.	Replace Existing Frame and Cover with New Watertight Frame and Cover	107	EA	\$	\$
c.	Reset Frame and Cover	59	EA	\$	\$
d.	Raise Frame	75	EA	\$	\$
e.	Seal Frame to Cone (up to 1 VF deep)	385	EA	\$	\$
f.	Seal Frame to Cone - Additional Depth (measured in 0.1 VF increments)	200	VF	\$	\$
13.	Manholes - Subsurface Rehabilitation				
a.	Seal Hole/ Crack	444	EA	\$	\$
b.	Seal Pipe Connection	58	EA	\$	\$
c.	Seal Joint	28	EA	\$	\$
d.	Rebuild Bench and Invert in 4-Foot Diameter Manhole	10	EA	\$	\$
e.	Remove Roots	32	EA	\$	\$
f.	Cementitious Full Depth Lining in 4-foot-diameter Manhole	260	VF	\$	\$
14.	New and Replacement Precast Concrete Manholes, including Temporary Bypass Pumping (if required), Excavation, Precast Concrete Structures, Steps, Frames and Covers, Backfill, Compaction, Concrete Inverts, Connection of Existing and New Piping, Vacuum Testing, etc. for a Complete Installation (Atlanta Drive - Sheets 36 & 37).				
a.	4-Foot-Diameter Manhole, 0 to 6.0' Deep	5	EA	\$	\$
b.	Extra Riser, Over 6.0' Deep.	82	VF	\$	\$
15.	Pavement Removal and Replacement, including Traffic Control, Saw Cutting Existing Pavement, Removal and Disposal of Existing Pavement off-site, Placement of Pavement, compaction, etc. for a complete installation per the details on Sheet 94.				
a.	Temporary Pavement Repair	2,500	LF	\$	\$
b.	Completed Pavement Repair	2,500	LF	\$	\$
16.	Erosion and Sediment Controls				
a.	Tubes and Waddles or Silt Fence	375	LF	\$	\$

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Item No.	Description	Estimated Qty.	Unit	Unit Price	Total Price
17.	Earth Work				
a.	Crushed Rock Bedding in Excess of Standard Bedding.	100	CY	\$	\$
18.	Cash Allowances				
a.	Soil, Concrete and Materials Testing		Allowance		\$7,000.00
b.	Cured In Place Pipe Testing Laboratory Services		Allowance		\$5,000.00
c.	Construction Verification Surveying		Allowance		\$2,500.00
*** ADDITIONAL WORK IF ORDERED BY THE ENGINEER ***					
19.	Manhole Inflow Dish Inserts	20	EA	\$	\$
20.	Concrete Encasement	50	CY	\$	\$
21.	Remove Protruding Service Lateral or Gasket				
a.	In 48-Inch Sewer	25	EA	\$	\$
b.	In 24-Inch Sewer	25	EA	\$	\$
c.	In 18-Inch Sewer	10	EA	\$	\$
d.	In 15/16-Inch Sewer	10	EA	\$	\$
e.	In 12-Inch Sewer	10	EA	\$	\$
f.	In 10-Inch Sewer	10	EA	\$	\$
g.	In 8-Inch Sewer	50	EA	\$	\$
h.	In 6-Inch Sewer	5	EA	\$	\$
22.	Trench Stabilization				
a.	Crushed Stone	500	CY	\$	\$
b.	Filter Fabric	1,000	SF	\$	\$
TOTAL SCHEDULE A					
SCHEDULE B - SEWER RELOCATION (SHEETS 90 & 91)					
1.	Abandonment of Existing Sewer Pipes at Manholes				
a.	Plug Ends of Existing Sewer Pipes to be abandoned at Manholes (Sheets 90 & 91).	12	EA	\$	\$
2.	Open Cut Sewer Replacement				
a.	Remove Existing 8-Inch Diameter Sewer and Replace with New 10-Inch Diameter DI Pipe Sewer (20'-25' depth of cut) from Sta. 0+00 to Sta. 1+00 (Sheet 90); including Bypass Pumping (if required), Excavation, Shoring, Standard Bedding, Installation of New Sewer Pipe, Backfill (including Select Backfill if required), Compaction, Final Grading and Cleanup, Seeding, Mulch, etc. for a complete installation.	100	LF	\$	\$

Item No.	Description	Estimated Qty.	Unit	Unit Price	Total Price
b.	Install New 10-inch Diameter PVC Pipe Sewer (10'-15' depth of cut) from Sta. 1+00 to Sta. 16+25 (Sheets 90 & 91); including Bypass Pumping (if required), Excavation, Trench Check Dams, Standard Bedding, Installation of New Sewer Pipe, Backfill (including Select Backfill), Compaction, Final Grading and Cleanup, Seeding, Mulch, etc. for a complete installation.	1,525	LF	\$	\$
c.	Remove Existing 8-Inch Diameter Sewer and Replace/Install New 10-Inch Diameter PVC Pipe Sewer (10'-15' depth of cut) in Cassandra Smith Road from Sta. 16+25 to Sta. 18+05 (Sheet 91); including Bypass Pumping (if required), Excavation, Removal of Old Sewer Pipe, Standard Bedding, Installation of New Sewer Pipe, Backfill of Trench from Top of Bedding to Base of Pavement (including Mineral Aggregate Base) per details, flowable fill (if required), etc. for a complete installation. Existing Pavement Removal and Pavement Replacement Costs shall be included in Item 5.	180	LF	\$	\$
d.	Connection of New 10-inch Diameter PVC Sewer Pipe to Existing Manhole S110D045 at Sta. 0+00.	1	LS	\$	\$
3.	Abandonment of Existing Manholes, complete including Removal of Frame, Cover, and Top Cone of Manhole, Backfill of Manhole with Crushed Stone (or Flowable Fill) until Flush with Ground Surface, etc.				
a.	Abandonment of Existing Manholes (Sheets 90 & 91)	5	EA	\$	\$
4.	New and Replacement Precast Concrete Manholes, including excavation, Temporary Bypass Pumping (if required), Excavation, Precast Concrete Structures, Steps, Frames and Covers, Backfill, Compaction, Concrete Inverts, Connection of Existing and New Piping, Vacuum Testing, etc. for a Complete Installation (Sheets 90 & 91).				
a.	4-Foot-Diameter Manhole, 0 to 6.0' Deep	6	EA	\$	\$
b.	Extra Riser, Over 6.0' Deep.	52	VF	\$	\$
c.	Manhole Ventilation Pipe	1	EA	\$	\$
d.	Drop Manhole Connections (MH 2 & MH 6 - Sheets 90 & 91)	2	EA	\$	\$
5.	Pavement Removal and Replacement, including Traffic Control, Saw Cutting Existing Pavement, Removal and Disposal of Existing Pavement off-site, Placement of Pavement, compaction, etc. for a complete installation per the details on Sheet 94.				
a.	Temporary Pavement Repair	180	LF	\$	\$
b.	Completed Pavement Repair	180	LF	\$	\$
6.	Erosion and Sediment Controls				
a.	Tubes and Waddles or Silt Fence	1,825	LF	\$	\$
b.	Concrete Washout	1	LS	\$	\$

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Item No.	Description	Estimated Qty.	Unit	Unit Price	Total Price
c.	Construction Entrance	1	LS	\$	\$
7.	Earth Work				
a.	Clearing and Grubbing (including trees less than 10 inch diameter)	3	AC	\$	\$
b.	Tree Removal (greater than 10" DBH) - per inch diameter DBH	400	IN	\$	\$
c.	Rock Excavation and Disposal (off site)	100	CY	\$	\$
d.	Crushed Rock Bedding in Excess of Standard Bedding.	100	CY	\$	\$
8.	Cash Allowances				
a.	Soil, Concrete and Materials Testing	Allowance			\$3,000.00
b.	Construction Verification Surveying	Allowance			\$2,500.00
*** ADDITIONAL WORK IF ORDERED BY THE ENGINEER ***					
9.	Trench Stabilization				
a.	Crushed Stone	500	CY	\$	\$
b.	Filter Fabric	1,000	SF	\$	\$
TOTAL SCHEDULE B - SEWER RELOCATION (SHEETS 90 & 91)					
TOTAL SCHEDULES A + B					

SCHEDULE A BID TOTAL, ITEMS 1 THROUGH 22, INCLUSIVE, THE AMOUNT OF _____

_____ DOLLARS (\$ _____).

SCHEDULE B BID TOTAL, ITEMS 1 THROUGH 9, INCLUSIVE, THE AMOUNT OF _____

_____ DOLLARS (\$ _____).

SCHEDULES A + B BID TOTAL, INCLUSIVE, THE AMOUNT OF _____

_____ DOLLARS (\$ _____).

Unit Prices have been computed in accordance with Paragraph 11.03.B of the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Bidder acknowledges that work in Schedule B will not start until all easements have been obtained and the State of Tennessee has approved the start of construction. The City of Chattanooga shall obtain all easements within 60 calendar days of the Notice to Proceed date.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

- A. Statement of Bidders Qualifications
- B. Affidavit of No Collusion by Prime Bidder
- C. Drug-Free Workplace Affidavit
- D. Attestation Regarding Personnel Used in Contract Performance
- E. Certification By Proposed Prime or Subcontractor Regarding Equal Employment Opportunity
- F. Certification Regarding Debarment, Suspension and Other Responsibility Matters

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

9.01 This Bid submitted by:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)

(Individual's signature)

Doing business as: _____

Attest: _____

(Notary)

Name (typed or printed): _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____

(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

Attest: _____

(Signature of another Partner)

Name (typed or printed): _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____

(Signature)

Name (typed or printed): _____

Title: _____

(CORPORATE SEAL)

Attest: _____

(Signature of Corporate Secretary)

Name (typed or printed): _____

Date of Qualification to do business in Tennessee is _____

A Joint Venture

Name of Joint Venturer: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of first joint venture partner)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of second joint venture partner)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

All Bidders shall complete the following:

Bidder's Business address: _____

Phone: _____ Facsimile: _____

Primary Contact: _____

E-mail: _____

Submitted on _____, 201__.

State Contractor License No. _____.

This document was prepared in part from material (EJCDC C-410 Suggested Bid Form for Construction Contracts) which is copyrighted as indicated below:

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1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

Associated General Contractors of America
2300 Wilson Boulevard, Suite 400, Arlington, VA 22201-3308
(703) 548-3118
www.agc.org

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General Decision Number: TN160146 01/08/2016 TN146

Superseded General Decision Number: TN20150146

State: Tennessee

Construction Type: Heavy
Including Water and Sewer Line Construction

Counties: Hamilton and Sequatchie Counties in Tennessee.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date

0 01/08/2016

ELEC0175-012 06/01/2015

Hamilton County

	Rates	Fringes
ELECTRICIAN.....	\$ 29.93	14.5%+6.40

ELEC0429-008 09/01/2015

Sequatchie County

	Rates	Fringes
Electrician.....	\$ 24.84	11.90

* ENGI0917-022 05/01/2015

	Rates	Fringes
Operating Engineers:		
Bulldozer and Crane.....	\$ 26.72	9.90
Forklift.....	\$ 24.53	9.90

LABO0846-001 05/01/2013

	Rates	Fringes
LABORER: Common or General.....	\$ 13.85	4.90

SUTN2009-144 12/02/2009

		Rates	Fringes
LABORER:	Flagger.....	\$ 8.73	0.00
LABORER:	Pipelaye.....	\$ 11.68	0.00
OPERATOR:	Backhoe/Excavator/Trackhoe.....	\$ 16.82	0.00
OPERATOR:	Loader.....	\$ 13.50	0.00
TRUCK DRIVER:	Dump Truck.....	\$ 10.76	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the

wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

SHEET INDEX #	MANHOLE ID #	DEPTH (FT.)	MANHOLE DIAMETER (FT.)	MH COVER DIAMETER (IN.)	MANHOLE INFORMATION													COMMENTS/NOTES
					RESET FRAME/COVER (EA.)	REPLACE STD FRAME/COVER (EA.)	REPLACE WT FRAME/COVER (EA.)	RAISE FRAME (EA.)	SEAL FRAME TO CONE (EA.)	SEAL HOLE/CRACK (EA.)	INSTALL DUST COVER (EA.)	REPAIR PIPE CONNECTION (EA.)	SEAL MH JOINTS (EA.)	LINE MH FULL DEPTH (EA.)	REPAIR/REBUILD BENCH/ (EA.)	REMOVE ROOTS		
R1	S091M016	6.1	4.0	24.0			1											METAL LOCK AND INSERT 23.5 INCH LID Watertight per MACP
R1	S091M017	6.1	4.0	24.0			1											METAL LOCK AND INSERT 23.5 INCH LID Watertight per MACP
R1	S091M038	9.7	4.0	24.0														
R1	S100D001	7.0	4.0	23.0														PRECAST CONE AND WALL
R1	S100D002	11.1	4.0	24.0														
R1	S100D005	8.7	4.0	24.0			1											23.5 INCH LID Watertight per MACP
R1	S100D006	5.8	4.0	24.0			1											23.5 INCH LID Watertight per MACP
R1	S100D074	7.2	4.0	23.0		1												
R2	S091M005	6.0	4.0	24.0									1					
R2	S091M006	5.8	4.0	24.0														
R2	S091M009	5.9	4.0	24.0														1
R2	S091M011	9.8	4.0	23.5		1												1
R2	S091M012	11.2	4.0	24.0														1
R2	S091M013	9.2	4.0	24.0														1
R2	S091M014	9.2	4.0	24.0														1
R2	S091M018	6.8	4.0	24.0														1
R2	S091M019	6.9	4.0	24.0														1
R2	S091M020	8.9	4.0	24.0														1
R2	S091M021	10.0	4.0	24.0														1
R2	S091M048	8.2	4.0	24.0														1
R2	S092P002	6.8	4.0	24.0														1
R2	S092P003	7.6	4.0	24.0														1
R2	S092P004	6.9	4.0	23.5														1
R2	S100D007	5.8	4.0	24.0														1
R2	S100D011	8.5	4.0	24.0														1
R2	S101A024	6.5	4.0	24.0														1
R2	S101A029	10.7	4.0	24.0														1
R2	S101A035	8.8	4.0	24.0														1
R3	S100C002	5.5	4.0	24.0														1
R3	S100D063	6.9	4.0	24.0														1
R3	S100D064	6.4	4.0	24.0														1
R3	S100D066	8.3	4.0	24.0														1
R3	S100D067	5.2	4.0	24.0														1
R3	S100D068	6.5	4.0	24.0														1
R3	S100D070	6.0	4.0	24.0														1
R3	S100D076	6.4	4.0	24.0														1
R4	S100D004	11.4	4.0	24.0														1
R4	S100D009	12.1	4.0	23.5														1
R4	S100D013	10.6	4.0	23.5														1
R4	S100D014	11.0	4.0	23.0														1
R4	S100D018	5.9	4.0	24.0														1
R4	S100D022	6.7	4.0	24.0														1
R4	S100D024	4.8	4.0	24.0														1
R4	S100D025	11.2	4.0	24.0														1
R4	S100D026	12.9	4.0	23.5														1
R4	S100D027	15.0	4.0	23.0														1
R4	S100D028	17.9	4.0	23.5														1
R4	S100D029	20.1	4.0	24.0														1
R4	S100D038	13.8	4.0	23.5														1
R4	S100D039	NA	4.0	NA														1
R4	S100D041	9.9	4.0	23.5														1
R4	S100D047	10.9	4.0	23.0														1
R4	S100D056	5.3	4.0	24.0														1
R4	S100D057	5.0	4.0	24.0														1
R4	S100D058	5.3	4.0	24.0														1
R4	S100D059	6.0	4.0	24.0														1
R4	S100D062	15.0	4.0	23.0														1
R4	S100D071	6.8	4.0	24.0														1
R4	S100D072	5.5	4.0	24.0														1
R4	S100D073	7.2	4.0	23.0														1
R4	S100D077	6.2	4.0	24.0														1
R4	S100D082	8.9	4.0	23.0														1
R4	S100D084	11.3	4.0	23.0														1
R4	S100D085	5.5	4.0	23.0														1
R4	S100D087	11.2	4.0	23.0														1
R4	S100D089	4.5	4.0	24.0														1
R4	S100E012	8.5	4.0	24.0														1
R5	S100D010	8.9	4.0	24.0														1
R5	S100D012	10.4	4.0	23.5														1
R5	S100D031	4.2	4.0	23.0														1
R5	S100D032	4.5	4.0	23.0														1
R5	S100D033	7.2	4.0	24.0														1
R5	S100D036	6.8	4.0	24.0														1
R5	S101A001	4.8	4.0	24.0														1
R5	S101A002	7.6	4.0	24.0														1
R5	S101A004	8.0	4.0	24.0														1
R5	S101A005	7.0	4.0	24.0														1
R5	S101A007	9.2	4.0	24.0														1
R5	S101A008	8.7	4.0	24.0														1
R5	S101A009	6.6	4.0	24.0														1
R5	S101A015	10.7	4.0	24.0														1
R5	S101A022	11.5	4.0	24.0														1
R5	S101A025	8.6	4.0	24.0														1
R6	S101A030	9.5	4.0	24.0														1
R6	S101H012	8.2	4.0	24.0														1

SHEET INDEX #	MANHOLE ID #	DEPTH (FT.)	MANHOLE DIAMETER (FT.)	MH COVER DIAMETER (IN.)	MANHOLE INFORMATION													COMMENTS/NOTES	
					RESET FRAME/COVER (EA.)	REPLACE STD FRAME/COVER (EA.)	REPLACE WT FRAME/COVER (EA.)	RAISE FRAME (EA.)	SEAL FRAME TO CONE (EA.)	SEAL HOLE/CRACK (EA.)	INSTALL DUST COVER (EA.)	REPAIR PIPE CONNECTION (EA.)	SEAL MH JOINTS (EA.)	LINE MH FULL DEPTH (EA.)	REPAIR/REBUILD BENCH/ (EA.)	REMOVE ROOTS			
R7	S100E018	NA	4.0	NA															PAVED OVER BUT VISIBLE - BURIED AND LOCATED
R7	S100E019	16.5	4.0	24.0															PAVED OVER BUT VISIBLE Watertight per MACP
R7	S100E020	16.0	4.0	24.0															4 METAL PRACTICE STEPS. NO CHIMNEY. FRAME SITS ON CONE. LOCKING BAR MISSING Watertight per MACP
R7	S100E025	7.7	4.0	23.0															BURIED AND LOCATED
R7	S100E027	8.1	4.0	23.0															
R7	S100F001	20.3	4.0	24.0															
R7	S100F002	16.8	4.0	23.8															Watertight per MACP
R7	S100F005	12.5	4.0	26.0															
R7	S100F006	13.6	4.0	26.0															
R7	S100F007	13.6	4.0	26.0															
R7	S100F011	18.3	4.0	24.0															
R7	S100F015	6.4	4.0	24.0															TWO 3 INCH RINGS
R7	S100F016	5.2	4.0	23.8															
R7	S100F018	NA	4.0	NA															replace Watertight lid
R8	S100E009	15.2	4.0	24.0															locate and raise frame
R8	S100E011	13.8	4.0	24.0															REPAIR WATER TIGHT Watertight per MACP
R8	S100E013	13.7	4.0	24.0															REPAIR WATER TIGHT Watertight per MACP
R8	S100E015	17.7	4.0	24.0															PAVED OVER Watertight per MACP
R8	S100E016	18.1	4.0	24.0															REPAIR WATER TIGHT LID Watertight per MACP
R8	S100E017	6.6	4.0	24.0															REPAIR WATER TIGHT LID Watertight per MACP, repair defective plug from abandoned pipe
R8	S100E022	16.6	4.0	26.0															NO CHIMNEY, FRAME SITS ON CONE. REPAIR WATER TIGHT LID Watertight per MACP
R8	S100E030	11.6</																	

SHEET INDEX #	MANHOLE ID #	DEPTH (FT.)	MANHOLE DIAMETER (FT.)	MH COVER DIAMETER (IN.)	RECOMMENDED REHABILITATION										COMMENTS/NOTES			
					RESET FRAME/COVER (EA.)	REPLACE STD FRAME/COVER (EA.)	REPLACE WT FRAME/COVER (EA.)	RAISE FRAME (EA.)	SEAL FRAME TO CONE (EA.)	SEAL HOLE/CRACK (EA.)	INSTALL DUST COVER (EA.)	REPAIR PIPE CONNECTION (EA.)	SEAL MH JOINTS (EA.)	LINE MH FULL DEPTH (EA.)		REPAIR/REBUILD BENCH/ (EA.)	REMOVE ROOTS	
R11	S100L006	9.1	4.0	26.0						1								NO CHIMNEY FRAME SITS ON CONE.
R11	S100L010	6.6	4.0	26.0														
R11	S100L042	5.3	4.0	26.0								1						
R11	S100L044	8.7	4.0	26.0								1						NO CHIMNEY FRAME SITS ON CONE.
R11	S100L045	9.5	4.0	26.0								1						IN FLOWER BED
R11	S100L052	8.4	4.0	26.0	1													NONE
R11	S100L053	10.6	4.0	26.0								1						NONE
R11	S101I002	6.4	4.0	26.0								1						
R11	S101I005	5.9	4.0	26.0								1						POURED IN PLACE BOTTOM.
R11	S101I027	6.6	4.0	26.0								1						
R11	S101I032	7.0	4.0	26.0								1						
R12	S100M006	21.0	4.0	24.0			1											Vented MM Repair, VENT EL 664.75 Watertight per MACP
R12	S100M007	15.3	4.0	24.0			1				1							Watertight per MACP
R12	S100M008	22.8	4.0	24.0			1											Watertight per MACP
R13	S100L057	NA	4.0	NA														Could not locate
R13	S100L058	NA	4.0	NA								1						NONE Could not locate
R13	S100L059	NA	4.0	NA								1						NONE Could not locate
R13	S100M002	6.4	4.0	26.0	1													UTL or buried per CES
R13	S100M018	5.3	4.0	26.0			1											Watertight per MACP
R13	S100M020	6.0	4.0	26.0			1											Watertight per MACP
R13	S100M022	9.4	4.0	28.8			1											Watertight per MACP
R13	S100M024	7.2	4.0	28.8			1											Watertight per MACP
R13	S100M025	10.3	4.0	29.0			1											Watertight per MACP
R13	S100M026	8.7	4.0	28.5			1											INNER COVER MISSING Watertight per MACP
R14	S100L050	NA	4.0	NA								1						NONE Could not locate
R14	S100M033	NA	4.0	NA								1						NONE Could not locate
R14	S100M035	NA	4.0	NA								1						NONE Could not locate
R15	S110C016	6.5	4.0	26.0														
R15	S110D006	36.8	4.0	24.0	1													Unable to collect invert info on pipe coming in from the east due to pipe turned down
R15	S110D056	8.3	4.0	26.0								1						
R15	S110D063	8.9	4.0	26.0														LOOKS LIKE A PRECAST BOTTOM SECTION WITH FORMED CHANNELS
R16	S100M015	9.0	4.0	28.8			1											INNER COVER MISSING Watertight per MACP
R16	S100M030	12.7	4.0	26.0														NO CHIMNEY FRAME SITS ON CONE.
R16	S110D001	6.5	4.0	24.0														
R16	S110D002	6.5	4.0	24.0														
R16	S110D003	5.5	4.0	24.0														
R16	S110D004	9.7	4.0	24.0														
R16	S110D032	21.4	4.0	26.0														
R16	S110D033	5.4	4.0	26.0														
R16	S110D034	6.5	4.0	26.0	1													
R16	S110D042	9.3	4.0	26.0	1													
R16	S110D048	6.8	4.0	26.0														
R16	S110D055	6.9	4.0	24.0														
R17	S109D116	6.1	4.0	23.8														
R17	S109D119	8.7	4.0	23.5														
R17	S109D120	7.0	4.0	23.5														
R17	S110A002	8.4	4.0	23.8	1													
R17	S110A005	4.8	4.0	23.5														
R18	S109E045	6.4	4.0	24.0														
R18	S109E047	9.1	4.0	23.8														
R18	S109E048	5.9	4.0	23.8														
R18	S109E049	7.8	4.0	24.0														
R18	S109E058	5.3	4.0	23.5														
R18	S109E059	5.0	4.0	24.0														
R18	S109E064	7.0	4.0	23.5														
R18	S109E066	7.4	4.0	23.8														
R18	S109E082	5.6	4.0	24.0														
R18	S109E083	10.1	4.0	24.0														
R18	S109E084	15.0	4.0	24.0														
R18	S109E091	6.2	4.0	23.5														
R18	S109E092	8.4	4.0	23.8														
R18	S109E095	NA	4.0	NA														
R18	S109E100	7.7	4.0	23.5														
R18	S109E101	9.2	4.0	23.5														
R18	S109E105	7.6	4.0	23.8														
R18	S109E107	8.7	4.0	23.8														
R18	S109E108	9.3	4.0	23.5														
R18	S109E110	5.6	4.0	24.0														
R18	S109E119	3.2	4.0	23.8														

SHEET INDEX #	MANHOLE ID #	DEPTH (FT.)	MANHOLE DIAMETER (FT.)	MH COVER DIAMETER (IN.)	RECOMMENDED REHABILITATION										COMMENTS/NOTES			
					RESET FRAME/COVER (EA.)	REPLACE STD FRAME/COVER (EA.)	REPLACE WT FRAME/COVER (EA.)	RAISE FRAME (EA.)	SEAL FRAME TO CONE (EA.)	SEAL HOLE/CRACK (EA.)	INSTALL DUST COVER (EA.)	REPAIR PIPE CONNECTION (EA.)	SEAL MH JOINTS (EA.)	LINE MH FULL DEPTH (EA.)		REPAIR/REBUILD BENCH/ (EA.)	REMOVE ROOTS	
R19	S109D110	7.0	4.0	23.5														
R19	S109D112	6.1	4.0	23.8														
R19	S109D115	8.5	4.0	23.8														
R19	S109D121	7.3	4.0	23.8														
R19	S109E067	5.9	4.0	24.0														
R19	S109E114	7.1	4.0	23.5														
R19	S109E116	4.4	4.0	23.5														MH confirmed by SSES, position adjusted to match US and DS CCTV lengths
R19	S109E124	6.1	4.0	23.5														
R19	S109E128	8.5	4.0	23.5														
R19	S109E129	7.5	4.0	23.5														
R19	S109E132	8.1	4.0	23.5														
R19	S109E133	10.9	4.0	23.8														
R19	S109E134	6.7	4.0	23.5	1													
R19	S109E135	6.4	4.0	23.5														
R19	S109E137	8.6	4.0	23.8	1													
R19	S109E602	5.6	4.0	24.0														
R19	S110A003	6.2	4.0	23.8	1													SERVICE LINE-FOR DIRECTION ONLY
R19	S110A007	NA	4.0	NA														UTL or buried per CES Could not locate
R19	S110A009	5.1	4.0	23.5														
R19	S110A010	NA	4.0	NA														UTL or buried per CES Could not locate
R19	S110A011	7.4	4.0	23.5														
R19	S110A015	6.0	4.0	23.5														
R19	S110H001	5.0	4.0	24.0														
R19	S110H004	6.4	4.0	23.8	1													
R19	S110H005	13.0	4.0	23.8														
R19	S110H006	4.4	4.0	23.8														
R19	S110H011	5.6	4.0	23.5														
R19	S110H014	7.5	4.0	23.5														
R19	S110H017	NA	4.0	NA														UTL or buried per CES CANNOT VERIFY LOCATION, BURIED UNDER GRASS IN YARD UTL.
R19	S110H021	9.9	4.0	24.0														
R19	S110H027	9.1	4.0	23.5														
R19	S110H028	NA	4.0	NA														
R19	S110H029	NA	4.0	NA														
R19	S110H030	NA	4.0	NA														
R19	S110H032	6.0	4.0	23.8														
R20	S110H022	8.2	4.0	24.0														
R20	S110H023	7.0	4.0	24.0														
R20	S110H034	8.0	4.0	27.8														
R20	S110H035	6.1	4.0	23.8	</													

SHEET INDEX #	MANHOLE ID #	DEPTH (FT.)	MANHOLE DIAMETER (FT.)	MH COVER DIAMETER (IN.)	MANHOLE INFORMATION										RECOMMENDED REHABILITATION	COMMENTS/NOTES							
					RESET FRAME/COVER (EA.)	REPLACE STD FRAME/COVER (EA.)	REPLACE WT FRAME/COVER (EA.)	RAISE FRAME (EA.)	SEAL FRAME TO CONE (EA.)	SEAL HOLE/CRACK (EA.)	INSTALL DUST COVER (EA.)	REPAIR PIPE CONNECTION (EA.)	SEAL MH JOINTS (EA.)	LINE MH FULL DEPTH (EA.)			REPAIR/REBUILD BENCH/ (EA.)	REMOVE ROOTS					
R22	S109E044	7.0	4.0	23.8						2													
R22	S109E070	5.1	4.0	24.0						1	2		1										
R22	S109E071	4.8	4.0	24.0						1	1												
R22	S109E138	12.9	4.0	23.5						1	2												
R22	S109E139	16.8	4.0	23.5						2													
R22	S109E141	6.0	4.0	24.0	1																		
R22	S109E460	6.6	4.0	23.8						1													
R22	S109E461	7.1	4.0	23.8									1										
R22	S109L074	10.1	4.0	24.0						1													
R22	S109L075	9.2	4.0	24.0						1	1												
R22	S109L079	8.1	4.0	23.8						1													
R22	S109L081	7.5	4.0	23.8						1													
R22	S109L088	6.3	4.0	24.0						1													
R22	S109L089	6.7	4.0	24.0						1													
R22	S109L090	6.6	4.0	23.8						1													
R22	S109L094	8.6	4.0	23.8						1													
R22	S109L095	7.0	4.0	23.8						1													
R22	S109L096	6.3	4.0	23.5						1													
R22	S109L102	8.1	4.0	24.0						2													
R22	S109L128	10.7	4.0	23.8						1	3		1										
R22	S110H048	10.6	4.0	23.5						1													adjusted Mh position based on DS line length from CCTV
R22	S110H049	7.2	4.0	23.5						1	1												
R22	S110H050	4.7	4.0	24.0	1					1	1												
R22	S110H051	5.5	4.0	24.0						1	2												
R22	S110H005	7.1	4.0	24.0						1	1												
R22	S110H026	9.9	4.0	24.0						1													
R22	S110H027	4.9	4.0	23.5						1													
R22	S110H028	6.9	4.0	23.5						1													
R22	S110H029	NA	4.0	NA						1													U/L or buried per CES CANNOT LOCATE U/L DUE TO TERRAIN AND FOLIAGE
R22	S110H030	5.7	4.0	23.5						1	1												
R22	S110H049	7.7	4.0	23.5						1													Watertight per MACP
R22	S110H053	6.6	4.0	23.5						1													
R22	S110H054	4.8	4.0	23.8						1													
R22	S110H055	4.8	4.0	24.0	1					1													
R22	S110H057	6.0	4.0	23.5						1													
R22	S110H300	8.3	4.0	26.0						1													NO INVERT, DUE TO STEPS
R22	S110H903	NA	4.0	NA						1													MH identified by CES during SSES NCD1008 Watertight per MACP NCD1-008
R23	S110G059	9.9	4.0	23.8						1													
R23	S110H038	8.6	4.0	23.5						1													
R23	S110H039	9.0	4.0	23.8						1													
R23	S110H040	6.4	4.0	24.0						1	1												
R23	S110H041	9.4	4.0	23.5						1													
R23	S110H044	6.3	4.0	23.3						1													Watertight per MACP
R23	S110H045	NA	4.0	NA						1													U/L or buried per CES CANNOT LOCATE IN DRIVEWAY?
R23	S110H046	10.4	4.0	23.3						1													Watertight per MACP
R23	S110H083	3.5	4.0	23.8						1													
R23	S110H084	7.3	4.0	23.8						1													
R23	S110H085	5.3	4.0	23.8						1													
R23	S110H203	10.7	4.0	23.5						1													
R23	S110H205	9.8	4.0	23.8						1	3												
R23	S110H300	5.8	4.0	26.0						1													
R23	S110H302	6.5	4.0	26.0						1													
R23	S110H001	6.2	4.0	24.0						1													
R23	S110H004	10.2	4.0	23.8						1													
R23	S110H006	6.8	4.0	23.8						1													
R23	S110H008	6.6	4.0	23.8						1													
R23	S110H009	9.7	4.0	24.0						1													
R23	S110H010	6.3	4.0	23.8						1													
R23	S110H011	7.7	4.0	24.0						1													
R23	S110H012	6.3	4.0	23.8						1													
R23	S110H013	8.1	4.0	23.5						1													
R23	S110H014	6.9	4.0	24.0						1													
R23	S110H015	9.3	4.0	23.8						1													
R23	S110H017	6.6	4.0	24.0						1	1												
R23	S110H018	9.4	4.0	24.0						1													
R23	S110H019	6.9	4.0	24.0						1													
R23	S110H020	7.1	4.0	24.0						1													
R23	S110H022	6.9	4.0	24.0						1													
R23	S110H023	8.4	4.0	22.8						1													
R23	S110H024	7.7	4.0	23.8						1													
R23	S110H025	7.7	4.0	23.8						1													
R23	S110H031	12.7	4.0	24.0						1													
R23	S110H032	7.7	4.0	24.0						1													
R23	S110H033	6.2	4.0	24.0						1													
R23	S110H034	7.6	4.0	23.8						1													
R23	S110H035	6.1	4.0	24.0						1													
R23	S110H036	6.3	4.0	24.0						1	1												
R23	S110H083	6.3	4.0	23.8						1													
R23	S110H087	13.9	4.0	24.0						1													
R23	S110H090	9.2	4.0	23.8						1													
R23	S110H092	5.7	4.0	25.8						1													
R23	S110H200	6.2	4.0	23.8						1													
R23	S110H302	8.2	4.0	26.0						1													
R23	S110H901	NA	4.0	NA						1													MH confirmed by CES during SSES
R23	S110H003	10.3	4.0	26.0						1													NCD1001 NCD1-001
R23	S110H205	NA	4.0	NA						1													CANNOT LOCATE STRUCT FOR DIR ONLY, NO SIGNS WITH METAL DETECTOR OR VISIBLE EVIDENCE CANNOT LOCATE POSSIBLE BLIND TIE

SHEET INDEX #	MANHOLE ID #	DEPTH (FT.)	MANHOLE DIAMETER (FT.)	MH COVER DIAMETER (IN.)	MANHOLE INFORMATION										RECOMMENDED REHABILITATION	COMMENTS/NOTES							
					RESET FRAME/COVER (EA.)	REPLACE STD FRAME/COVER (EA.)	REPLACE WT FRAME/COVER (EA.)	RAISE FRAME (EA.)	SEAL FRAME TO CONE (EA.)	SEAL HOLE/CRACK (EA.)	INSTALL DUST COVER (EA.)	REPAIR PIPE CONNECTION (EA.)	SEAL MH JOINTS (EA.)	LINE MH FULL DEPTH (EA.)			REPAIR/REBUILD BENCH/ (EA.)	REMOVE ROOTS					
R24	S110G043	4.8	4.0	23.5																			
R24	S110G044	5.8	4.0	23.5																			
R24	S110G207	7.3	4.0	25.8	1																		NEEDS WATERTIGHT D POND EMPTIES HERE CAUSING INFILTRATION
R24	S110G220	3.9	4.0	23.8																			

SHEET INDEX #	MANHOLE ID #	DEPTH (FT.)	MANHOLE DIAMETER (FT.)	MH COVER DIAMETER (IN.)	MANHOLE INFORMATION										COMMENTS/NOTES		
					RESET FRAME/COVER (EA.)	REPLACE STD FRAME/COVER (EA.)	REPLACE WT FRAME/COVER (EA.)	RAISE FRAME (EA.)	SEAL FRAME TO CONE (EA.)	SEAL HOLE/CRACK (EA.)	INSTALL DUST COVER (EA.)	REPAIR PIPE CONNECTION (EA.)	SEAL MH JOINTS (EA.)	LINE MH FULL DEPTH (EA.)		REPAIR/REBUILD BENCH/EA.	REMOVE ROOTS
R32	S109N130	5.6	4.0	26.0			1			1						1	Requested status change to watertight for Model 8 18 14
R32	S109N502	8.2	4.0	23.8	1					1							
R32	S109N503	9.1	4.0	26.0						1							
R32	S118C003	11.4	4.0	24.0						1							NONE
R32	S118C107	10.8	4.0	23.7						1							roadway improvement asset roadway improvement asset
R32	S118C109	6.3	4.0	23.7						1	1						roadway improvement asset roadway improvement asset
R32	S118C110	8.5	4.0	23.7						1	1						roadway improvement asset roadway improvement asset
R32	S118C111	7.0	4.0	23.7						1	1						roadway improvement asset roadway improvement asset
R32	S118C113	8.2	4.0	24.0	1												
R32	S118C114	NA	4.0	NA					1								CASTING OFF CENTER
R32	S118C146	8.3	4.0	24.0	1					1							UTL or buried per CES Could not locate
R32	S118C147	NA	4.0	NA					1								MH confirmed by CCTV but inaccessible, adjusted MH position based on DS line length from CCTV
R32	S118C148	4.8	4.0	23.7						1							UTL or buried per CES Could not locate
R32	S118C149	6.4	4.0	23.7								1					
R32	S118C150	6.4	4.0	23.7							1						
R32	S118C152	6.0	2.0	20.1	1												
R32	S118C153	NA	4.0	NA						1							UTL or buried per CES CANNOT LOCATE BEHIND HOUSE
R33	S109M018	8.9	4.0	23.7							1	3					
R33	S109M019	6.1	4.0	24.0								1					
R33	S109M020	NA	4.0	NA					1								UTL or buried per CES CANNOT LOCATE POSS. UNDER POOL DECK
R33	S109M021	7.3	4.0	23.7	1							3					
R33	S109M022	9.3	4.0	23.7	1												
R33	S109M025	7.6	4.0	23.7							1						
R33	S109M028	6.9	4.0	26.0							1	1					
R33	S109M029	5.5	4.0	26.0							1	1					
R33	S109M030	5.6	4.0	26.1	1						1						
R33	S109M031	7.2	4.0	24.0	1						1	1	1				
R33	S109M033	7.2	4.0	24.0								2					
R33	S109M034	9.4	4.0	24.0							1	3					
R33	S109M035	9.2	4.0	23.5								1					
R33	S109M036	10.0	4.0	23.5								1					
R33	S109M037	10.2	4.0	23.5								2					
R33	S109M038	9.4	4.0	23.5	1						1						
R33	S109M039	5.6	4.0	23.7			1										
R33	S109M040	14.0	4.0	23.7							1	4					Requested status change to watertight for Model 8 18 14
R33	S109M041	7.9	4.0	23.7							1	2					
R33	S109M043	9.8	4.0	23.7	1							5					1
R33	S109M044	6.8	4.0	23.7							1	3					
R33	S109M047	9.7	4.0	23.5								3					
R33	S109M051	13.4	4.0	23.7							1	1					
R33	S109M052	8.8	4.0	23.7							1	3					
R33	S109M053	6.4	4.0	23.7								2					
R33	S109M054	6.4	4.0	23.7							1	2					
R33	S109M055	6.3	4.0	23.7							1	2					
R33	S109M058	8.3	4.0	23.7							1	3					
R33	S109M059	8.4	4.0	23.7							1	2					
R33	S109M060	8.9	4.0	23.7	1												
R33	S109M061	6.2	4.0	23.7													
R33	S109M062	8.8	4.0	23.7								1					
R33	S109M063	8.5	4.0	23.7			1				1	1					Requested status change to watertight for Model 8 18 14
R33	S109M064	9.1	4.0	23.5													
R33	S109M065	10.2	4.0	24.0	1						1	1					
R33	S109M067	10.1	4.0	23.5													
R33	S109M069	11.2	4.0	23.7							1	2					
R33	S109M073	NA	4.0	NA						1							
R33	S109M074	13.6	4.0	24.0								3					
R33	S109M075	5.4	4.0	23.5								1					
R33	S109M097	5.6	4.0	24.0	1						1	2					1
R33	S109M098	8.1	4.0	23.5								2					
R33	S109M114	10.7	4.0	24.0													
R33	S109M134	14.9	4.0	24.0								2					
R33	S109M140	4.4	4.0	28.5													Watertight per MACP
R33	S109M500	9.0	4.0	23.7								1	3				
R33	S109M601	7.9	4.0	23.7	1							1	2				
R33	S118D001	9.6	4.0	24.0			1					1					CANNOT LOCATE STRUCT-FOR DIR ONLY Requested status change to watertight for Model 8 18 14 remove rehab Reset Frame Cover
R33	S118D004	7.8	4.0	24.0								1					
R33	S118D057	6.4	4.0	24.1													
R33	S118D058	9.2	4.0	24.1								1					
R33	S118D060	7.2	4.0	24.0	1							1					MH RIM IS OFF-CENTER
R33	S118D061	7.5	4.0	24.0													
R33	S118D065	NA	4.0	NA							1						MH confirmed by CCTV but exact location unknown, adjusted MH position based on DS line length from CCTV CANNOT LOCATE BURIED LOCATED AND MARKED CANNOT LOCATE - BURIED LOCATED AND MARKED
R33	S118D092	NA	4.0	NA							1						UTL or buried per CES Could not locate
R33	S118D093	12.4	4.0	24.0													
R33	S118D095	10.3	4.0	24.0								1					
R33	S118D096	10.0	4.0	23.5	1							1					
R33	S118D097	10.0	4.0	23.8													
R33	S118D100	14.0	4.0	24.0								1					Requested status change to watertight for Model 8 18 14
R33	S118D102	9.8	4.0	24.0								1					
R33	S118D105	10.3	4.0	24.0								1	1				

SHEET INDEX #	MANHOLE ID #	DEPTH (FT.)	MANHOLE DIAMETER (FT.)	MH COVER DIAMETER (IN.)	MANHOLE INFORMATION										COMMENTS/NOTES			
					RESET FRAME/COVER (EA.)	REPLACE STD FRAME/COVER (EA.)	REPLACE WT FRAME/COVER (EA.)	RAISE FRAME (EA.)	SEAL FRAME TO CONE (EA.)	SEAL HOLE/CRACK (EA.)	INSTALL DUST COVER (EA.)	REPAIR PIPE CONNECTION (EA.)	SEAL MH JOINTS (EA.)	LINE MH FULL DEPTH (EA.)		REPAIR/REBUILD BENCH/EA.	REMOVE ROOTS	REPLACE 4' DIA. MANHOLE (VF.)
R34	S109M072	7.0	4.0	23.5														
R34	S109M132	NA	4.0	NA								1						CANNOT LOCATE STRUCT-FOR DIR ONLY
R34	S109M133	NA	4.0	NA								1						UTL or buried per CES BEHIND HOUSE
R34	S109M135	NA	4.0	NA								1						MH confirmed by CCTV but exact location unknown, adjusted MH position based on DS line length from CCTV CANNOT LOCATE IN BACKYARD
R34	S109M136	NA	4.0	NA								1						UTL or buried per CES Could not locate
R34	S109M137	5.6	4.0	24.0								1	1					
R34	S109M138	8.5	4.0	23.7								1	3					CANNOT LOCATE STRUCT-FOR DIR ONLY
R34	S109M139	8.2	4.0	23.7								1	1					
R34	S109M141	NA	4.0	NA								1						UTL or buried per CES, adjusted MH position based on DS line length from CCTV Could not locate
R34	S109M142	14.0	4.0	23.7									5					
R34	S109M143	8.1	4.0	23.7									2					
R34	S109M144	7.2	4.0	23.7									1					
R34	S109M145	5.8	4.0	25.8									1					
R34	S109M146	4.6	4.0	25.8									1					
R34	S109M302	6.7	4.0	24.0									1					CANNOT LOCATE STRUCT-FOR DIR ONLY
R34	S109M700	8.4	4.0	23.7									1	3				
R34	S109M701	6.3	4.0	23.7									1	2				
R34	S110P001	8.4	4.0	24.0									1					NEEDS CLEANING
R34	S110P003	13.5	4.0	24.0									1					
R34	S110P005	5.4	4.0	24.0														
R34	S110P006	12.1	4.0	23.5								1						1
R34	S110P024	16.5	4.0	23.3									1					MAJOR EVIDENCE OF SURCHARGE, NO INVERT DUE TO FLOW, NO INVERT INFO ON 8" PIPE DUE TO PIPE TURNED DOWN. Watertight per MACP Access point on 48" sewer, no defects
R34	S110P025	10.7	4.0	26.0														Access MH See Detail Sheet 96
R34	S118D098	6.2	4.0	24.0	1								1					
R34	S118D099	7.9	4.0	23.8									1	1				
R34	S118D106	13.6	4.0	24.0									1					
R34	S118D122	22.0	4.5	24.0														2
R34	S119A001	NA	4.0	NA														