



2015 Pipe Bursting Sanitary Sewer Construction Package IX
Solicitation Number: CO-00034
Job No.: 15-4801

ADDENDUM 1
November 6, 2015

To Respondent of Record:

This addendum, applicable to work referenced above, is an amendment to the proposal and plans and specifications and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the Addendum number and issue date on the space provided in submitted copies of the proposal.

MODIFICATIONS

1. Replace current Bid Proposal with revised document attached.
2. Replace current Special Provisions to Technical Specifications with the revised document attached.
3. The Contract's Estimated Cost has been revised to \$5,028,295.00

RESPONSES TO QUESTIONS

1. Are we going to do the work on the bid amount? What I am trying to find out is if the estimate is around 3 million dollars will there be enough work to cover the estimated dollar amount?

Yes, there will be enough work to come close to the estimated dollar amount for construction. SAWS makes every effort to utilize all the funds approved on the contract as long as the contractor is performing within the terms of the contract.

The seal appearing on this document was authorized by

KATHLEEN MARIE PRICE
on *Nov 9 2015*



Kathleen Marie Price, P.E.
San Antonio Water System

ACKNOWLEDGEMENT BY RESPONDENT

Each Respondent shall acknowledge receipt of this Addendum No. 1 by noting such and signing the Price Proposal.

This undersigned acknowledges receipt of this Addendum No. 1 and the proposal submitted herewith is in accordance with the information and stipulations set forth.

Date

Signature of Respondent

END OF ADDENDUM

2015 PIPE BURSTING SANITARY SEWER CONSTRUCTION PACKAGE IX

Item No.	Spec. No.	Item Description	Unit of Measure	Qty.	Unit Price	Total Price
1	103.1	Remove Concrete Curb (COSA Spec)	LF	100	\$	\$
2	103.3	Remove Sidewalks and Driveways (COSA Spec)	SF	100	\$	\$
3	103.4	Remove Miscellaneous Concrete (COSA Spec)	SF	100	\$	\$
4	203.1	Tack Coat (COSA Spec)	GAL	496	\$	\$
5	205.3	Hot Mix Asphaltic Concrete Pavement, Type C (3" Compacted Depth) (COSA Spec)	SY	1491	\$	\$
6	205.4	Hot Mix Asphaltic Concrete Pavement, Type D (2" Compacted Depth) (COSA Spec)	SY	3472	\$	\$
7	206.1	Asphalt Treated Base (ATB) (10" Compacted Depth) (COSA Spec)	SY	2000	\$	\$
8	206.1	Asphalt Treated Base (ATB) (12" Compacted Depth) (COSA Spec)	SY	1000	\$	\$
9	208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2" Depth) (COSA Spec)	SY	3472	\$	\$
10	208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (3" Depth) (COSA Spec)	SY	1491	\$	\$
11	247	Flexible Base-Type A, Grade I with 2% Cement (TxDOT Spec.)	CY	100	\$	\$
12	500.1	Concrete Curb (COSA Spec)	LF	180	\$	\$
13	500.4	Concrete Curb and Gutter (COSA Spec)	LF	170	\$	\$
14	502.1	Concrete Sidewalks (COSA Spec)	SY	160	\$	\$
15	503.1	Portland Cement Concrete Driveway (COSA Spec)	SY	80	\$	\$
16	503.2	Portland Cement Concrete Driveway - Commercial (COSA Spec)	SY	80	\$	\$
17	503.4	Asphaltic Concrete Driveway (COSA Spec)	SY	50	\$	\$
18	505.1	Concrete Riprap (5" Thick) (COSA Spec)	SY	80	\$	\$

2015 PIPE BURSTING SANITARY SEWER CONSTRUCTION PACKAGE IX

Item No.	Spec. No.	Item Description	Unit of Measure	Qty.	Unit Price	Total Price
19	506.1	Concrete Retaining Walls - Combination Type (COSA Spec)	CY	80	\$	\$
20	507.1	New Residential Chain Link Wire Fence (4 ft. High) (COSA Spec)	LF	100	\$	\$
21	507.4	Gates - Pedestrian (COSA Spec)	EA	4	\$	\$
22	507.6	New Residential Wooden Privacy Fence (6 ft. High)	LF	80	\$	\$
23	515.1	Topsoil (COSA Spec)	CY	30	\$	\$
24	516.1	Bermuda Sodding (COSA Spec)	SY	40	\$	\$
25	516.2	St. Augustine Sodding (COSA Spec)	SY	36	\$	\$
26	520.1	Hydromulching (Residential or Commercial) (COSA Spec)	SY	30	\$	\$
27	535.1	4 Inch Wide Yellow Line (COSA Spec)	LF	100	\$	\$
28	535.2	4 Inch Wide White Line (COSA Spec)	LF	100	\$	\$
29	535.7	24 Inch Wide White Line (COSA Spec)	LF	100	\$	\$
30	537.6	Pavement Marker (Type I-C) (COSA Spec)	EA	50	\$	\$
31	537.8	Pavement Marker (Type II-A-A) (COSA Spec)	EA	40	\$	\$
32	550.1	Trench Excavation Protection	LF	1000	\$	\$
33	799	Removal and Replacement of Speed Hump (Type II) (per each hump)	EA	8	\$	\$
34	851	Adjusting Existing Manholes	EA	20	\$	\$
35	852.1	Sanitary Sewer Manhole, 4 ft. Diameter (0'-6')	EA	50	\$	\$
36	852.1	Sanitary Sewer Manhole, 5 ft. Diameter (0'-6')	EA	3	\$	\$
37	852.2	Sanitary Sewer Drop Manhole, 4 ft. Diameter (0'-6')	EA	10	\$	\$
38	852.2	Sanitary Sewer Drop Manhole, 5 ft. Diameter (0'-6')	EA	2	\$	\$
39	852.3	Extra Depth Manholes, 4 ft. Diameter (>6')	VF	50	\$	\$
40	852.3	Extra Depth Manholes, 5 ft. Diameter (>6')	VF	10	\$	\$

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Item No.	Spec. No.	Item Description	Unit of Measure	Qty.	Unit Price	Total Price
41	854.1	Sanitary Sewer Laterals	LF	100	\$	\$
42	854.2	Two-Way Sanitary Sewer Clean-out	EA	20	\$	\$
43	855.1	Reconstruction of Existing Manhole	EA	20	\$	\$
44	858	Concrete Encasement, Cradles, Saddles and Collars	CY	40	\$	\$
45	860	Vertical Stacks	VF	40	\$	\$
46	864	Bypass Pumping (8"-10") per each set up (0-750 LF of Bypass Pumping)	EA	5	\$	\$
47	864	Bypass Pumping (8"-10") per each set up (751-1500 LF of Bypass Pumping)	EA	10	\$	\$
48	864	Bypass Pumping (8"-10") per each set up (1501-2000 LF of Bypass Pumping)	EA	5	\$	\$
49	864	Bypass Pumping (8"-10") per each set up (2001-2500 LF of Bypass Pumping)	EA	5	\$	\$
50	864	Bypass Pumping (8"-10") per each set up (2501-5000 LF of Bypass Pumping)	EA	4	\$	\$
51	864	Bypass Pumping (12"-15") per each set up (0-750 LF of Bypass Pumping)	EA	2	\$	\$
52	864	Bypass Pumping (12"-15") per each set up (751-1500 LF of Bypass Pumping)	EA	2	\$	\$
53	864	Bypass Pumping (12"-15") per each set up (1501-2000 LF of Bypass Pumping)	EA	2	\$	\$
54	864	Bypass Pumping (12"-15") per each set up (2001-2500 LF of Bypass Pumping)	EA	2	\$	\$
55	864	Bypass Pumping (12"-15") per each set up (2501-5000 LF of Bypass Pumping)	EA	1	\$	\$
56	865	Sewer Main Pre and Post Television Inspection (8" through 15" Diameter)	LF	26,260	\$	\$
57	900	Pipe Bursting 8" Sanitary Sewer Pipe, 0'-10' deep	LF	15,400	\$	\$
58	900	Pipe Bursting 8" Sanitary Sewer Pipe, 10'-15' deep	LF	1,200	\$	\$
59	900	Pipe Bursting 8" Sanitary Sewer Pipe, >15' deep	LF	400	\$	\$
60	900	Pipe Bursting 10" Sanitary Sewer Pipe, 0'-10' deep	LF	1,000	\$	\$
61	900	Pipe Bursting 10" Sanitary Sewer Pipe, 10'-15' deep	LF	1,600	\$	\$

2015 PIPE BURSTING SANITARY SEWER CONSTRUCTION PACKAGE IX

Item No.	Spec. No.	Item Description	Unit of Measure	Qty.	Unit Price	Total Price
62	900	Pipe Bursting 10" Sanitary Sewer Pipe, >15' deep	LF	400	\$ _____	\$ _____
63	900	Pipe Bursting 12" Sanitary Sewer Pipe, 0'-10' deep	LF	1400	\$ _____	\$ _____
64	900	Pipe Bursting 12" Sanitary Sewer Pipe, 10'-15' deep	LF	800	\$ _____	\$ _____
65	900	Pipe Bursting 12" Sanitary Sewer Pipe, >15' deep	LF	400	\$ _____	\$ _____
66	900	Pipe Bursting 15" Sanitary Sewer Pipe, 0'-10' deep	LF	1100	\$ _____	\$ _____
67	900	Pipe Bursting 15" Sanitary Sewer Pipe, 10'-15' deep	LF	1000	\$ _____	\$ _____
68	900	Pipe Bursting 15" Sanitary Sewer Pipe, >15' deep	LF	400	\$ _____	\$ _____
69	910	Manhole Rehabilitation	VF	1100	\$ _____	\$ _____
70	1103.1	Point repairs for 8" or 10" Diameter, (0'-10' depth) including up to 20 LF of piping	EA	60	\$ _____	\$ _____
71	1103.1	Point repairs for 8" or 10" Diameter, (10'-15' depth) including up to 20 LF of piping	EA	30	\$ _____	\$ _____
72	1103.1	Point repairs for 8" or 10" Diameter, (>15' depth) including up to 20 LF of piping	EA	12	\$ _____	\$ _____
73	1103.1	Point repairs for 12" or 15" Diameter, (0'-10' depth) including up to 20 LF of piping	EA	14	\$ _____	\$ _____
74	1103.1	Point repairs for 12" or 15" Diameter, (10'-15' depth) including up to 20 LF of piping	EA	12	\$ _____	\$ _____
75	1103.1	Point repairs for 12" or 15" Diameter, (>15' depth) including up to 20 LF of piping	EA	11	\$ _____	\$ _____
76	1103.3	Obstruction Removal by Excavation, 8" or 10" Diameter, all depths	EA	20	\$ _____	\$ _____
77	1103.3	Obstruction Removal by Excavation, 12" or 15" Diameter, all depths	EA	10	\$ _____	\$ _____
78	1103.4	Obstruction Removal by Remote Device, 8" or 10" Diameter, all depths	EA	10	\$ _____	\$ _____

Special Provisions to Technical Specifications

A. Revision to Standard Specification Item No. 852 (Sanitary Sewer Manholes)

852.3 Under Materials, Item 5: The statement to be replaced currently reads as follows:

5. Coating: All manholes shall be watertight and coated with a SAWS-approved sewer coating. Prior to coating, all manholes shall be vacuum tested, and approved.

For existing and rehabilitated manholes, apply a combination of both products with the cementitious coating first, followed by the epoxy coating. Kerneos SewperCoat 2000 HR regular, applied at the required one inch thick application, is the only product approved which does not require a subsequent epoxy coating. New manholes installed do not require the cementitious coating. Other approved materials are as follows:

- a. Cementitious coating: With required one inch thick application:
 - (1) Permaform CR-5000;
 - (2) Strong – Seal MS-2C;
 - (3) Standard Cement Material Inc. Reliner;
 - (4) Quadex Aluminaliner.
 - (5) ConShield Biotech Armor.*
- b. Epoxy coating: With specified thickness application:
 - (1) Raven 405 Series High Build Epoxy Liner: Required thickness 125 mils;
 - (2) Spray Wall polyurethane System: Required thickness 125 mils;
 - (3) Carboline “Plasite 4500” System: Required thickness 125 mils.*

The above statement is to be replaced with the following:

5. Coating: All manholes shall be watertight and coated with a SAWS-approved sewer coating. Prior to coating, all manholes shall be vacuum tested, and approved.

For existing and rehabilitated manholes, apply a combination of both products with the cementitious coating first, followed by the epoxy coating. Kerneos SewperCoat 2000 HR regular and APM MS-10,000 with ConShield Biotech Armor, applied at the required one inch thick application, are the only products approved which do not require a subsequent epoxy coating. New manholes installed do not require the cementitious coating. Other approved materials are as follows:

- a. Cementitious coating: With required one inch thick application:
 - (1) Permaform CR-5000;
 - (2) Strong – Seal MS-2C;*

Special Provisions to Technical Specifications

- (3) *Standard Cement Material Inc. Reliner;*
- (4) *Quadex Aluminaliner.*

- b. *Epoxy coating: With specified thickness application:*
 - (1) *Raven 405 Series High Build Epoxy Liner: Required thickness 125 mils;*
 - (2) *Spray Wall polyurethane System: Required thickness 125 mils;*
 - (3) *Carboline "Plasite 4500" System: Required thickness 125 mils;*

All other language in this specification 852 remains in full force.

B. Revision to Standard Specification Item No. 854 (Sanitary Sewer Laterals)

854.4 Under Construction: The statement to be replaced currently reads as follows:

Connection to the customers' end of the lateral shall be performed using a flexible coupling, or pre-approved equal. All flexible couplings shall be concrete-encased to prevent movement or breakage of the steel bands. All cleanouts at job sites shall have installed an approved heavy duty sanitary sewer cap.

The above statement is to be replaced with the following:

Connection to the customers' end of the lateral shall be performed using a flexible coupling, or pre-approved equal. All flexible couplings shall be concrete-encased to prevent movement or breakage of the steel bands. The concrete encasement shall be subsidiary to the lateral replacement and a non-separate pay item. All cleanouts at job sites shall have installed an approved heavy duty sanitary sewer cap.

All other language in this specification 854 remains in full force.

C. Revision to Standard Specification Item No. 864 (Bypass Pumping)

864.8 Under Measurement of Payment: The statement to be replaced currently reads as follows:

Measurement for the work specified herein will be by lump sum and as required by the contract documents. Payment of the "Lump Sum" bid for Bypass Pumping shall be in accordance with the following: Any effort required for multiple set-ups and operations shall be included in the lump sum price.

- a. *When initial set-up and operation of the bypass pumping system begins (including a successful test), 20% of the "Lump Sum" cost will be paid.*

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- b. 60% of the “Lump Sum” cost will be paid over equal monthly payments (estimated from the BPP or other documentation approved by the Inspector) during the course of the bypass pumping operation.*
- c. 20% of the remaining “Lump Sum” cost will be paid upon an acceptable removal and/or disassembly of all the components of the BPP, including site cleanup.*
- d. For multi-bypass pumping setups, payment will be proportional to the overall amount of the established bid line item.*

The above statement is to be replaced with the following:

Measurement for the work specified herein shall be by “per each set up”, and as required by the contract documents. Each “set up” shall include charges for pump rental, pump and bypassing operation, fuel, bypass piping, labor, and mobilization of bypass pumping equipment. The bypass set up pay item shall be paid at each manhole location where bypass pumps are operated to draw all of the flow from the mainline sanitary sewer system so that the downstream segment or segments of mainline sanitary sewer have no flow downstream to the manhole where bypass piping discharges the flow.

- a. Bypass Pumping (8”-10”), per each set up (0-750 LF of bypass piping)*
- b. Bypass Pumping (8”-10”), per each set up (751-1,500 LF of bypass piping)*
- c. Bypass Pumping (8”-10”), per each set up (1,501-2,000 LF of bypass piping)*
- d. Bypass Pumping (8”-10”), per each set up (2,001-2,500 LF of bypass piping)*
- e. Bypass Pumping (8”-10”), per each set up (2,501-5,000 LF of bypass piping)*
- f. Bypass Pumping (12”-15”), per each set up (0-750 LF of bypass piping)*
- g. Bypass Pumping (12”-15”), per each set up (751-1,500 LF of bypass piping)*
- h. Bypass Pumping (12”-15”), per each set up (1,501-2,000 LF of bypass piping)*
- i. Bypass Pumping (12”-15”), per each set up (2,001-2,500 LF of bypass piping)*
- j. Bypass Pumping (12”-15”), per each set up (2,501-5,000 LF of bypass piping)*

All other language in this specification 864 remains in full force.

Special Provisions to Technical Specifications

- C. Revision to Standard Specification Item No. 866 (Sewer Main Television Inspection)

866.1 Description: The statement to be replaced currently reads as follows:

The Contractor shall furnish all labor, materials, equipment, and incidentals to provide the televising and a NASSCO-(PACP) standard video, recorded in MPEG-1 format and written to DVD video, of sewer main and manholes utilizing a color, closed-circuit television inspection unit to determine their condition. The video shall include an inclinometer, visible on the video being viewed, noting the slope of the main being televised.

The above statement is to be replaced with the following:

The Contractor shall furnish all labor, materials, equipment, and incidentals to provide the closed-circuit televising. All inspections shall be in accordance with NASSCO PACP requirements and a NASSCO PACP database shall be submitted. All digital video files shall be color, closed-circuit TV in MPEG-1 format. The video shall include an inclinometer, visible on the video being viewed, noting the slope of the main being televised. The contractor shall provide all inspection data of mains and manholes written to a single storage device.

General Clarification: All references to DVD should be replaced with a single data storage device.

866.2 General: The statement to be replaced currently reads as follows:

After completion of the work specified in the contract documents, and prior to placement of the final course of asphalt or other final surface, the newly constructed or rehabilitated sanitary sewer main shall be televised immediately upon cleaning. Televising shall be observed by the Inspector or Engineer and contractor, as the camera is run through the system. Any abnormalities such as, but not limited to, misaligned joints, cracked/defected pipe, rolled gaskets, shall be repaired by the Contractor solely at his expense. Sections requiring repair shall be re-televised to verify condition of repair. No additional compensation shall be provided for all needed repairs, re-cleaning, or re-televising efforts.

The above statement is to be replaced with the following:

Before construction of the sanitary sewer main, if required, the main shall be televised to locate laterals, observe existing conditions and immediately upon cleaning or clearing existing main. The Contractor shall furnish all labor, equipment, appliances, and materials necessary for cleaning the sewer system including the removal of all debris, solids, sand, grease, grit, etc. from the sewer and manholes to facilitate television inspection. Televising shall be observed by the Inspector or Engineer and contractor as

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the camera is run through the system and shall be in accordance with NASSCO PACP guidelines. No additional compensation shall be provided for cleaning, clearing, or re-televising.

After construction of the sanitary sewer main and prior to placement of the final course of asphalt or other final surface, the newly constructed sanitary sewer shall be televised immediately upon cleaning. Televising shall be observed by the Inspector or Engineer, and contractor as the camera is run through the system. Any abnormalities such as, but not limited to, misaligned joints, cracked/defected pipe, rolled gaskets, shall be repaired by the Contractor solely at his expense. Sections requiring repair shall be re-televised to verify condition of repair. No additional compensation shall be provided for all needed repairs, re-cleaning, or re-televising efforts.

866.3 Execution: The statement to be replaced currently reads as follows:

The television unit shall also have the capability of displaying in color, on DVD, pipe inspection observations such as pipe defects, sags, points of root intrusion, offset joints, service connection locations, and any other relevant physical attributes. Each DVD shall be permanently labeled with the following:

- 1. Project name / SAWS Job # / Work Order #;*
- 2. Date of television inspection;*
- 3. Station to station location and size of sanitary sewer;*
- 4. Street/easement location;*
- 5. Name of Contractor;*
- 6. Date DVD submitted;*
- 7. DVD number;*
- 8. SAWS Inspector Name.*

The above statement is to be replaced with the following:

The television unit shall also have the capability of displaying in color, on videos, pipe inspection observations such as pipe defects, sags, points of root intrusion, offset joints, service connection locations, and any other relevant physical attributes. Each video shall be permanently labeled at the beginning of the video with the following:

- 1. Project name / SAWS Job # / Work Order #;*
- 2. Date of television inspection;*
- 3. Manhole UNITIDs (as labeled on plans) and size of sanitary sewer;*
- 4. Street/easement location;*

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5. *Name of Contractor;*

Each video shall be submitted with the following information:

1. *Project name / SAWS Job # / Work Order #;*
2. *Date of television inspection;*
3. *Manhole UNITIDs (as labeled on plans and size of sanitary sewer);*
4. *Street/easement location;*
5. *Name of Contractor;*
6. *Date video submitted;*
7. *Data storage device number;*
8. *SAWS Inspector Name.*

All other language in this specification 866 remains in full force.

- D. Revision to Standard Specification Item No. 900 (Reconstruction of Sanitary Sewer by Pipe Bursting/Crushing Replacement Process)

900.3 Construction: The statement to be replaced currently reads as follows:

1. *Pit Location: Location and number of insertion or launching pits will be chosen by the contractor, and will typically be located near existing or proposed manholes, P.I.'s in the line, at logical breaks in the construction phasing, or at locations to comply with access or maintenance requirements.*

Pits shall be placed and located to minimize the total number of pulls and maximize the length of pipe replaced per pull, within the constraints of maintaining service and access and other requirements. Use excavations at point repair locations for insertion pits where possible.

The above statement is to be replaced with the following:

1. *Pit Location: Location and number of insertion or launching pits will be chosen by the contractor, and will typically be located near existing or proposed manholes, P.I.'s in the line, at logical breaks in the construction phasing, or at locations to comply with access or maintenance requirements. The ends of the insertion excavation pit shall be sloped 2:1 or flatter, or proper shoring devices shall be used.*

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Pits shall be placed and located to minimize the total number of pulls and maximize the length of pipe replaced per pull, within the constraints of maintaining service and access and other requirements. Use excavations at point repair locations for insertion pits where possible.

900.4 Measurement and Payment: The statement to be replaced currently reads as follows:

Measurement and payment for items included in this specification shall be in accordance with the pay items listed below. Work included in these items shall include and the price provided by the Contractor will be considered as full compensation for furnishing and placing of all materials, labor, tools, and equipment; cleaning, preparation, repairs, obstruction removal, inspection; and phasing, protecting, work execution and any other work necessary to complete the project.

1. *Installed Pipe: The inserted pipe will be paid for per linear foot of pipe installed using pipe-bursting/pipe crushing method for the pipe diameter, type, quantity, and depth specified and will include all pipe installation materials, all submittals, sealing materials at manholes and annulus (if required), launching pits, receiving pits, post testing, shoring, bedding, backfill, and all necessary, corresponding, and related work specified herein. (Item No. 900)*
2. *Services: Locating and reconstruction of services and all connections of services will be paid for per each connection made, including fittings and pipe. Payment for abandoned services will be on a per each connection made basis. (Item No. 900.1)*
3. *Point Repairs: Point repairs will be paid for on a per each basis, as needed. Extra length point repair will be paid based on the length of pipe replaced per repair beyond the length established for each single point repair item, as needed. Abandoned point repairs will be paid on a cubic yard basis, as needed. (Item No.900.5)*
4. *Obstruction Removal: Obstruction removal will be paid for on a per each basis, as needed. (Item No. 900.6)*
5. *Storm Water Pollution Prevention and Erosion Control Plan: Payment for this item will be based on the items and quantities of control measures included in the proposal on the basis indicated in the respective specification sections.*
6. *Site Restoration: Except as associated with point repairs and obstruction removals, site restoration for all impacts to surface improvements will be on a linear foot basis of the rehabilitated line segment. For point repairs and obstruction removals, site*

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repair will be on a per each basis.

7. Television Inspection: *Payment will be made for television inspection of the sewer line prior to pipe rehabilitation in accordance with specifications Item No. 866 and cleaning will be in accordance with specification Item No. 868. There will be no additional or separate payment for “post-TV” video inspection, documentation, required submittals, and associated or related work.*
8. Bypass Pumping: *The cost of any necessary bypass pumping will be considered subsidiary to the appropriate pay items for pipe installation, television inspection, repair, or related work and will not be a separate pay item.*

The above statement is to be replaced with the following:

Measurement and payment for items included in this specification shall be in accordance with the pay items listed below. Work included in these items shall include and the price provided by the Contractor will be considered as full compensation for furnishing and placing of all materials, labor, tools, and equipment; cleaning, preparation, repairs, obstruction removal, inspection; and phasing, protecting, work execution and any other work necessary to complete the project.

1. Installed Pipe: *The inserted pipe will be paid for per linear foot of pipe installed using pipe-bursting/pipe crushing method for the pipe diameter, type, quantity, and depth specified and will include all pipe installation materials, all submittals, sealing materials at manholes and annulus (if required), launching pits, receiving pits (including but not limited to all excavation, backfill, and replacement of base material and pavement structures), post testing, bedding, backfill, and all necessary, corresponding, and related work specified herein. (Item No. 900)*
2. Trench Excavation Protection: *Trench excavation protection/safety (shoring, trench boxes, etc.) shall be paid in a linear foot basis for the pipe bursting pits. Insertion pits shall be of sufficient length to allow the bursting head and new replacement pipe to enter the host pipeline at the required angle to maintain the grade of the existing sanitary sewer line. (Item No. 550)*
3. Services: *Locating and reconstruction of services and all connections of services will be paid for per each connection made, including fittings and pipe. Payment for abandoned services will be on a per each connection made basis. (Item No. 1109)*
4. Point Repairs: *Point repairs will be paid for on a per each basis, as needed. (Item No. 1103.1)*

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5. Obstruction Removal: *Obstruction removal will be paid for on a per each basis, as needed. (Item No. 1103.4)*
6. Storm Water Pollution Prevention and Erosion Control Plan: *There will be no payment for this item, unless otherwise noted. The Storm Water Pollution Prevention and Erosion Control Plan and associated work are inclusive of the pipe bursting line item measurement and payment.*
7. Site Restoration: *Except as noted in specification sections for point repairs, obstruction removals, and service reconnections, site restoration for all impacts to surface improvements will be on a linear foot basis of the rehabilitated line segment, considered subsidiary to the rehabilitation bid items, and will not be a separate pay item.*
8. Television Inspection: *Payment will be made for television inspection of the sewer line prior to pipe rehabilitation in accordance with specifications Item No. 866 and cleaning will be in accordance with specification Item No. 868. There will be no additional or separate payment for “post-TV” video inspection, documentation, required submittals, and associated or related work.*
9. Bypass Pumping: *The cost of any necessary bypass pumping for pipe bursting pipe rehabilitation will be paid on a “per each set-up” basis for the length of bypass piping and pipe diameter, (Item No. 864- Special Provisions to Technical Specifications). The cost of any necessary bypass pumping for television inspection, repair, or related work will be considered subsidiary to the appropriate pay items and will not be a separate pay item.*

All other language in this specification 900 remains in full force.

- E. Revision to Standard Specification Item No. 1103 (Point Repairs and Obstruction Removals)

1103.3 Construction: 2. Obstruction Removal: The statement to be replaced currently reads as follows:

- b. *Obstruction removal by excavation: Obstructions encountered during liner insertion that are removed by digging and exposing the damaged section of main.*

The above statement is to be replaced with the following:

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- b. *Obstruction removal by excavation: Obstructions encountered during liner insertion or pipeline main rehabilitation method that are removed by digging and exposing the damaged section of main, sags, high points or to handle any identified voids around the pipeline main segment. Voids are defined as the absence of pipeline (crown, wall, invert) and backfill (initial or secondary) above or around the pipeline, which may result in collapses or cave-ins.*

1103.3 Construction: 10. Obstruction Removal: The statement to be replaced currently reads as follows:

- d. *Use excavation as the method of obstruction removal when installation of the liner in the sanitary sewer is in progress. If during the liner insertion operation, a collapsed sewer, offset joint, or other obstruction is encountered which prevents or blocks the passage or insertion of the liner, notify the Inspector for authorization to excavate.*
- e. *Excavate at the point where there is an obstruction. Use a trench safety system as specified in Item No. 550, "Trench excavation Safety Protection."*
- f. *Break out the existing sanitary sewer pipe (carrier pipe) as directed by the Inspector. Remove only that amount of material which is causing the obstruction. Remove the minimum amount of carrier pipe.*

The above statement is to be replaced with the following:

- d. *Use excavation as the method of obstruction removal or addressing voids when rehabilitation of the sanitary sewer main is in progress. If during rehabilitation work and operations, a collapsed sewer, voids, offset joint, sags, high points or other obstruction is encountered which prevents or blocks the passage of the rehabilitation method, notify the Inspector for authorization to excavate.*
- e. *Excavate at the point where there is an obstruction or void. Use a trench safety system as specified in Item No. 550, "Trench excavation Safety Protection." Backfilling and compaction shall be as specified in Item 804, "Excavation, Trenching and Backfill."*

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- f. Break out the existing sanitary sewer pipe (carrier pipe) as directed by the Inspector. Remove only that amount of material which is causing the obstruction. Remove the minimum amount of carrier pipe. Where sag or high point is identified, remove the existing carrier pipe and adjust the sanitary sewer bedding to the grade of the carrier pipe.*

1103.4 Measurement and Payment: 1. Unit Prices - Point Repairs: The statement to be replaced currently reads as follows:

I. Unit Prices - Point Repair:

- a. Measurement for sewer line point repair is on a unit price basis for each repair performed. Minimum length of pipe to be replaced for each repair, determined by depth of sewer line measured from natural ground to flow line at point of repair.*
- b. 9 feet minimum length.*
- c. Measurement for sewer line extra length point repair is on a linear foot basis in excess of minimum replacement length specified above.*
- d. Payment for service lateral point repair is on a linear foot basis for all sizes of service laterals and for all depths (same unit price per linear foot, regardless of size and depth). No separate payment will be made for point repair done within the limits of a service lateral reconnection as defined in this Section. Minimum length of service lateral point repair is 3 feet.*
- e. Measurement for hand excavation: When authorized by the Inspector in locations where excavation by machine is not suitable, no direct payment shall be made for hand excavation.*
- f. Measurement for abandonment of point repair by excavation: No direct payment shall be made for abandonment of point repair.*
- g. Measurement for abandonment of point repair by video inspection: No direct payment shall be made for abandonment of point repair by video inspection.*

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- h. The cost of the following items of work are included in the unit prices for point repairs, and all associated work:*
 - (1) Excavation, embedment and backfill;*
 - (2) Hauling away and lawful disposal of excess excavated materials and debris;*
 - (3) Pipe, pipe fittings, adapters and concrete collars;*
 - (4) Smoke testing and any required retesting;*
 - (5) Restoration of site improvements, including sodding;*
 - (6) Post-cleaning video inspection;*
 - (7) All other necessary work to complete.*

The above statement is to be replaced with the following:

1. Unit Prices - Point Repair:

- a. Measurement for sewer line point repair is on a unit price basis for each repair performed. Minimum length of pipe to be replaced for each repair, determined by depth of sewer line measured from natural ground to flow line at point of repair.*
- b. 20 feet minimum length.*
- c. Payment for service lateral point repair is on a linear foot basis for all sizes of service laterals and for all depths (same unit price per linear foot, regardless of size and depth). No separate payment will be made for point repair done within the limits of a service lateral reconnection as defined in this Section. Minimum length of service lateral point repair is 3 feet.*
- d. Measurement for hand excavation: When authorized by the Inspector in locations where excavation by machine is not suitable, no direct payment shall be made for hand excavation.*

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- e. *Measurement for abandonment of point repair by excavation: No direct payment shall be made for abandonment of point repair.*
- f. *Measurement for abandonment of point repair by video inspection: No direct payment shall be made for abandonment of point repair by video inspection.*
- g. *The cost of the following items of work are included in the unit prices for point repairs, and all associated work:*
 - (1) *Excavation, embedment and backfill;*
 - (2) *Hauling away and lawful disposal of excess excavated materials and debris;*
 - (3) *Pipe, pipe fittings, adapters and concrete collars;*
 - (4) *Smoke testing and any required retesting;*
 - (5) *Restoration of site improvements, including sodding; Separate measurement and payment will be made for paving restoration as detailed in Item h below.*
 - (6) *Post-cleaning video inspection;*
 - (7) *All other necessary work to complete.*
- h. *Payment for paving restoration for each point repair located in HMAC paving shall be measured as follows: width = existing pipe diameter + 4 feet and length = 20 feet. Paving restoration will be paid for on a square yard basis. (Item Nos. 205 and 206) The Contractor shall not be paid for said paving restoration if the project or work order for which point repair is to be made already requires full paving restoration.*

1103.4 Measurement and Payment: 2. Unit Prices – Obstruction Removal: The statement to be replaced currently reads as follows:

- a. *Obstruction removal by excavation will be paid per each obstruction removal performed. Obstruction removal can be submitted for payment when the obstruction has been cleared from the sewer line to*

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be lined. Liner work must proceed at least 6 feet before payment for removal of another obstruction will be considered (i.e., all obstruction within a distance of 6 feet is considered to be part of the same obstruction.)

The above statement is to be replaced with the following:

- a. Obstruction removal by excavation will be paid per each obstruction removal or void filling. Obstruction removal can be submitted for payment when the obstruction has been cleared from the sewer line to be rehabbed or when void filled. Rehab work must proceed at least 6 feet before payment for removal of another obstruction will be considered (i.e., all obstruction within a distance of 6 feet is considered to be part of the same obstruction). Void filling can be submitted for payment when the void and surrounding area has been backfilled and compacted per Item 804, "Excavation, Trenching and Backfill."*

All other language in this specification 1103 remains in full force.

- F. Revision to Standard Specification Item No. 1109 (Sanitary Sewer Lateral Stub Outs or Reconnections)

The following section shall be added to the end of the specification section 1109 (within 1109.4 Measurement and Payment: 1. Unit Prices):

- k. Payment for paving restoration for each service reconnection located in HMAC paving shall be measured as follows: width = 4 feet and length = 4 feet. Paving restoration shall be paid for on a square yard basis. (Item Nos 205 and 206) The Contractor shall not be paid for said paving restoration if the project or work order for which service reconnection is to be made already requires full paving restoration.*

All other language in this specification 1109 remains in full force.

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