

084-20 Appendix C
SPECIAL CONDITION ITEM 900 SERIES
(Creates a new item outside the scope of JEA Water and Sewer Standards)

960. MEASUREMENT AND PAYMENT - CIPP (Cured-In-Place Piping)

Measurement of each sewer pipe segment installed shall take into consideration the existing sewer pipe nominal diameter, and provide an allowance for 1.5 mm incremental changes in thickness for design variations. The Contractor is to enter the (add / (deduct)) value for 1.5 mm incremental changes in thickness, As indicated on the bid form. The measurement for length shall be measured from the centerline of the launch manhole to the centerline of the receiving manhole.

961. PIPE INSTALLATION

- 961.1 Payment for the installed pipe for 8" – 18" and less, includes furnishing and placement of all materials, labor, tools, equipment, CCTV, and reporting and reviewing questionable areas with JEA, and preparation of the existing pipe and manholes to receive the new pipe. All dewatering, bypass pumping, vacuum truck pumping, cleaning, pipe end installation in manhole, As-builts, and any other items required to complete the task are incidental to the linear foot unit price as set forth in the Bid Form.
- 961.2 Payment for the installed pipe for 21" – 54" includes furnishing and placement of all materials, labor, tools, equipment, CCTV, and preparation of the existing pipe and manholes to receive the new pipe. All dewatering, cleaning, pipe end installation in manhole, As-builts, and any other items required to complete the task are incidental to the linear foot unit price as set forth in the Bid Form. Bypass Pumping, and Vacuum Truck Pumping shall be per the Bid Item Factor and unit price's as set forth in the Bid Form.
- 961.3 For each diameter CIPP, JEA has selected a standard thickness and will be the only material evaluated. Additionally, the Contractor shall submit an add / deduct cost for 1.5 mm incremental changes in thickness. These will not be evaluated, but shall be implemented during the execution of the Contract.

962. MANHOLE FRAME AND COVER ADJUSTMENT

Measurement for payment of Remove and Construct Manhole Frame will include the first vertical foot of replacement. For depths beyond one vertical foot, payment will be per each additional vertical foot replaced. Payment will be compensation in full for removal of the existing manhole and disposal of the debris. Payment shall include furnishing from JEA inventory a new frame and 32" cover. Contractor is to obtain the JEA supplied frame and cover from the Pearl Street yard. All required removal of grassing; excavation; de-watering; native soil backfill; all sheeting, shoring and bracing; protecting existing structures, utilities and property; placing and removing all traffic signs and barriers and maintaining traffic; cleaning up the site; furnishing all labor, materials, tools and equipment for the construction of the new frame for the depth, and all work appurtenant thereto.

963. LATERAL CONNECTIONS AT SEWER MAIN

- 963.1 Payment will be made for each sewer lateral connection furnished and installed at the Contract unit price for the type and size of lateral connection actually installed as shown on the bid form. The unit prices set forth in the Contract will constitute full compensation for excavation; native soil backfilling; de-watering; sheeting and shoring, driven and pulled; drag shields for trenches of all depths and furnishing and installing lateral connections at depths divided into 4' depth intervals; 0' to 4', 4' to 8', 8' – 12', etc. Payment will consist of the cost of the tee or saddle, over and above the price paid for the pipeline length measured through the tee or saddle. The unit price shall also be full compensation for locating existing lateral piping and all incidental work including all labor, materials, tools, dewatering, bypass pumping, and equipment. Refer to 963.2. specific instructions and materials for sewer service connections
- 963.2 An alternate Sewer Service Connection has been approved by the JEA, and is considered equivalent to the ROMAC style connection, and superior to the PVC connection. This is a DFW flexible saddle, DFW-6TC complete with S/S clamps, secured to the main pipe with Devcon Polystrate Plastic Welder or equivalent, and (2) S/S bands on the main, and (1) band to secure the lateral PVC piping. Refer to JEA Water and Sewer Standards for installation procedures.

- 963.3 Payment will be made for each sewer lateral connection reinstated by means of an internal robotic cutter at the Contract unit price for each lateral connection. The unit prices set forth in the Contract will constitute full compensation for locating the existing lateral and all incidental work including all labor, materials, tools, dewatering, bypass pumping, and equipment. This method shall not be used unless approved by JEA.
- 963.4 Payment will be made for each protruding sewer lateral connection (Hammer Tap) removed by means of an internal robotic cutter at the Contract unit price for each lateral connection. The unit prices set forth in the Contract will constitute full compensation for locating the existing lateral and all incidental work including all labor, materials, tools, dewatering, bypass pumping, and equipment. This method shall not be used unless approved by JEA.

965. CCTV AND LIGHT CLEANING

Payment for Preparatory Sewer Cleaning and CCTV Inspection, shall be at the unit price per linear footage and diameter of pipe cleaned and actual pipe televised, and shall be full compensation for the item of work, complete, including all required materials; and furnishing all material, labor, tools and equipment; and all incidental and related work to complete the item. Item shall include cleaning of pipeline and manholes along segments of mainline cleaned to facilitate CCTV, including disposal of debris.

965.1 TUBERCULATION REMOVAL

Measurement and Payment for Tuberculation Removal from sewer pipe will be made for each linear foot of pipe cleaned to between 92% and 95% or greater of the original dimension. Contractor shall continuously assess the results during the Tuberculation Removal process and provide specific recommendations and jointly review status with the JEA. Measurement shall be from the centerline of the upstream manhole to the centerline of the downstream manhole. The linear foot unit price shall be full compensation for all methods used including all incidental work, all labor, materials, tools, equipment, including high pressure water jet, chain flail, etc. No separate payment shall be made for maintenance of traffic; or additional labor, materials, or equipment required to correct problems directly or indirectly the result of the Tuberculation Removal process, unless JEA has directed the Contractor to proceed against their recommendation.

966 . BYPASS PUMPING

966.1 SCOPE

- 966.1.1 Work performed under this section includes by-pass pumping required for the performance of rehabilitation and/or repair of sanitary sewer facilities. The work includes wet-up of equipment and piping, maintenance of equipment and piping during pumping operations, maintenance of traffic, clean up and restoration of site. The Contractor shall furnish all labor, equipment and materials necessary for property execution. Bypass pumping shall only be exercised upon prior approval given by JEA for each individual project.
- 966.1.2 **QUALITY ASSURANCE:** By-pass operations shall be conducted by experienced personnel. Contractor shall have four (4) years experience with operation and maintenance of pumping equipment and shall have successfully completed at least 5 projects involving by-pass pumping and within the past 2 years.
- 966.1.3 **SUBMITTALS:** Contractor shall submit Shop Drawings for proposed pumping equipment.

966.2 PRODUCTS

- 966.2.1 **General:** The equipment selected for by-pass pumping shall be specifically designed for the purpose intended.
- 966.2.2 **Equipment:** The size, capacity and number of pumps shall be determined by the Contractor and shall be sufficient to accommodate the maximum required flow.

- 966.2.3 The lines shall be of sufficient diameter to carry the maximum required flow. The line shall be constructed of a material that will sustain the internal pressure. The lines shall be securely anchored or restrained at points of deflection so that the joints will not separate while the lines are in operation. By-pass lines may be placed above ground and, where practical, shall be placed through culverts where they cross roads. The by-pass lines shall not interfere with traffic. Where this cannot be accomplished appropriate maintenance of traffic shall be provided by the Contractor in accordance with Special Condition Item 952.

966.3 EXECUTION

- 966.3.1 General: By-pass pumping shall be performed as required to facilitate rehabilitation and/or repair of sanitary sewers facilities.
- 966.3.2 Preparation: Sewer line plugs shall be installed to divert the flow as required to complete the work. The plugs shall be equipped with an air hose to permit deflation from above ground. A strong rope shall be attached to enable the plug to be quickly pulled out of the manhole. Care shall be taken to prevent a plug from being pushed into the outgoing pipe when the backed-up sewage is released.
- 966.3.3 When pumping and diverting flow is required, conduits, and other equipment shall be used to divert the flow of sewage around the manholes section in which work is to be performed as specified herein.

966.4 PROCEDURE

- 966.4.1 Pumps for by-passing wastewater flow shall be located at the manholes where the wastewater is to be removed. At each manhole there shall be a sufficient number of pumps with sufficient capacity to provide standby pumping capacity should any one pump fail. When by-pass pumping of the wastewater starts, it shall be continuous until the work for which the pumping is required is complete. The pumps shall be maintained by the Contractor or the Contractor's representative, 24 hours a day, during the by-passing operation.
- 966.4.2 The maximum elevation to which the wastewater will be permitted to rise in the manhole is 5 feet above manhole invert. Contractor shall provide a means of reading the depth of wastewater, above manhole invert, in each manhole where pumps are located.

966.5 RESTORATION

The Contractor shall be responsible for all damage to public and private property as a result of all by-passing operations. The cost of restoring any damaged area to conditions prior to by-passing shall be borne by the Contractor.

966.6 MEASUREMENT AND PAYMENT

- 966.6.1 Measurement of bypass pumping for payment shall be the actual number of linear feet of pipe being rehabilitated. Payment for this service applies to gravity sewers with an inside diameter of 18" or greater. For gravity sewer with inside diameters less than 18" the cost of bypass pumping, vacuum truck pumping, damming upstream, flow thru plugs, etc. is incidental to the item of work. If rehabilitation of manholes occurs with contiguous gravity sewer segments, a maximum of one bypass pumping setup will be paid for unless otherwise approved by JEA prior to setup of bypass pumping. Discharge Piping will not be paid for separately, for either rigid piping or flexible hose, but shall be merged with the cost of the associated bypass pumping.

967. AS-BUILTS

All data listed on the As Built Data Sheet included in the Contract Technical Specification is incidental to the pipe rehabilitation task. When the existing invert information is suspected of being inaccurate notification must be given to JEA.