

**SECTION UC-330****REPAIRS TO DEPARTMENT SEWERS****PART 1 - GENERAL**

## 1.01 SCOPE

The Contractor shall furnish all labor, material and equipment required to repair the Department's sewers due to damage caused by his operations or as required to perform necessary modifications to existing installations.

## 1.02 RELATED SECTIONS

Section 01016 - Safety Requirements and Protection of Property  
Section 01100 - Special Project Procedures  
Section 02315 - Trenching and Backfilling for Piping Systems  
Section UC-250 - Gravity Sewer Systems

**PART 2 - PRODUCTS**

## 2.01 CHEMICAL JOINT AND CRACK SEALING MATERIALS FOR ACTIVE LEAKS

- A. Chemical joint and crack sealing materials used on this Project shall have the following properties: react quickly to form a permanent watertight seal; resultant seal shall be flexible and immune to the effects of wet/dry cycles; non-biodegradable and immune to the effects of acids, alkalis, and organics in sewage; component packaging and mixing compatible with field conditions and worker safety; extraneous sealant left inside pipe shall be readily removable.
- B. Chemical joint sealing material shall be acrylic resin type and shall be furnished with activators, initiators, inhibitors and any other materials recommended by the manufacturer for a complete grout system. Sealing grout shall be furnished in liquid form in standard manufacturer's containers. Sealing grout shall be AV-118 Duriflex manufactured by Avanti International, Houston, Texas (1-800-877-2570) or approved equal.

**PART 3 - EXECUTION**

## 3.01 REPAIRS DUE TO CONTRACTOR'S OPERATIONS

- A. The Contractor shall exercise caution to insure that his operations do not damage the existing sewer. The Contractor shall be responsible for repairs to the sewers which are necessary due to damage caused by the Contractor's operations. Such repair shall be considered as part of the work.
- B. Damaged pipe or manholes shall be replaced in kind or repaired by the Contractor to the satisfaction of the Department, with emphasis on providing a good, solid foundation for the new pipe. Temporary paving and permanent paving repairs shall also be made by the Contractor.

- C. Contractor shall immediately repair any damage using methods satisfactory to the Engineer. Repairs shall proceed on a 24-hour/day, seven day/week basis if so directed by the Department. If the Contractor fails to immediately repair any such damage, the Department shall have the right to make the repair or have the repair made, and may charge to the Contractor all costs, including administrative costs and overhead, incurred by the Department in connection with the repair. The Department shall also charge to the Contractor any costs incurred or penalties imposed on the Department as a result of such damage.
- D. The Contractor is strongly advised not to position equipment having greater than an AASHTO H-20 loading above the sewer line. Repair of any damage caused by such equipment loads shall be at the Contractor's expense.
- E. Any repairs requiring excavation, except emergency work, shall have prior approval of the Engineer.

### 3.02 MODIFICATION OF EXISTING MANHOLES

Where modification of existing manholes are required to replace existing mains the following requirement shall be adhere to:

- A. After satisfactory replacement and testing of mains all interior concrete surfaces of the modified manhole shall be high pressure washed and seal coated with 2 coats of a coal tar epoxy, Kop-Coat Company Bitumastic 300-M, or approved equal. Each coat shall have a dry film thickness of 8 mils, minimum. The requirements of this paragraph are not applicable to existing manholes to lined with a Department approved liner. (See Section 02536 for additional requirements.)
- B. The modifications to the invert channels of the manhole shall be formed of brick or brick rubble thoroughly bedded and covered with sand-cement grout, accurately shaped to a semi-circular bottom conforming to the inside of the adjacent sewer section. Steep slopes outside the invert channel shall be in the direction of the sewer or entering branch shall be a smooth curve with radius as long as practical
- C. Gravity sewer shall connect to the manholes in accordance with Miami Dade Water and Sewer Department's Standard Details and Section UC-250.

### 3.03 SEALING OF POST-REPLACEMENT LEAKS

In the event it becomes necessary to seal sewer pipe to stop leakage after sectional replacement, the following procedure shall be used:

- A. Chemical joint or crack sealing material specified above or as approved by the Department shall be furnished and satisfactorily installed. The Contractor shall modify his equipment as necessary to seal the leaks, however both his equipment and sealing method shall meet the approval of the Department prior to use.
- B. Extreme caution shall be utilized during leak sealing (pressure) operations in order to avoid damage of the sewer pipe. If any damage occurs, it shall be repaired as specified in Subsection 3.01, above, and to the satisfaction of the Department. Excessive pumping of grout which might plug a service lateral shall be avoided. Any service laterals blocked by the

grouting operation shall be cleared immediately by the Contractor.

END OF SECTION