



Inflow & Infiltration (I&I) Program  
SECTION 02753  
REHABILITATION OF MANHOLES

PART 1 - GENERAL

1.01 SPECIFICATION INCLUDES

A. It is the intent of this specification to provide for the reconstruction of sanitary sewer manholes using a cementitious material coating designed for the installation in municipal wastewater manholes by the "dry-gunite" application method.

B. All manhole benches are to be repaired in accordance with CITY standards.

C. All manhole concrete spalling and exposed rebar shall be repaired in accordance with ACI standards.

1.02 REFERENCE STANDARDS

A. ACI 506 – Specifications for Materials, Proportioning, and Application of Shotcrete.

1.03 MINIMUM QUALIFICATIONS

Installers must be certified by the material manufacture and have a minimum of five (5) years experience shall be considered. Installers must provide manufacturer certificate and reference list to be considered.

1.04 SUBMITTALS

A. Manufactures product data sheet.

B. Installers certification and references.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Material shall provide high-strength, corrosion-resistant protection against corrosion caused by hydrogen sulfide (H<sub>2</sub>S) found in wastewater environments.

B. Material shall be resistant to hydrostatic pressure up to ten (10) feet once full thickness and cure is reached.

C. Material shall reach a minimum of 6000 PSI compressive strength at seven (7) days per ASTM C109.

D. Material shall contain 100% pure calcium aluminate both cement and manufactured aggregates.

E. Material shall be SewperCoat as manufactured by Kemeous, Inc. or engineers approved equal.



PART 3 - EXECUTION

3.01 INSTALLATION

- A. Manhole benches are to be rebuilt prior to application of material in accordance with the CITY standards.
- B. Inspect manhole walls for any necessary concrete repair such as cracking, spalling and exposed rebar.
  - 1. Should concrete repair requirements exceed the limits of repair allowed by the coating manufacturer, notify ENGINEER and CITY and repair in accordance with ACI standards prior to application of coating after receiving approval.
- C. Liners ends shall be sealed to per these SPECIFICATIONS.
- D. Surface preparation shall be performed in accordance with applicable industry standards to include sandblasting and high pressure water to remove all deleterious or loose material to the satisfaction of the Engineer and in accordance with the Manufacturers specifications.
- E. Mixing, water ratio, curing, etc. shall be performed in accordance with manufacturers' recommendations.
- F. Apply material using dry gunite equipment and in accordance with manufacturers' recommendations.
- G. The dry thickness shall be ½ inch, minimum.

3.02 WARRANTY

The manufacture shall warranty each manhole structure from the date of Owner acceptance for a period of ten (10) years.

END OF SECTION