GEOSPRAY®

Geopolymer Mortar

WATER/WASTEWATER

CASE STUDY:

49” Brick Sewer
Los Angeles, CA

PROJECT OVERVIEW

Los Angeles Sanitation collects, cleans and recycles solid and liquid waste generated by residential, commercial and industrial users in the city of Los Angeles and surrounding communities. The system serves over four million residents. The Bureau of Engineering for the Department of Public Works is responsible for maintaining the sewer and storm water systems owned by the city. Over the last several decades, the city has worked to rehabilitate and replace much of its aging sanitary sewer system. As the progress continues, the city is now doing more work on the larger diameter piping structures in its system. These larger diameter rehabilitations are significantly more costly then the smaller diameter repairs and many of the systems employed by the city are significantly budget constrained.

In order to test and develop alternative rehabilitation systems for these large diameter sewer structures, the city approved a pilot project with GeoSpray geopolymer mortar in 2016.

SOLUTION

The pilot project was to rehabilitate 524 linear feet of brick sewer, likely installed in the early 1900s, along Rodeo Road. The sewer had significant loss of mortar between the bricks and damaged or missing brick. The project consisted of several phases including: bypass setup and testing, cleaning and pre-inspection, lining and post-inspection. A one-inch thick GeoSpray mortar lining was applied to the structure to serve as a new structural lining for the system. The lining was applied by hand spray so that the multiple live connections from local homes could be maintained as operational with minimal time disturbance during the lining.

RESULTS

The project was conducted and completed over a three week period between late June and early July in the hot summer conditions.

PROJECT DETAILS

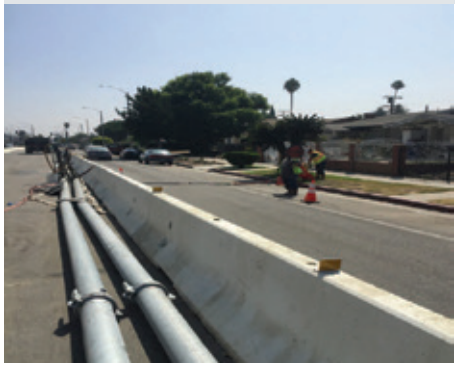
Application: 49” Brick Sewer

Client: City of Los Angeles

Location: Los Angeles, CA

Installation: July 2016

Contractor: Inland Pipe Rehab, LLC



A bypass system was used along Rodeo Road during the lining of a brick sewer underneath.

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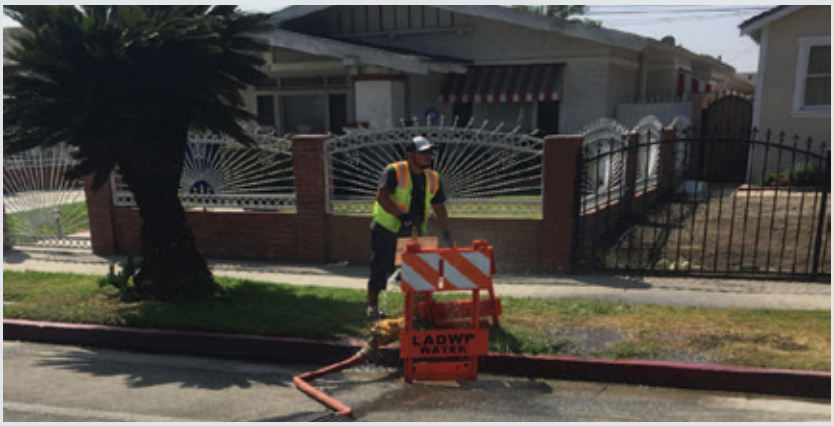
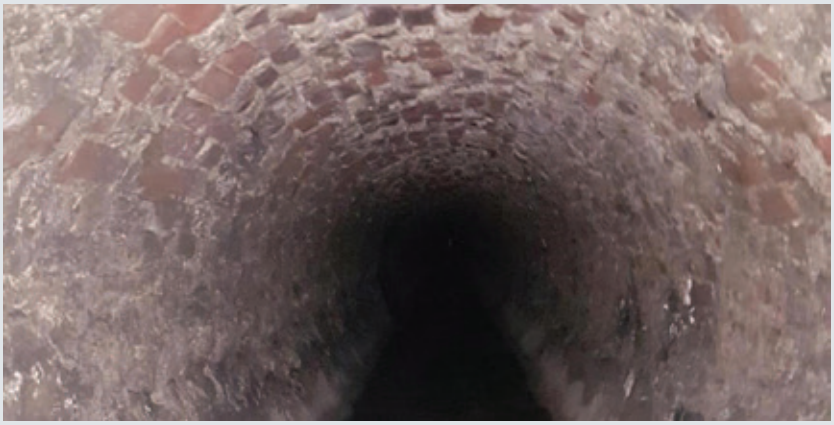
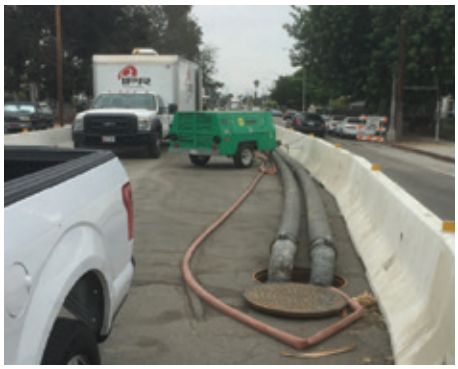


GeoSpray left very little impact on the traffic that surrounded the site.

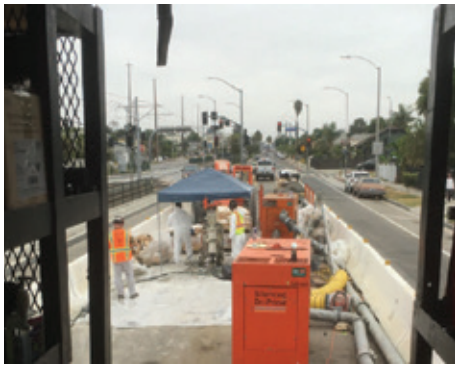
Initial brick structure with debris and missing mortar.



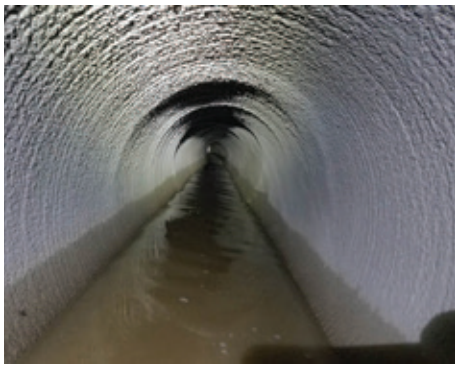
Initial structure under flow conditions.



Bypass of the sewer.



View of the construction footprint.



Completed lining.

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