



SolidCast Polymer (SCP) Project Profile Manholes Structures

Project: 10' Diameter SolidCast Polymer Manholes
Owner: Fulton Street Tunnel - City of Houston, Texas
Engineering Consultant: Montgomery Watson
Contractor: B.R.H. Garver Construction, Inc.
Date of Installation: May 1998



In 1994 the City of Houston initiated the Greater Houston Wastewater Program. The GHWP was funded with \$1 Billion of federal funds to upgrade the City of Houston's sanitary sewer system. The City of Houston contracted Montgomery Watson Engineering to manage and select subcontracting firms such as Black & Veatch, Buchanan, CH2M Hill and others to engineer/design certain projects defined under the funding agreement. The projects included upgrades and additions to waste treatment plants, lift stations, wetwells, manhole structures and pipe lines. The City of Houston, under the direction of Jimmie Schindewolf, Director of Public Works and Gary Oradat, Director of Wastewater also used the GHWP to test new and innovative products and



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designs. One of the products the City of Houston chose to test was SolidCast Polymer manholes structures.

Certain city officials had been made aware that SolidCast Polymer manholes and pipe were being successfully used in severe corrosion environments in the chemical processing industry. After several meetings city officials completed their due diligence by touring two SolidCast Polymer specialty chemical customers. The City gave final product approval and directed the Solid Cast Polymer producer to contact B.R.H. Garver Construction, the low bid general contractor for the Fulton Street Tunnel project. The agreement was that if SolidCast Polymer manhole structures were not more expensive than T-Lock lined concrete manholes the City of Houston would agree to approve the installation of SolidCast Polymer manholes structures.

The scope of the project was to install a 10' ID SolidCast Polymer manhole base to accommodate 6 ½' ID T-Lock lined concrete jacking pipe, then transition to 6 ½' ID SolidCast Polymer manhole risers to within 4' of the street level where the structure would transition again to a 4 ½' ID SolidCast Polymer riser to street level. The SolidCast Polymer structures were installed using a three-component epoxy mortar. The 6 ½' ID concrete jacking pipe was also grouted into the SolidCast Polymer base structures pipe openings using a three-component epoxy mortar. The 14 completed structures averaged between 50'-60' in depth. The project consumed approximately 1 million lbs. of SolidCast Polymer with the largest individual piece (Base Structure) weighing over 28,000 lbs.

The success of the Fulton Street Tunnel project established SolidCast Polymer as the product of choice in the municipal wastewater market.

Gary Oradat retired from the City of Houston as Deputy Director of Public Works and is presently the Chief Engineer of the Coast Water Authority and continues to be a SolidCast Polymer supporter.