

# CASE STUDY SERIES

**PROJECT:** City of Riviera Beach

**OWNER:** City of Riviera Beach

**DATE:** September 2017

**PRODUCTS:** Epoxytec™ Mortartec™ Ceramico™ / Epoxytec CPP™

## Riviera Beach Lift Station Rehabilitation

Located near Florida waterways, Lift Station #10 in the City of Riviera Beach, FL has experienced the H<sub>2</sub>S attack and salt (chloride) contamination on its pipes that is typical throughout South Florida's infrastructure.

Epoxytec, in conjunction with its certified applicator, Southland Painting, completed this rehabilitation project using Epoxytec's UME Composite System designed for lift stations.



## The Problem

This concrete lift station measuring approximately 15' x 15' x 30' deep was severely deteriorated and included areas of rebar exposure. Some areas had clear rust stains or bleeding, while others had definite rebar exposure. The lift station was in need of restoration and protection.

### Products that Outperform

Epoxytec, coatings and manufacturing experts for water and wastewater, recommended the use of their UME composite system. The beneficial components of this system include Mortartec Ceramico, an epoxy-modified cement that restores the surfaces, and Uroflex for protection.

The first step to rehabilitating this lift station was to restore the surface using Mortartec Ceramico, particularly in the rebar-visible areas where rust was observed. First a hydroblast was required to achieve a profile to ICRI of 2-3 prior to applying the repair materials. Mortartec Ceramico was used to seal off any moisture and arrest the corrosion.

Immediately after the application of the Mortartec Ceramico, two coats of Epoxytec's Uroflex at 20-25 mils each for a total of 40-50 mils DFT was recommended for the floors, walls, and ceiling slab. Uroflex is a urethane-epoxy hybrid providing structural integrity and chemical resistance.

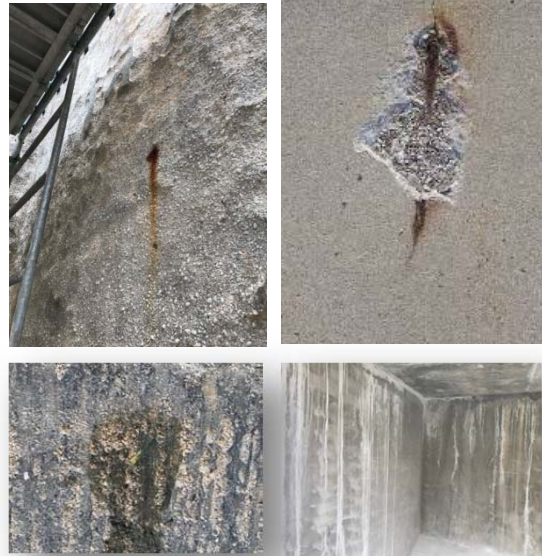
Epoxytec's UME system uses one coat of Ceramico and two coats of Uroflex on the walls, ceiling, and floor. In addition, the pipes were replaced, coated with Uroflex, and sealed at the joint with CPP where the pipes meet the wall.

### The Application

Prior to application, the substrate was cleaned using ultra-high pressure water jetting at 20,000 - 40,000 psi and freed of all existing coatings and contaminants. The preparation was completed according to SSPC - SP13 / NACE no. 6 "Surface Preparation of Concrete." A visual inspection as well as a pH and sound testing demonstrated that the surface was ready for the coating application.

### A Final Look

The project was successfully completed in September 2017. Throughout the process, several inspections took place, including pH and sound testing as well as a third-party spark test (holiday detection test). The final test showed that there were no holidays detected within the entire structure, a rare occurrence attesting to the quality of the coating application.





Epoxytec's UME system was applied according to specification. The application was completed skillfully, and the product cured well throughout.

For more information on Epoxytec's Mortartec Ceramico visit [epoxytec.com/epoxytec-product/mortartec\\_ceramico/](http://epoxytec.com/epoxytec-product/mortartec_ceramico/).

For more information on Epoxytec's CPP visit [epoxytec.com/epoxytec-product/cpp/](http://epoxytec.com/epoxytec-product/cpp/).

To learn more about Epoxytec's complete product line visit [epoxytec.com](http://epoxytec.com).