



Williamsburg WWTP Improvements



2021

ABOUT THIS PROJECT:

Market Segment:
Wastewater treatment and management

Owner:
City of Williamsburg

General Contractor:
Wendler Engineering & Construction

Location:
Williamsburg, Iowa

Engineers:
HR Green Inc.

Products Used:
Xypex Bio-San C500

THE CHALLENGE

The Williamsburg wastewater treatment plant project faced the challenge of preventing microbial-induced corrosion (MIC) in its wastewater treatment facility. The original specification called for a polyurethane coating to combat the high concentrations of hydrogen sulfide gas and prevent degradation of the concrete.



Aerial Google street view shot of the sewage treatment plant.

However, the project team determined this approach limited long-term durability and effectiveness. In addition, other waterproofing admix products did not meet the testing standards for chemical resistance called for in the specification, whereas Xypex Bio-San did.

THE XYPEX SOLUTION

The project engineer elected to use Xypex Bio-San to provide a comprehensive solution to address permanent waterproofing and microbial-induced corrosion (MIC) in the wastewater treatment facility.

The admixture combines the proven crystalline waterproofing technology with a permanent antimicrobial technology that inhibits the growth of acid-causing sewer bacteria, including Thiobacillus.

The antimicrobial chemistry is uniformly dispersed throughout the paste fraction of the hardened concrete to protect against bacterial growth on the exposed surface of the concrete and throughout the entire concrete matrix.

Xypex Bio-San treated concrete structures provide permanent waterproofing, greater durability and extended service life while mitigating microbial-induced corrosion, providing substantial cost savings.