

WASTEWATER DIGESTER PROTECTIVE LINER SYSTEM FEATURING **Aquaseal™ Hi Rise X3** & **Polyshield HT™ 100F UB**

PROJECT:
New Wastewater Digester
Protective Liner

LOCATION:
Mainstee, MI

OWNER:
Sewer & Water Municipality

APPLICATOR:
Quality Maintenance
Contractors

COATING SYSTEM:
Aquaseal™ Hi Rise X3
Synergy Series
Elastomeric Bridging
Polyurea 60 mils
Polyshield HT™ 100F UB
Polyurea 60-80 mils

TOTAL AREA:
2,800 sq. ft.

COMPLETION DATE:
May 2012

PROBLEM:

City officials in Mainstee, Michigan needed to expand their wastewater system. This critical, multi-million dollar, infrastructure investment must provide a long service life. The wastewater management process takes a heavy toll on concrete structures. Sewage waste produces hydrogen sulfide gas that contributes to the rapid deterioration of concrete surfaces. To mitigate this challenge, city officials opted to find a coating solution that will protect and extend the structure's service life.

SOLUTION:

Quality Maintenance Contractors (QMC) won the contract because of their experience with lining wastewater structures. QMC chose to use SPI's Synergy Series Aquaseal™ Hi Rise X3 elastomeric bridging polyurea as a base coat, and HT™ 100F UB chemical-resistant polyurea for the top coat. QMC based their product decision on being able to dramatically reduce surface preparation time. Lining concrete surfaces typically requires extensive surface preparation work that includes filling in bug holes with a plasticized mortar, then applying a concrete

primer coat. SPI's Aquaseal™ Hi Rise X3 elastomeric polyurea bridges and seals surface imperfections to form a seamless membrane. Aquaseal™ Hi Rise X3 eliminated the costly, time consuming process of applying a concrete mortar filler, which in turn, saved the application crew one week of prep-time and additional material cost.

QMC applicators sweep-blasted the concrete surface to create an anchor profile for coating adhesion purposes. Moisture meters were used to check concrete moisture outgassing. Approximately 60 mils of Synergy Series Aquaseal™ Hi Rise X3 was spray applied through the Synergy Series LPG™ proportioner as a base coat. Several hours later, a top coat of 60-80 mils of HT™ 100F UB polyurea was sprayed to create a barrier that is resistant to many chemicals and gases.

RESULTS:

City management is pleased how quickly QMC installed the liner system. Their new wastewater clarifier tank now has a durable protective coating that will extend its service life for years to come.

