



Saint-Michel and Roberge Pump Stations



ABOUT THIS PROJECT:

Market Segment:
Wastewater Collection and Treatment

General Contractor:
Unibec

Products Used:
Xypex Bio-San

Location:
Dolbeau-Mistassini,
Quebec, Canada

Owner:
City of
Dolbeau-Mistassini

Engineer:
Stantec

The City of Dolbeau-Mistassini undertook the reconstruction of the Saint-Michel and Roberge wastewater lift pump stations to improve long-term reliability and durability of critical collection infrastructure. The project includes concrete structures exposed to wastewater, moisture, and aggressive internal environments typical of pump station applications.

The work was executed under constrained construction schedules and budget limitations, while requiring antimicrobial protection to mitigate microbiologically induced corrosion (MIC). An integral concrete protection strategy was selected to simplify construction and reduce long-term maintenance requirements.

Xypex Bio-San crystalline waterproofing admixture was specified and incorporated into the concrete during batching for the pump station structures. Approximately 60 m³ of concrete containing Bio San was placed. The crystalline technology reduces concrete permeability, while the Bio-San component inhibits bacterial activity associated with hydrogen sulfide generation and concrete deterioration.

The use of Xypex Bio-San provided permanent waterproofing and antimicrobial protection with fewer steps at the jobsite, reduced labour requirements, and enhanced concrete durability. The selected solution supports long-term performance and reliable operation of wastewater pump stations serving the City of Dolbeau-Mistassini.

