PROJECT SHEET

Saint-Isidore Wastewater Treatment Plant Upgrade

2024

ABOUT THIS PROJECT:

Market Segment:
Wastewater Collection & Treatment

Owner/Developer:
Municipality of Saint-Isidore

Products Used:
Xypex Bio-San

General Contractor:
Pégase Construction Inc.

Engineer:
EMS Québec

Ready-Mix Providers:
Béton Provincial, Unibéton (Ciment Québec)

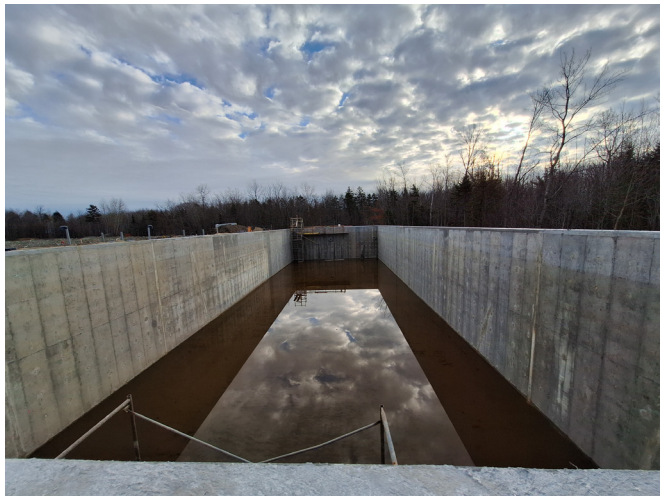
Location:
Saint-Isidore, QC, Canada

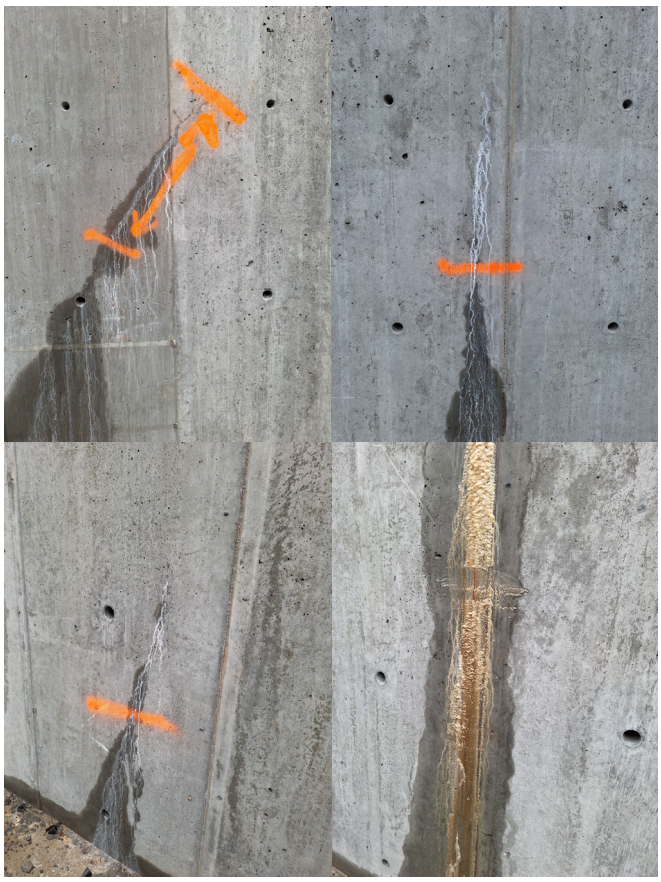
The Municipality of Saint-Isidore initiated an upgrade to its wastewater treatment facility to replace aging infrastructure and comply with updated environmental standards.

The modernization involved the construction of new reinforced concrete structures, including a degritter building, a concrete treatment pond, and a pumping station.

Each element was designed to improve hydraulic performance, increase treatment capacity, and extend the plant's operational life under demanding wastewater conditions.

To ensure long-term resistance against microbial -induced corrosion (MIC) and chemical attack from hydrogen sulfide (H_2S), Xypex Bio-San was specified for all new concrete works. The admixture was incorporated into approximately 580 m^3 of concrete supplied by Béton Provincial and Unibéton.





The crystalline technology within Xypex Bio-San integrates with the concrete matrix to generate and grow waterproofing crystal into the capillaries, resist hydrostatic pressure, and provide self-healing capabilities for micro-cracks.

The bio-active mineral solids included in the formulation inhibit acid-producing bacteria, protecting against MIC in high-sulphide wastewater environments.

The Xypex system provided an integral, maintenance-free waterproofing and protection solution for the Saint-Isidore upgrade. By eliminating the need for external membranes or coatings, Xypex reduced installation time and long-term maintenance costs while ensuring long term and constant protection against corrosion and water ingress. This approach supports the municipality's goal of reliable, sustainable, and compliant wastewater infrastructure for the region.