PROJECT SHEET

P764 Booster Pump Station Rehabilitation

2026

ABOUT THIS PROJECT:

Market Segment:
Water Treatment Plant

Engineer:
GBI

Products Used:
Xypex Admix C-500

Location:
Quebec City,
Quebec, Canada

Owner:
Ville de Quebec

General Contractor:
Groupe Allen

The City of Québec initiated the rehabilitation of the P764 booster pump station to maintain reliability of the potable water distribution system and extend the service life of the concrete structures. The project required new concrete elements that would be exposed to continuous moisture and operational conditions typical of municipal pump stations.

To address waterproofing and durability requirements, Xypex Admix C-500 NF crystalline waterproofing admixture was specified for the concrete used in the pump station structures.

Approximately 450 m^3 of concrete containing Xypex Admix C-500 NF was used in the construction of the facility. The admixture was added during batching to provide integral waterproofing. The crystalline technology reacts with moisture and unhydrated cement particles in the concrete to form insoluble crystals that block capillary pores and microcracks, reducing permeability and protecting the concrete against water ingress.

Using Xypex Admix C-500 NF allowed the project team to avoid multi-layer surface waterproofing systems and reduce on site labour requirements. The integral waterproofing approach also supported construction during winter conditions while providing long term durability and low maintenance performance for the potable water infrastructure serving Québec City.