



Bassin-à-Bois Park Pavilion



ABOUT THIS PROJECT:

Market Segment:
General Construction

Engineer:
Artelia

Products Used:
Xypex Admix C-500

Location:
Montreal, Quebec,
Canada

Owner:
City of Montréal

General Contractor:
Excavation E.S.M.

The City of Montréal undertook construction of the Bassin-à-Bois Park Pavilion as part of the redevelopment of Parc du Bassin-à-Bois and Place des Arrimeurs along the Lachine Canal. The project includes concrete foundation and structural elements associated with a new multisport recreational facility constructed under demanding site and schedule conditions.

Construction was carried out during winter conditions and within defined budget constraints while also addressing challenging groundwater conditions. The site features a high-water table of approximately four meters, and the presence of tube type form tie holes required a waterproofing solution capable of providing through section protection against water egress. This project represents the first multisport recreational facility for the City of Montréal specified to use an integral crystalline waterproofing approach.

To address these conditions, Xypex Admix C-500 NF crystalline waterproofing admixture was specified for the concrete foundations and below grade structural elements of the pavilion. Approximately 450 m³ of concrete incorporating Xypex Admix C-500 NF was placed during construction.

Added during batching, the crystalline admixture reacts with moisture and unhydrated cement particles within the concrete to form insoluble crystals that block capillary pores and microcracks, reducing permeability and protecting the structure against groundwater ingress.

Using Xypex Admix C-500 NF eliminated the need for multi-step surface waterproofing systems, reduced jobsite labour requirements, and limited long-term maintenance.

The integral waterproofing approach improved constructability under winter conditions while supporting the long-term durability of the Bassin-à-Bois Park Pavilion recreational facility.

