

Union Station Revitalization Integrated Stage 2 and 3

CLIENT

City of Toronto

LOCATION

Toronto, Ontario

Project Description

Union Station is a major railway station and intermodal transportation hub in Toronto, Ontario. It is located on Front Street West, on the south side of the block bounded by Bay Street and York Street in downtown Toronto. The City of Toronto's government owns the station building while the commuter rail operator GO Transit owns the train shed and trackage.

The Union Station Revitalization Project (USRP) Integrated Stage 2 and 3 General Contract Scope of Work covers all aspects of the final consolidated phase of construction for the USRP project including demolition, abatement of hazardous substances, architectural finishing and heritage restoration, and the extension of mechanical and electrical services from main systems installed in the Stage 1 construction phase.

B&M Scope of Work

Black & McDonald is the integrated mechanical and electrical contractor responsible for the following scope of work:

Mechanical

- Demolition of existing systems and equipment in the Stage 2 and 3 contract areas and installation of new equipment
- Expansion of plumbing and drainage system from the Stage 1 underground and above-grade services including domestic cold water, domestic hot water, and vent/storm/sanitary drainage systems
- Temporary portable sumps with pumps and pumped or gravity sanitary and storm drainage piping, required for construction staging, refurbishing old sumps, and maintaining live services

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- Extension of piping from deep lake cooling water heat transfer station and provision of new chilled water system infrastructure; extension of piping from steam/heating water heat transfer station, and provision of new heating water system infrastructure; and provision of new steam heating PRV station, new steam piping and condensate piping
- Expansion of fresh air system infrastructure from Stage 1, exhaust ductwork, controls and fans, moat buried ductwork and new HVAC air handling system
- Integrated automation including expansion of new fully BacNet standard BMS system from existing Stage 1 infrastructure seamlessly integrated to existing
- Fire protection systems including expansion of new sprinkler and fire standpipe systems

Electrical

Installation, commission and operation of:

- Low-voltage power distribution equipment, emergency power distribution equipment, lighting and lighting control systems,
- Base building (City of Toronto), GO Transit and VIA RAIL CCTV surveillance systems, electronic access control systems, duress system, PA systems, intercom systems and communication systems
- Two-stage, addressable, EVAC-type fire alarm system
- Provision of power and data connections for Presto, TVM machines, digital train information displays and illuminated-active signage
- Disposal of redundant electrical equipment in accordance with government regulations (containing PCB)

Benefits to Client or Problem(s) Solved

The Union Station facility is a major transportation hub with extensive public interface and actively operating 24/7/365. This was a significant project requiring staged/phased construction sequencing and coordination with other contractors and sub trades for relocation of multiple pieces of equipment and to maintain live services.

When the City of Toronto needed a thorough and professional construction partner, it called on Black & McDonald to take on the job.