Préfontaine Metro Station, Montreal

*Designing complex skylight systems to match heritage design elements*

Préfontaine is a metro station on the Green Line of the Montreal Metro rapid transit system operated by the Société de transport de Montréal (STM). Located in the district of Hochelaga-Maisonneuve, it originally opened on June 6, 1976 for the Montreal Olympic Games as part of the extension of the Green Line to Honoré-Beaugrand.

Designed by architect Henri Brillon, it is a regular side-platform station built partly within a tunnel that features a large open area entrance and mezzanine. The original design was centered on delivering vast quantities of natural light to fill the mezzanine area and reach down into the tunnel.

**Challenge:**

The station renovation objective was to keep the look and feel of the original 1976 design while completely upgrading and replacing the broad expanse of glass and skylights. Architects Provencher Roy Associés Architectes needed a skylight provider with the expertise to seamlessly match complex esthetic elements in addition to ensuring arduous performance requirements.
Solution:

Unicel was selected as a candidate for the project. As a first step Unicel had to provide a working sample for performance testing to ensure compliance by both engineers and the client organization. The Unicel skylight system was tested for yield performance, resistance to water infiltration, and its ability to absorb the huge piston effect which is produced by trains entering and leaving the station.

Unicel’s solution was selected after a successful testing process. 3D design capabilities ensured the accurate specification of all of the structure’s multi-angle components including complex $\frac{1}{4}$" (6mm) break metal, all of which were designed and fabricated by Unicel. This resulted in skylight systems that could be easily installed without additional field cutting or onsite modification requirements.

Today:

The Préfontaine Metro Station today features the same generous levels of natural lighting and distinctive design to make it a noteworthy example of public transport architecture. The skylight systems are built to withstand the most extreme temperatures and rugged vibrations.

Participants

Client: Société de transport de Montreal

Architect: Provencher Roy Associés Architectes, Montreal, QC

General Contractor: MGB Associés Inc., Laval, QC

Glazing Contractor: Unicel Architectural, Longueuil, QC

Skylight Manufacturer: Unicel Architectural, Longueuil, QC