
PLATFORM INNOVATION CENTRE & PARKADE CALGARY, AB



The 9th Avenue Parkade and Platform Innovation Centre on 9th Ave SE is a strong addition to the fabric of downtown Calgary and is unlike your typical parking garage structure. With 510 parking stalls, it supports visitors to the New Central Library and the National Music Centre, in addition to other East Village and downtown destinations.

Flexibility was integral to the design so that amenity spaces and future occupancy changes such as residential and/or commercial spaces could be facilitated. This resulted in superimposed dead loads that are double what a conventional parkade is typically designed for. The floor-to-floor height is designed to be higher than a typical parkade to allow for future occupancies and the structural system does not consist of upstand edge beams that would impact the transparency of future curtain wall systems.

VALUE & BENEFITS

The site has several constraint challenges such as the CP Rail corridor to the south, the existing LRT tunnel bisecting the site heading in a somewhat north/south orientation (approximately 30 degrees skewed from due North), a large water main and utility right of way corridor to the east and adjacent to the LRT tunnel, 9th Avenue SE at the north end of the property, and access requirements from Enmax's District Energy. The structure spans up to 38 meters across the existing LRT tunnel and utility right of way (ROW) creating a vast column free entrance. Entuitive developed four (4) large structural steel mega trusses encased in concrete for fire protection and corrosion resistance (in addition to matching the architectural layout of the perimeter columns) were designed to clear span the LRT tunnel and the utility ROW. These trusses were installed insitu piece by piece and required an elaborate system of temporary bracing.

As a Design Assist contract, Supermétal provided costing analysis to ramp designs. The company consulted on crane positioning, logistical planning and schedule consultation. Responsible for truss stability, Supermétal provided input on the chord camber and also designed an intricate temporary bracing method for the free standing multi story trusses.

Architect

5468796; Kassian Architecture

Client

Calgary Parking Authority; Platform Calgary; Calgary Municipal Land Corporation

Role

Structural Engineering Consultant (Entuitive); Structural Steel Fabrication (Supermétal)

Size

9th Avenue Parkade: 20,440 m² (220,000 ft²); Platform Innovation Centre: 4,645 m² (50,000 ft²)

Awards

Award of Merit 2022 - Prairie Design Awards