

## Robson Square Plaza Domes



Each piece of the two domes were fabricated and preassembled before site installation



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Vancouver's revitalized landmark features the contemporary steel and glass domes.

Originally designed by the late Arthur Erickson in the 1970's, the Robson Square Plaza recently underwent a major revitalization, which included the 37ft lengthening of the ice rink and expansion of the roof structure.

Not without its challenges, new 144,000lb "elliptical" stainless steel domes had to be tightly fit into the existing supporting "semi-circular" cantilevered concrete beams. The intricacy of the geometric domes required very precise detailing and fabrication in order to have all connections work. Using 3-D REVIT for modeling and SAP for analysis, each piece of the dome was fabricated and preassembled to ensure a perfect fit during installation at site. The main ring made from SS 304 Pipe 12.750" x 0.500" was rolled before being shop spliced into sections. The bracing was made from SS 304 Pipe 6.625" x 0.432" and was coped on both ends.

Because of the sheer size and weight of each dome, each dome was spliced into 4 sections before being shipped to site. Once at site, it took only 1 day for each dome to be successfully erected and fitted. A few more weeks were required for the final welding and polishing before the glazier dropped their glass panels onto the stainless steel domes.

The revitalized Robson Square Plaza will play host as a celebration site during the 2010 Winter Olympics. Recently awarded with the 2009 CISC Steel Design Architectural Award, the streamlined profile and contemporary look of the steel and glass domes at Robson Square will prove to be a lasting landmark for the City of Vancouver and its community.

*Owner*  
Ministry of Labour & Citizen Services

*Architects*  
Hughes Condon Marler Architects  
Clive Grout Architects

*Structural Engineer*  
Read Jones Christoffersen Ltd.

*General Contractor*  
Ledcor Constructors Special Projects

*Steel Fabricator & Detailer*  
George Third & Son Ltd.

*Steel Erector*  
KWH Constructors

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