

PROJECT PROFILE

Charles Jago Northern Sports Centre

Prince George, BC

Location

3333 University Way, Prince George

Owner

University of Northern B.C.

Contractor

Western Industrial Contractors

Concrete Supplier

Inland Concrete Limited, Prince George

Product Used

HIGH-FLOW Concrete

Total Meters

500 m³

Project Manager

Keith Hillen,
Western Industrial
Contractors



PHOTO PROVIDED BY UNBC.

PROJECT BACKGROUND

A ¼ mile suspended indoor running track was recently constructed as part of the new sports facility at the University of Northern B.C. The track is supported above the floor by approximately 40 concrete columns and beams. The columns are 2 feet by 4 feet in dimension and between 40 - 60 feet high.

As the columns contained tightly spaced rebar, they could not be placed and vibrated in a traditional fashion. Inland Concrete recommended the use of a HIGH-FLOW concrete mix for this project, as its self-consolidating properties were ideal for this type of project.

Ideal for use in areas of highly congested structural reinforcement, HIGH-FLOW concrete met the structural and architectural specifications of the project. Pumping the concrete up from the bottom resulted in a quality finish with a reduced number of air voids (bugholes).

Western Industrial Contractors were very pleased with the results and continued to utilize the HIGH-FLOW concrete mix for the construction of the horizontal beams.

TESTIMONIAL

From the beginning of the project it was quite clear that the challenge ahead would be astronomical due to the sheer magnitude of the structure and the structural concrete design. Clearly one of our largest hurdles would be to find the most economical and efficient way possible to pour the columns.

Using a HIGH-FLOW mix that we could pump from the bottom up into the column forms, we eliminated the need for conventional internal vibration of the concrete and were able to pour and strip the forms very quickly. Probably the most impressive aspect was the unbelievable finish that was achieved; no honeycomb of the concrete, 100% consolidation around the reinforcing steel, elimination of sacking and grinding to get a nice finish and the consistently high test results.

My estimate of time saving on this project is roughly 50 days and a labour saving of approximately 3000 man hours. In my opinion this is the way of the future for cast in place concrete.

Keith Hillen, Project Manager – Western Industrial Contractors