

The North Burlington Skatepark Project

By David Youkhana



Fig. 1: Phase I preparations



Fig. 2: Construction

The North Burlington Skatepark construction project was part of a larger development, the Alton Campus, which includes Norton Community Park (a large urban sports park), High School, Library and Community Centre. The skatepark was built right in the middle of this \$50,000,000 (CAD) development.

The skatepark is 14,000 ft² (1300 m²) in area and has proven to be a destination not just for the citizens of Burlington but also for people from surrounding municipalities in southern Ontario.

The Norton Community Park Project was lead by John George Associates. Part of the professional design team included van der Zalm + associates inc. and New Line Skateparks, which were responsible for the integration, concept development, and detailed design of the skatepark.

Gateman Milloy was the General Contractor for the construction of Norton Community Park and subcontracted NewLine Skateparks to construct the skatepark. The construction value for the skatepark is \$500,000 (CAD).

The first part of the construction included rough grading, excavating, and building the footings. The next phase included forming all the banks and transition areas (refer to Fig. 1). Welded wire mesh reinforcement was installed and wet-mix shotcrete was placed and cut to meet the demanding tolerances that were listed in the specification. Finishers provided a smooth (but not slippery) surface to maximize the performance and minimize the potential hazards to the skaters.

The transition and banks were shaped with a 7.5 ft (2.3 m) radius and ranged in vertical height between 4 and 5.25 ft (1.2 and 1.6 m). Wet-mix shotcrete material was pigmented to differentiate the transition between vertical and horizontal surfaces and allow skaters to better orient their position while jumping and completing tricks. Over 400 yd³ (300 m³) of concrete were used to complete the project (refer to Fig. 2 and 3).

Shotcrete played a key role in the completion of this project. The extremely tight tolerances would have been difficult to meet using any other

placement method. The use of two-sided forms would have lead to dramatically increased labor costs. Shotcrete also allowed the contractor to place concrete and build features on slopes as steep as 9 degrees. Access to the on-site work was also facilitated because the contractor was able to run hoses from the edge of the site to the shooting surfaces within the skatepark. Other placement methods would have required the use of expensive cranes or pumping equipment (refer to Fig. 4).

The flexibility and ease of placement in the shotcrete process allowed North Burlington to enjoy a beautiful, affordable community gathering place for fun and recreation (refer to Fig. 5).



David Youkhana is the Quality Control Coordinator for the City of Burlington's Engineering Department with more than 43 years of experience in municipal roads, bridges, and construction materials (including specialized asphalt, concrete, and pipes). Youkhana has a diploma in Civil Technology and is a member of the Ontario Association of Certified Engineering Technicians and Technologists. For the past 16 years, he has been a volunteer coordinator, instructor, and trainer in the Bituminous Technology course with the Ontario Good Roads organization.

2012 Honorable Mention

Project Name
City of Burlington—
North Burlington Skatepark

Project Location
Burlington, ON, Canada

Shotcrete Contractor
NewLine Skateparks Inc.*

General Contractor
Gateman Malloy GC

Architect/Engineer
NewLine Skateparks Inc.*

Material Supplier/Manufacturer
Dufferin Concrete/Putzmeister
Concrete Pumps*

Project Owner
City of Burlington

*Corporate Member of the
American Shotcrete Association



Fig. 3: View of skatepark on opening day (note pigment variations)



Fig. 4: Ease of equipment access



Fig. 5: North Burlington Skatepark completed