

Roy McMurtry Youth Centre

The Roy McMurtry Youth Centre in Brampton is an innovative detention facility designed to accommodate youth in detention and those serving secure custody sentences. The Centre offers educational, recreational and rehabilitative programs intended to help reduce the likelihood of youth offenders to reoffend, while ensuring they are held accountable for their actions.

The chosen site for this project was an existing 40 hectare institutional site, cleared of a women's prison with the exception of two buildings. These buildings were maintained and renovated as part of the Youth Centre. Eight new buildings totalling 161,000 square feet were added to the site, which provides services to 192 youth offenders—32 girls and 160 boys—aged 12 to 17 years old.

Innovative from a programmatic perspective, the new Youth Centre demanded equally ground-breaking architectural design and construction. The project is an inversion of the existing institutional model. At the Youth Centre, the iconic free standing prison wall disappears into the façades of the buildings and defines the progression from public to private spaces. All of the mass of the buildings is behind the crenulated garden wall with the exception of the Multi-Faith Worship Centre. It is the only building circumambulated by a public plaza, highlighting its role as a place of refuge and contemplation.

This project was the first building designed to meet LEED Gold/Silver Certification by the Province of Ontario, and the first Campus project to be submitted to the Canada Green building Council (CaGBC) for LEED accreditation, initiating a new standard for environmental stewardship for public buildings in Ontario. This change echoes the Ministry's ideals of education of the community, staff and residents. The scale of the interventions range from



- Owner:** Infrastructure Ontario, Ministry of Children and Youth Services
- Architect of Record:** Kleinfeldt Mychajlowycz Architects Inc.
- Engineer of Record:** Halsall Associates Limited
- General Contractor:** Bird Construction
- Material Supplier:** Dufferin Concrete, a division of Holcim (Canada) Inc.
- Additional Participants:**
- Carpenters Local 27
 - Distrimat Inc.
 - Forma-Con Construction
 - Frame Architectural and Interior Photography
 - Gilbert Steel Limited
 - Ironworkers Local 721
 - Moon-Matz Ltd.
 - National Concrete Accessories
 - Quadrangle Architects Limited
 - Reckli
 - Stantec Inc.

Project Facts:

- Construction time: April 2007 – June 2009
- 16,613 sq.m. of buildings on a 34.7 ha. site
- Poured Concrete: 7,571.2 tonnes (3,377 cubic metres)
- 1,284 l.m. of precast concrete sills, coping and banding
- 24 - 500 x 1200 x 3400 precast (on site) concrete beams
- 12 - 2.2 tonne precast, custom designed concrete security desks
- 5,167 sq.m. of site poured, architectural concrete



the expansive bio-swale and retention pond to the operating windows in the residents bedrooms. It was critical to the intent of the design that natural day-light was available to every occupied space within the entire institution and this was a challenge and a delight to accomplish.

The materials chosen for the Centre are durable and were selected for their performance, variability, texture, acoustic properties, safety and aesthetics. The plastic properties of concrete gave the design team structure, varied formwork, finishes and components. Masonry gave the design team the ability to use colour, bonding patterns, and unit sizes to define the building volume and wall planes. The latticed pattern of the residential building walls and the smooth, poured concrete panels terminating the residential wings are at the scale of the Commons.

Concrete was essential for this project, and construction made use of both pre-cast and poured concrete in novel applications. Concrete was chosen for its architectural expressions, strength, colour, finishes, and durability properties. It was also the obvious choice for sustainable construction, including local production and delivery and recycled content. Concrete was used on this project for:

- Structure
- Freestanding exterior walls
- Cladding
- Security partitions
- Flooring
- Custom furniture, including concrete security desks
- Sills, coping and banding
- Exterior walkways and plazas
- Landscape elements (planters, benches) and public art

The end result is an impressive yet profoundly functional facility that sets a new standard for the care and rehabilitation of young offenders. The Roy McMurtry Youth Centre challenges the very concept of a detention facility, both from a programmatic and architectural perspective.



*2010 Ontario Concrete Award winning project for
Architectural Merit and Material Development & Innovation*

In 2000, the Ontario Cast-In-Place Concrete Development Council (OCCDC) was formed to aid the owner/developer, architect/engineer and design-build contractor in the decision-making process of choosing the best construction material for the framing system of new cast-in-place structures.

OCCDC promotes the benefits of reinforced concrete as the construction material of choice based upon the following advantages:

- fast-track construction
- costs savings
- structural advantages
- environmental considerations
- local economy benefits

The Members of the OCCDC include (alphabetical order):

Aluma Systems Inc.
Carpenters District Council of Ontario
Concrete Forming Association of Ontario
Ironworkers District Council of Ontario
LIUNA—Ontario Provincial District Council
Ontario Formwork Association
PERI Formwork Systems Inc.
Ready Mixed Concrete Association of Ontario
Reinforcing Steel Institute of Ontario



365 Brunel Road, Unit #3
Mississauga, Ontario L4Z 1Z5
Tel: 905-507-1122
Fax: 905-890-8122
Email: buildings@occdc.org

www.occdc.org