



BALSILLIE YMCA PETERBOROUGH, ONTARIO

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ArcelorMittal Dofasco Steel Design, 2011)

DESIGN AND CONSTRUCTION TEAM

PROJECT OWNER:
YMCA of Peterborough

ARCHITECTS:
Tillmann Ruth Mocellin Inc.

GENERAL CONTRACTOR:
EllisDon Corporation

CLADDING SUPPLIER:
Vicwest Inc.

CLADDING INSTALLER:
Flynn Canada Ltd.

LIGHT STEEL FRAMING SUPPLIER:
Bailey Metal Products

LIGHT STEEL FRAMING INSTALLER:
Four Site Drywall & Acoustics Ltd.

PVC ROOFING:
Flynn Canada

Balsillie YMCA Steel enhances a true community project



The 125-year-old Peterborough YMCA was outdated and accommodated a maximum 1,000 member visits per day. The need for a new facility presented a substantial challenge in terms of funding without Provincial or Federal assistance*. The solution? A 5,806m² (62,500 sq. ft.) dual-height volume building incorporating community input from the YMCA, its members, local residents and businesses during the planning and design processes, and utilizing steel extensively in exterior and interior applications.

The new Balsillie Family YMCA was built at a new location in central Peterborough. Significantly smaller than its 9,290m² (100,000 sq. ft.) predecessor, the new facility none the less accommodates over 2,000 member visits per day. Interestingly, membership has doubled. The fully accessible amenities include two swimming pools, a full-size gymnasium, fitness centre and studios, community meeting rooms, child-care centre with kitchen, staff room, administrative offices and a café. A centre concourse links all areas while separating their functions and carrying all foot traffic.

The design objectives included a contemporary, well-detailed façade and sustainable energy-efficient features. This was accomplished within the restricted budget of \$1,793 per square metre (\$167 per sq. ft.). Scott Robinson, Project Manager for Tillmann Ruth Mocellin Inc., Architects says, "Besides creating a vibrant centre of activity we wanted a feeling of openness. Plus we had to achieve this all with quick, economical construction. Steel provided that, as well as being the most efficient choice for construction during the winter months."

Openness was achieved by exposed post-painted open web steel joists (OWSJ) through most of the building. In some lower-height areas acoustic tile or a combination of OWSJ and exposed deck were used. The exterior façade creates visual interest by juxtaposing materials such as steel cladding, architectural block, ceramic tile, sandblasted and clear glass, and wood detailing. The steel cladding

totalled 1,533m² (16,500 sq. ft.) of unpainted 22mm (0.875") corrugated Galvalume™ Plus. 152mm (6") lightweight steel framing (LSF) with spray-on insulation supported the steel and ceramic tile cladding. LSF studs were also used in the internal partitions. Beneath a PVC roof, the 4,422m² (47,600 sq. ft.) steel roof deck was comprised of .91mm and .61mm (.036" and .0239") ZF075 Galvalume with 38mm and 76mm (1.5" and 3") profiles.

Scott Robinson concludes, "This project confirmed for us that light steel framing brings numerous advantages, including providing straightforward detailing, rapid availability and the ability to meet critically tight construction schedules."

* It should be noted that Peterborough YMCA received \$3-million from the Ontario Ministry of Health Promotion under the province's economic stimulus plan, following completion of the project, unanticipated at its inception.





“Steel provided an economical, efficient choice for construction during winter months.”

- Scott Robinson, Project Manager, TRM Architects Inc.



Interior of pool with finished exterior wall. The 4,422m² (47,600 sq. ft.) steel roof deck is comprised of .91mm and .61mm (.036" and .0239") ZF075 Galvanneal with 38mm and 76mm (1.5" and 3") profiles on OWSJ.

The 152mm (6") lightweight steel framing with spray-on insulation supports the steel cladding and ceramic tile cladding.



WALL CLADDING
 .61mm (.0239") - 22mm (.875") Corrugated AZM180 Galvalume Plus[®] 1,533m² (16,500 sq.ft.)

STEEL ROOF DECK
 .91mm and .61mm (.036" and .0239") ZF075 Galvanneal with 38mm and 76.2mm (1.5" and 3") profile 4,422m² (47,600 sq. ft.)

LIGHT STEEL FRAMING MATERIAL
 Grade 33 (MPa230) for 1.22mm (.048") and lighter Grade 50 (MPa340) for 1.52mm (.060") and heavier



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