

# INSTITUTIONAL BUILDING

## BROADVIEW PUBLIC SCHOOL



### PROJECT CREDITS

#### OWNER

Ottawa-Carleton District School Board

#### ARCHITECT OF RECORD

Edward J. Cuhaci & Associates

#### ENGINEER OF RECORD

Cunliffe & Associates

#### GENERAL CONTRACTOR

Frecon Construction Ltd.

#### TILT UP CONTRACTOR

Tilt Wall Ontario Inc.

#### MATERIAL SUPPLIER

St Marys CBM

#### ADDITIONAL PARTICIPANTS

- AGF-Raymond Rebar
- BASF Canada Inc.
- Carpenters Union Local 93
- Carpenters Union Local 2041
- LIUNA Local 527
- Slavko

### PROJECT FACTS

**LOCATION** Ottawa, Ontario

**COMPLETION** 2015-2016

#### QUICK PROJECT FACTS

- Building size: 42,951 sq ft, 2 storey
- Total building area: 74,973 sq ft
- Building use: elementary school
- Square footage of insulated panels: 35,550 sq ft
- Square footage of non-insulated panels: 22,122 sq ft
- Number of panels: 117
- Heaviest panel: 85,200 lbs
- Tallest panel: 35'-9"
- Largest panel: 1,080 sq ft
- Exterior finish: brick, artistic imprints and stain





## Youthful, energetic, progressive image appropriate for Elementary/Middle School

Broadview Public School was a complex job with an aggressive construction timeline. Most of the tilt-up panels were built during the winter months. This school was designed using concrete to showcase the creative style of the architect firm. From beautiful and bold imprints to traditional brick, this school demonstrates the wide variety of finishes that tilt-up can achieve with ease. Using insulated tilt-up sandwich panels allowed for an energy efficient school at costs that rival traditional construction methods.

### From the Architect

#### Overall Vision Statement and Goals:

*The proposed siting of the replacement school building will help to create an urban street front at the intersection of Broadview and Dovercourt. The Urban Design and building massing will strive to reflect the following Principles:*

- *Gateway for the community, main entrance visible from both streets (Dovercourt and Broadview).*
- *New school will build upon rich history of the existing Broadview Public School.*
- *Active 21st Century learning zones will be visible from the streets.*
- *Materiality of the building will reflect the legacy and permanence, as well as youthful, energetic, progressive image appropriate for Elementary/Middle School.*
- *The Building and the site will be fully accessible.*

*The building location on site, the Architectural forms, use of colours and building materials, will animate the intersection and will form a "Gateway" future. Tilt-up construction was used per Owner's recommendation and to speed up construction process.*

### From the Project Manager

What were some of the challenges from a construction point of view?

*We were provided with an extremely tight site for the tilt-up construction method. Because of the tight site and the large panels, additional casting slabs had to be poured which limited site access even further. Thorough coordination had to take place between the tilt-up contractor and the general contractor for deliveries, other trades, etc.*

What were some of the challenges from a design point of view?

*Thorough coordination had to take place during the shop drawing process between the tilt-wall contractor, and the mech, elec, structural steel and glulam contractors to ensure all cast-in plates and openings were where they needed to be. Utilizing structural steel, glulam, and tilt-up walls for supporting structures gave the project a unique challenge and appearance. Furthermore, the design of the school was much more than the typical box one might expect to see from tilt-up construction. With cast-in images, brick veneer, and painted concrete, this highlighted the possibilities of tilt-up construction.*

What were some of the challenges from a schedule point of view?

*Constructing this project over the winter months proved to be difficult and time consuming. The tight site did not help with this, and forced us to have multiple pours and lifts which further stressed the schedule. In the end, the client was provided with a new 75,000 SF school in 11 months, constructed over the winter months.*

What was your overall experience with the tilt-up method?

*This project highlights the capabilities of tilt-up construction. While a design this intricate on this tight of a schedule should not be attempted over the winter months, it still shows the capabilities of tilt-up construction and the ability to move quickly, and have a warm working space once the walls are up.*

