

# CANADA POST EARNS LEED WITH HELP OF SITECAST AND TILT-UP

**CLIENT**

Canada Post

**ARCHITECT**

Chmiel Architects

**ENGINEER**

LJB Inc.

**SITECAST'S ROLE**

Design-build contractor

**PROJECT**

New letter carrier depot

**DETAILS**

- 25,000 sq.ft.
- LEED Silver Certified
- Insulated load bearing SiteCast concrete panels, 3"/3"/6" Thermomass insulation core
- Exposed aggregate finish, architectural formliner and textured colour coatings

**BENEFITS**

- Effective R-value of R-28\*
- ~26% less natural gas consumption\*
- ~28% less electricity consumption compared to traditional construction\*
- Less construction material and reduced waste
- Reduced air infiltration
- Designed recycle and reuse

\*isothermal calculations provided by Thermomass



As one of its initiatives to be more environmentally friendly, Canada Post made a commitment to achieve LEED certification for new buildings.

Their new 25,000 sq.ft. LEED Silver facility in Ottawa achieved that goal through numerous high-performance design features, renewable energy technologies, and proven construction from industry leader SiteCast and the use of tilt-up panels with a Thermomass insulated core.



Canada Post Letter Depot-LEED Silver

“SiteCast’s insulated concrete tilt-up wall assembly is inherently energy efficient and helps designers achieve 19 easy LEED points.”



What makes tilt-up so energy efficient? SiteCast tilt-up panels are constructed with two layers of concrete and a 3”(min) rigid Thermomass insulation core which creates a durable, energy efficient building envelope. The thermal mass properties moderate the building’s internal temperature while the edge-to-edge, foundation to roof, uninterrupted rigid insulation layer prevents thermal penetrations. The Canada Post Depot wall assembly system provided an effective R-value of

R-28 and uses 58% less energy (BTU) than comparable systems.

So not only does Canada Post’s new letter carrier depot offer an attractive and comfortable facility for employees and customers alike, this state-of-the-art building has minimized its footprint on the environment.

## About SiteCast Construction

SiteCast's award winning construction techniques are recognized throughout the tilt-up industry and used across Canada and abroad, establishing SiteCast as a leader and innovator in this superior energy efficient construction technique.

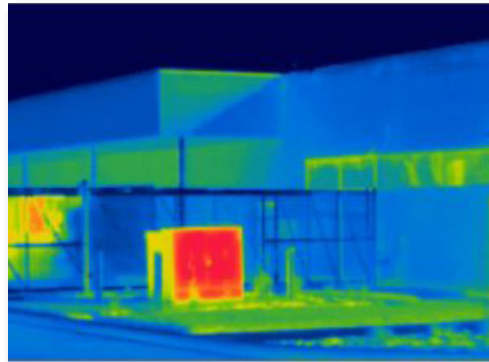
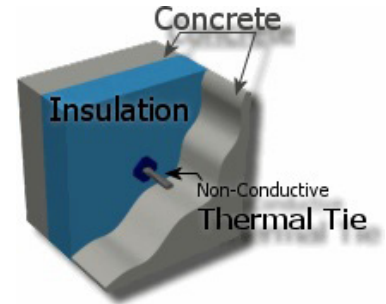
The company's of certified professionals has the experience to deliver a building shell superior to all others. Since 1992 SiteCast has worked on projects of varying size, shape and texture in Canada and abroad.



## Advantages

### ENERGY EFFICIENCY

- Panels are constructed on-site, with two layers of concrete and a Thermomass +3" rigid insulation core to create a high performance wall assembly.
- An edge-to-edge, foundation to roof assembly provides an uninterrupted rigid insulation layer that prevents thermal bridging.
- The interior layer of reinforced concrete (load bearing) provides a quantity of thermal massing properties.
- While the exterior layer of concrete protects the rigid insulation, it is also the decorative architectural canvas layer that provides a solar, sound masting and abusive maintenance resistant surface.



Canada Post Letter Depot during winter

- The closed cell insulation acts as the wall-assembly vapour barrier. The surface tension of the concrete acts as the air barrier.
- The panel joints are vented with two layers of water infiltration defense.

### INSULATED LAYER

In the thermal image (left) the blue areas show low heat loss. The red area shows higher heat loss which is to be expected for glass doors and windows.

### 30%+ FASTER CONSTRUCTION

- Wall profiles are simplistic, as these become an organized puzzle, rather than a series of multiple material connections.
- Materials (i.e. concrete and rebar) are locally and readily available.
- Several building phases can proceed at the same time.
- Trades can safely access the site sooner because the floor slab is cast first.
- Engineered shop drawings allow trades to order doors and windows, prior to any construction
- Structure is completed quickly. Once they are erected, the building shape is defined.



## Connect with SiteCast Today

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