

# 170 Trillium Way – Building Restoration and Re-cladding City of Brantford

170 Trillium Way, Paris, Ontario

**Type of Structure:** 5 Storey Building Residential Mid-rise  
**Total Project Value:** \$900,000  
**Project Start:** Spring 2019  
**Project Finish:** Winter 2019

**Client Contact:**

Priyanka Toor, Project Manager  
City of Brantford



## **PROJECT SUMMARY**

170 Trillium Way is a 46 unit Community Housing Building for seniors in Brantford's affordable housing program. Gravity provided the engineering services for the structural restoration and exterior re-cladding for the noted building. Previously, continuous brick deterioration was on-going, and the repair strategy was to update the building's exterior aesthetics, provide a solution to the continuous deteriorating brick, and improve the thermal performance of the building. To achieve these goals, it was proposed that a new 3" EIFS insulation system be employed to prevent freeze/thaw cycles from deteriorating the brick, increase the thermal performance of the building, and to provide an update to the building's weathered aesthetics.

## **IMPACT**

This is one of the larger buildings in Paris, Ontario and borders the main road of the municipality. Further, it is one of only a few affordable housing complexes dedicated to seniors in Brant County. Given this, there is community focus on the ability of the building and municipality to effectively house and care for a portion of the municipality's senior community. The pre-existing condition of the deteriorated and stained brick, and corroding picket railings, gave the building a worn image. After construction, the building projects an image of freshness, class, and ingenuity; in which the residents are proud of for their place of residence. A general meeting was held to allow for the residents to discuss and contribute to various aesthetic design decisions prior to incorporation.

## **DESIGN**

Working closely with the manufacturer (DuRock) and contractor (Zero Defects), we were able to create, and incorporate drawings and specifications for the non-combustible cover cladding system; which is a relatively new and innovative product. The use of multiple façade colours with various window patterns, along with incorporation of dark greys for the flashing replacements and blacks for the replacement of railing allowed us to demonstrate creativity of design palate.

## **USE AND SIGNIFICANCE**

Using the non-combustible product, we were able to contribute to, and further, the use of this new product. The non-standard building curves provided a challenge which was successfully overcome. As there appears to be an industry push into more sustainable and fire-safe products, the non-combustible EIFS products will likely become a more attractive option in the near future for all types of construction.

## **TECHNICAL EXCELLENCE**

We were able to determine and understand that continuous freeze/thaw cycles were severely affecting the exterior exposed brick and propose a solution which would include improving the thermal performance of a building which previously didn't meet OBC SB-12 standards. We employed a system which will effectively protects the brick from any intrusion of moisture, as well as shed precipitation from the exterior face. Providing new flashing and balcony waterproofing allowed us to fully control how the moisture is shed from the building, and create a building system which is thermally affective and able to control moisture.