



IRC GROUP
Building Science Engineers & Consultants

BUILDING ENVELOPE
ROOFING
STRUCTURAL ENGINEERING

PROJECT PROFILE – *Building Envelope*

Project Name: Scott Central Public School - Sandford, Ontario



Before



After

Description

Scott Central Public School, (circa 1960's), utilized an unreinforced composite load-bearing exterior masonry wall. The lack of air space and the use of glazed brick masonry contributed to exterior deterioration. In addition, a cast in place continuous concrete beam was above the windows and had begun to hinge outward causing issues in that area of the building.

Objective

IRC was retained to correct the exterior deterioration and structural concerns in regards to the hinging exterior wall.

Challenges

During repairs to a load-bearing composite masonry wall, the wall system needed to be repaired in order that the structure was not compromised. In addition, expansions to the school have occurred with different architectural finishes.

Solutions

The exterior brick masonry was replaced to correct the structural concerns of the exterior wall and to remove the observed deterioration. The new masonry allowed for structural steel strapping to be added, which provided a positive tension member and increased thermal performance of the wall system. These enhancements allowed for appropriate through wall flashings, and spray polyurethane foam insulation to be added. The new wall structure consisted of new brick masonry, insulation, sufficient air space and appropriate masonry ties. Colour and coursing was done to ensure the expansion matched the existing masonry.

For more information, please contact IRC Group at 1-888-607-5245.

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