BELi - Building Enclosure Labs Inc.

Energy Audit and Condition Assessment for Perkins Centre

Building Type: Multi-residential building

Location: Hamilton, Ontario

Services: Energy Audit and Condition Assessment

Year: 2025

Project Overview

BELi was part of a team requested to perform an ASHRAE Level 2 energy audit and condition assessment for Indwell on the Perkins Centre, a multi-residential building. The objectives were to identify energy efficiency opportunities and their associated energy savings and incremental costs, as well as provide input into the owner's 5-year asset plan for major systems in the building.

Methodology

Determine local areas that require restoration through site condition assessment. Based on the results, use RETScreen Expert to assess potential energy conservation measures to determine whether restoring the system represents a cost-effective and energy-efficient solution.

Main Observations

On the north façade, the solider joints have mortar that is failing as well as significant efflorescence on many of the bricks. Sealant at the expansion joints are also cracking and bubbling out.

Using a blower door test, it was found that the Perkins Centre had a suite air leakage rate greater than the ASHRAE 62.2-2022 and LEED V4.1 requirement.

Throughout the building, there are many fluorescent fixtures containing T8 and T5 bulbs.

Measures

Given the observations revealed through site condition assessment, the following measures were calculated using RETScreen Expert:

- Overcladding the north wall by adding insulation equivalent to R-8
- Suite-by-suite air sealing
- Lighting retrofit

Results

RETScreen Expert estimated total energy reduction of 1% for the overcladding upgrade, 8% for the suite-by-suite air sealing measures, and 7% for the lighting retrofit.