



Seeley G. Mudd Library is a 3-story concrete frame structure located on Northwestern University's Evanston Campus. The exterior of the building is primarily clad with fluted limestone panels, and glass and an aluminum curtain wall system. The glass consists of insulated vision glass units installed using interior and exterior extruded gaskets. Deterioration of the majority of insulated glass units and persistent water leakage prompted the need for a curtain wall repair project.

BTC was retained by the University to design curtain wall repairs at the Library. The University originally anticipated replacing only insulated glass units exhibiting deterioration. However, due to the extent of deterioration, and the age of the existing glass units, all existing glass at the building was replaced with new insulated glass with a low-E coating to improve energy efficiency. The project also included localized pressure bar and mullion cap replacement, and sealant repairs to operable hopper units.

Mock-ups were required during the project to ensure that new interior ethylene propylene diene monomer gaskets and exterior silicone gaskets were properly sized prior to installation. During the construction phase of the project, BTC designed a new weep system along horizontal mullions to address the existing inadequate system. Due to aesthetic considerations, mullion caps which were not replaced during the project were comprehensively cleaned.

Included as part of the project, stainless steel coping cap and drip cap joints at the roof of the building were repaired to limit water leakage into the curtain wall system. Sealant repairs were performed at curtain wall-to-limestone and limestone-to-limestone joints. In an attempt to improve appearance of the building facade, all limestone surfaces were cleaned using an environmentally friendly process.

Project Name:

Curtain Wall Repairs, Seeley G. Mudd Library, Northwestern University

Project Location:

Evanston, Illinois

Client:

*Northwestern University
2020 Ridge Avenue
Evanston, Illinois 60208*

Approximate Construction Cost:

\$570,000

Year Completed:

2011

Nature of Services:

Design of Curtain Wall Repairs, Bidding Assistance, and Construction Phase Services

