



DESIGN PRESERVATION

**On Time
On Budget**

HIGHER EDUCATION
ANN ARBOR, MI

The Challenge

- Due to the **roof slope and architectural details** of the university's chapel, water leakage occurred over time causing damage to the building near the original stained glass windows.
- The recurring water entry at the perimeter walls of the chapel building created **water damage to the interior finishes** and electrical conduit for the lighting of the chapel interior.

Diagnosis and Solution

- Pre-design site visit determined the source of the recurring water entry. With multiple test openings on the existing flashings, it was noted that the transition of the metal roof system to the low slope roof system was **not detailed correctly and water was entering behind the roof flashings**. Damage to the roof structure was also observed at the downspout locations due to the flashing detail.
- New flashing details were created to correct the flaw while **not compromising the watertight integrity** of the chapel's metal roof system and stained glass window details. New details were developed to correct the drainage issue and repair the structural roof deck.

Results

- The roofing project was completed **on time and within budget to allow for school to open with full use** of chapel. The replacement of the conduit and interior finishes were also completed with no further water entry issues.
- IRSC created **proper design work** as part of the roof replacement project to develop a strategy for replacing the low slope roof flashings without replacing the substantial metal roof system or creating performance issues with metal roof system in place.

Experience to keep you covered... nationwide

irscinc.com | info@irscinc.com

HO: 16680 West Cleveland Ave., Ste A
New Berlin, WI 53151
(262) 336-8270

707 Davis Road, Ste A-206
Elgin, IL 60123
(847) 695-1460

430 Beacon Lite Rd., Ste 125
Monument, CO 80132
(719) 345-6460