



IMPERMITEK
Advanced Seamless Technologies

UNIVERSITY ROOF RESTORATION

Case Study

Project Type:
Roof Overlay

System Installed:
IR-26 Polymer Resin

Project Size:
8,073 Square Feet

Sector:
Education



PROJECT INTRODUCTION



A higher education facility required restoration of approximately 8,073 square feet of aging low-slope roofing after the existing bituminous roof coverings began showing signs of deterioration, including splits, surface defects, and localized cracking. With occupied spaces below, restoring reliable waterproofing quickly was important to reduce the risk of water intrusion and disruption to normal building operations.

An assessment of the existing roof assembly indicated that the underlying warm-roof construction remained serviceable. Rather than removing and replacing the full assembly, the project could proceed as a roof overlay, retaining suitable existing components while installing a new waterproofing membrane over the prepared roof surface.

CHALLENGES

The existing roof included multiple areas of aged bituminous surfacing that required localized repair and preparation before a new waterproofing system could be installed. Surface defects, cracks, and irregular areas had to be corrected to establish a sound, consistent substrate for the overlay.

Roof perimeters and junctions also included numerous parapet conditions that represented potential points of water entry.



These vertical transitions and exposed perimeter details needed to be incorporated into a continuous waterproofing assembly without creating unnecessary seams or complicated termination points.

Because the building remained in use, the project also required an installation approach that could minimize disruption and avoid flame-based application methods. Efficient curing and installation were important so large roof areas could be completed within practical working windows.

THE IMPERMITEK SOLUTION

The existing roof surfaces were repaired where required, including filling and leveling localized defects, followed by thorough cleaning and preparation to create a suitable substrate. Parapet faces and tops were prepared as needed so the waterproofing membrane could transition continuously from the horizontal roof surface onto vertical and perimeter conditions.

Impermitek IR-26 was selected as the liquid-applied waterproofing membrane for the roof restoration. The cold-applied system allowed the waterproofing work to proceed without open flame or hot-work application methods, making it well suited to an occupied institutional property.

After required priming, IR-26 was installed with continuous polyester reinforcement to form a fully bonded, seamless waterproofing layer across the roof. The liquid-applied membrane conformed closely to changes in plane, parapets, perimeter details, and other roof geometry, reducing reliance on the laps, seams, and welds associated with many conventional sheet systems.





The rapid-curing characteristics of IR-26 supported efficient installation and re-coating, allowing completed sections to progress quickly toward full waterproofing. Designated rooftop walkways were also incorporated where required using an aggregate-finished surface to provide a defined route for routine rooftop access.

The completed overlay restored the waterproofing performance of approximately 8,073 square feet of existing roofing while retaining serviceable portions of the original roof assembly. The project demonstrates how Impermitek IR-26 can provide a practical roof restoration option for occupied commercial and institutional buildings where seamless detailing, cold-applied installation, and efficient project delivery are important considerations.