CASE STUDY

Peoria Civic Center | Peoria, Illinois

Entertainment Venue Enhances Energy Savings With Thermally Broken Roof Hatches

Water damage doesn't announce itself with the dramatic flair of fire or the obvious intrusion of theft. Instead, it seeps silently through aging commercial roofs, causing billions in property damage while building owners remain blissfully unaware until the damage becomes catastrophic. Roof leaks represent one of the most underestimated threats to business continuity and property value.

Internal water leaks consistently rank as the number one cause of property damage in commercial buildings, surpassing fire, theft and other water-related events combined. More alarming still, roof repair and replacement costs in the United States reached over $30 billion in 2024, underscoring the massive financial impact of deferred maintenance and reactive approaches to roof management.

The Peoria Civic Center's $45 million renovation project serves as a perfect case study in the consequences of neglect. After 25 years without updates, this entertainment complex faced significant water intrusion that required extensive restoration of its 35,000-square-foot roof system. The project revealed hidden water entry points and failing flashings that had been silently compromising the building's integrity for years.

"There were some minor leaks reported,'' said Project Manager for Western Specialty Contractors, Jared Osterman. "The theater roof was the worst. We found some failing roof flashings and water entry in the building that were unknown until we located and repaired them as we got deeper into the project."

Workers from Western Specialty Contractors learned early on that the roof required restoration, and a limited amount of tear off. The roofing section above the theater and meeting rooms needed the most attention. "There was a considerable amount of tear off on that roof,'' Osterman said. "We took quite a bit of wet insulation off. If it had been a terrible roof failure, this would have been a full tear off."

The restoration included two thermally broken roof hatches from BILCO. The 4-feet x 4-feet hatches allow access to the roof above the theater for workers to maintain vents and drains. The hatches feature R-20+ insulation and a frame and cover design that minimizes heat transfer between interior and exterior metal surfaces. The hatches resist harmful condensation and provide superior energy efficiency.

"The insulation of the hatches was an important consideration for this project,'' Osterman said. "One of the goals of the entire project was to enhance the insulation factor of the building."

The Civic Center, which opened in 1982, is a central hub for entertainment, business and cultural events. It includes 110,000 square feet of contiguous exhibit space, a 27,000-square-foot ballroom and the arena is the home venue for the Bradley University men's basketball team and a semi-professional men's ice hockey team.

"Western Specialty Contractors is focused on delivering quality results at stopping water entry to buildings,'' Osterman said. "We worked with the architect to formulate a plan to execute and stop these leaks to protect the life of the new roof installed with a 30-year warranty."

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