



This 65,000 square foot roof replacement project was designed, bid, and constructed in 2016 and 2017 for Skokie Park District's Skatium Ice Arena and Weber Leisure Center.

The Weber Leisure Center is a two-story steel frame recreational building that is interconnected with the Skatium. Following construction of the original ice arena in 1966, additional buildings were constructed and integrated with the ice arena in 1996 and 1998. A new stairwell enclosure was also constructed at the main entrance of the Weber Leisure Center in 2016. Consequently, the existing building enclosure was comprised of several roofing and exterior wall systems of various types and ages, joined via expansion joints.

In a comprehensive water infiltration investigation prompted by repeated water infiltration, BTC identified that the roofing system lacked an appropriate vapor retarder, and concluded that reported water infiltration was primarily attributed to concealed punctures and open seams in the existing ballasted EPDM roofing system. Solutions to extend the life of the existing roofing system were considered, such as roof recovering or targeted applications of roof coating. However, Skokie Park District ultimately opted for a full roof system replacement, and retained BTC to perform roof replacement design, bidding assistance, and construction phase services. The selected roofing system included a vapor retarder, polyisocyanurate insulation, gypsum cover board, and a white, flexible PVC roof membrane. The complexity of the building enclosure's various systems, as well as the many flashing and termination conditions, necessitated the development of extensive details and 3D sketches.

Existing roof decks, constructed of cementitious wood fiber panels and steel decking, were reviewed during roof tear-off and found to be in good condition, providing project savings. Throughout the remainder of the construction phase, BTC performed field observations and provided contract administration services to facilitate a successful project under budget.

**Project Name:**  
Roof Replacement

**Project Location:**  
Weber Leisure Center  
9300 Weber Park Place  
Skokie, Illinois

**Client:**  
Skokie Park District

**Approximate Construction Cost:**  
\$1.5 Million

**Year Completed:**  
2017

**Nature of Services:**  
Water Leakage Evaluation,  
Roof Replacement Design,  
Bidding Assistance, and  
Construction Phase Services

