



The Abbey Resort consists of 7 buildings that house guest rooms, guest suites and other amenities. There are also several commercial buildings at the site housing pools, a spa, fitness centers, etc.

The guest buildings are typically 2- or 3- story wood frame buildings. These buildings are connected via covered links. The building roofs consist of gable roofs typically with a nominal slope of 3 inches in 12 inches, and were originally covered with 3-tab asphalt shingles.

The roof framing system of the guest buildings consists of timber beams and conventional wood trusses. Over the guest rooms and suites, the framing consists of timber beams running parallel to the slope of the roofs. Cementitious wood fiber planks span these beams to form a roof deck.

In 2017, a roof replacement program was implemented at the guest buildings. This project represented several challenges including developing a new roofing assembly that included improved thermal performance, reduced potential for condensation, and maintained a high level of aesthetics.

BTC was retained to evaluate various roofing options, and ultimately designed the selected roofing system. The project consisted of removal of the existing roofing system, localized removal and replacement of the existing cementitious wood fiber decking, installation of a vapor retarder, wood sleeper system, expanded polystyrene insulation, new plywood sheathing, and a single-ply membrane roofing system with decorative ribs to simulate a standing seam roof.

BTC also provided bidding assistance, and construction phase services during the multi-phase construction phase of the project, BTC performed periodic field observations and provided contract administration services to facilitate a successful project.

In 2020, we assisted the Owner to implement additional roof replacements at the commercial buildings.

Project Name:
Roof Replacement, Phase I and II

Project Location:
Fontana, Wisconsin

Client:
*The Abbey Resort
269 Fontana Boulevard
Fontana, Wisconsin 53125*

Approximate Construction Cost:
\$2,050,000

Year Completed:
2020

Nature of Services:
Evaluation of Existing Roofing Systems, Design of Roof Replacement, Bidding Assistance, and Construction Phase Services

