BTC

# Project Profile

The new St. John Monastery campus consists of several buildings including the church building that was designed to replicate the old Greek orthodox churches of the 16th century. The new church building included several domes, gable and hip roofs, and arch barrel roofs. The dome roofs include geometrically complex shapes that required extensive computer modeling.

During the design process, a clay tile roofing system was deemed an essential element of the design tradition and was selected for the project. All other buildings throughout the new campus also were designed with traditional clay tile roofing systems.

The original design of the dome roofing systems (performed by BTC's principal while employed by another firm) incorporated a waterproofing system, and custom-shaped clay tiles secured in place with a wire fastening system. Due to the high cost of manufacturing the custom-shaped clay tiles, a value engineering alternative was proposed. This value engineering system consisted of molded fiberglass roofs that replicate the appearance of clay tiles.

BTC's services for this project included the evaluation of the fiberglass dome roofing system and their long-term viability to serve as the primary roofs for the domes. BTC designed a redundant waterproofing and drainage system for the domes.

BTC's services also included site observations during installation of the clay tile roofing system on the remaining roofs, and providing the Architect-of-Record with consultation regarding the roofing systems.

***Project Name:***
*St. John Chrysostomos Monastery*

***Project Location:***
*Pleasant Prairie, Wisconsin*

***Client:***
*Ms. Roula Alakiotou, FAIA*
*Roula Associates Architects, Chtd.*
*400 North State Street, Suite 400*
*Chicago, Illinois 60610*

***Approximate Construction Cost:***
*$12,000,000*

***Year Completed:***
*2003*

***Nature of Services:***
*Evaluation of Waterproofing System for Fiberglass Dome Roofs, 40,000 Square Feet of Clay Tile*



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