

“Beautiful building with simple structure.”

—Farro Tofighi



This steel, glass, stone, and wood chapel is situated on a bluff overlooking the Brazos River. It was constructed to provide a spiritual retreat for visitors, and a private venue for religious services, performances, and weddings. A flagstone walkway connects the chapel forecourt to a conference, living building higher on the bluff. The chapel seats 50 people in built-in pews.

The steep slope of the site is cut into by a 10-ft-tall stone wall visitors must pass through to reach the chapel. This retaining wall continues through the chapel and supports each steel column to the north. The southern wall is floor-to-ceiling glass with steel columns framing the view. The lateral bracing is placed toward the inside of the chapel to maximize the natural light coming in and minimize any obstruction.

The earth drastically slopes away from the chapel exposing it to high winds. Steel HSS columns and cross bracing are concealed in the stone walls to the south to provide extra support. All of the exposed steel is coated with automotive enamel to keep it from weathering.

Each column is composed of a group of steel HSS wrapped in wood trim. The trim provides the connection to the insulated glass. The steel columns are welded to steel flitch beams that support the copper roof. Steel turnbuckles, threaded rods, and acorn nuts provide a delicate structural system so as not to detract from the chapel surroundings and are connected to the flitch beams and columns to resist spread. The majority of the steel was fabricated in a sheltered environment off site. It was predrilled and painted to assist in the ease of construction. Because all the steel was shop built, the architects also were able to use a known fabricator from previous projects instead of trying to identify a skilled local craftsman in a remote location.

Once on the site, the column and rafter system was erected and bolted into the anchor bolts cast into the foundation. The turnbuckle and tension bar system was assembled and aligned without any on-site welding. The steel in the chapel provides a strong and delicate structure in juxtaposition to the heavy masonry base.

Custom-designed and fabricated steel elements are used throughout the site. An observation deck surrounded by a steel and glass rail overlooks the river. A 20-ft-tall steel sculpture beckons visitors to the chapel at the top of the bluff, acting much like an obelisk of a pilgrimage church. Three steel channels pierce the stone retaining walls to carry the water into a stone basin on the other side. Steel lights and lanterns illuminate the structure and the surrounding landscape.

Owner

Rio Roca Ranch, Palo Pinto County, Texas

Architect

Maurice Jennings + Walter Jennings Architects, PLLC, Fayetteville, Ark.

Architect of Record

Maurice Jennings Architect, Fayetteville, Ark.

Structural Engineer

Myers-Beatty Engineering, PLLC, Van Buren, Ark.

General Contractor

English Heritage Homes of Texas, Dallas

Structural Software

RISA-3D, Revit

