

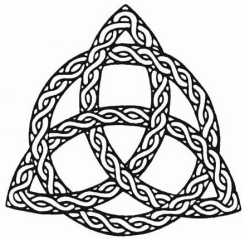
# PAT MUNGER CONSTRUCTION

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# MUNGER

## Success Story Building Renovation

### Trinity Episcopal Church



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<https://trinitybranford.org/>

This English Gothic-style church, built in 1852, is registered as a historic building within the umbrella of the national trust. With its welcoming red doors and Tiffany windows it has a long tradition of serving the community. Its 1.5-ton bell acted as Branford's fire alarm from 1868 to 1925, and the parish hall served as a hospital during the 1918 flu epidemic. Today it provides space for scout troops, the historical society, food pantry, Advocates for Parkinson's, musical folk classes, and many others.



Build The Best - Be The Best

# Success Story: Trinity Episcopal Church



## The Situation

Trinity's undercroft was rundown. Its kitchen was insufficient and non-compliant. Getting downstairs impeded those who use the space. Parishioner Bob Barnett, a retired architect, volunteered to lead a renovation committee that selected Terry Architecture for a feasibility study and design. Terry recommended Munger as the ideal partner to build a columbarium, to create a basement renovation budget, to upgrade the basement, and to fulfill the designed requirements of the construction that seamlessly blend the new with the existing.

## Unexpected Structural Challenges Required an Outstanding Solution

Engineering firm, Michael Horton Associates, had designed the structural solution for the basement. Munger's moment to shine occurred during mid-construction when substantial rot caused by years of water damage and termites was discovered in the main, bottom-most carrying beam that kept the church upright. "I could place my hand in the foundation between the damaged sections of the formerly continuous sill beam," said John DeSarbo, Munger's project supervisor. How much the church had settled over time was unbeknownst to anyone. The building structure and its priceless stained-glass windows were suddenly in jeopardy. Warnings by the stained-glass company, hired by the church, expressed that the least possible pressure could cause irreparable damage to them. Risks were weighed and a sense of urgency drove the decision forward. "Let's get this job done, or else," said a very concerned David DeMaio, Munger's president. Like a Navy Seal operation, Munger's competencies came to the forefront. The Munger team applied creative thinking to assist the structural engineering firm to develop a plan to shore the building from settling while installing a new infrastructure design that met the zero-tolerance specification for the protection of the invaluable stained-glass windows as well as the building structure itself. While both sill beams were being replaced, Munger installed temporary shoring of sill beams, wall studs and truss columns. A horizontal beam on the outside was bolted through the inside structure to keep the building from racking. A large masonry wall was removed creating additional space. Structural steel was added to support the ceiling.



“The accomplishment of the repair enabled the entire team to breathe a sigh of relief. The windows were safe to be reinstalled. Zero tolerance had been achieved through Munger’s creative incorporation of the design criteria. The team approach proved itself and Munger had clearly been the point man on the operation.”

Anthony Terry, Terry Architecture

Along with Roy Lamberton – Project Manager, John DeSarbo – Project Supervisor, Mike Kirdzik – Chief estimator, Munger employees provided structural restoration, general labor, carpentry, and installation of windows, doors, hardware, handrails, and millwork.



## Construction Site Challenges

- Asbestos mitigation, solving water problems, and construction became one interwoven project. Major water problems were encountered in the basement, and rain water was an overriding issue throughout the project.

**Solution:** A sophisticated water mitigation system with a continuous sump channel was installed around the perimeter. Drainage from groundwater and downspouts was intercepted by the continuous sump, and channeled to a holding tank where it was pumped and leached into a storm drain.

- What if the structure moved and 13 priceless 2-story-stained glass windows were affected by deflection during shoring?

**Solution:** Removal and replacement of windows required precision since there was only a 1/8-inch space to rack them properly. By meeting the zero-tolerance guideline, all windows were removed, stored, and returned without damage.

- Removing original building materials presented a problem due to limited egress options.

**Solution:** stackable stones were removed and steel was delivered through a small basement window.

- No one knew about the deteriorated stone until reaching that section of the undercroft.

**Solution:** “How they performed stone cutting without building collapse amazed me,” stated Bob Barnett.

## Results

- Fear of building collapse was eliminated. “Avoiding a sill beam disaster really showcased the whole team’s care, concern, rapid solution design, and a thorough detailed process.” Ann Freeman, Renovation Committee Member

- A dim, damp, moldy undercroft was converted to an inviting, well-lit, acoustically insulated, handicap accessible basement with a state-of-the-art commercial grade kitchen, a multi-use function room, and an office area.

- Stairs and double doors to the parish hall entrance were replaced by an inclined sidewalk that gradually rises 2½ feet to a modern doorway that enters the equally raised lobby floor. Now, ground floor access is available from the street to the lobby connecting the church and parish hall, and to the basement via the renovated stairway and a new LULA elevator.

- Front door access to the nave was reconfigured from three steps below the lobby floor to a ramp into the front entrance for unimpeded level entry to the front of the sanctuary.

- The columbarium provides a sacred space for the interment of ashes in the narthex. Its custom-designed millwork and seating transform the vestibule into a sanctuary. It enhances the entryway, and offers convenience, privacy, security, and minimal maintenance.



## Hold Everything!

According to Bob Barnett chair of the Trinity building committee, when we discovered the sill beam problem, everything had to stop in order to avoid a hazard. Everyone on the team valued the church and wanted it to work out. I thought it was a fantastic show of collaboration and expertise. You could really feel it from John DeSarbo and David DeMaio. They were really worried about the church's role and the need to preserve this landmark. They lost sleep. During the projects, more than 100 issues cropped up and we always got together as a team and resolved each one. If we're doing this, let's do it right. It was a real breakthrough for me to see the architect's willingness to accommodate the builder's needs. It was value engineering "in the field."

The steering committee, architect, and builder exhausted all their contingencies to arrive at an optimal budget for the entire project. Everything is interconnected. Change one thing and it impacts everything else. But we always kept the big picture in mind. It takes a strong leader to manage all those opinions. Munger produced rock-solid estimates to create the budget for the fund drive. We put Munger's estimator, Mike Kirdzik, through his paces and valued the many trade-offs that he allowed us to consider.

The team made every decision. Noteworthy choices include:

- Rather than spending a lot of money demolishing the old concrete stairs from the lobby to the basement, new wooden stairs were built atop them. 'Higher mathematics' were required to create a circuitous path that matched with the lobby landing instead of a straight run.
- A very attractive ceiling replaced original glued-on tiles after several mockups by John DeSarbo.
- Emergency egress from the basement was retrofitted to meet code. Rather than excavating the existing concrete stairs, the town approved metal stairs over the original stairs.

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