The Immaculate Conception Parish in Cottonwood, AZ was established in 1930. As it has continued to flourish, Immaculate Conception recently made the decision to build a bigger and better church to host its growing parish. Ground breaking began in the latter part of 2008 and with a steadfast crew working with Quad-Lock’s insulating concrete forms, the new church was dedicated on December 8th, 2009.

**Why Quad-Lock was Chosen**

Original designs for this monumental project utilized a masonry wall system, but the decision was made to favor Quad-Lock’s superior ICF system for the following reasons:

- Height of the building
- Improved insulation value
- Increased construction speed
- Reduction of project costs
- Ease of pilaster construction (including double corner pilaster fabrication)
- Better sound attenuation
- Higher energy efficiencies & cost savings for the congregation

**Interesting Facts**

- **Location:** Cottonwood, AZ
- **Completion Date:** December 2009
- **Building Size (Total):** 30,115 sqft
- **Quad-Lock Walls:** 58,664 sqft
- **Interior Walls:** 19,000 sqft
- **ICF Installation Time:** 210 days
- **Total Construction Time:** 440 days
- **Wall Bracing:** Panel Jack, Uniscaffold
- **Floor Joists:** None
- **Exterior:** Stucco
- **Waterproofing:** Soprema Colphene LM300
The Design Vision

The design concept envisioned the use of large supporting columns and expansive ceiling spans integral to Church construction in the early 1500’s.

To fulfill this vision, the building incorporated a total of 38 pilaster columns in five different designs, perfected by Quad-Lock for tall-wall applications. This provided the desired Cathedral appearance essential to the Catholic Church in this expansive project.

The floor plan illustrates the project complexity, including the corner details associated with the pilaster columns, wall height and the absence of internal supporting walls.

Integral to the design was the under-floor air ducting. Using Quad-Lock enabled forcing of air under the pews and recycling the conditioned air 14 feet off the floor, resulting in long term comfort and cost benefits for the Parish.

Challenges Addressed with Quad-Lock

Construction of walls on rough placed and unlevelled, trenched, footings.

Variable concrete consistency, truck to truck, from project beginning to end.

Scaffolding limitations when plumbing walls and erecting the extensive wall runs.

Only 277’ of wall that was less than 8’ tall.

Wall above grade varying from 31’ along the Nave, to 42’ at the main entry and 49’ on the two bell towers.

Project Partners

General Contractor: Redden Construction Inc., Phoenix, AZ
Architect: CCBG Architects Inc., Phoenix, AZ
Engineer: A.V. Schwan & Assoc. Inc., Phoenix, AZ
ICF Installer: ICWalls, Gilbert, AZ
Quad-Lock Dealer: Arizona Radiant Heat Barrier, Vail, AZ

“This project demonstrates Quad-Lock’s adaptability to complete large tall wall projects without internal floor support required in the open design of these types of facilities.” states Hannis Latham of Arizona Radiant Heat Barrier.