

# Building Stone

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**DESIGNING A CHURCH INSPIRED BY FAITH**

**REPLICATING TURN-OF-THE-CENTURY  
ARCHITECTURE**

**BENEFITS AND DESIGN OPTIONS OF  
REPURPOSED NATURAL STONE**



# Designing a Church Inspired by Faith

Italian architecture inspires the creation of a family chapel modeled after a church in Assisi

BY JASON KAMERY



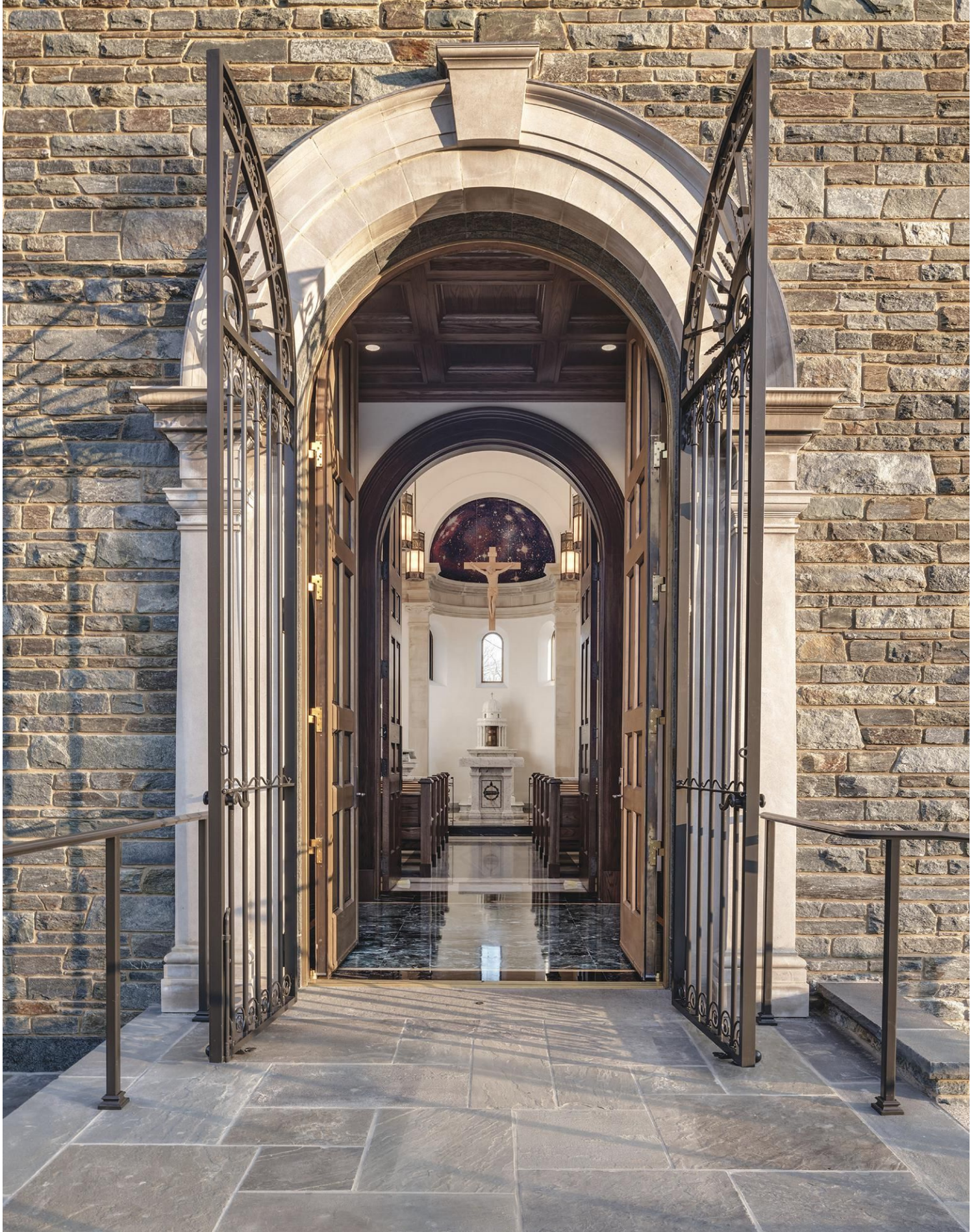


The church features a simple floor plan, consisting of a traditional basilica layout with a narrow nave and a raised sanctuary with an apsidal end.

After being influenced by the Porziuncola of St. Francis near Assisi, Italy, a married couple with a great appreciation for the heritage of traditional sacred architecture dreamed of a family chapel on a rural

site in the mid-Atlantic region. The basic plan of the church was their starting point, and further refinements, rooted in classical architecture and timeless design expression, conveyed the dignity and sanctity the clients were seeking.

"The building concept and design, and therefore the construction material selection and detailing, was driven by a desire for permanence, durability and authenticity," said Jim O'Brien, president of O'Brien & Keane Architecture. "In all



The overall area of the church measures 702 square feet, excluding the 24-inch-thick masonry walls.



One enters the nave through a vestibule, or narthex, from the outdoors. Two utility rooms flank the narthex.

cases, the building materials were to be natural and left uncovered and uncoated. There is no paint used on the project. The water-shedding and flashing systems are designed to work without sealant joints, and the only sealant used on the building is at the window and limestone junction. To meet this challenge, the clear choice for the primary building material, exterior and interior, was natural stone, coupled with great care in detailing."

The church features a simple floor plan, consisting of a traditional basilica layout with a narrow nave and a raised sanctuary with an apsidal end. One enters the nave through a vestibule, or narthex, from the outdoors. Two utility rooms flank the narthex. The overall area of the church measures 702 square feet, excluding the 24-inch-thick masonry walls. "Stone serves a variety of purposes on this project," said O'Brien. "The coarse texture of the

fieldstone helps relate to the rustic surroundings and the regional building language. The limestone serves to bring refinement and elegance, and tie the interior to the exterior. The marble elevates the interior to the level desired to mark the space as sacred." The fieldstone was installed by Vachino Masonry, located in Parkton, MD. Other stone used in the project includes Bianco Carrara, Botticino Classico, Port Laurent, Giallo Siena and Verde Alpi.



In the nave, four large slabs of Azul Macauba are arranged in a diamond book-matched pattern.



Indiana Limestone, procured from Rugo Stone of Lorton, VA and Bybee Stone Company of Ellettsville, IN, trims the windows, doors and eaves.

According to O'Brien, Bianco Carrara and Botticino Classico are ideal marbles for shaping and carving because of their soundness, consistency and beauty. The Giallo Siena and Port Laurent were chosen for the altar because of their color harmony with the Bianco Carrara. The Verde Alpi, used in the narthex, seemed an ideal counterpoint to the rich wood ceiling in that space.

In the nave, four large slabs of Azul Macauba are arranged in a diamond book-matched pattern. The service room flooring is a mosaic by Architectural Ceramics, installed by DJac Marble and Tile, located in Grasonville, MD, using polished Botticino Classico, Montevideo and Kays Green marble. The marble

other than that used in the service-room flooring was supplied by Roberto Pagliari of Roberto Pagliari SC, SASA, located in Sarzana, SP, Italy.

Exterior walls are faced with fieldstone native to the region, and rest on a base of honed green Vermont granite supplied by Charles Luck Stone Center. The granite was installed by Woody Masonry of Edgewater, MD. Indiana limestone, procured from Rugo Stone of Lorton, VA and Bybee Stone Company of Ellettsville, IN, trims the windows, doors and eaves. According to Will Bybee, president of Bybee Stone, the interior caps were some of the most detailed work done on the project. "The couple showed us

the pictures of the caps they wanted us to replicate and while the final design doesn't look exactly the same, it was a starting-off point, as they changed their minds on a few design details," said Bybee. "This is something that we do on a regular basis for clients."

Bluestone paves the entry court of the church, which is surrounded by seat-height walls, constructed of fieldstone with bluestone copings supplied by Tri-State Stone Supply of Bethesda, MD. French drains that flow rainwater away from the building are formed with river gravel, contained by stone curbs reclaimed from a small town in France. Set upon a matching base, the interior





In the sanctuary, custom liturgical furnishings also designed by the architect serve to provide the necessary accommodations for the religious rites intended for the chapel.

walls are decorated with limestone pilasters and carry a matching entablature. Limestone creates one unified architectural expression between the interior and exterior. "If you want a good masonry product, I think Indiana limestone is your best option," said Bybee. "This is perfect for what Indiana limestone can be used for. Also, with any kind of unique design, I think it's unsurpassed."

To continue the trend of keeping the building as natural as possible, the interior wall surface in the chapel is a traditional

plaster, left unpainted. The interior flooring throughout is a 2-centimeter-thick marble, set on a deep mortar bed and polished in place, without grout joints. According to O'Brien, colorful marble was chosen to contrast with the neutral tones of the limestone and plaster. The blue Azul Macauba, the yellow Giallo Siena and the green Verde Alpi were used to contrast the limestone and plaster.

In the sanctuary, custom liturgical furnishings also designed by the architect

serve to provide the necessary accommodations for the religious rites intended for the chapel. These are primarily rendered in Bianco Carrara. Using a composition of colorful marbles based on the instruments of crucifixion, the altar's decoration is in low relief. The ambo contains a trio of variations on the scroll motif, and the tabernacle design is conceived as an idealized miniature Tempietto. "I feel like the stone selected itself, as each material is so comfortable with what we are asking of it," O'Brien went on to say. "The fieldstone is essentially what



"The limestone seems to me to be the natural go-to carving stone for this sort of work. The same holds true for the Bianco Carrara," said Jim O'Brien.

one finds in the ground nearby. The limestone seems to me to be the natural go-to carving stone for this sort of work. The same holds true for the Bianco Carrara. As for the flooring, the white/gray/yellow/black palette is hard to resist for the sanctuary pattern, and the blue of the Azul Macauba serves to recall the color so often associated with Our Lady."

According to O'Brien, probably the biggest challenge-within-the-challenge was the fieldstone installation. "The rest of the stone was shop-fabricated and came to the site ready for installation, certainly not easy, but there was little guesswork after all the planning and engineering," he said. "It took a great deal of stamina and concentration, as well

as onsite artisanship, on the part of the masons, to install the fieldstone so consistently and to a well-defined standard over such a long period.

"The only real difficulty with sourcing the material was with the Azul Macauba," the architect went on to say. "This is not a super-common material, and in particular, slabs with a good deal of blue are hard to find. Roberto knew when he found these slabs that he had hit the jackpot. It was his suggestion to use the slabs whole, rather than in smaller pieces. This notion of using the slabs as they had come from the earth was very appealing (to me), based on the guiding principle that a church building should convey a sense of permanence.

The 'forever' of our faith, our spirit and our Creator should be reflected in the building. So we turned to Creation itself to find the best means of expression."

Teamwork and shared motivation for the project by all involved resulted in the project taking just 19 months, from April 2014 through November 2015. "We had the luxury of working with an outstanding general contractor and project superintendent whose expectations and standards were so high, there was never much fault to find," said O'Brien. "They supervised every move and worked side by side with the craftsmen at all times. They mocked-up virtually everything. I can't say enough great things about the contractor, Winchester Construction. Their

dedication and passion for quality is unsurpassable and such kind and generous people. I'm so grateful to have them as teammates. They completely coordinated the work of the suppliers and installers, all of whom brought their A-game to the job. Roberto Pagliari, who supplied and fabricated the marble, is a dear friend and also the consummate expert and professional. I've learned so much from him. He introduced Booms Stone Company, who installed the marble."

The common thread among all project participants is great happiness to have been able to be part of the work. "This is the kind of project that comes along once in a lifetime," said O'Brien. "I believe that God will meet us wherever we

are, but to build a place with that intention, on such an intimate and personal scale, is a very loving act of devotion. Our client certainly charted this course. To be able to participate was a great privilege, and at the same time the work carried a good deal of responsibility to do it justice. So that responsibility and not letting this opportunity get by us became real motivating challenges. The solution seemed to be found by embracing each design decision and questioning if we had the best approach. We were so fortunate to be part of a wonderful team that shared that common mindset. Everyone involved seemed to get caught up in the work and it brought out the best in everyone." ■

### Private Chapel Mid Atlantic

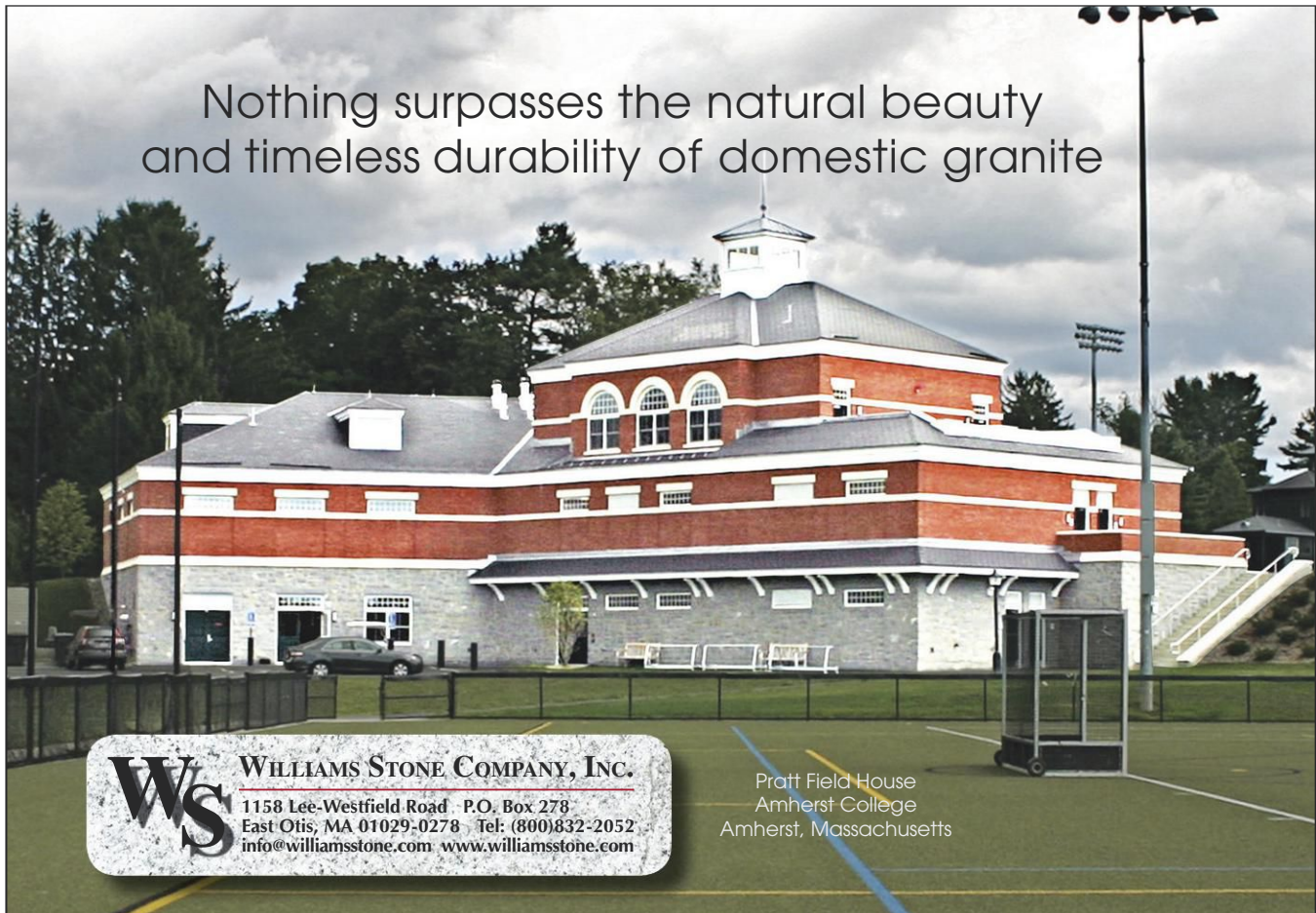
**Architect:** O'Brien & Keane, Arlington, VA

**General Contractor:** Winchester Construction, Millersville, MD

**Stone Supplier:** Charles Luck Stone Center, Jessup, MD (Granite); Tri-State Stone Supply, Bethesda, MD (Fieldstone); Bybee Stone Company, Ellettsville, IN (Limestone); Rugo Stone, Lorton, VA, (Limestone); Roberto Pagliari SC, Sarzana, SP (Marble); Architectural Ceramics, Rockville, MD (Mosaic)

**Stone Installer:** Woody Masonry, Edgewater, MD; Vachino Masonry, Parkton, MD; Rugo Stone, Lorton, VA; Booms Stone Company, Redford, MI; DJac Marble and Tile, Grasonville, MD

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1158 Lee-Westfield Road P.O. Box 278  
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Pratt Field House  
Amherst College  
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