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hen tasked with the renovation of the pool area of a 40-acre residential estate in Michigan, builder Patrick Zaremba faced a number of challenges. Among them, the new design had to work around the existing pool and create a better sense of cohesion with the main residence. These goals were achieved through the creative use of natural stone for paving as well as the vertical surfaces.

"The overall goal was to connect the pool area to the main residence as if it was master planned and not an afterthought," Zaremba explained. "Using the same stone wall materials was the key. Using any other materials for the retaining walls was never a consideration."

A UNIFIED SPACE

Prior to the renovation, the drastic elevation change between the house's rear walkout and the existing pool caused a disconnect between the interior and exterior. To remedy this, over 1,500 cubic yards of earth were regraded to construct a single plane connecting the walkout with a new patio and infinity-edge pool.



The pool house is also clad with Carnelian granite to further connect the pool area to the main residence.

A series of steps leads to the lower level, which features a pool house that anchors the corner of the space. The exterior finish of the pool house was carefully designed to tie into the existing architecture of the residence; with horizontal bands of granite lending to the project's visual cohesion.

The design uses two varieties of natural stone — Dakota Mahogany and Carnelian granite — with the same overall color tone, but each with its own distinct look. These materials were chosen not only to tie into the home's existing exterior, but also for their natural beauty. The stone is used ex-

clusively throughout the entire renovation to create garden walls, paths, steps, terraces, sills, countertops, fireplace mantles and coping for the spa.

All of the site walls — as well as the walls of the pool house — are comprised of Carnelian granite. The material was quarried by Coldspring of Cold Spring, MN, and supplied locally by Capital Stoneworks of Bridgeport, MI. One of the most prominent ing a shimmering wall of water. uses of Carnelian granite is what Zaremba refers to as the "spine wall," which sepa- and the deep rich earthly color of the rates the new upper pool from the existing lower pool. Water gently cascades over

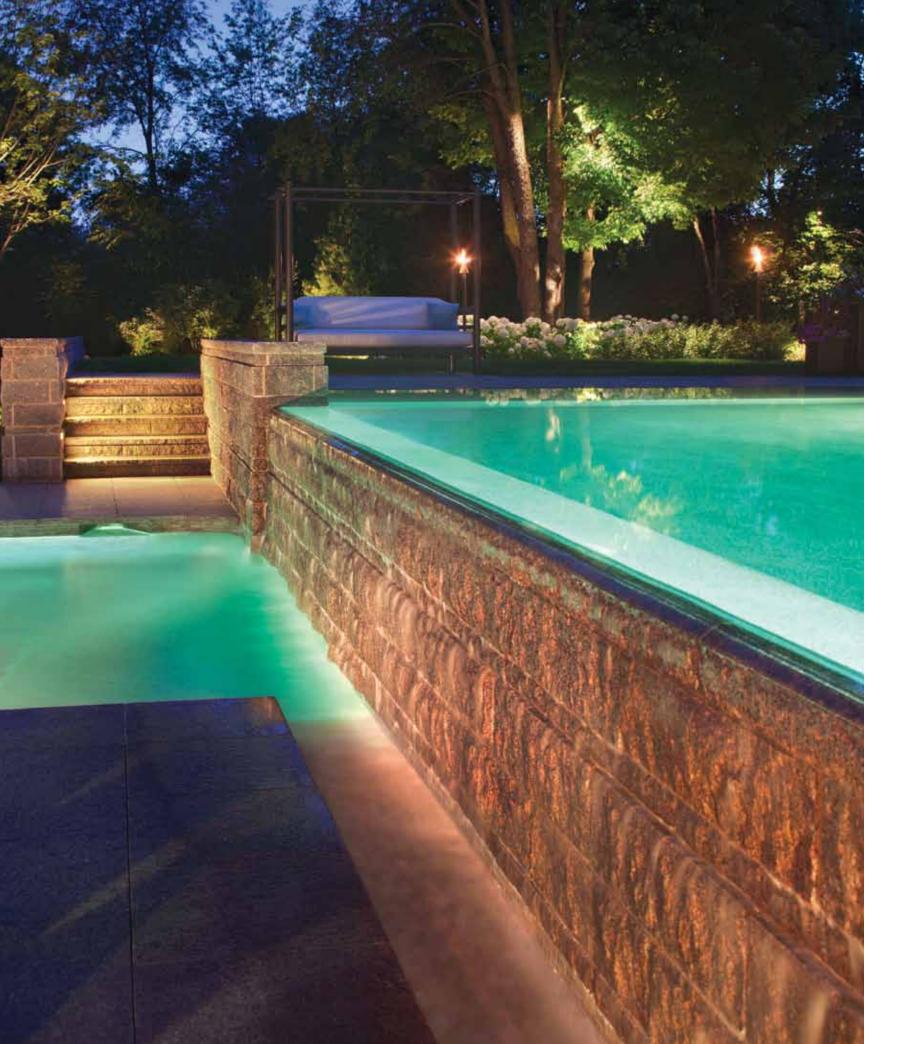
the 34-foot infinity edge of split-faced granite and into the existing pool, creat-

"We liked the durability, permanence granite," Zaremba said. "There is an undeniable quality and beauty in real granite

that cannot be achieved with other materials — especially manmade materials."

On average, the stone pieces used for the walls were 3 feet long x 9 inches tall x 4.5 inches deep.

Through the space, paving is comprised of 2- x 2-foot pieces of Dakota Mahogany



To achieve a clean look, the pool area utilizes a Pedestal Paver system that allows the surface to be uninterrupted by drains and remain completely level. The water flows through the open joints and into a hidden channel drain in the pool deck.



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A combination of split-faced and flamed finishes were used on the stonework. "The treatment of the stone was based on its orientation," Zaremba said. "When used for vertical surfaces, such as walls, the granite is split-faced to create a bold and rugged texture. The horizontal surfaces are flamed, creating a softer look that is rough to the touch but comfortable enough to sit on. The subtle combination of textures and patterns repeated throughout the project gives the distinct spaces a sense of continuity."

INSTALLATION CHALLENGES

The installation of the stonework presented a number of obstacles, according to Zaremba, many of them related to the use of stone in a wet environment. "The most challenging aspect was keeping the mortar from leaching in the infinity pool wall," he said. "Special additive and sealants were used in the mortar and behind the block work."





Because the straight-edged pavers would look awkward against the split-faced walls, Zaremba created a narrow channel at the bottom of the walls, and the pavers were slid beneath the split-faced stone.

Careful consideration was also given to the 7,700 square feet of pool deck paving, as Zaremba did not want to implement the traditional system of slightly pitching the deck to allow for water drainage. Rather, to achieve a clean look, Zaremba selected a "Pedestal® Paver system" from Hanover Architectural Products that would allow the surface to be uninterrupted by drains and remain completely level.

Traditionally, the pedestal system has been used for commercial roofing applications, but it can also be installed for pool decks. The water flows through the open joints and into a hidden channel drain in the pool deck.

An additional challenge with the stone-work had to do with the multiple surface finishes, as the straight-edged pavers would look awkward against the split-faced walls. To maintain a clean look, Zaremba created a narrow channel at the bottom of the walls, and the pavers were slid beneath the split-faced stone.

The stone was installed by Sierra Stone of Novi, MI, and Zaremba and his team worked closely with them throughout the process. "We spent hundreds of hours of

on-site supervision," he said. "Supervision was daily. We looked for opportunities to refine the design, save costs and help trades interpret plan and construction details."

In all, the project took 26 weeks to complete, and it has been well received by the homeowners. "The goal was to rejuvenate the outdoor recreation space and strengthen its visual and spatial relationship with the residence," Zaremba said. "Through redeveloped organizational strategies, material selection and landscape design, the resulting environment is an idyllic location for both individual relaxation and social gatherings for family and friends."

Private Residence Michigan

Design Firm/Construction Manager:

Zaremba and Co., Clarkston, MI

Stone Quarrier: Coldspring, Cold Spring, MN

(Carnelian granite);

Paving Supplier: Hanover Architectural

Products, Hanover, PA (Dakota Mahogany granite)

Stone Distributor: Capital Stoneworks,

Bridgeport, MI

Stone Installer: Sierra Stone, Novi, MI
Consultants: B&B Custom Pools, Livonia, MI;
Hennessey Engineers, Southgate, MI