

Atlantic
The Cove

Case Study
By StonePly

ATLANTIS: THE COVE

The largest stone clad building in the Caribbean meets the challenges of fast track schedule and hurricane proof construction

The Cove, a \$1 billion expansion to Atlantis, includes resort hotels, restaurants, condos and retail. The upmarket resort's modern and refined architecture and simple architectural forms required cladding that was elegant, durable and beautiful. The owner and architects selected StonePly. Use of the natural stone faced StonePly panels allowed for sophisticated and refined detailing on the interior and exterior stonework.

TO BUILD THE RESORT, THE CLADDING FACED SEVERAL CHALLENGES:

- ACCESS. The spectacular island location surrounded by tropical beaches limited site access and space.
- DURABILITY. The ocean front location required a cladding that could stand up to extreme hurricane force winds, salt spray and tropical sun.
- SPEED. The resort's fast track schedule allowed just 90 days from approval to quarry, cut, fabricate, ship and install 120,000 square feet of stone cladding.
- EASE OF INSTALLATION. The islands have a limited workforce and the cladding had to be able to be installed to an extremely high level of quality by average laborers without previous cladding experience.



"The mock up assured the team that StonePly could provide the look they all wanted," Newbold said.

THE CHALLENGES: BEAUTY, Hurricanes, fast schedule and size

Did the building create any challenges during the erection of the stone? Nothing that couldn't be solved by simple connection details and StonePly panels. "Due to the constraints of performance, time and budget we used StonePly," sums up John Newbold, who was the contractors lead on the project, "StonePly let us meet the key challenges we faced. StonePly offered a much better choice than slab stone in terms of economics, schedule and strength."



"Cladding a building the size of the Atlantis Cove in slab stone would have exceeded the capacity of any installer and the installation would have taken months. With StonePly the stone panels arrived on time and the installers did not need to be highly skilled stone setters, basic carpentry skills were all that was needed."

STONEPLY HELPS WITH TIGHT

With construction taking place on an island, space was limited. And since some of the work took place over the water, access was difficult. The use of Stone-Ply minimized the construction time and the space required for installation. Several hundred square feet of the thin, lightweight panels fit on a pallet and the individual panels could be easily moved by hand. One or two men on a boom or a scaffold could install the panels. "A typical 4' by 4' slab that would have weighed 640 lbs. in slab stone weighed just 56 lbs. in StonePly. That translates into a huge difference in speed, logistics, space required, structural support and productivity." Newbold said.

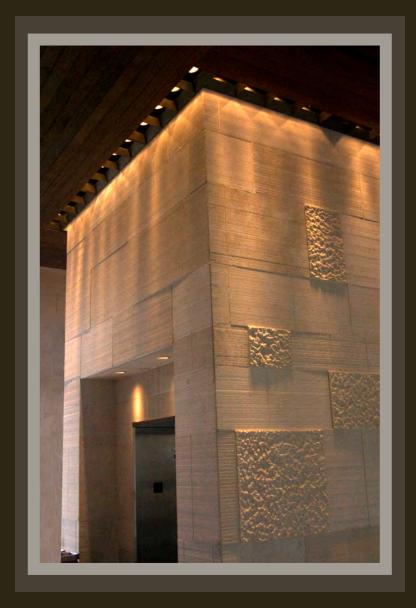
MOCKUPS AID DESIGNERS

For the stone cladding, the designers selected a combination of a grooved finish with saw marks and a contrasting hammered finish. To ensure the designers got the look they wanted, StonePly first produced numerous stone samples for the architect to select from. Once a stone was selected, they proceeded to larger, full size samples. Once those were approved, StonePly created a full size mockup of the panels to review color, texture and attachment details. "The mock up assured the team that StonePly could provide the look they all wanted," Newbold said.

SIMPLIFIED CONNECTIONS

Structural support for the StonePly panels was much simpler than it would have been with slab stone cladding. "With slabs, we would have needed a complex support structure to carry the weight and to counter the brittle nature of slabs," he notes. With StonePly, a lightweight aluminum frame was used with z clips to quickly fasten the panels.





SPEED A MAJOR BENEFIT

To meet the time frame required by Kerzner, The Cove was built on a fast-track schedule, with construction beginning before the final design was complete. The StonePly production capacity was a key reason they were selected. With only 90 days from approvals to produce and install 120,000 square feet of stone cladding, schedule was a key concern. "Even with the fast track schedule, the resort opened on time. That would simply not have been possible with conventional stone slab cladding."

PANELS EASILY PASS Hurricane Testing

One of the early concerns with the project was the hurricane force winds that strike the islands on occasion. A series of tests were performed to verify the strength of the panels and connections.

- LARGE MISSILE IMPACT
 The StonePly panels were tested
 and easily passed the large
 missile impact test. This involved
 repeatedly firing a weighted 2"
 by 4" board at the panels. When
 subjected to the same test, ordinary
 stone slabs would shatter.
- WIND SUCTION
 The panels and connections were field tested for suction up to 4 times the hurricane force winds (the testing equipment limits). In the laboratory the panels were tested to 50 times hurricane loads.
- ADDITIONAL TESTING
 In addition, the panels passed
 rigorous testing for flexural
 strength, adhesive strength, UV
 exposure, expansion/contraction
 and impact. "They have been
 soaked in salt water, had a 2
 by 4 fired at them, subjected to
 hurricane winds, been sprayed,
 bent, heated, beaten and crushed.
 They are probably the most tested
 stone panels ever made," said
 Newbold.

STONEPLY

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NRC LOBBY

StonePly panels meet the requirements of the US Nuclear Regulatory Commission building

The Nuclear Regulatory Commission has a reputation for being meticulous and standing for high quality. Their high standards are not just applied to their work and research but to all things that they do and all facets of their organization. So, when looking for beautiful stone clad paneling for their One White Flint North building they searched for a high quality, accurately made product and found it in StonePly.

StonePly was contracted to custom make the granite cladding for the entrance to the NRC building's lobby. A beautiful, dark granite was chosen. The Dakota Mahogany Granite panels are made of one of the hardest stones in existence, are light weight and look amazing. The StonePly cladding chosen for the NRC lobby is the highest quality natural stone cladding available and will provide a beautiful surrounding for decades.

Installation of the StonePly panels was very quick and efficient due to their light weight and simple set up. No professional masons were needed because the panels need little skill to be installed, which saved the NRC time and money. The StonePly panels were installed using z clips. The z clips safely and resourcefully secure the stone clad panels to the walls so that they need very little maintenance, nothing more than a simple, occasional cleaning.

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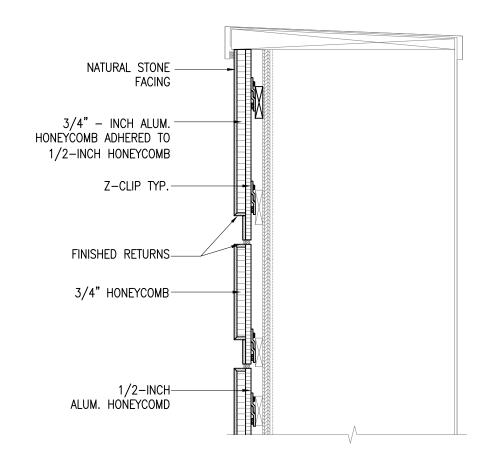
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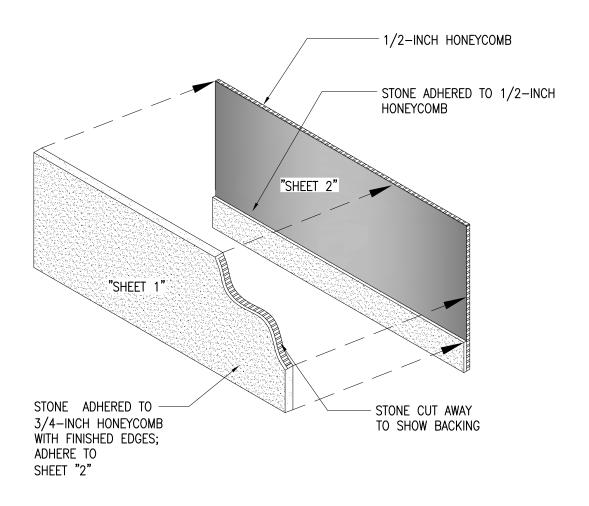
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With StonePly it was easy for the NRC to have the exact color and type of stone that they required. The granite provided by StonePly came from right here in the USA but StonePly has access to multiple quarries all over the world, making it possible to find whatever stone may be needed for any project. The Dakota Mahogany Granite is extremely durable and the StonePly panels have 60 times the impact strength of un-reinforced granite. Besides being strong the granite panels from StonePly are also aesthetically stunning.

Owner: Nuclear Regulatory Commission Contractor: GW Management Services Architect: Peck, Peck, & Associates





QUEENS CITY HOSPITAL CENTER CASE STUDY

Thin Granite/Aluminum Cladding For a New York Hospital





Key Points

- Fast facade installation while hospital remained open.
- Beautiful and durable granite face
- Stronger, lighter and more efficient
- Maintenance free facade
- Quality look and feel of real granite





QUEENS HOSPITAL CENTER

Granite on aluminum honecomb cladding for a hospital

To meet the requirements of New York State's Berger Commission mandate, Queens Hospital Center in Jamaica, NY planned an expansion and renovation program that includes a new psychiatric unit, a new medical/surgical division, a 15,000 square foot expansion of the Comprehensive Psychiatric Emergency Program, and extensive renovations to the emergency department.

Architect for the hospital expansion, Fletcher Thompson is an award winning firm with an innovative approach to designing health care sites. The Queens Hospital Center expansion provides state-of-the-art facilities that are fresh and cutting-edge, yet practical. Attention to detail, as well as beauty and functionality are reflected in all design concepts for the Queens Hospital Center.

CHOOSING STONEPLY

Included in the exterior design of the Queens Hospital Center is polished Stony Creek granite which spans the first and second floors of the building. StonePly was chosen to supply the granite panels because of their proven track record, and extensive experience providing strong, durable materials for healthcare facilities. Stony Creek granite was selected for its classic appearance, as well as its complimentary colors and potential LEED credit contribution. Plus, the polished granite adds a clean, sophisticated look to the building.



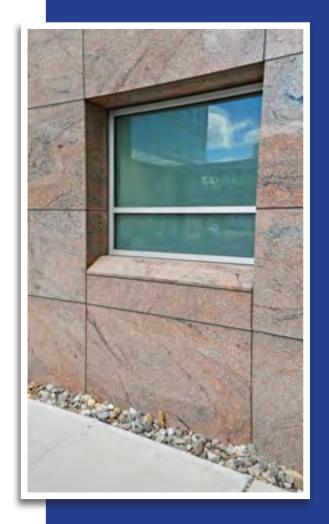


STONY CREEK GRANITE AND LEED

StonePly can access stone from all over the world, so providing the Stony Creek granite was especially easy. Stony Creek granite is quarried in Connecticut, just a couple hundred miles from Queens, so, in an effort to achieve LEED certification, the Stony Creek granite was chosen because of the quarry's distance from the job site.

STONEPLY CUSTOM WINDOW SILLS

Along with the 3,750 sq. ft. of granite cladding provided, StonePly also produced prefabricated window sills from the Stony Creek granite. StonePly worked with the architect to design the sills and ensure that they would work properly and fit perfectly when installed. These window sills were produced as one solid piece, which prevents future joint failure by minimizing silicone joints. This means there is no risk of deterioration from water leakage. The custom designed window sills perfectly match the StonePly panels and create a flawless look.





EFFICIENT INSTALLATION

Installation of the StonePly granite panels took place while the hospital was still open and running, which required the construction to be quick, simple and safe. The stone panels were attached with the use of z clips. With the z clips in place, the StonePly panels can endure even the most severe weather conditions.

STONEPLY IS HERE TO HELP

StonePly has extensive experience manufacturing custom natural stone cladding for interior and exterior design. To see additional photos of this project, or for help with specifications, CAD drawings or mounting details, contact StonePly at www.StonePly.com or by phone at (903) 454-4630. We are here to help.

