



*Retaining Excellence*

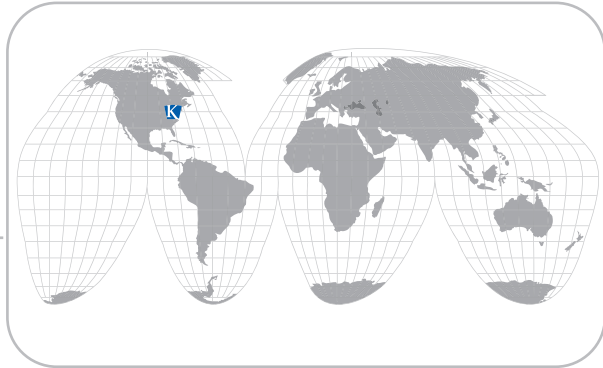
## Port Chester Marina Redevelopment

### Port Chester, New York

A textured Keystone Compac retaining wall was the answer to all of the major challenges that were presented as part of the Village of Port Chester \$100 million redevelopment project. When this New York town decided to enlarge their small waterfront area, Keystone helped maximize space and create open areas for more retail and entertainment attractions.

One major problem stood in the way of expansion – there was no useable land immediately available for further development. The marina boundaries created by the Byram River and existing commercial and residential buildings of the Port Chester downtown district made it impossible to simply expand outward. A long, tall, and steep hillside was the only vacant area available, but the slope made the land unsuitable for building purposes.

In order to create usable land, the hillside would have to be cut away. It became clear that a retaining wall was necessary. The textured Keystone Compac wall provided the ultimate solution for the site challenges



<b>Project:</b>	Port Chester Marina Redevelopment
<b>Location:</b>	Port Chester, New York
<b>Product:</b>	Keystone Compac
<b>Square Feet:</b>	Approximately 17,000 sq. ft.
<b>Gen. Contractor:</b>	Pillari Bros., Inc. Howell, NJ
<b>Engineers:</b>	Langan Engineering Elmwood Park, NJ  Keystone Engineering Minneapolis, MN
<b>Architect/Designer:</b>	Juan Montoya Design Corp. New York, NY
<b>Keystone Supplier:</b>	Anchor Concrete Products Inc. Manasquan, NJ

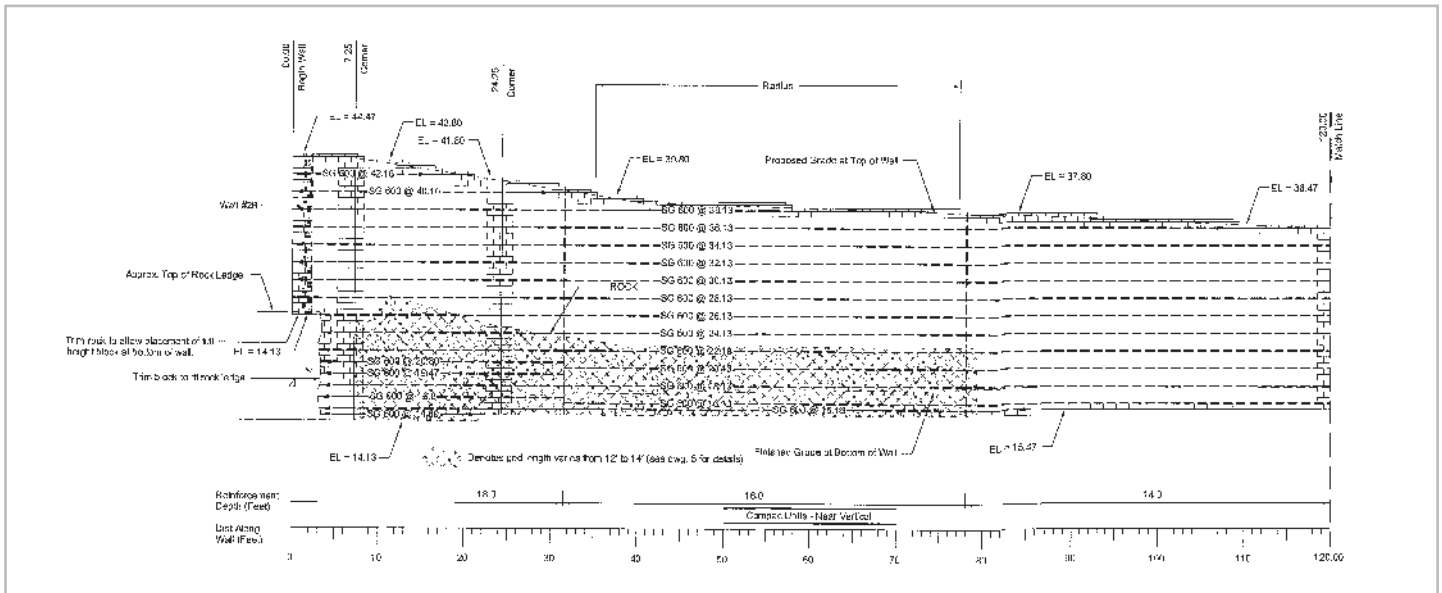
while offering a natural stone look and feel to complement the existing environment. The Keystone Compac wall was also less expensive than a poured-in-place wall and more durable than a timber wall.

“This project took months of design consideration before construction could begin,” notes Joe Pillari of the project’s installation contractor and landscape architecture firm, Pillari Bros., Inc., out of Howell, NJ. “Once cut-away began on the hillside, we were presented with a variety of less-than-perfect soil conditions and



CASE STUDY





issues.” In most areas along the cut, upper profiles of orange-brown sand covered underlying layers of severely weathered rock and a bedrock of gray schist or gray gneiss heavy with fractures and soil seams. However, in some portions of the cut, crews encountered less weathered ground, necessitating that blasting be performed. “In a nutshell, we were working with highly variable and unstable soils, and the Keystone Compac retaining wall design was really put to the test here,” Pillari adds.

Al Cheney, with Keystone Engineering in Minneapolis, MN, pointed out that the final design maximized the structural competency of the rock immediately behind the wall and this minimized the amount of geogrid and reinforced soil required to build the wall.

Because of existing buildings already on the small marina site, the project provided a number of space challenges for the installation phase of the planned retaining wall. Large work crews and heavy equipment were not feasible at the site, so it was important that the near-vertical retaining wall be easy to install within a cramped and restrictive work area. “The Keystone Compac units were easy to handle and their pinning method made alignment even easier as we worked in this tight area,” Pillari concludes. “The Keystone Compac wall really stood up to the many tests we had on this project, and it passed in every circumstance with flying colors.”

Supplied by Anchor Concrete Products, of Manasquan, NJ, the textured Keystone Compac wall units matched the early-American charm of the area, while their strength and structural capacity allowed the heavy-load bearing wall to reach heights up to 30 feet.

For continuity throughout the entire marina site, Keystone units were also used to create parking lot transition areas, a plaza area with retail kiosks, and access points to the waterfront docks.

The Port Chester Marina project clearly shows that Keystone walls provide solutions to difficult site conditions while adding aesthetic appeal. Keystone systems are engineered for performance, as well as visual appeal, making them perfect for any commercial, government, and residential application. They are the preferred choice of Pillari Bros., Inc., as well as architects, engineers, contractors, and homeowners world-wide.

For more information on Keystone Retaining Wall Systems products and services, please visit [www.keystonewalls.com](http://www.keystonewalls.com), or call 800-747-8971.



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