

# Waterfront Retaining Walls & Boat Docks

Waterfront retaining walls have been highly popular in recent years, whether it be to protect land and roadways from rising water levels or serving recreational purposes including docks and boat launches. In any case, they must be planned and designed well in advance to ensure a safe and seamless installation process.

Total Block Installed	1,842 SQ. FT. (171 SQ. M.)
Manufacturer	York Building Products
Installation Company	All Seasons Landscaping
Fabric Used	Non-Woven Filter Fabric
Geogrid	Yes, Unspecified

## WATERFRONT RETAINING WALLS & BOAT DOCKS

Ridgeley, West Virginia

### **CHALLENGES OF WATERFRONT RETAINING WALLS & BOAT DOCKS**

Many factors come into play in order to build structurally sound waterfront retaining walls. The core focuses of these projects are always effective soil retention, concentrated soil reinforcement, an adequate drainage system and a sharp look. Seasonal components of varying water levels and the expansion of freezing water take their toll on retaining walls along the water and must be accounted for at the beginning of each design.



#### PLANNING FOR SUCCESS

For this reason, homeowners in Ridgeley, West Virginia, were planning to make the most of their summers ahead and enjoy their property to the fullest. That's why they chose to install a CornerStone 100 retaining wall system and boat dock along their lakefront, providing easy recreational access and an aesthetic that blended well with the natural landscape. The project was completed in November and the design also featured a CornerStone staircase into the water from the dock area for multi-use purposes.CornerStone 100 retaining walls, optimizing land profitability and recreational areas became easy to facilitate.

Ridgeley is located in Mineral County along the border of Maryland, where local retaining wall installers All Seasons Landscaping worked closely with the experts at York Building Products. Together they chose CornerStone 100 concrete blocks as the best fit for water protection along the lakehouse's shoreline. With durable design features and textured facing to complement the property's natural appearance, selecting CornerStone checked all the boxes for both looks and functionality.

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### **PROTECTION AGAINST THE ELEMENTS**

A unique aspect of this lake was that it is drained every Fall and replenished in the Spring. Once the lake was drained, All Seasons Landscaping began installing a carefully levelled base pad along the waterfront to create a strong foundation for the next phases of the project. Fabrics lined the top and base of the pad to protect it from any washout once the water returned.

Shifting water lines throughout the year meant drainage was a critical consideration for the

selection of retaining wall materials. CornerStone's versatility allowed for optimal draining techniques, regardless of water levels, thanks to the concrete blocks' hollow core design. By backfilling the blocks' core with #57 stones wrapped in non-woven filter fabric alongside perforated drainpipe, the water could flow freely through the wall as it rises and falls. In turn, this prevents the soil fines from migrating into and clogging the stone backfill and reduces future damage and maintenance.

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## **MULTI-PURPOSE FINISHING TOUCHES**

Once the wall was completed, large stones known as rip rap were lined along the retaining wall to prevent damage caused by the expansion of freezing water turning to ice. This is an important step, as the rip rap can save waterfront retaining walls from unnecessary damage that could quickly compromise the entire wall.

The finished retaining wall measured an average height of 1.0m (5 courses of CornerStone 100) and peaked at a height of 3.0m (14 courses of CornerStone 100). Its beautiful natural stone facing was an excellent addition to the property and it's securely anchored in place for years to come. At CornerStone, we offer wall solutions for any outdoor application you can imagine, no matter how tall, steep – or deep – your dream landscape is.



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cornerstonewallsolutions.com

Contact our CornerStone experts for more details.

**CONTACT US**