The new FedEx® Ground Distribution Hub in Middletown, Connecticut, would be one of the largest construction projects in the state of Connecticut. The scope of the project included over 300,000 square feet of segmental retaining wall block built to maximum heights of 60 feet—making it one of the largest and tallest SRW projects in North America.

Due to the size, complex installation and overall scope of the wall project, we knew right from the start it would have to be a collaborative effort by all to be a success story.

"The general contractor Manafort Brothers, Earth Retention Systems, Advantage Engineers and the Belgard Commercial team all worked together to make that happen."

The project broke ground in May 2016 and according to representatives at FedEx is part of a nationwide expansion resulting from the exponential increase in the number of daily packages shipped over the last 10 years. The 260-acre site would house a 525,000-square foot main hub building, along with a maintenance garage and salt storage shed.

"The design of the massive walls needed a proven system such as Vertica Wall with Mirafi® geosynthetic reinforcement. Oldcastle worked with the project's retaining wall design engineers during the design phase to secure the Vertica® Retaining Wall System with Mirafi® geosynthetic reinforcement as the basis of the SRW design for the project.

"The design of the massive walls needed a proven system such as Vertica Wall with Mirafi® geosynthetic reinforcement," said Scott Vollmer, SRW Market Manager for Oldcastle APG’s East region. “Vertica’s four-degree batter was another advantage of the system and allowed for optimal site layout."

The Solution

The project involved an astounding 2.5 million cubic yards of earthwork that required six retaining wall structures, encompassing over 11,000 linear feet of SRW’s to re-grade, stabilize and optimize the site. The project also called for over 650,000 square yards of Mirafi® geosynthetic reinforcement. Oldcastle manufactured the Vertica® Retaining Wall System with Mirafi® geosynthetic reinforcement as the basis of the SRW design for the project.
Vertica Wall was shown to be a viable product that could hold up to the structural needs of the project, look good for the client, and hit all of the other marks in terms of competitive price and a demanding square-foot-per-day delivery timeline.

Joshua Krebs
Advantage Engineers/Project Designer

The Results
Anchor, an Oldcastle® Company, was selected as the exclusive supplier of the retaining wall and geogrid materials using Anchor’s Cranston, Rhode Island, plant to manufacture the SRW units. This selection was based on competitive price, proximity to the project, technical support, manufacturing capabilities, and the overall resources to supply such a large project on a tight time frame,” Vollmer said.

“We worked closely with BL Companies (site civil engineer) to help optimize the retaining walls in context with the overall site design. Anchor was helpful in providing technical resources and were very responsive to everyone’s needs throughout the process,” Krebs added. “From a delivery standpoint, the materials were provided on the scheduled timeline that was needed.”

As of July 1, 2018, the entire segmental retaining wall project was completed to the customer’s satisfaction accomplishing one of the biggest and most complex SRW applications in North America. “I’m very proud of all the companies and individuals who helped make this one of the most successful SRW projects within the Oldcastle family,” said Greg Piper, VP of Sales for Anchor, North Region.

About Vertica® Wall
• Designed for steep, sloping hillsides and other structural challenges.

• Can be built to virtually any height in incredibly tight spaces.

• Design allows for reduction of excavation, land loss and labor hours.

• Features warm earth-tone colors and rugged, rock-like face.

• Can build taller walls with geosynthetic reinforcement or the Anchorplex™ system when designed by a qualified engineer.

About Belgard®
Belgard is part of Oldcastle APG, Inc, the largest concrete products manufacturer in North America. With over 180 locations and a company culture characterized by a commitment to customer satisfaction, Oldcastle adheres to a level of service and consistency that no other supplier can match. Our combination of local market presence and national capabilities allows us to meet and exceed the demanding needs of an ever-changing industry.