CASE STUDY

Riverview at Brookfield Brookfield, Connecticut

| Storage Provided: | 18,605 cu. ft. |
|-------------------|--------------------------|
| Area: | 5,600 SF |
| Models: | Recharger V8HD |
| Number of Units: | 150 |
| Installed: | October 2012 |
| Project Engineer: | CCA, LLC |
| | Brookfield, Connecticut |
| Contractor: | WF Anderson Construction |
| | Danbury, Connecticut |
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Located in Brookfield, Connecticut, Riverview at Brookfield is the area's newest community of FHA- and CHFA- approved townhomes and ranch-style condominiums. Nestled along the Still River, the brand new 42-unit complex offers residents wide open-floor plans and updated appliances and is in close proximity to miles of beautiful walking trails, state and national parks and the two largest lakes in Connecticut.

While planning for the new complex's stormwater management system, the engineers at CCA, LLC were required to trap and remove sediment from the runoff that could flow into the system, per the town policy. The town enforces a catch basin maintenance program in order to reduce the amount of runoff pollution that can ultimately discharge into the local waterways. To meet this requirement in the most efficient manner, the engineers worked closely with CULTEC, Inc., a manufacturer of subsurface stormwater management chambers, to design a system to detain and treat runoff at the complex. They determined that a combination of filter fabric covering a designated row of CULTEC stormwater chambers and a polyethylene liner underlayment would trap and remove sediment while allowing water to flow through the chambers.

The engineers selected CULTEC's Recharger[®] V8HD chamber for the project as the model would provide the required 18,605 cu. ft. of storage within the smallest footprint. The site was configured with eleven rows containing 150 chambers spaced six inches apart, occupying a total area of 5,600 square feet. The model is 32 inches high, 60 inches wide and has an installed length of 7.5 feet long, with the bare chamber capacity of 8.7 cubic feet per linear foot.

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CULTEC

Riverview at Brookfield Brookfield, Connecticut (continued)

"Working with CULTEC on this project was a real pleasure — everyone from the representatives on site to the office personnel worked hard to streamline the process for us," recalled Bill Anderson, Owner of W.F. Anderson Construction LLC. "The entire installation process was so simple. We arranged the plastic chambers, backfilled them and were on our way."

To comply with the town's stormwater management policies, a sump pit was installed beneath the first chamber of the water quality row. Filter fabric was wrapped around the entire first row of chambers and a polyethylene liner was placed below them, creating a Separator Row. The Separator Row acts as a barrier between the water quality row and the area around it, preventing suspended solids from intruding into the chamber bed and stone. The Separator Row captures any silts and fines prior to overflowing into the rest of the basin and sump. To complete the maintenance, any debris can be easily vacuumed out using a water jet, which pushes water toward the catch basin and sump while removing waste.

Hidden from sight, the underground stormwater management system satisfied the town of Brookfield and the state of Connecticut's stormwater requirements. It also allowed engineers to utilize the space above the chambers as a parking area, while eliminating pollutants and preventing groundwater contamination.





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