

Giant Foods Supermarket, Bucks County, Pennsylvania

ften when preparing a site during pre-construction phases, site managers are faced with time and land-size constraints. CULTEC Inc.'s plastic stormwater chambers offer efficient underground installation to effectively manage stormwater and parking lot run-off where space is restricted and land is too valuable to waste on open ponds.



In April 2005, site preparation began for a new Giant Foods Supermarket located in Middletown Township in Bucks County, Pennsylvania. The Haines & Kibblehouse Group, site contractors that specialize in demolition, paving, piping and stormwater systems, was hired to complete demolition and prepare the site which included installing a CULTEC stormwater system underneath the parking lot. The underground basin was an alternative to traditional stormwater techniques such as swales or ponds.

Engineers from J. Michael Brill & Associates, Inc. specified CULTEC's Recharger[®] 280 HD model chambers, which are dome-shaped with perforated sidewalls and fully open bottoms to allow maximum infiltration, as well as the HVLV[™] manifold system, a combination of plastic chamber-type sections that interlock together and have side portals for feed lines into the plastic stormwater



chambers. The use of these products helped create an underground retention field as well as contain stormwater and parking lot run-off from the site. In all, more than 2,570 chambers were installed in two underground basins on the 5-acre site.

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CASE STUDY

Giant Foods Supermarket

"With excavation aside, installation of the CULTEC chambers beds only took three days, with one supervisor and three laborers," said Ray Mizdail, Field Superintendent from The Haines & Kibblehouse Group. "The real benefit to this system is that it doesn't take long to install, in turn keeping labor costs to a minimum."

Together, CULTEC products form a stormwater best management practice, required by the Clean Water Act Phase II regulations for impermeable surfaces to help prevent pollution of water resources. The chambers' higher profile (26.5 inches) facilitates the retention of large amounts of water, even in small spaces. They retain the water until it can be naturally absorbed back into the water table.

The Recharger[®] 280 HD is 47 inches wide, holds approximately 360 gallons and has a storage capacity of 6.079 cubic feet per linear foot. Chambers are available for traffic and non-traffic applications.



