

CASE STUDY

Hancock County Annex Complex Hancock County, Mississippi

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| Storage Provided: | 45,232 CF |
| Area: | 31,000 SF |
| Models: | Recharger® V8 |
| Number of Units: | 667 |
| Tons of Stone: | 2,555 Required |
| Installed: | January 2010 |
| Project Engineer: | Compton Engineering, Inc. Bay St. Louis, MS |
| Contractor: | Keith Waits Construction, Inc Saucier, MS |



As the Mississippi Gulf Coast recovers after Hurricane Katrina's extensive damages, Hancock County, Miss., received Federal Emergency Management Agency (FEMA) funding to replace five severely damaged county buildings in Bay St. Louis.

The construction of a new Hancock County Annex Complex on a 10.4-acre site took place during the first phase of the project. The complex included a 28,600 sq. ft. Government Annex Building and a 21,600 sq. ft. Human Services Building. The complex is considered a critical action under FEMA regulations, so both buildings were elevated above the 500-year floodplain to a finished floor elevation of 23.1 feet above mean sea level.

As the project increased the amount of impervious surfaces, the engineers at Compton Engineering, Inc. designed a stormwater system to limit the post-development rate of runoff to no greater than pre-development levels. The CULTEC Recharger® V8 underground chamber system was able to retain a maximum amount of runoff without taking up a lot of space. The Recharger V8 features the company's unique internal manifold, which allows for extra design flexibility and decreased installation footprint. Specifically designed for use in high-traffic applications, the Recharger V8 is IAPMO R&T-certified and protected by a 10-year warranty.

"We had to factor in the lack of land in our stormwater system design, and the CULTEC system afforded the flexibility of installing the chambers in multiple beds," said John Studstill, P.E. at Compton Engineering, Inc. "The system is fairly inexpensive, an additional benefit."

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Hancock County Annex Complex

Hancock County, Mississippi *(continued)*

Joshua Ladner of JRL, Inc. partnered with Keith Waits Construction, Inc. to install the CULTEC system in 15 beds strung along the site to accommodate the space constraints. “It was the first time I worked with the CULTEC system, and I was impressed by how well it worked in the tight space,” Ladner said.

The system employed 667 Recharger V8 units to provide 45,232 cu. ft. of storage. According to Michael Nowak, a consultant for CULTEC, the Recharger V8 system needed 33 percent less gravel than other prospective systems did. Overall, the CULTEC system turned out to be the most cost-effective solution for the project.

At the Hancock County Annex Complex, the CULTEC chambers also serve as a conveyance system carrying runoff to the stormwater outlet. Other Best Management Practices such as silt fences and re-vegetation of bare soils were also implemented onsite to minimize runoff.

CULTEC, Inc.

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