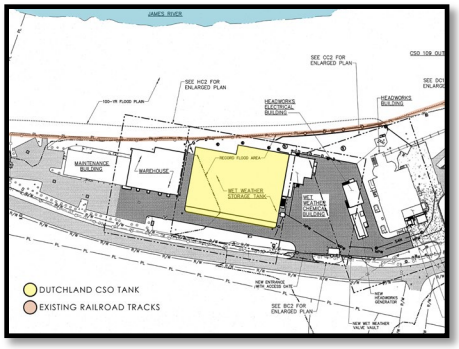
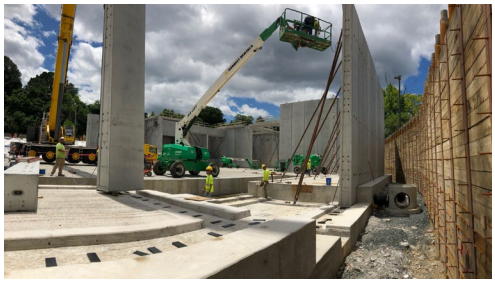
Dutchland INCORPORATED
Engineered Concrete Environmental Solutions

City of Lynchburg CSO Tank Project





As a means of meeting Clean Water Act requirements, the City of Lynchburg embarked on a two-year, $52.6M project to double the flow of water through the city's wastewater treatment plant. The project is being constructed by PC Construction, Greeley & Hansen, and the City of Lynchburg under the Construction Manager at Risk (CMAR) delivery method. Dutchland is a subcontractor to PC Construction for the 4 MG precast post-tensioned CSO tank structure.

The precast CSO tank is a rectangular tank measuring 171'-8" long by 127'-4" wide with a center chamber for chlorine disinfection. The greatest project challenge was satisfying the requirement of storing 4 MG in a very tight site. Dutchland's tank design was a balancing act between utilizing the existing footprint and height of the tank. The final shape of tank maximized the space utilization.

Additionally, due its close proximity to the James River, the tank required hold down in the event of a flood. The cast-in-place base slab for the CSO tank incorporates 200 kip rock anchors to resist buoyancy. The base slab is also sloped for wash down and process. The most efficient tank design was to provide a uniform base slab thickness with wall heights varying from 33'-9" to 29'-6" to accommodate the slope.

Dutchland's projected on-site construction duration for the construction of the 4 MG CSO tank is 21 weeks.

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