
Alexandria Renew Enterprises State-of-the-Art Nutrient Upgrade



Capacity: 18 MG rectangular CSO tank

Structure Footprint: 415-ft long by 256-ft wide

On-site Project Duration: 10 months

Total Precast Concrete Pieces: 1,733

Description: As part of Alexandria Renew's State-of-the-Art Nutrient Upgrade (SANUP) initiative, Dutchland, Inc. is constructing an 18 million gallon precast post-tensioned concrete tank. The tank consists of three levels with a building integrated into the tank. The main levels include a central pipe gallery buried 50-ft deep, twelve wet wells buried 47-ft deep, and the main tank structure buried 37-ft deep, with 12-ft above ground. The tank rests on 1,800 14-inch prestressed concrete piles that are used for both compression and tension and are attached to the base slab with strand. The tank will be covered with a flat precast roof topped with granular fill and a synthetic playing surface to accommodate regulation soccer and lacrosse fields. When complete in 2015, the Nutrient Management Facility will allow Alexandria Renew to process 13 billion gallons of wastewater each year.