



Ridenour Water Treatment Plant (WTP) Reclaimed Water Re-Pump and Booster Station

Project Owner: JEA

Client: Mott MacDonald Florida, LLC

Markets: Utilities

Project Profile:

The site for the subject project was located at 102 Kernan Boulevard North, in Jacksonville, Florida. This project included additions and improvements to the existing Ridenour Water Treatments Plant (WTP). The new construction included a 2.0 million-gallon (MG) prestressed concrete Ground Storage Tank (GST) with an approximate diameter of 115 feet, a Reclaimed Water Re-Pump and Booster Pump Station, a Generator and Fuel Tank Pad, a Reclaimed Water GST Fill Valve and Flow Meter, a Reclaimed Water Station Flow Meter, and a paved access driveway. We performed the geotechnical exploration to evaluate the general subsurface conditions within the proposed ground storage tank, additional support buildings and structures and the new asphalt driveway, and to provide recommendations for foundation support and design, and site preparation. To explore the subsurface conditions within the area of the proposed ground storage tank and additional structures, we located and performed 10 Standard Penetration Test borings, drilled to depths of approximately 20, 50, and 80 feet below the existing ground surface. To determine the subsurface conditions within the proposed new access driveway, we located and performed one auger boring, advanced to depth of approximately 6 feet below the existing ground surface and one core sample of the existing paved driveway (asphalt surface, base course) was obtained. We then performed quantitative laboratory testing on selected samples of the soils encountered during the field exploration to better define their composition and to provide data for correlation to their anticipated strength and compressibility characteristics. The laboratory testing determined the natural moisture content, percent passing the US No. 200 sieve (percent fines), Atterberg Limits, and organic fines content of the selected soil samples.

Services: Geotechnical Engineering

