

Project Name: Anchor Road Stormwater Improvements
Client: Seminole County Public Works
City of Casselberry Public Works



Anchor Road is a local road located in southwestern Seminole County and runs for approximately 1 mile through a mixed residential and commercial area from State Road 436 to Plumosa Avenue. Much of the contributing area lies within the City of Casselberry. The Anchor Road Stormwater Improvements project was a study to evaluate an existing stormwater management system's performance and to propose design alternatives to improve drainage, reduce flooding, and to improve water quality treatment along Anchor Road. The project discharges to Grassy Lake, which in turn discharges into Gee Creek, a tributary of TMDL water body Lake Jessup. Roadway improvements were also proposed to change the typical section from rural to urban, resurface the road, add sidewalks, and incorporate safety improvements. In addition, design efforts included the replacement of a water supply line in the corridor.

Conveyance and water quality improvements included the design of a stormwater sewer system to replace a poorly maintained ditch, expansion of existing ponds for water quality treatment and the addition of a new outfall to Grassy Lake. The new design helped to alleviate flooding issues, provided water quality treatment for runoff and created a safer, more aesthetically pleasing drainage system along Anchor Road. A hydrological analysis was necessary to insure wetlands in the project corridor were not negatively impacted.

Permitting of the stormwater improvements and wetland impacts was necessary with the St. Johns River Water Management District and also included interface with the U.S. Army Corps of Engineers. Pollutant loading analysis was necessary to meet permit requirements due to the phosphorus reduction goals in the Lake Jessup basin. Roadway improvements necessitated coordination with the FDOT for driveway connection and drainage connection permits due to the connection at State Road 436. Permits with the Florida Department of Environmental Protection were also necessary for the water line replacement.

This project was conducted with Inwood as prime consultant under a contract with both Seminole County and the City of Casselberry. Services provided for this project included data collection, stormwater inventory and problem definition, and engineering drainage assessments. ICPR was used to model and assess both existing and alternative conditions. GIS was used to conduct project area topological analysis and to generate report graphics. MicroStation was used for design plans preparation which included drainage, roadway, utility, and signing and pavement marking design.

