

**BILLY SAUM, PE**  
**Utilities Engineer**



**Education/Training**

B.S. Environmental  
Engineering (2015),  
Florida Gulf Coast University

**Licensing & Registration**

Florida Professional Engineer,  
License No. 88659

Billy has been with Johnson Engineering since 2015. He is a utility engineer and works on projects with all branch offices of Johnson Engineering. Billy's experience includes work on a variety of utility, water resource, and land development projects. Billy has experience working in our utilities group where he is responsible for such tasks as data collection and analysis, FDOT utility coordination, pump station design, underground utilities layout, hydraulic modeling and calculations, quantity/construction cost estimates, plan production, permitting, coordination with outside consultants, and on-site construction inspection. While most of his experience thus far has been with municipal projects, he has completed various tasks for commercial and residential projects as well.

**Relevant Experience**

- ↪ Misc. Wastewater Data Collection, Analysis, and Evaluation, Collier County, FL - This project consists of providing ongoing services for Collier County to determine wastewater system pressures and flow conditions. Billy is responsible for the project management, field data collection, coordination and meetings with Collier County Wastewater Collections and Engineering staff, data analysis, and system evaluation. The data and analysis are used to determine connection pressures to size pumps, determine pump station and force main flow capacity, and evaluate system performance to maximum efficiency and determine if systems are prone to inflow and infiltration (I&I) as a result of rainfall. This project is unique in that it utilizes real world collected data as the basis for determining system improvements to ensure facilities are properly sized to accommodate both existing and future wastewater generation.
- ↪ Priority I Water Main Replacement, Bonita Springs Utilities, FL - This project consisted of the design, permitting, bidding, and construction of approximately 24,000 linear feet of 12", 8", and 4" water main replacement located along various streets in the Bonita Springs "State Streets" residential area. This project required the design of the new water main alignment within the congested right of way while minimizing impacts to the existing residents and community and maintaining the existing asbestos cement and class pipe water system service during construction. This project also included the design of multiple horizontal directional drills to cross beneath creeks and other environmentally sensitive areas, and coordination with the City of Bonita Springs to avoid conflicts with other planned improvements
- ↪ State Road No. 45 Water Main Relocation, Collier County, FL - Billy is the Engineer Intern under the Engineer of Record for the relocation of approximately 2,100 feet of water main to avoid conflicts with FDOT stormwater and sidewalk improvements along S.R. 45 (U.S. 41). Billy's role in this project was to coordinate this work with FDOT and Collier County, provide red-green-brown plans and a utility work schedule, produce construction plans, and provide quantity/construction cost estimates and technical specifications.
- ↪ Ben Hill Griffin/Alico Force Main, Potable Water Main and Reuse Main, Lee County - This project included the hydraulic analysis, design, permitting, bidding and construction phase services for a proposed force main that falls within the Three Oaks Wastewater Treatment Plant (WWTP) service area. The initial hydraulic analysis included the development of a unique approach to calibration that involved statistical analysis of the collected data. Over 14 million data points were collected and analyzed. The modeling effort led to a proposed force main design along Ben Hill Griffin Parkway and Alico Road totaling approximately 3.4 miles of 16" and 12" force main. The proposed force main will supplement the existing served parcels with extra capacity and extend along Alico Road for future connections. In addition, this project included the design and permitting for a proposed 36" Potable water Main and 12" Reuse Main for approximately 9,400 linear feet. The water and reuse mains were designed in conjunction with the Roadway Widening of Alico Road.
- ↪ Southwest 6 & 7 Utility Extension, Cape Coral, FL - Billy is the E.I. under the Engineer of Record for Areas 1 and 2 and part of the inspection team for Areas 1, 2, 9 and 10. The four areas combined entail the installation of approximately 16.2 miles of gravity sewer, 17.4 miles of water main, 18.7 miles of irrigation main, 3.7 miles of force main and replacing 2.4 miles of storm culverts. Along with the tremendous amount of pipe that is being installed, a unique feature about this project is coordination with the endangered species within the area.