

H. ELIZABETH LONG, P.E.

Civil Engineer

Liz is responsible for civil engineering design and project management. The last 11 years, Liz has been a consulting civil engineer for counties, rural water and sewer districts, communities, and individuals in southeast Missouri. Liz is responsible for all aspects of water, wastewater, and storm water projects including: inspection and analysis of existing systems; preparation of engineering reports; project justification and preliminary cost estimates; design of new systems; design of existing system upgrades, improvements and additions; preparation of project plans, specifications, and engineering cost estimates; acquisition of regulatory permits; review of project submittals; construction inspection; coordination with clients, regulators, communities, governing boards, and contractors; and client and public relations.

EDUCATION

M.S. Degree in Civil Engineering

South Dakota School of Mines & Technology, Rapid City, South Dakota. 1988.

B.S. Degree in Aeronautical Engineering

Wichita State University, Wichita, Kansas. 1982.

PROFESSIONAL REGISTRATION

Professional Engineer, Missouri.

Wastewater Operator - D

PROFESSIONAL AFFILIATIONS

Member of the National Society of Professional Engineers

Member of the Missouri Society of Professional Engineers

Member of the American Water Works Association

Member of Cape Girardeau Area Engineer's Club

REPRESENTATIVE PROJECTS

Sanitary Sewer System Improvements, Campbell, Missouri

Projects include the design and construction of a 3-cell aerated lagoon wastewater treatment facility to handle the community's periodically high hydraulic and biological loading; wastewater collection system improvements for the reduction of inflow and infiltration; upgrades to an existing wastewater pump station; sludge removal and disposal by land application; and demolition of two abandoned treatment facilities.

Sanitary Sewer System Improvements, Malden, Missouri

Projects include the design and construction of a 4-cell aerated lagoon wastewater treatment facility for the industrial park; upgrade of 5 existing wastewater collection system pumping stations; and coordination with regulatory agencies and project planning for the consolidation of all the city's wastewater treatment.

Potable Water and Sanitary Sewer System Improvements, Risco, Missouri

Projects include investigation of existing water wells and subsequent abandonment of one well and upgrade of another well; design and construction of a ground level storage tank with aeration and chlorination, construction of a high service pump station and new system controls, and investigation of the distribution system fire flow capability and distribution system improvements. Sanitary system improvements included upgrade of a 3-cell facultative lagoon, sludge removal and disposal by land application, upgrade of collection system pump station and controls, and reduction of inflow and infiltration to the collection system.

Sanitary Sewer System Improvements, Wardell, Missouri

Project includes the design and construction of a 3-zone, single cell aerated lagoon to replace a 3-cell facultative lagoon. The new lagoon was constructed within the foot print of the existing facility. During construction, facility operation had to be modified to provide adequate wastewater treatment. The project also included sludge removal and disposal by land application, upgrade of the existing pump station and force main, and reduction of inflow and infiltration to the collection system.

H. ELIZABETH LONG, P.E. CONTINUED

Civil Engineer

Dunklin County Sewer District No. 1, near Malden, Missouri

Design and construct a vacuum sewer collection system including residential vacuum pits, collection lines, vacuum/pump station, controls, and force main.

Mississippi County Public Water Supply District No. 1

Phase I: Design and construction of a rural water distribution system consisting of 200 miles of 8, 6, 4 & 3" water distribution mains to serve 680 rural residential customers. Phase II: Design of a rural water system expansion consisting of 50 miles of 4, 3 & 2" water distribution mains to serve 170 rural residential customers.

Stoddard County Common Sewer District No. 1

Worked with concerned citizens in a developed rural area west of Dexter to organized and form a Sewer District. Held meetings with citizens affected by the existing conditions and the formation of the District and governing, regulatory, and funding agencies. Work with the initial committee through forming the district by the vote of the citizens and securing fund through a bond issue, loans and grants. Provided engineering services for the District Board for treatment alternatives, intergovernmental agreements, and preliminary design.