



ELECTRICAL SYSTEM PLANNING

DESIGNED TO HELP YOUR COMMUNITY SUCCEED

“Enhancing economic development through infrastructure”

Why you should choose

SPECTRUM for

SCADA Implementation

We make SCADA implementation easy. Spectrum’s professional engineers and highly qualified technicians will integrate our patented UMS® SCADA / Smart Grid solution with your existing power system or install it as a stand-alone, depending on your needs.

Once we complete the installation and commissioning, our lead engineer will provide thorough system instruction. This will enable your staff to maintain the entire system, if you choose to do so. We understand, of course, that every customer has different needs and capabilities. Thus, we offer a maintenance contract whereby we’ll perform the maintenance necessary to keep your system trouble-free.


Our complete SCADA implementation services include:

- Customized UMS® SCADA / Smart Grid power solutions
- Relay and protection design and implementation
- Transmission/ distribution automation
- AMR/AMI implementation
- Load shedding / outage mitigation
- Wastewater projects
- Electronic billing system integration
- Full testing of each system before deployment
- Complete system training



Contact Rod Sibery | Phone: 260-627-8888 | RSibery@SpectrumEng.com

5524 North County Line Road | Auburn, IN 46706 | www.SpectrumEng.com

Customer Name	City of Whiting Equalization Basin CITY OF WHITING, IN		
	<u>CIVIL ENGINEER PARTNER</u> Randy Lindley, P.E. (574) 234-3167 rlindley@lawson-fisher.com		<u>CLIENT REFERENCE</u> Paul Tumo, Superintendent (219) 659-0407 Ptumo@juno.com
Customer Type	Civil Engineer partner, Lawson-Fisher Associates P.C., South Bend, IN		
Contract Start/Finish	February, 2009—December, 2011		
Project Size	•Electrical Upgrades—\$140K+		
Scope	•Design of Overall Electrical System •Design of Instrumentation and Controls as well as SCADA Design/Review •Generator—ATS System Review & Sizing •Design Review of Variable Frequency Drives		
Role	•Lead Electrical Design •Project Management Support		
Project Stage	Complete		

Originally constructed in the early 1970s, the Equalization Basin is a key component of the City of Whiting’s combined sewer collection system, helping protect the community from major sewer backups and flooding events.

Spectrum Engineering provided the electrical troubleshooting and design for the rehabilitation project for the Basin. The same quality of workmanship and material which went into the original design was duplicated during the upgrade while incorporating the latest technology.

The project had four major phases:

- **Electrical Troubleshooting and Recommendations:** The existing Generator System was inspected, and the drawing documentation was reviewed. The sequence of operation and the generator loading sequence was reviewed with the operators. These sequences were run through with the operators during the normal weekly generator test and recommendations were provided as necessary.
- **Electrical Design—Combined Pumps 3 and 4 and Return Pump:** Reviewed the settings of the existing Motor Control Center. Developed details of installation of the new Motor Control Center and

developed complete conduit and wire schedules, MCC, VFD, and other associated electrical component drawings, cost estimates and specifications required to feed the new combined sewage and return pumps.

- **Design of Overall Electrical System Upgrade:** Reviewed overall system requirements and had generators sized properly for current and future growth potential. Write generator specification and cost estimate and submit to Lawson-Fisher. Determine placement of generator and new transfer switch and develop plan and profile drawings required for installation. Reviewed overall current and projected requirements and wrote complete switchgear specification. Developed plan and profile drawings required to install switchgear, ground plan, and foundation plan. Developed complete bill of material and determine the breaker sizes and settings required. Reviewed the existing breaker settings for combined sewage pumps 1 and 2. Developed details of installation of the new electrical equipment.
- **Design of Instrumentation and Controls:** Prepared complete functional plans, specification and cost estimate. Prepared complete plans and specifications for the installation of the instrumentation and control wiring.



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