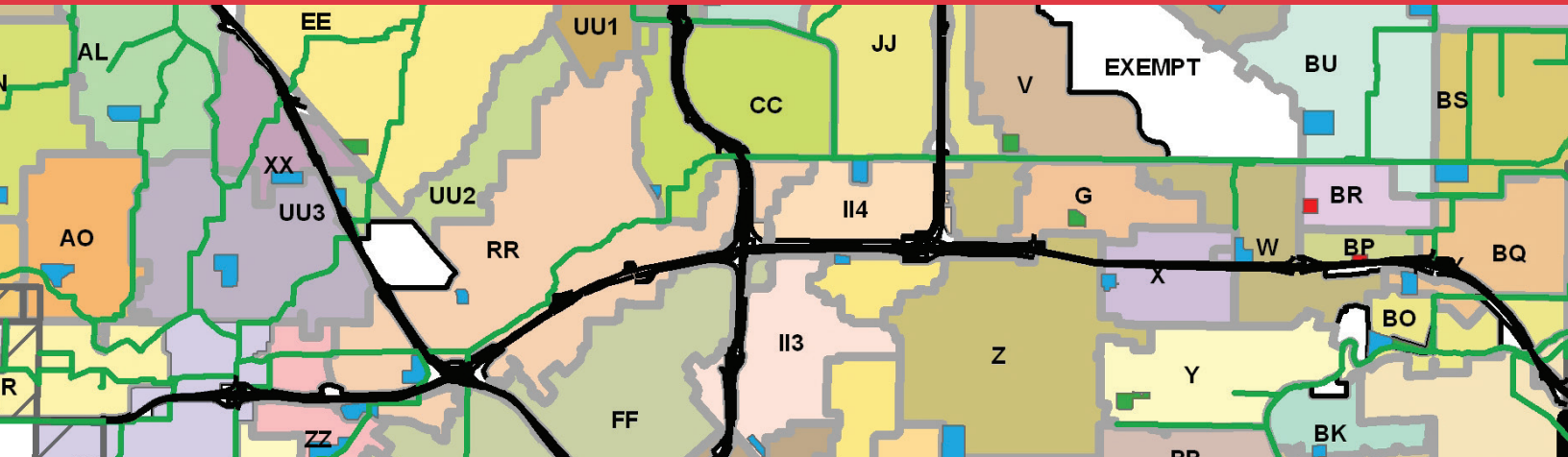




“Accuracy, Efficiency, Automation – It’s at the Core!”

SCADA System Analysis



PROJECT DETAILS

Project Name

SCADA System Analysis

Location

Sacramento, CA

Project Type

SCADA Master Plan

Installation

Retrofit & New

Equipment Installed

N/A

Network

N/A

Total System Points

N/A

PROJECT DESCRIPTION

Critical to developing an effective SCADA master plan is a design informed by direct and personal knowledge of the existing. Having provided electrical and control maintenance, engineering, and development services at the client’s site for three years, Core was well-positioned to direct the evolution of the site’s control plan. The deliverable, a SCADA Master Plan, required multiple iterations and the involvement of client personnel to assure a complete and robust document. Core undertook an in-depth, fresh understanding of the current system requirements while reviewing future SCADA security features, accessibility, network data transmission, network protocols, storage, management processes, and data access.

These findings were evaluated against Core’s research into current industry practices with regards to robust SCADA systems, identifying expansion requirements for the facility, as well as any systemic deficiencies. A gap analysis was performed to identify disconnects between both existing and future requirements, including hardware, instrumentation, and software components. These results were paired with new best practices for the communication infrastructure, creating a plan for updating hardware like PLC/HMI components, VFDs, transmitters and meters, as well as software and UPS systems. Lastly, a new security model for personnel accessing the system was designed after thorough interviews with stakeholders.

Core worked closely with client personnel after the first phase of fact-finding to determine which recommendations and approaches were desirable. Core utilized this prioritization to develop a list of approaches to the existing system including the pros and cons for each entity. Capping all of this was a formal presentation to educate the client on the system requirements, possibilities for system improvements, and potential changes to the operation.

Core finally generated a technical specification for the new/upgraded system, modifying the existing design documents and drawing package to reflect the desired changes identified in the first-phase effort, as well as developing a change control procedure for future changes to the SCADA system.