

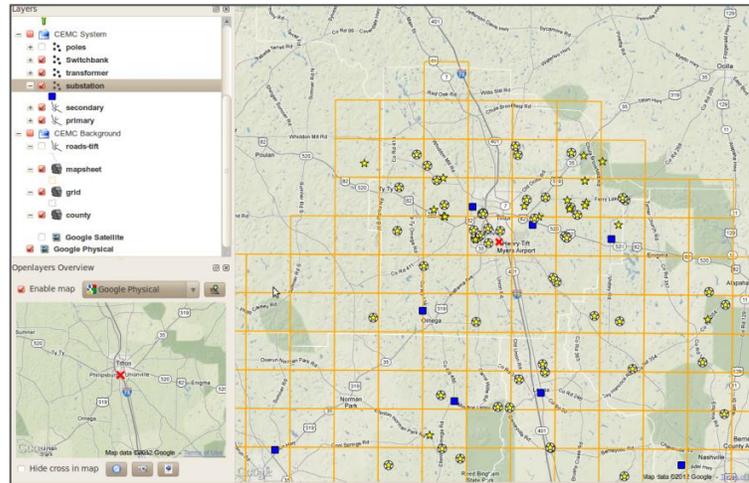


**MCLEAN  
ENGINEERING**  
Power Engineers Since 1936

## McLean Engineering's Custom Padmount Inspection Creates Greater Efficiency and Fewer Headaches

### The Situation:

Colquitt Electric Membership Corporation, a not-for-profit, consumer-owned electric distribution cooperative serving more than 42,500 members in southern Georgia, retained McLean Engineering to create a custom inspection process for its padmount transformers throughout the co-op's service territory. Colquitt EMC, one of McLean Engineering's original clients which also celebrated its 75<sup>th</sup> anniversary in 2011, was looking for a cost-effective, ongoing inspection program to help track inspection data and provide easy access to the required documentation.



### The Solution:

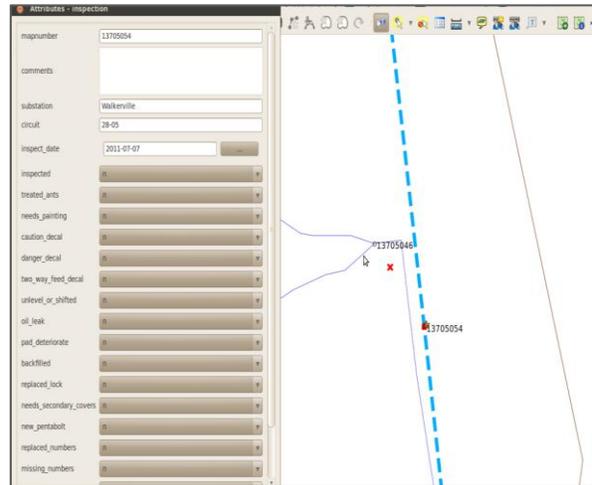
Staying on top of inspections and the required documentation can be cumbersome. For most utilities it does not require constant attention, but if maintained on an ad hoc basis inspections can fall behind and create legal or regulatory trouble. The goal with Colquitt EMC was to create a reliable solution based on the following principles:

- Safety focused
- Cost effective
- Field user friendly
- Easily integrated with existing software tools used by the client

McLean Engineering's solution combines the inspectors' field experience, client requests for inspection content data extracted from existing software, and flexible open-source mapping software. It includes:

- Inspection forms personalized to Colquitt EMC's needs
- Inspection records linked to Colquitt's existing map data
- GPS integration for locating each piece of inspected equipment

The combination of open-source GIS software and commodity GPS receivers makes the solution highly cost effective and easy to maintain. It allows McLean Engineering to create a virtual map of every item to be inspected on Colquitt EMC's system and to incorporate related data as needed from the client's mapping database. With real-time mapping, field engineers can efficiently track inspected and uninspected distribution equipment. Current revisions of the inspection software allow for real-time tracking of the inspection project progress from the client's office or even mobile devices. McLean Engineering's inspection software is light enough to run on tablet PCs or other mobile devices, and its flexibility allows for increasing the amount of incorporated system data to accommodate larger systems or more specific client needs.



### **The Status:**

As of January 2012, McLean Engineering has inspected 1382 padmount transformers for Colquitt EMC. The submitted inspection records were immediately incorporated into the client's mapping database. In addition to documentation required for compliance with RUS and other governing agencies, the inspection records provide detailed information about the inspected equipment. Charlie Tucker, Manager of Engineering at Colquitt EMC said, "McLean Engineering has been a great partner for our inspection needs. A thorough and detailed systematic approach with affordability and efficiency are criteria for anyone shopping for inspections, but painless integration with existing map data makes an otherwise good partnership a great one."

### **About McLean Engineering**

McLean Engineering provides design, engineering, inspection and energy services to electric utilities. Established in 1936, McLean Engineering recently celebrated 75 years of experience in the power engineering field, serving clients from Texas over to the Florida Keys and up to North Carolina. For more information: [www.mcleanengineering.com](http://www.mcleanengineering.com) or (229) 985-1148.

### **About Colquitt EMC**

As a not-for-profit consumer-owned electric distribution system, Colquitt Electric Membership Corporation strives to keep costs as low as possible now and in the future. In fact, Colquitt EMC's rates are among the lowest in the state of Georgia. Colquitt EMC offers the services of approximately 162 employees to meet the electric energy needs of more than 42,500 members in Berrien, Brooks, Colquitt, Cook, Lowndes, Tift and Worth counties, with approximately 62,800 meters and over 8,200 miles of distribution lines.