



# TROY & BANKS

*Utility and Telecommunication Consultants*

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## **Case Study: Macon-Bibb, Georgia Roadway Street Light Inventory**

In February 2016, Troy & Banks (T&B) engaged with an international lighting company that retained T&B's services to conduct a GPS driven street light audit for the City-County of Macon-Bibb, GA. The city proper owns approximately 3,000 lights but had very little information on the condition of the lights and poles. In addition, there was a question as to whether Macon-Bibb or Georgia Power owned the lights in certain areas of the city. Troy & Banks' audit comprehensively covered the city and identified approximately 15 different light/pole attributes at every pole location, created sub-meter accuracy of GPS X, Y coordinates for each pole and light, brought clarity to the light ownership questions and prepared the lighting company and the city with the information needed for a comprehensive LED retrofit project.

Troy & Banks' GPS lighting study was the foundational body of information needed for the next stage of research and planning. The final deliverable included an excel database of all lights and pole attributes and the GPS X, Y coordinates. All of the information was time and date stamped. In addition, an Esri File Geodatabase which includes all street light attribute fields with applicable drop-down domains was created that identifies the locations of all lights that were audited.

Troy & Banks' GIS coordinator set up, hosted and managed the field GPS data collection. Two smart devices were deployed in the field with Trimble's TerraFlex mobile data collection applications. To augment the smart device's internal GPS for collecting sub-meter GPS data, T&B utilized Trimble's R1 GNSS Receivers for both smart devices. Street light inventory data fields were equipped with pick list options where applicable in order to increase data collection efficiency and consistency. The data was collected daily in the field and within minutes was available in the collection system.

Our work was completed on-time and within budget and to the satisfaction of all parties involved. The "in-the-field" knowledge developed during the project has allowed T&B to offer continued support to the project deliverables throughout the current LED retrofit.

Since 1994, Troy & Banks has saved its clients over \$500 million in utility and telecommunication costs. Headquartered in Buffalo, New York, Troy & Banks serves clients nationwide with representatives in several states.

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