

Case Study:

Base Layer Creation Allows for
Enterprise-Wide GIS Adoption
City of Hoover, Alabama

Geographic
Technologies
Group

*Understanding
Local Government*

Base Layer Creation Allows for Enterprise-Wide GIS Adoption

City of Hoover, Alabama

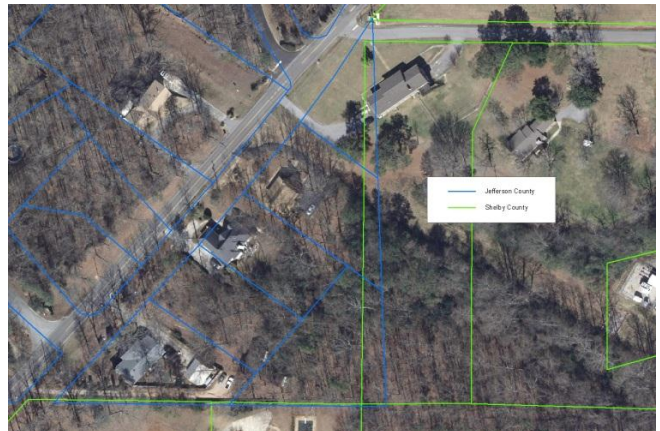


Incorporated in 1967, the City of Hoover, Alabama is located in Jefferson and Shelby Counties in north central Alabama. With a population of approximately 82,000, Hoover's neighborhoods and planned communities are located along the foothills of the Appalachian Mountains. Hoover is home to the Riverchase Galleria, one of the largest shopping centers in the Southeast and one of the largest mixed-use centers in the U.S.



Parcels Mapped Incorrectly

The City of Hoover, Alabama has been utilizing GIS for a number of years. However, enterprise-wide adoption of the technology was only a dream. Since the City straddled the border of two counties, they were reliant on tax parcel data from both Jefferson and Shelby Counties. Unfortunately, the data was not consistent in accuracy between the two counties. Due to financial troubles one of the counties was unable to accurately map and maintain their parcel layer. Upon acquisition of new aerial photography it was apparent that the parcel data was positionally inaccurate and incomplete. Additionally, the street centerline layer was inaccurate and incomplete. This limited the effectiveness of GIS. Any attempt to move GIS to the enterprise was impossible as the data accuracy was insufficient for the needs of the City.



Parcels Mismatch at the County Boundaries

The City realized that they really needed GIS. Each of their departments had expressed the need for GIS. Finance Director, Robert Yeager, stated that: "The City of Hoover is in dire need of GIS technology. We need it to understand the assets we manage, to protect our community, and for better decision making." Therefore, the City hired Geographic Technologies Group (GTG) to create a three year Strategic GIS Plan. "We knew we wanted to get to a fully functional GIS but we had no idea how to get from point A to point B. We had made significant investments in a variety of IT systems and we knew GIS should be the window into these systems. We hired GTG because they know how to implement GIS for local government. They understood how to integrate with our current IT investments and had an understandable and systematic road map that would allow us to be successful", stated Yeager.

The strategic plan identified the need to create and/or update critical base layers to include: parcels, street centerlines, and address points. The City contracted with GTG to do the data creation and cleanup. Melinda James Lopez, Budget and Financial Manager, pointed out that, "GTG was very knowledgeable on all aspects of GIS implementation. They understood in detail what needed to be done for successful implementation. Their work with similar clients throughout the United States gave us the confidence we needed for this high profile project." GTG utilized a combination of techniques to correct and verify the parcel data from both Shelby and Jefferson Counties. Source documents along with visual adjustment with aerial photography were utilized to align and verify 100% of the City parcels. The corrected parcels were then used to correct and complete the street centerline layer. This was important because the City intended on utilizing the GIS for routing and address location purposes. Additionally, GTG created an address point layer depicting every individual address in the City to include apartments, businesses, and individual residences. "We have been able to utilize the data created by GTG in numerous financial studies. We have been able to now locate and cross reference all of our property taxes, fire dues, and other data which has given us the tools to recover potential missing revenue" states Lopez.



Parcels Before and After Alignment

Since the creation of these key data layers, over 50 additional layers have been created and GIS has now been adopted enterprise-wide. GeoBlade Viewer is utilized to view and analyze the GIS data. Also, data from the existing IT investments is address matched to the new GIS layers yielding new GIS layers such as building permits, work orders, crime locations, occupational licenses, and geo-linked scanned images. Each department now has its own configuration of the GeoBlade allowing them to quickly analyze data, do analysis, and create reports. The City of Hoover has gone from very little GIS to enterprise-wide GIS over a three year period. The creation of accurate base layers were the building blocks that allowed enterprise-wide GIS to become a reality.



Street Centerline Misalignment and Adjustment



Address Points were Created for Every Structure

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