Field Verification of Situs Addresses
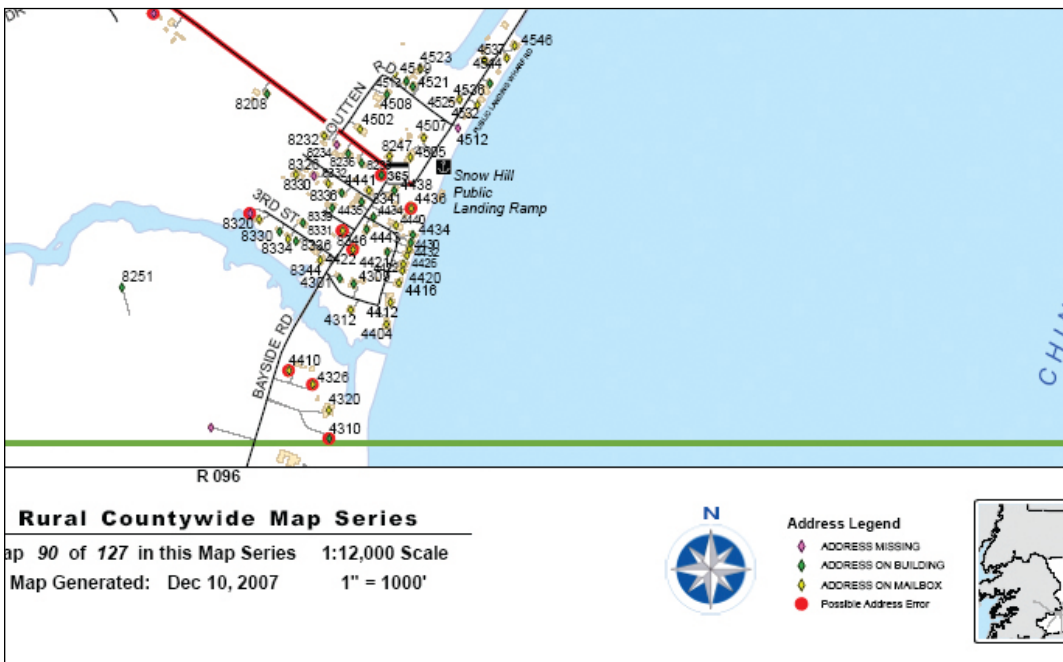
SPATIAL SYSTEMS ASSOCIATES, INC.

Many local governments have more than one address database in use, because of the way different agencies developed their own sets of requirements. Even within a single address database it is not uncommon to find conflicting data on street names and types, because these data sets have been created over time, using systems that did not have the ability to enforce error checking at the time of data creation.

Compounding these problems is the fact that one of the most critical address databases developed for emergency responder use — the Master Street Address Guide (MSAG) has usually been developed by telephone companies, based on their subscriber addresses, which may contain errors for similar reasons.

All of the above factors have created a demand for a single correct address database for use by government agencies. Once established, this single database can be maintained by a defined custodian and shared with other users, eliminating the problems inherent in the current situation.

Worcester County, MD map, showing possible address errors.

Rural Countywide Map Series

Map 90 of 127 in this Map Series   1:12,000 Scale

Map Generated: Dec 10, 2007   1" = 1000'

N

Address Legend
- ADDRESS MISSING
- ADDRESS ON BUILDING
- ADDRESS ON MAILBOX
- Possible Address Error

SSA, Inc.

Real World Location of Addresses

Advances in Geographic Information Systems (GIS) and associated global positioning system (GPS) database technologies have made it possible to compare the many different datasets in use and, when combined with field verification of the data, to compile the correct real world location of addresses.

There is no substitute for field verification to ensure that an address database reflects real world conditions. Spatial Systems Associates, Inc. (SSA) has developed an approach to field verification that has been successfully applied to field verify over 300,000 situs addresses. This approach has resulted in accurate data development in areas as diverse as rural low population density jurisdictions, such as Somerset County, MD and Allegheny County (Pittsburgh) PA.

SSA's approach to successful project completion combines:

- Thorough data preparation to provide field teams with starting data for verification.
- Careful mission planning and coordination to take local traffic and community concerns into account.
- An effective communications program to ensure that citizens are aware of the nature and importance of the work being carried out.
- Use of the latest GPS, camera and laser rangefinder technology to ensure data capture accuracy (ground level structure photography has proven very useful for many of our clients).
- Training of collection team members in safe collection practices and data collection methodology.
- A qualitative review of the data observed in the field and effective in-office quality control measures.
- Our fifteen years of experience as an ESRI business partner to design the geodatabase to meet our client's needs.
- Training of agency staff to maintain the data once created.

Accurate Road Centerline

The address database is only one part of the challenge facing responders; they also need an accurate road centerline for use in their Computer Aided Dispatch (CAD) systems. Road geometry can be collected by GPS tracking during the field verification process if desired, or extracted from recent orthophotography. In addition, the field verified addresses are used to correct road

Before Centerline Correction

After Centerline Correction
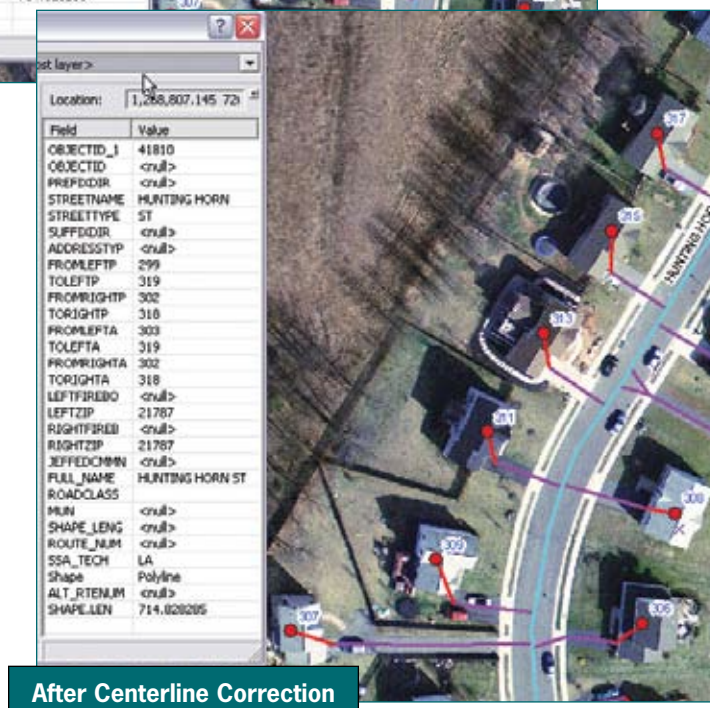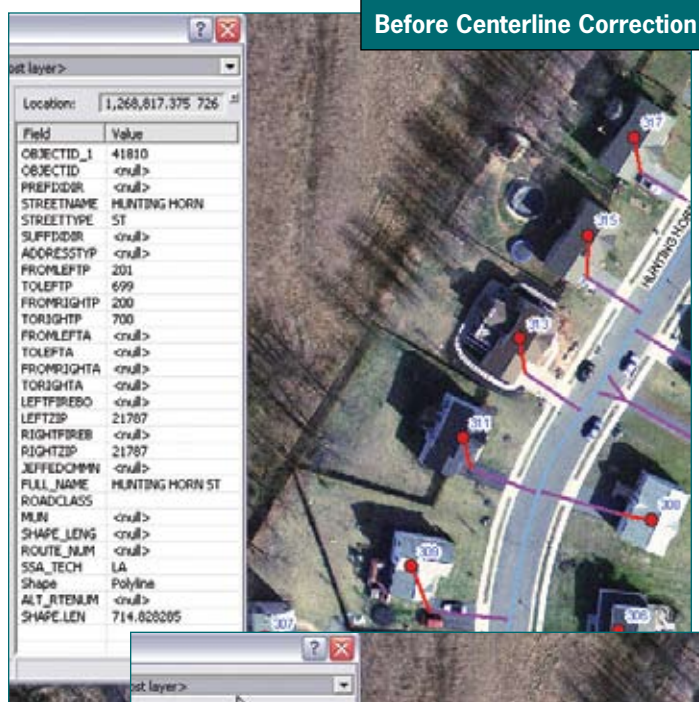
centerline attributes that may reflect the older, incorrect data. While in the field carrying out address verification, SSA's crews also verify that road sign names reflect the names in the database — it is not uncommon to find different spellings in the field or even missing signs and undocumented street names. All of these situations are reported to our clients for action.