



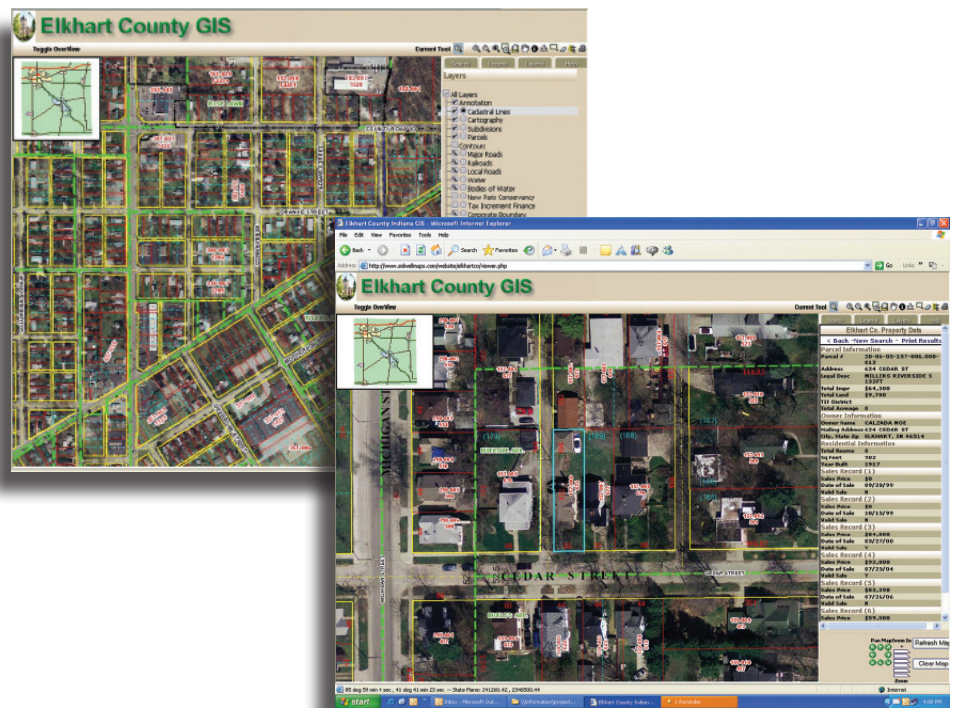
Project Profile

data accessibility

streamlined workflows

cartographic quality GIS data

The Sidwell Company *and* Elkhart County, Indiana



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Project Profile

GIS Improves Parcel Maintenance Productivity for Elkhart County, Indiana



Introduction

Elkhart County, located in north central Indiana is comprised of three thriving cities and four unique towns. The county has 16 townships, 84,000 parcels, a land area totaling 464 square miles and a population of more than 198,000. The county is home to many successful recreational vehicle, manufacturing, and high-tech businesses, and actively supports new business development. In 2000, Elkhart

County seized the opportunity to develop a GIS project using an ESRI software platform with data stored in coverage format. The project included new aerial photographic surveys, orthophotography, countywide two-foot contour topographic mapping, and cadastral data conversion.

The Challenge

The integration of GIS into the county's cadastral workflow required frequent maintenance of parcel data in relation to new subdivisions, parcel splits, and parcel combinations. With on-going development growth, county staff found performing parcel database maintenance for a rapidly developing area to be time consuming. Within two years, GIS parcel maintenance had fallen behind and the county had a mounting backlog.

"Elkhart County had a data model that was outdated and overburdened with unnecessary fields making it difficult for us to maintain parcel data," explains Mary Cripe, Elkhart County GIS Technician. "The maintenance workflow was cumbersome and just didn't work."

With a parcel maintenance backlog the county was unable to provide current data to its internal GIS users and its public. The search began for options that would improve parcel maintenance productivity and service to county GIS users and the citizens within Elkhart County.

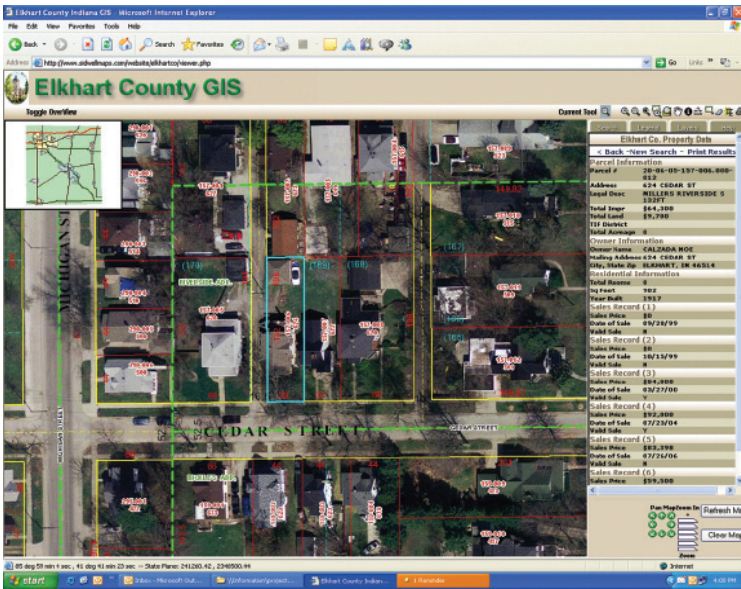
The Solution

After extensive research, Elkhart County determined that the best solution to improve its GIS parcel maintenance backlog was to advance its use of ArcGIS technology. Sidwell, an Illinois-based GIS and mapping service provider, migrated the County's GIS data from coverage format to an enterprise geodatabase. Sidwell also implemented a tagged data model using its ArcGIS-supported Parcel Builder software. Within a tagged data model, cadastral geometry is stored as line features where one line can be tagged with multiple



identities, such as road right-of-way, parcel line, lot line, and subdivision line. This data model mimics the real world because map features are often coincident.

current map data such as aeriels, parcels, roads, water features, contours, tax increment financing (TIF) districts, and political townships. Searchable topics include parcel number, parcel address, or subdivision name. Advanced searches by sale price range and/or sale date range are also supported and can return tax records that fit these criteria. This public access GIS Web site is Elkhart County's first phase in a plan to develop more detailed sites for internal and public use.



Search criteria within Elkhart County's GIS include parcel number, parcel address, and subdivision name.

The Results

Moving to an enterprise GIS has allowed Elkhart County to capitalize on its GIS data and boost its service to public and county employee users. Current map data is available to GIS users through the county's efficient parcel map maintenance process. GIS parcel maintenance workflows have been streamlined and productivity is increased. Within three months of receiving ArcGIS and Parcel Builder training and instruction, county staff erased its parcel maintenance backlog.

"ArcGIS and Parcel Builder have given us the advantage of accurate GIS data analysis and cartographic quality GIS maps. Our parcel maintenance problems have been solved, our GIS parcel data is now up to date, and we're still discovering the added advantages of using ArcGIS and Parcel Builder."

- Dave Hess, Auditor
Elkhart County, Indiana

To satisfy County-wide demands for GIS data, Parcel Builder's MapPlotter module was implemented to produce standard format maps with high cartographic quality. The maps are viewable on an Elkhart County intranet Web site, which uses ArcIMS as its online mapping application. To better serve the public, the county also upgraded its existing public access GIS Web site with new information, rapid response, and easy-to-use tools. The ArcIMS-supported public Web site delivers

As a result, the GIS Web site is serving the public, property appraisers, and others in the real estate community and the county is seeing less traffic in the Auditor's office. County staff can now easily fulfill requests for custom plotted maps with the implementation of Parcel Builder-MapPlotter. With its progressive use of technology and software, Elkhart County has streamlined its parcel maintenance workflow and successfully deployed a GIS that benefits its employees and citizens.

Parcel 
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Elkhart County Project Summary

CHALLENGE

Improve parcel maintenance productivity and service to county GIS users and citizens

RESULTS

- Backlog of parcel maintenance erased
- GIS Web site makes map data available to public
- County can quickly produce custom plotted maps

ESRI SOFTWARE USED

ArcGIS Desktop
ArcReader
ArcGIS Server Standard for Workgroups

OTHER SOFTWARE USED

Parcel Builder
Microsoft SQL Express

DATA USED

Image files, including: Deed Records; Subdivision Plats; Surveys;
Orthophotography
CAD files used for Subdivision Plat submissions
Parcel Data
Reference data from external sources (e.g., soil type, wetland areas, flood hazard areas)

HARDWARE

Dell Precision Workstations
Microsoft Windows XP Professional
Single-core Intel Xeon Processors (3.00 GHz)
HP ProLiant DL 380 G5 Server
Microsoft Windows Server 2003 Dual-core Intel Xeon Processors 5160 (3.00 GHz)

About Sidwell:

Sidwell is the leading provider of GIS technology and related mapping services for local business and government needs. Sidwell's mission is to create and deliver outstanding products and provide excellent services to our clients, while developing close, trusting, and enduring professional relationships with them. Among the comprehensive products and services offered by the company are GIS planning, design and implementation; data conversion and cadastral database development; aerial photography; software development; photogrammetric services including topographic, planimetric and digital orthophoto mapping; training; technical support services; and web hosting for GIS data. Sidwell is an Authorized ESRI Business Partner, developer, reseller, and consultant, and is also an Authorized dealer of Magellan navigational equipment.



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