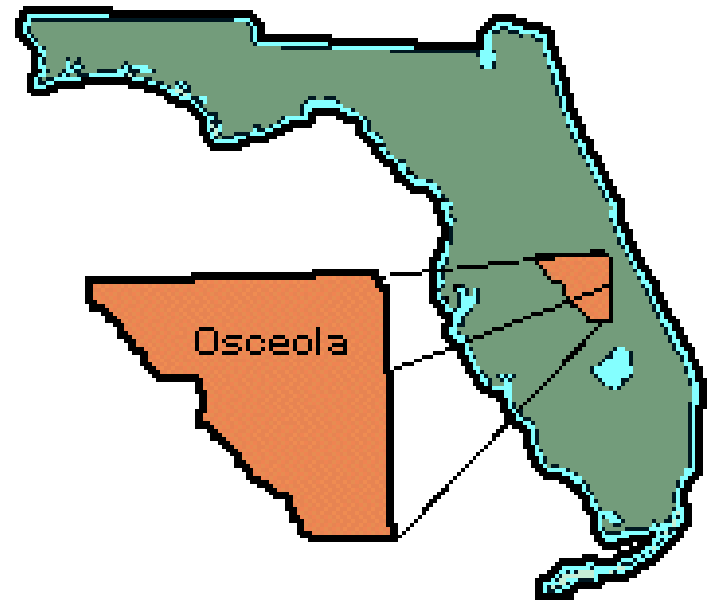


Osceola County Property Appraiser GIS Modernization: *An Enterprise Implementation*



Osceola County



Osceola County

- * Where We Were:
 - * History of Osceola Co PA Parcel Mapping
 - * Vision For The Future
 - * Project Goals
 - * Planning & Considerations



Osceola County

- * Where We Went:
 - * ESRI Platform
 - * Parcel Fabric
 - * LGIM
 - * AGOL
 - * Challenges Getting There

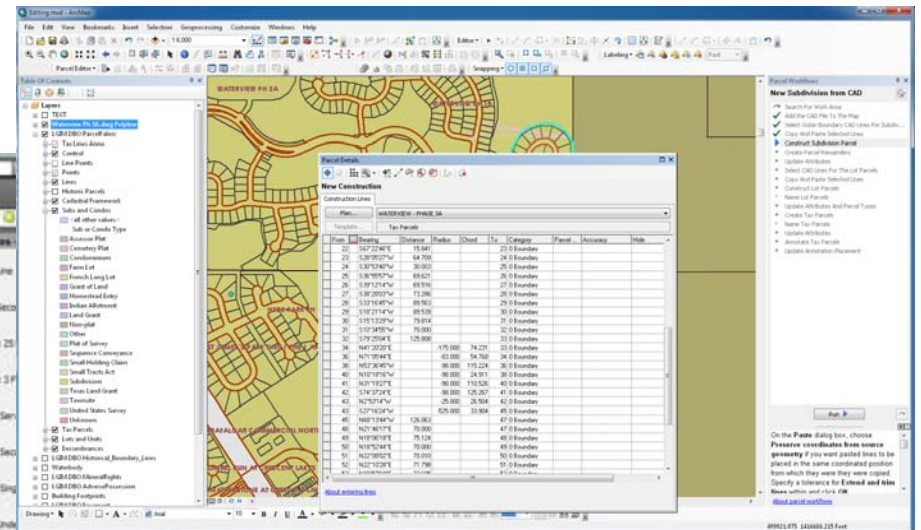
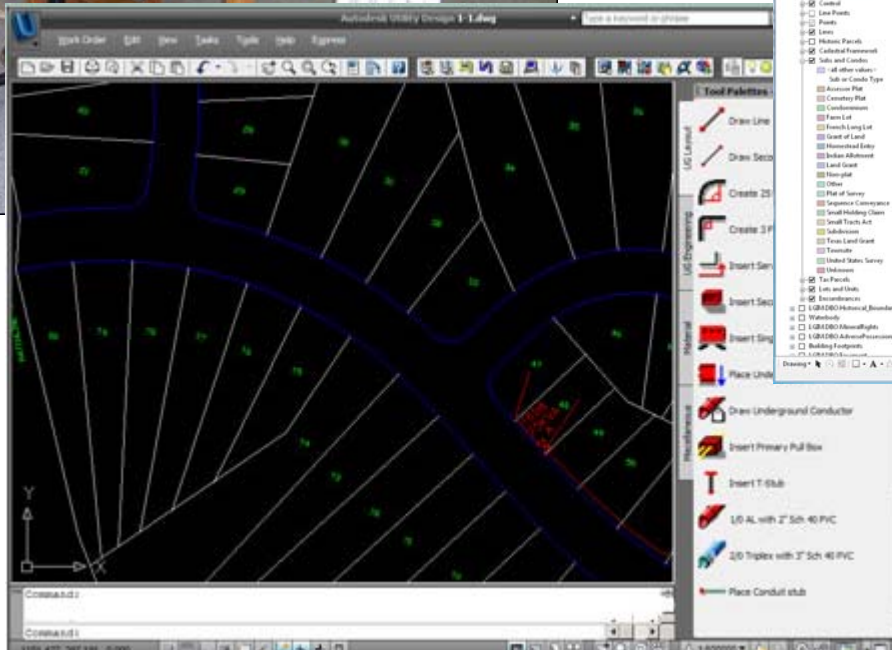


Osceola County

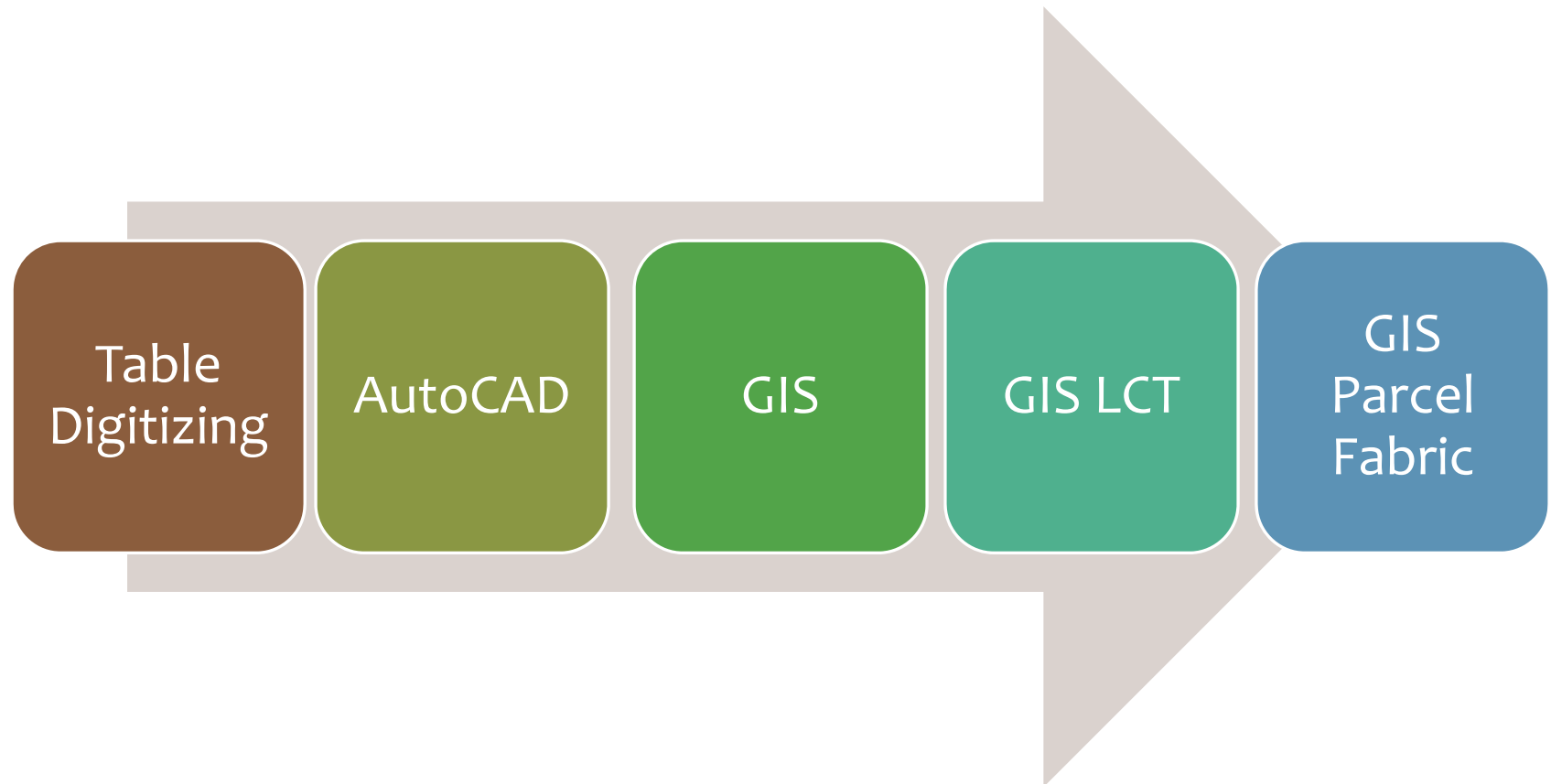
- * ROI & Benefits
 - * Long Term & Short Term
 - * Efficiencies
 - * Accuracy
 - * Flexibility
 - * Public Access
 - * Geo-Enablement



History of Parcel Mapping in OCPA



History of Parcel Mapping in OCPA



Vision For the Future

- * Modernize GIS & Office
- * Embrace Technology
- * Leading Edge
- * Where the Industry is going



Osceola County

Leadership, Vision, & Faith



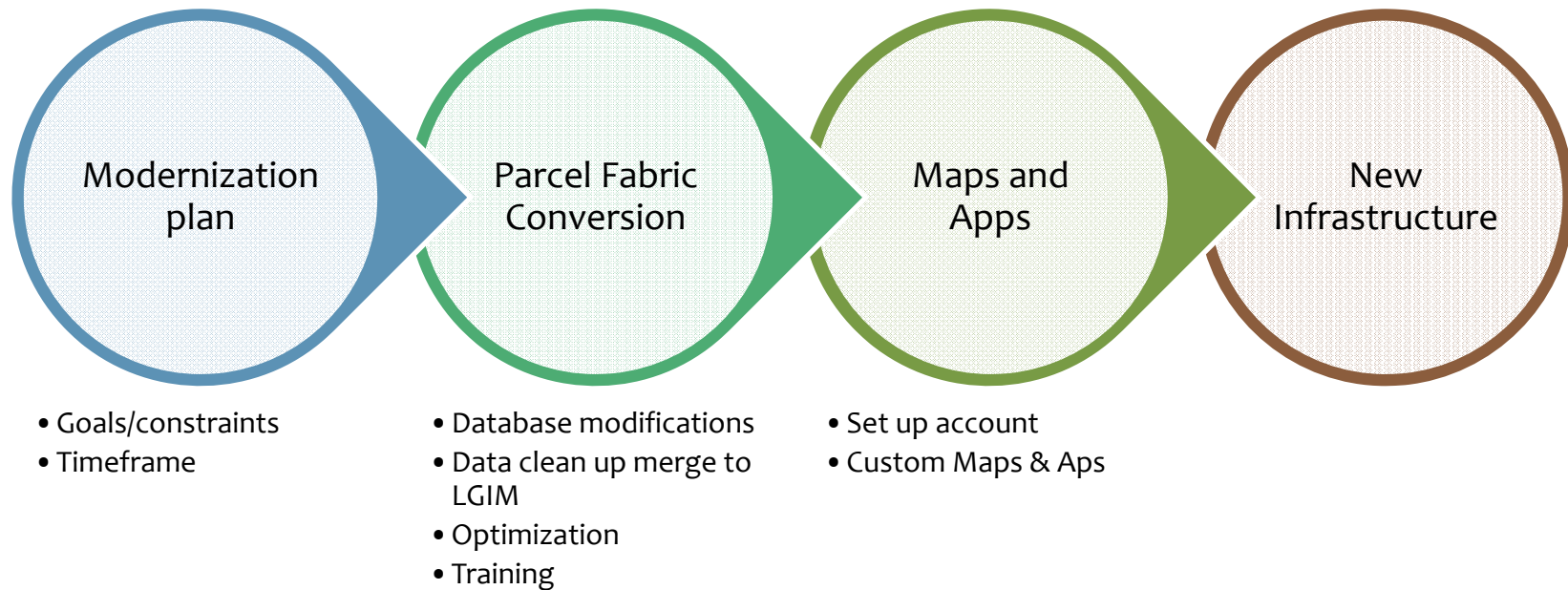
Project Goals

- * Allow for more staff in house to take on creating Maps & specialized applications
- * Integrate additional county datasets
- * Efficient maintenance/parcel editing
- * Comply with industry standards and best practices
- * Migrate from Departmental to Enterprise – More people can take advantage
- * Reduce Costs (COTS vs Customized)
- * Serve the Public Even Better

Planning & Considerations

- * Hardware and software needed
- * Integration with CAMA data
- * Integration with other agency data
- * Maintenance/efficiency of Parcel editing
- * Training
- * Additional app and Web sites
- * Minimizing downtime

Planning & Consideration



Osceola County

- * Esri Platform
- * What is it?
 - * Web GIS
 - * Access & Collaboration
 - * Where is it going
 - * Marketplace
 - * COTS
 - * Non-legacy



Osceola County

- * Components

- * LGIM

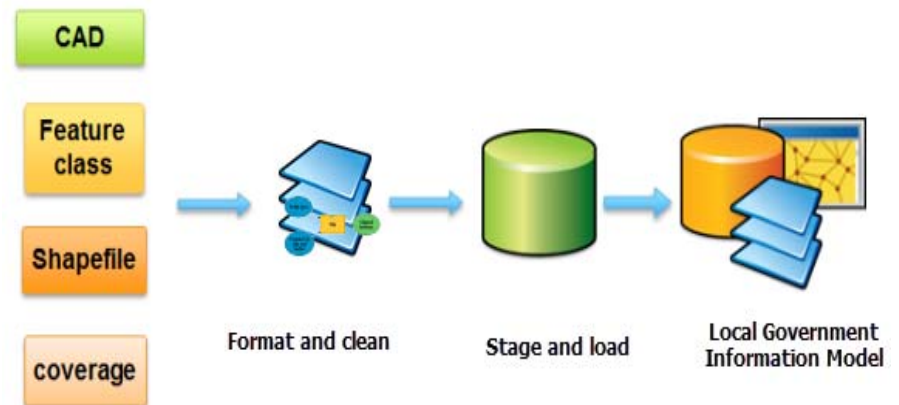
- * Parcel Fabric

- * AGOL Maps & Apps



LGIM

- * Harmonized Information Model of GIS Datasets
- * Integrates Processes Across Typical Gov't Departments
- * Connecting Silos of Information
- * Ready to Use Maps and Apps
 - * Local Government Basemaps
 - * Elections Maps & Apps
 - * Infrastructure Maps & Apps
 - * Land Records Maps & Apps
 - * LGIM Database Adds Benefits of Various County Data in One Place
 - * Houses Parcel Fabric Dataset



LGIM



- District Data

- Parcel Data (Parcel Fabric)

- Centerlines

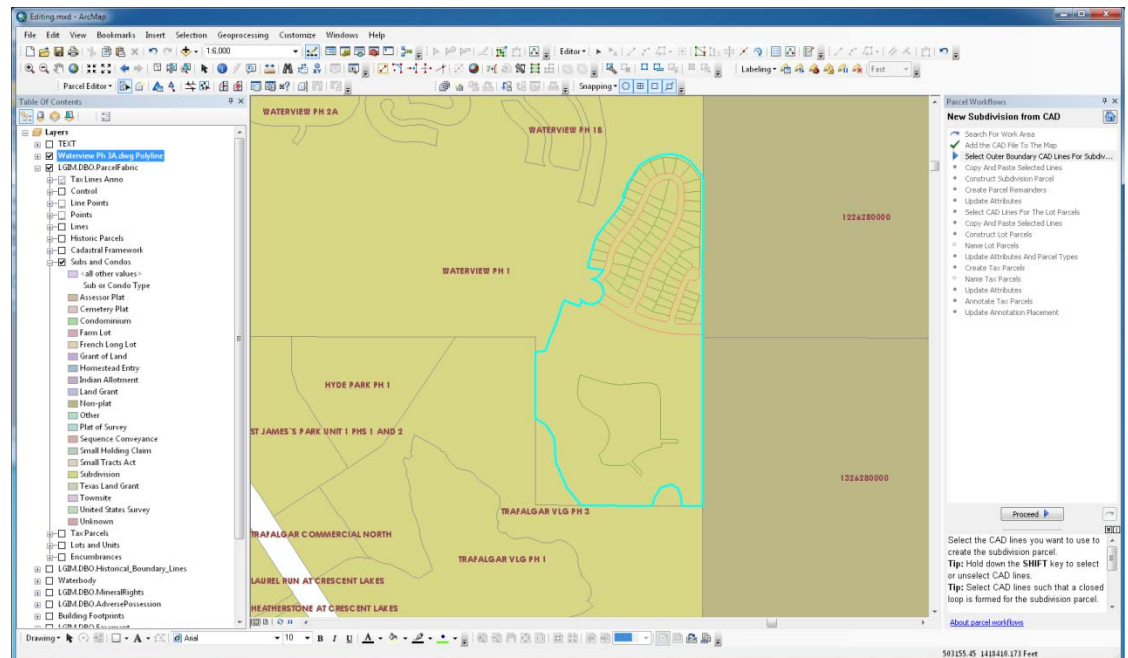
- Zoning

- Flood Zones

- Wetlands

Parcel Fabric

- * Parcel Fabric Data Model
 - * Geospatially Integrated Data Model
 - * Manages Topological & Spatial Relationships Inherent in Cadastral data.
 - * Makes Land Records Information Easier to Share, Edit, and Track Throughout an Organization



Challenges

- * Fairly Significant Learning Curve
 - * Osceola Had DOR Deadlines Impending
 - * Had to Learn New Way of Bringing In Subdivisions
 - * Significant Amount of Subdivisions to Bring In the System Before Deadline
- * Data Challenges
 - * Discovered Broken Arcs
 - * Large ROWs



Benefits

- * Efficiency –
 - * Plans Table stores important survey and legal details for easy reference and elimination of duplication.
 - * Historic Parcels provide boundary history starting from time after conversion.
 - * Dimensions can be created from line attributes that are manually entered.
 - * COGO bearing and distances are saved for each line associated to a feature.
 - * Built-in Workflows

Benefits

- * Accuracy –
 - * Control Points Are Used to Spatially Adjust/Improve Data Accuracy.
 - * Features Are Connected at Points Thus Preventing Gaps/Overlaps as Long as Best Practices are Followed.
 - * Adjustments Are Made Using Least Squares Approach.

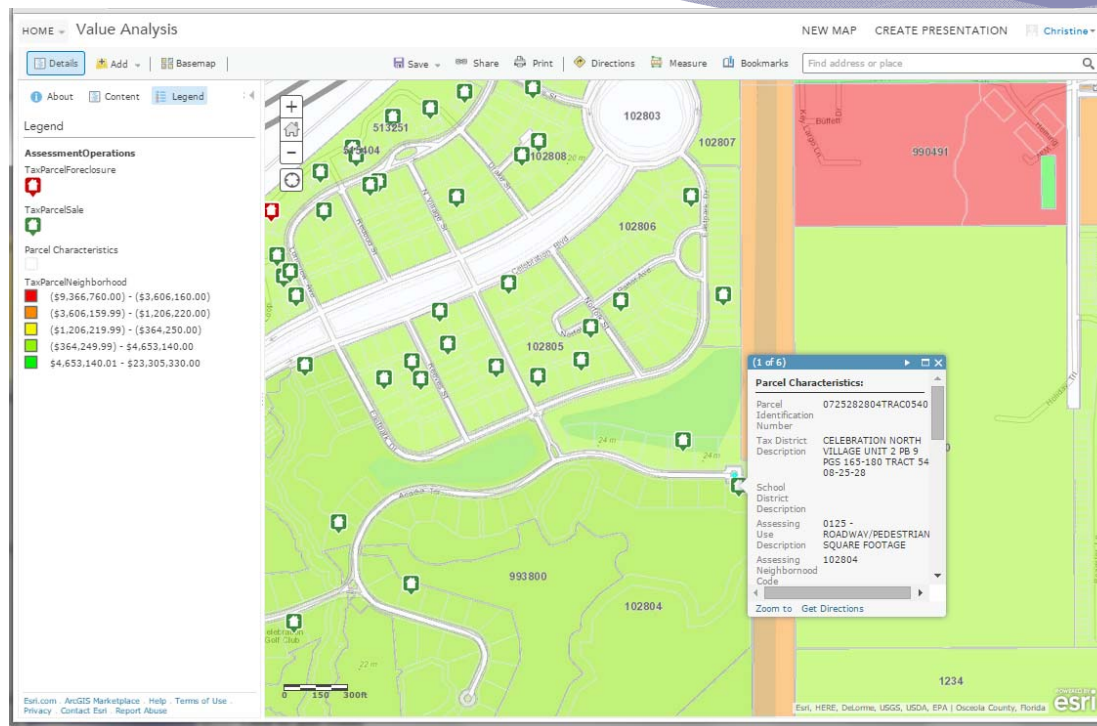
Benefits

- * Flexibility –
 - * Schema is configurable and can be modified using standard geodatabase design.
 - * Schema can be expanded to support features not included in the Local Government Information Model (LGIM).

AGOL

- * Collaborative Web GIS
- * Create, Use, Organize, and Share Maps & Apps
 - * Device Independent
 - * Free Templates
 - * Configurable

Value Analysis Dashboard





- * Used by assessors to visualize the impact of sales, foreclosures, and assessment appeals on property value in a neighborhood or tax district

AGOL

[Home](#) [Gallery](#) [Map](#) [Scene](#) [Groups](#)

 [Sign In](#)



 **Osceola Co. Property Appraiser**
Katrina S. Scarborough, CFA, CCF, MCF

Map
Commission Districts

Application
Historical Sites in Osceola County

FINANCIAL INSTITUTION SALES

2015 FCIAAO CONFERENCE POINTS OF INTEREST

Welcome to the Osceola County Property Appraiser's GIS Department Maps and Application Portal! This county portal contains window links to various listings of interactive mapping applications.

Public Map Gallery



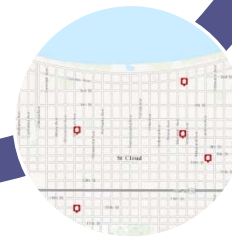
Commission Districts Map



Parcel Sales App



Wetlands App



Foreclosures App

Online Maps & Apps



AGOL

Live Look At Osceola's AGOL Maps &
Apps

Keys To Success

- * Collaboration
 - * Regularly Scheduled Meetings
 - * ESRI Input and Guidance
- * Staff Perseverance!
- * Training
 - * Continuing Training & Accessibility
- * Leadership



Osceola County

- * ROI/Benefits –
 - * Short Term – Quick wins, publish across devices
 - * Long Term – Sustainable COTS systems, better maintenance, advantage of AGOL, organizational power
 - * Minimized Risk – COTS approach
 - * Increased Efficiency in Mapping & Maintenance
 - * Increased Attention to GIS and Appraiser's Office
 - * Tons of Maps & Apps at Their Finger Tips
 - * As ESRI Adds More, Creates More, and Stops Supporting Old Data Models, Osceola Will Be in Great Shape

SAG Award



ESRI USER CONFERENCE 2015
Special Achievement in GIS

Osceola County



The statements made or opinions expressed by authors in Fair & Equitable do not necessarily represent a policy position of the International Association of Assessing Officers.

Osceola County, Florida, is in a unique position, both figuratively and literally. Neighboring the tourist mecca Orlando, the county collects much of its revenue from property-owning residents who immigrated for the attractions and strong economy. The property taxes that homeowners pay are critical revenue because Florida does not collect a personal income tax (Florida is one of the few states that don't).

With a growth of 40,000 additional residents projected over the next five years, the Osceola County Property Appraiser's Office must squeeze every dollar out of that revenue it can. To prepare for an increase in parcel edits and quickly create appraisal maps for current and future homeowners, the office transformed its core GIS into a location-based platform, halving parcel editing time and saving money.

Looming Problem

Last year, the office realized its eight-year-old GIS platform would soon experience performance difficulties that would threaten the accuracy of its appraisal work. With a budget largely dependent on a 6 percent property tax revenue, the state expected accurate redrawing of parcels for correctly calculating property taxes for the county. But because its parcel data management tools consisted of fragments of software, the Osceola County Property Appraiser's Office could not meet that expectation. The county's lots, survey framework, subdivisions, and parcels were too disorganized and could not

be cleanly maintained. Staff members were also still using and manually updating static paper and PDF maps when residents made map requests. Unable to serve taxpayers with information or share data with other county agencies and offices, the Appraiser's Office needed a location-based platform that connected all its systems and efficiently converted its appraisal information into live maps.

By migrating its paper and PDF maps to live interactive maps, county staff now have to make applications only once; the maps update themselves and render on any device.

The office's inability to publish data wasn't for lack of trying. Some GIS staff attempted to create apps from scratch with Osceola County's legacy system—a truly Sisyphean task given the advancements in web map publishing since 2008 (when the county's GIS was established). More often than not, staff ended up with buggy, duplicate solutions that literally solved nothing.

Consultation Sought

Exhausted from duplication of effort, Osceola County Property Appraiser Katrina Scarborough and her team contacted Esri and GIS consultant Bruce Harris and Associates for a resolution to these issues. They conducted a needs assessment that, unsurprisingly, dis-

covered that the county's parcel data needed a cleaning, including full data standardization.

"Fragmented, unstandardized parcel data is a common problem in many appraisal offices," says Harris. "Updating all parcel data and then converting it to Esri's standard Local Government Information Model (LGIM) makes that data easily sharable and consumable."

Conditioning the data for cartographic expression would prove to be the key for more precise parcel editing at the county.

A recommendation was also made for a full implementation of the commercial off-the-shelf software ArcGIS for Local Government land records solutions—specialized, preconfigured web maps available in ArcGIS Online that would display the clean LGIM data as feature layers.

"Ready-made apps requiring little configuration eliminated the need to code solutions," says Harris. "These maps would be the access points for visitors to obtain county property information."

Gallery of Apps

A new website was created for the appraiser's office that included a scrollable map gallery. The gallery gives users access to a variety of fast-performing, focused web maps. Because property value transparency is a critical service in any county, the consultant and county staff first created the Residential Property Value Changes map. As shown in figure 1, this dashboard map viewer visualizes the impact of sales,

SPOTLIGHT—OSCEOLA COUNTY, FLORIDA (continued)

foreclosures, and assessment appeals on property values in a neighborhood or tax district. The dashboard juxtaposes three property value maps from three consecutive years for easy comparison.

"That's the most useful tool we have—it's easy for citizens to compare the differences in property value that way," says Scarborough. "If a picture is worth a thousand words, imagine three pictures side by side. That tells a big story about the dynamics of the home market."

Soon, web maps at Osceola County were being created in a matter of hours rather than weeks. By migrating its paper and PDF maps to live interactive maps, county staff now have to make applications only once; the maps update themselves and render on any device. Figure 2 is an example of easily accessible property sale information in pop-up map windows.

Fifty Percent Faster

Within a few weeks of implementation, Osceola County transformed its core mapping system into an enterprise location-based platform. The county experienced a 50 percent increase in parcel throughput and reduced counter traffic as citizens opted to view web maps instead of calling or visiting the office. By building a more connected and transparent system, the county earned renewed trust and confidence from Osceola County taxpayers.

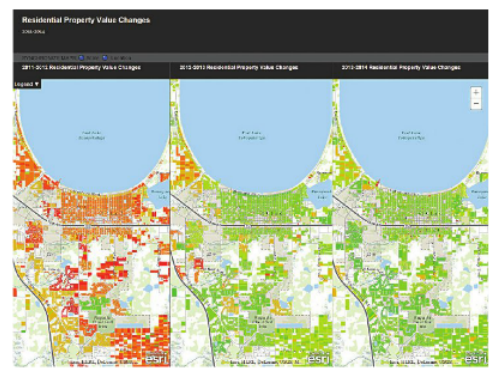


Figure 1. The Osceola County Residential Property Value Changes map juxtaposes maps from three consecutive years for easy comparison.

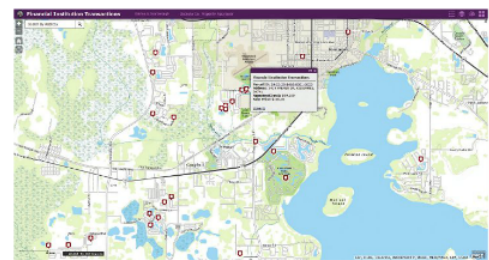


Figure 2. Pop-ups in the Osceola County Financial Institution Transactions app show details of individual property sales in the county.

Katrina Scarborough was elected Property Appraiser of Osceola County, Florida, in 2008 and re-elected in 2012. A 25+ year veteran in the property appraisal field, Katrina has worked in almost every area of the Appraiser's Office. She briefly left the Appraiser's Office to work on the senior management staff for Tax Collector Patsy Helfner and in 2006 returned to the office to serve as Chief of Staff.



Katrina is a Certified Florida Appraiser, Certified Cadastralist of Florida, and Master Cadastralist of Florida. She is a member of AAO, the Florida Chapter of IAAC, the Property Appraisers' Association of Florida, and the Florida Association of Cadastral Mappers. She also is Vice President of the Property Appraisers' Association of Florida.

Osceola County earned a 2015 Esri Special Achievement in GIS Award for its success in saving time and money with GIS.

Osceola County

- * What is next?
- * Promotion of PAO – Modern Positive Interaction with Citizens
 - * Collaboration With ESRI – Keep Moving Forward
 - * Best Practices
 - * Light House Acct

Osceola County

Thank you!

Questions?