THE ROUTE TO MORE EFFICIENT INSPECTIONS

A Conversation with Pima County Building and Site Development

Every morning, six inspectors leave their homes in Pima County, Arizona, to visit anywhere between five and sixteen houses or buildings. Before they go, each inspector downloads a route that's been strategically designed to account for the time it will take to drive to the site and perform the inspection.

Pima County encompasses 9,000 square miles, much of it rural, and is home to nearly one million people. The Building and Site Development Division has made a public commitment to assist property owners and professionals in completing projects cost-effectively, safely, and sustainably.

As part of that commitment—and to make sure the county is operating as efficiently as possible—the division started using Navigator for ArcGIS®, a mobile app from Esri that's part of ArcGIS℠ Online.

Rich Franz-Under, Pima County's Green Building manager, shares the county's experience.

> "We are saving $197,000 per year on mileage and inspectors' time by using ArcGIS."
>
> Rich Franz-Under
> Pima County Green Building Manager

Technology Stack
- Navigator for ArcGIS
- ArcGIS Online
- ArcGIS for Desktop
- ArcGIS Network Analyst extension

Q How does it help you to be able to use custom data in your navigation app?

A There are two different fundamental problems with other mapping software. First, they are not current. Our inspectors work in brand-new housing divisions. Without our custom map layers, we can't route them to those areas. Second, sometimes mapping software has an address different from the official address, and it may send us to the wrong place. The county has the official address data we use for our records.

The Navigator for ArcGIS app works with our custom data. Before, we would have to convert addresses to latitude and longitude and then upload multiple stops. That takes up a lot of time every morning. With Navigator for ArcGIS, it's one click and they're ready to go.

Q What back-office analysis have you been able to integrate into the app?

A We analyzed how much time our staff spends performing inspections so we can determine estimated time of arrival (ETAs) for our clients. We used to spend about four staff hours every day answering the question, When is my inspector going to be here? Soon, ETAs will be provided via email to the homeowner the afternoon prior to the inspection. Homeowners will be able to manage their time better because they will have better information.

We use our analysis to create routes that better balance workloads, and we push those routes to the Navigator for ArcGIS app. Now, inspectors are traveling an average of 34 percent fewer miles each day and saving 18 percent of drive time. And we are saving $197,000 per year on mileage and inspectors' time.

Q How does the ability to work offline change things for you and the inspectors?

A That is key. It's a big rural county, and there are areas without cell service. Inspectors need to be able to receive routing and directions in these areas. And they use a tool in the permitting system that has to work offline. When they get back online, the app has to be able to adjust to what happened, to sync with other systems. That is huge for us.

For more information, visit esri.com/navigator.

Understanding our world.