

# System-Wide Visibility in Days Using GIS and Edge-Intelligent Vision

City of Starke | Noteworthy AI | Summer / Fall 2025 | Florida

## CHALLENGE / OBJECTIVE

To create reliable digital foundation for managing its electric distribution system, the City of Starke moved to an online ArcGIS Online account. Now the City faced a field collection gap. With a small operations team and limited technical resources, manually surveying thousands of poles and assets would have taken years. Starke sought a faster, more cost-effective way to build a system-wide asset inventory and map its grid so crews—and outside mutual-aid teams during storms—could safely navigate and manage the network.

## BOTTOM-LINE RESULTS

Over 2,300 poles in Starke's service territory were geolocated, imaged, and analyzed in just seven hours using one vehicle equipped with Noteworthy AI's edge-intelligent camera units.



*A vehicle equipped with edge-intelligent camera units uploaded asset imagery in real time to computer vision models that analyzed the poles, transformers, insulators, attachments, and other assets.*

## PROJECT SUMMARY

Starke enlisted Noteworthy AI to rapidly capture and digitize its electric distribution infrastructure using AI-powered visual inspections. Using one vehicle equipped with Noteworthy AI's edge-intelligent camera units, over 2,300 poles in Starke's service territory were geolocated, imaged, and analyzed in just seven hours. As the imagery and data collected on the edge were uploaded via cellular in real-time, Noteworthy AI's computer vision models instantly analyzed the poles, transformers, insulators, attachments, and other assets. The resulting dataset was integrated into the city's GIS workflow, transforming simple map points into rich, photo-backed asset records. In a matter of hours of collection and just days of data processing, Starke gained system-wide visibility that would have taken years to build manually.

The project was delivered at ~80% of the cost of conventional field collection, proving significantly more affordable and achievable for a small municipal utility. Instead of dedicating years of staff time and overtime to field surveys or spending significantly more outsourcing the collection to conventional vendors, Starke was able to generate a more robust, comprehensive asset dataset quickly and within budget. The data also revealed opportunities for

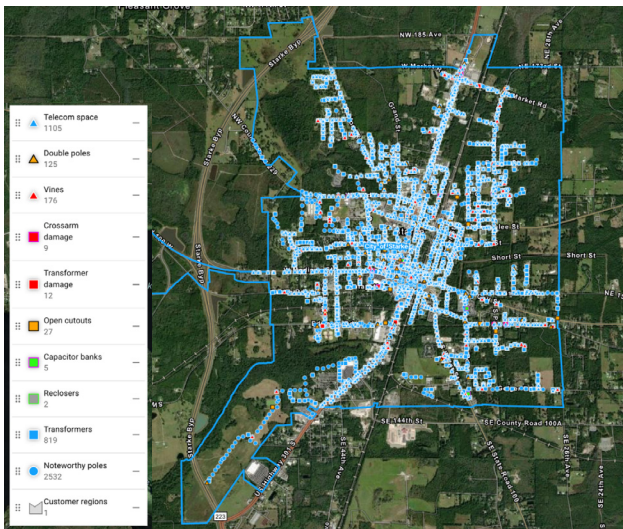
“ We still have more work to do, but after Noteworthy AI came in, I had immediate visibility into our system, from joint-use poles to streetlights to pole materials. In just a few hours, they delivered data that would have taken us years to collect.”

– David Sparks, Director of Utilities, City of Starke

additional revenue—such as inventorying joint-use attachments on utility poles—which helps ensure accurate billing with tenant utilities and can offset project costs over time, further improving the financial return of the initiative.

## PROJECT RESULTS

The project delivered Starke its first comprehensive, query-able inventory of grid assets. Utility staff can now instantly identify poles, transformers, streetlights, and attachments while viewing high-resolution images of each structure directly within their mapping workflow. The data enables targeted maintenance by flagging conditions such as leaning poles, vegetation growth, or equipment wear. With accurate asset counts and location data, the city can better plan pole treatment programs, manage infrastructure investments, and ensure proper billing for joint-use attachments, strengthening both operational efficiency and financial stewardship.

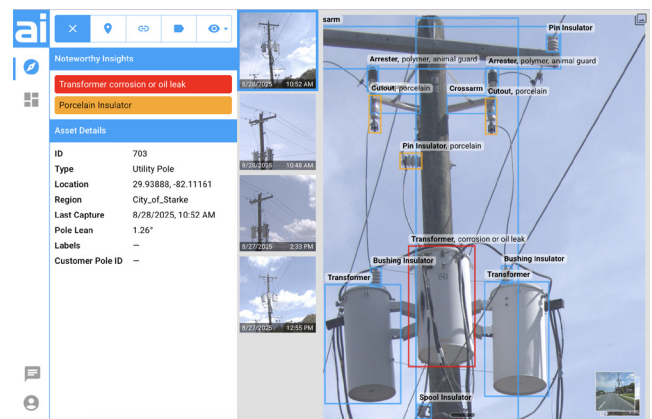


Starke utility staff can query this comprehensive inventory of grid assets to instantly identify poles, transformers, streetlights, and attachments while viewing high-resolution images of each structure.

## PROJECT NEXT STEPS

With the baseline asset inventory now established, Starke is continuing to enrich the system by adding device identifiers and operational details to mapped structures. Over time, the utility plans to use the dataset to support maintenance planning, development coordination, and system visibility for stakeholders. Periodic re-scanning of the network will allow the city to monitor changes in infrastructure condition, track vegetation growth, and assess storm impacts. This ongoing workflow ensures the GIS remains accurate while minimizing the burden on the utility's small team.

With just a few hours of data collection, Starke began unlocking system-wide visibility, turning insights into action in days instead of years.



Screen shot of utility pole with AI-derived insights.

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