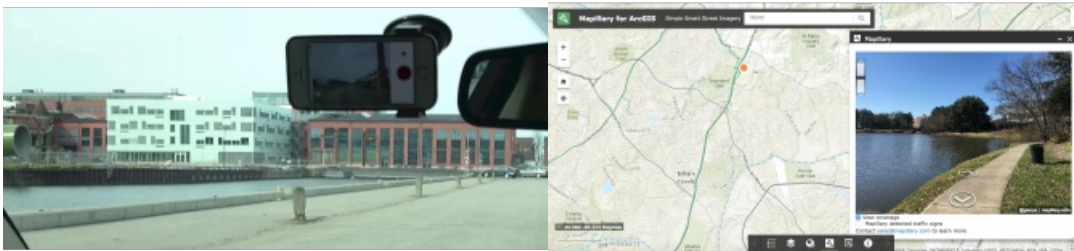
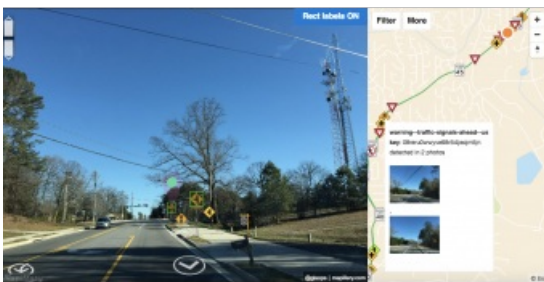


# Mobile app makes urban mapping fast, easy and cheap



The process of completing street-level surveys and inspections on crucial infrastructure is time-consuming, expensive and error prone. It is typically a task that requires trained personnel to travel into the field, observe and report on traffic lights, stop signs, road conditions and more.



But advances in open data, mobile image technology and data analysis have made it possible for cities to drastically improve the efficiency and cost-effectiveness of their efforts to manage and maintain public assets. One solution comes in the form of an easy-to-use mobile app bringing all these innovations together. Harnessing the power of spatial analytics and 3D imagery, [Mapillary](#) is making municipal mapping a task that anyone with a smartphone and a car can do.

## Feet on the Ground

The City of Johns Creek, Georgia, needed to gather data on its streets. This wasn't merely a mapping exercise—it was an undertaking to collect public and private information on everything from traffic signal arms to power poles. But with limited time and a small number of staff, manually collecting the data with GPS units would have been unfeasible. However, the city had a team dedicated to GIS technology, and it sought out a new way to collect the data quickly and with less need for dedicated personnel.

## A Solution for a Streamlined Workforce

Mapillary provided the Johns Creek GIS team with an app (Mapillary for ArcGIS) enabling the creation of street-level imagery by using nothing but mobile phones. In an initial test, the team snapped photos at two-second intervals with an iPhone mounted on the windshield of a moving car. Back at the office, the photos were uploaded to Mapillary and, after being stitched together based on point clouds, formed comprehensive 3D street-level imagery. This imagery of the street and all its assets could be virtually walked through once all the data was uploaded. The city can now explore the app's automated detection tools for tasks such as extracting traffic sign data. This data is now available through the Johns Creek open data portal, accessible to the public and civic officials.

## Automating Infrastructure Maintenance

Thanks to this user-friendly app, Johns Creek can now create street-level imagery in just hours rather than months. The team can keep all the imagery current without investing in expensive specialized vehicles, professional camera rigs, or manual inspections. The ease of collecting and updating data also means that locating vandalized signs or replacing outdated speed limit postings can be done quickly. Citizens accessing the Johns Creek open data site can browse interactive maps and information including address points, parcels, zoning, topology, street centerlines and public safety data sets.

With integrated data such as demographics, Mapillary functions as a resource for the entire community. Entrepreneurs can locate the best spots to open a business, and people looking for new homes can search neighborhood data such as the amount of traffic or income distribution. Mapillary automates two of the more complex and labor-intensive tasks of a modern municipality:

collecting data and using that data to make better-informed decisions.

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