Somers, CT, Optimizes Road Repair Budget with GIS Analytics

Somers is a town in Tolland County, Connecticut, nestled between Enfield and Stafford Springs. Bordering Massachusetts, this quaint town with a "small town" feel is only 9 miles from the City of Springfield, MA, and 24 miles from Hartford, CT. Somers has a population of approximately 11,500 residents.

The Challenge

Like many municipalities in North America, Somers was utilizing a visual assessment to gather information on the status of its road network. This subjective and labor-intensive approach motivated the Town to embrace a faster, objective, and transparent way to assess roadway conditions and determine which roads needed repair, along with how and in what order they needed to be repaired.

The Partner

Somers learned about StreetScan's objective, data-driven approach through the Connecticut Conference of Municipalities (CCM). CCM and StreetScan have partnered to provide fast, affordable, Smart City pavement inspection and management services to CCM-member towns and cities. StreetScan uses vehicle-mounted sensing technology to assess road conditions in normal traffic flow and displays gathered information in a geographic information system (GIS) application: a web app with up-to-date data and a range of tools for decision-making.
The Solution
StreetScan’s mobile-sensing vehicle, ScanVan, is the physical heart of the asset management system, assessing pavement, traffic signs, pavement markings and more on every road it traverses. During a two-week period, the ScanVan travelled 90 miles of roads in normal traffic flow to gather data on the condition of the entire street network utilizing 3D imaging technology to measure road defects. The locations of road features such as potholes, manholes and cracks were also collected. Once scanned, a variety of technologies from StreetScan & Esri, such as ArcPy scripts, ArcGIS Desktop, and ArcGIS enterprise were leveraged to generate Streetlogix, a GIS web app with powerful visualization and budget-planning tools. This app provides road condition ratings on a scale of 0 to 100, with 0 being the worst and 100 being ideal, and prioritizes the areas to remediate.

The Results
Using Streetlogix, the Town can now see an enriched view of its street network with color-coded pavement conditions and other assets, along with images for every road and tools for data-driven budget and maintenance planning. StreetScan reported that Somers’ overall pavement condition index (PCI) was rated in ‘good’ condition at an average PCI of 72.4, with 92.8% of roads above a critical PCI of 55. Only 7.2% of roads were rated as ‘very poor’ or ‘poor’.

Somers now has a data-based structure to move forward with a road bonding package. An objective, data-driven scan performed by a third party has also helped with community buy-in, increasing transparency and reducing criticism when making assessments and investment decisions on road infrastructure.

“Through StreetScan, we now have a data-based structure to move forward with a road bonding package. An objective, data-driven scan performed by a third party has reduced criticism and helped justify repairs.”

Todd Rolland
Director of Public Works
Town of Somers