Managing Urban Green Space With Bluesky 3D Photomaps

The Parks Trust, the charitable organisation responsible for parks and green spaces in Milton Keynes, UK, is using a range of highly detailed geographic datasets from Bluesky to manage its portfolio of property and open spaces. Deployed in the Trust's GIS, the high resolution aerial photography, detailed laser mapped height models and National Tree Map (NTM) data are informing a range of projects, including grounds maintenance contract awards, encroachment monitoring and new development plans.

The Bluesky data offers the most up-to-date and accurate view of our parks and green spaces, commented James Cairncross, Landscape Infrastructure Manager at The Parks Trust. Used within the organisation's GIS, the aerial photography provides more features and better currency than other map layers, and the different ages of imagery allow the monitoring of changes in boundaries and land use over time. The 3D height models also allow the visualisation of new developments or proposed improvements in context, and the National Tree Map data provides details not available from other sources.

Applications

Within The Parks Trust there are around 40 users regularly accessing the Bluesky data via Autodesk's Infrastructure Map Server. Applications of the data include the digitising of new acquisition boundaries directly from the aerial photography, and the creation of contract drawings and bills of quantities for more accurate and therefore cost-effective grounds maintenance contracts. The high resolution imagery is also very useful in identifying and proving 'garden / land grab'. With land bordering more than 10,000 private properties, the Trust has several cases of encroachment each year. Different ages of Bluesky imagery – 2009, 2012 and 2015, are used to identify changes in boundaries and often presented as evidence to the homeowner.

DTM and DSM

In addition to the aerial photography, the Trust also uses detailed 3D height – Digital Terrain Model (DTM) and Surface Model (DSM) - models and Bluesky's National Tree Map data which uniquely identifies the location, height and canopy cover of more than 280 million trees nationwide. This data is used to create desktop visualisations of proposed developments or maintenance projects and illustrate their potential impact on the local environment.

Savings

The combination of GIS and Bluesky data is already realising significant savings for the Trust, continued Cairncross. Being able to complete initial investigations from the desktop, the organisation is saving valuable staff time, improving efficiency and reducing costs. You could say the data has more than paid for itself, costing less than one traditional site survey.

The Parks Trust maintains 5,000 acres of parks and green spaces and continually improves this essential resource by providing new facilities, increasing biodiversity and enhancing habitats. The Trust organises more than 200 park events, provides environmental education for nearly 6,000 children and works with developers and other organisations to bring new green space into its stewardship every year.

Image courtesy: Patel Taylor.