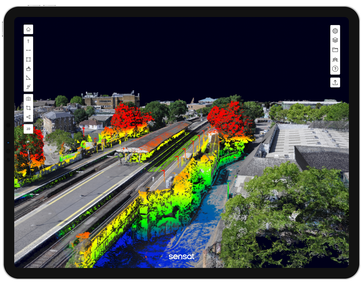
Rail | Case studies

‘Access for all’ Network Rail case study

Summary

Network Rail’s ‘Access for All’ programme aims to provide an obstacle free, accessible route to and between platforms at stations across the country that were not originally designed with people with reduced mobility in mind—making it safer for everyone who visits these. As part of the scheme, Sensat along with partner Osborne, were commissioned to capture topographical survey data and make it accessible on Sensat’s visualisation platform, serving as a single source of truth (SSOT) and a powerful tool for stakeholder engagement when making decisions on station development.



> “Despite the tight programme and budget, coupled with the added constraint of the COVID-19 pandemic, Sensat worked collaboratively with both Osborne and Arcadis to get an agreed scope in place, mobilise on site quickly and safely and provide a cost-effective solution to meet our client’s needs.”
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> Beckie Mayne-Evans
> Development Manager, Osborne

Challenges

Keeping workers safe
As part of the construction industry’s response to the COVID-19 pandemic, maintaining social distancing from colleagues has been challenging despite working in open spaces with a dispersed workforce. Additionally, when working on a live rail project, the requirement to have less people on site at any given time increases worker safety.

Siloed and impossible to access site data
A big obstacle in construction is that much of the data collected is siloed, held in isolation by the business or division that collected it. Osborne were looking for a way for data to be easily shared between multiple teams.

The solution

A powerful tool for design, consultation, and more
The collected data is hosted on Sensat’s cloud-based visualisation platform. Over 20 team members are now able to access the site remotely, on any device. Through Sensat, stakeholders can now also visually combine different data sets in their real-world environment and take survey-grade measurements without being on site.

In Sensat’s visualisation platform, it’s possible to get access to all above and below ground data and information, including: geospatial and topographic site information, buried services and below-ground utilities, masterplan models and BIM integration, residential structures, and all engineering design information for the associated infrastructure.

Decarbonisation

When housed in Sensat’s visualisation platform, 3D data can be used for creating an accurate real-world representation of the physical world, enabling remote and real-time measurements for quicker, more sustainable decision-making and contract administration. It also means less boots on the ground and vehicle usage during survey collection and visualisation, ultimately using less carbon.

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Conclusion

Sensat provides a realistic alternative to expensive in-person visits. An accurate and up-to-date model, rich with context provided by layers of information, annotations and shared files, enables off-site users to get perspective of the entire site.

Moving to the future, Network Rail now have a 3D point cloud model for new station enhancements which could ultimately feed into a ‘digital twin’ of the rail network to facilitate dynamic asset management.

Beckie Mayne-Evans, Development Manager at Osborne said: “It was a pleasure to work with Sensat for the Access for All package of works. Despite the tight programme and budget, coupled with the added constraint of the COVID-19 pandemic, Sensat worked collaboratively with both Osborne and Arcadis to get an agreed scope in place, mobilise on site quickly and safely and provide a cost-effective solution to meet our client’s needs. Furthermore, Sensat’s visualisation platform was a great stakeholder tool during design review meetings with the client and other external parties.”

Problem	Solution
Construction site data is often siloed, difficult to access and share	Sensat’s visualisation platform, is allowing multiple teams across the Access for All framework to easily visualise, interact with, and share 3D datasets anywhere, on any device.
It is impossible to validate designs in their real-world environment	Through Sensat’s software, you can visually combine dynamic project information in their real-world environment, including CAD, BIM, and LiDAR