



## The requirement

When Derby City Council was planning for a new bridge to be assessed against the current city landscape, it turned to Plowman Craven to provide the required laser scanning, CAD and modelling skills necessary to save a potential cost of £750,000 in an expensive road closure scheme.

## The solution

The Council specified remote survey technology to record 1.5km of its Inner Ring Road and since the site was heavily urbanised, with road safety a mandatory issue, laser scanning was an obvious choice for this project.

To meet the strict timeline and accuracy requirements, Plowman Craven used two Leica HDS3000 scanners. Primary control was established traditionally using GPS, and secondary control with the Total Stations.

Overall, it is estimated that HDS technology saved 25% field time over conventional methods, and an additional 75% of the time that is usually required for field-checking of plans for QA purposes in such urban environments.

## The Conclusion

The quality and quantity of data collected by the HDS scanners not only saved valuable time in the field, but also resulted in the Council having full 3D models for proportions of the scheme only designated after the field work can be completed.

## CASE STUDY Derby City Inner Ring Road

**CLIENT**  
Derby City Council

**SERVICES**  
Infrastructure Surveys  
Engineering Surveys  
Laser Scanning  
3D Modelling

Besides the traditional drawings and the 3D modelling of portions of the scheme, the complete point cloud data was delivered for data preservation and future use.



*“Overall we were very impressed with Plowman Craven. Their innovative survey and visualisation methods ensured that a polished product was produced without disruption to road users on Derby Inner Ring Road’s busy and complex networks. The professionalism and communication skills of their team resulted in their product being delivered “right first time”.*

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