



Capability Statement



Chartered Surveyors
Geomatics - Land, Utilities, Engineering & Building

Regulated by RICS

Tower Surveys Capability Statement

About Us

Tower Surveys Ltd is a **Chartered Surveying** company. We are amongst the very best multidiscipline surveying companies in Great Britain, providing a local service nationwide.

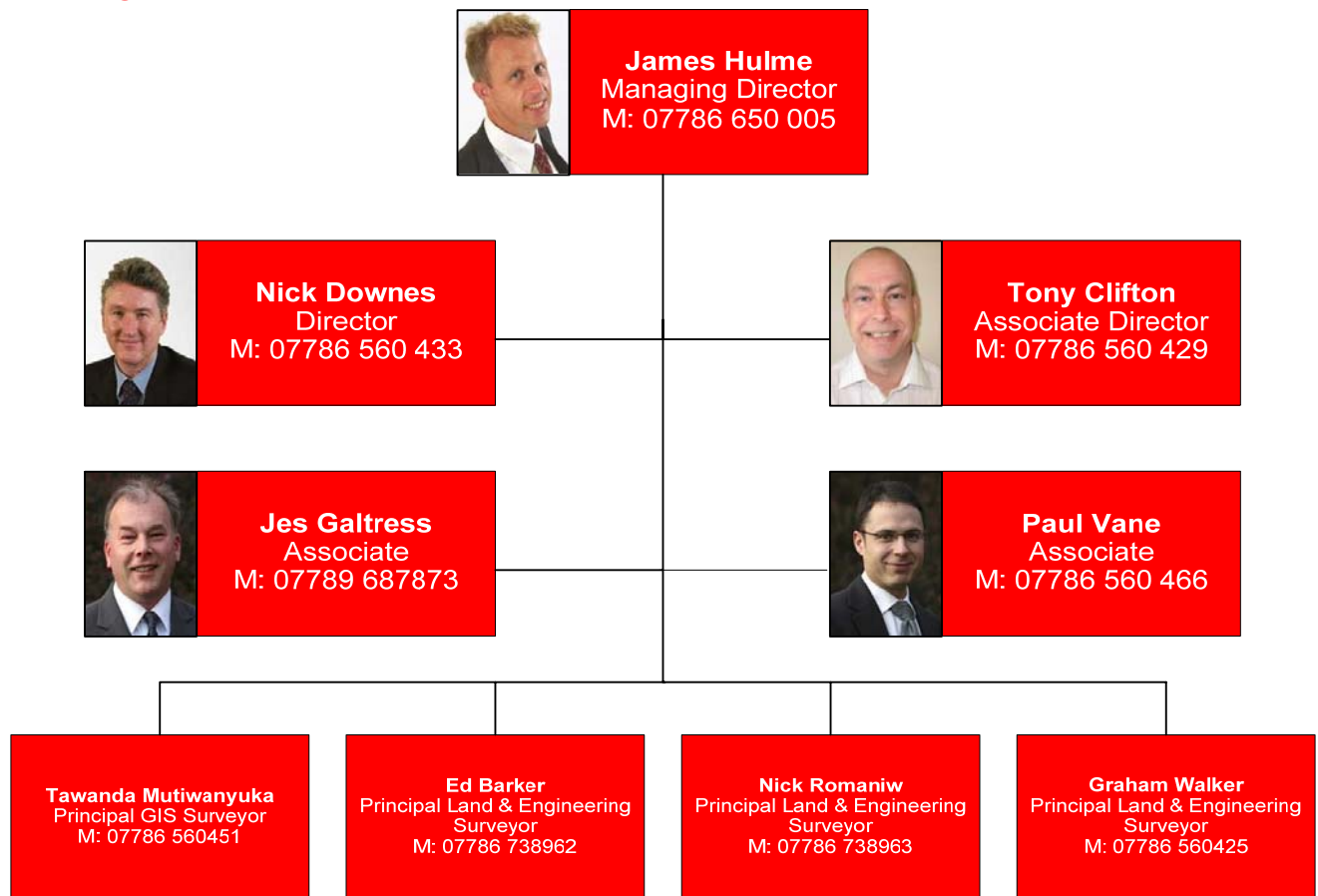
Our core services are offered in **Land, Engineering, Building** and **Utilities** surveying. We also provide a multi-aspect photographic image acquisition and interpretation service utilising our in-house **Laser Scanning** capabilities.

Tower Surveys provide surveying services to a huge range of end users, both from the public and private sectors, including those from the rail, health, energy, housing, transport and manufacturing industries.

We have developed new techniques and tailored deliverables to match our Clients requirements. To maintain our competitive advantage we have increased our geographical coverage to include all of the **UK** and **overseas**. Our **Quality Management System (QMS)** covering **Health and Safety** ensures that our Staff, Clients and Third Parties well-being are a central focus within our business.

'Measurement is our Business'

Management Structure



Office Locations



Midlands/North	London/Home Counties
Vivian House Vivian Avenue Nottingham NG5 1AF T: + 44 (0)115 9601212 F: + 44 (0) 115 9621200	2 Chesney Wold Bleak Hall Milton Keynes MK6 2NE T: + 44 (0)1908 399780 F: + 44 (0)1908 201587
The West	Wales
1 Lyme Drive Parklands Stoke-on-Trent Staffordshire ST4 6NW T: + 44 (0)1782 667550 F: + 44 (0) 1782 667501	Unit 2 Fountain Court Fountain Lane St Mellons Cardiff CF3 0FB T: + 44 (0)2920 777373 F: + 44 (0)2920 363797

Our Values

WE WILL MAINTAIN THE HIGHEST POSSIBLE PROFESSIONAL STANDARDS

- + Always looking to maximise the quality and added value we bring to our services for our Client.
- + Continuously striving for the achievement of professional and technical excellence.
- + Dealing with all our stakeholders as partners in a spirit of openness and honesty.
- + Never being complacent.

WE WILL RECOGNISE THE IMPORTANCE OF OUR PEOPLE

- + Providing a safe, happy, healthy and secure working environment.
- + Maintaining no discrimination against sex, race, colour, creed and disability.
- + Employing and developing the very best.
- + Ensuring that remuneration and advancement recognises success.

Tower Surveys Capability Statement

Our Services

Our services are carried out using state of the art technology, all designed to enable speed, accuracy and savings for our Clients.

Our services include:

Topographic Surveys

Topographical surveys are used to map the shape and form of a site or a monument. It depicts the topography or the "lay of the land".

We can survey external site areas, observe boundary details, surface change, all physical structures, trees as well as vegetation. We are also able to carry out tree identification surveys.

We have provided topographical surveys at airports, schools, colleges, hospitals, quarries, farms, estates, heritage buildings and harbours throughout the UK and abroad.



Measured Building Surveys

Whether you want to build an extension, refurbish or redevelop a building, identify floor plans for licensing or asset management, our experienced team can provide measured building surveys such as floor plans, elevations and sections for architects and property development professionals.

Using the latest measuring and recording techniques we survey any kind of building, from a simple semi-detached house to a large cathedral.

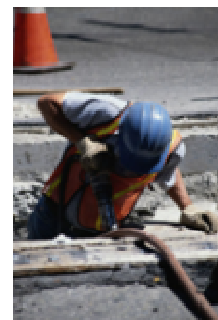


Underground Utility Surveys

Utility surveys are used to investigate the possibility of buried hazards (pipelines, cables, conduits) in construction areas and other areas where proposed intrusive investigation is scheduled.

The procedures and equipment used for these surveys is specialised and are used to investigate shallow hazards at discrete locations. We use a number of detecting or investigation techniques such as Electromagnetic, GPR and CCTV.

Our output can be in several formats – usually these take the form of paper-based plans or reports, and/or electronic CAD models and layouts.



CCTV Surveys

CCTV surveys are a 'value for money' means of surveying the condition of drainage infrastructure regimes. Using an entirely digital reporting and recording system, our content and image rich computerised reports highlight any problems.

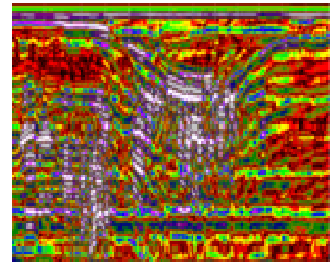
- + Sewers for adoption - pre and post surveys
- + Maintenance contracts, regular surveys for continuous assessment
- + Off road surveys
- + Man entry surveys
- + Incorporation into GIS.



Ground Probing Radar

Ground Probing Radar (GPR) is a high resolution, field-portable geophysical method that produces graphic sections of subsurface structure. This is a popular method of utility surveying.

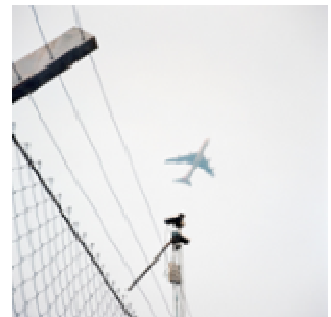
Typical applications include the accurate location of voids and buried obstructions, mapping of subsurface soil and rock and detection of buried hazardous waste and non-conductive features. GPR surveys reveal detailed information on subsurface ground conditions without drilling or excavation. The GPR technology increases the success rate in services location significantly in comparison to traditional methods.



Boundary Dispute Resolution

Our surveyors provide high quality, respected evidence in the interest of justice under the law. Our services include:

- + Interpretation of "General Boundaries"
- + Land Parcel Surveys
- + Exact Line/Determined Boundary Plans
- + Solutions to Boundary Disputes
- + Advocate and Expert Witness Services
- + Setting Out of Boundaries



Engineering Surveys & Setting Out

Tower Surveys uses modern survey equipment, Total Stations and GPS, to provide setting out services in virtually any environment. Our range of services covers all aspects of construction, from bulk earthworks to millimetre accuracy typical in steel frame structures.

In addition to following typical QA procedures and checks, our surveyors produce daily "As Set Out" plans that provide a greater degree of confidence as well as a record of progress that may be used for contractual requirements or dispute resolution.



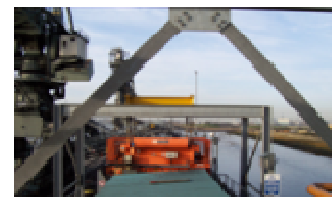
Control Networks

As a science, geodesy involves the measurement and study of the size and shape of the earth. It is the basis for the geodetic control networks upon which surveying and mapping rely. A geodetic control network is necessary in order to place surveying projects into a larger spatial context.

We provide full survey control network design, analysis and adjustment to any desired co-ordinate system. We have established networks for;

- + construction projects (flood defence, rail and tram)
- + aerial photography (pre-marking and coordinate designation)
- + LIDAR and monitoring work.

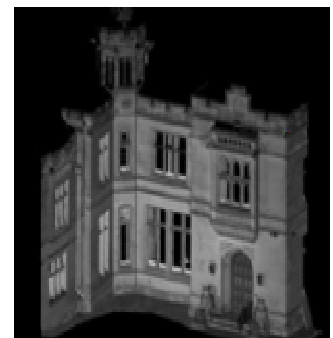
Control is established using a variety of equipment and techniques.



3D Laser Scanning

Using remote measurement techniques, high definition laser scanning enables the quick acquisition of millions of dimensionally accurate 3D data points. The resulting "point cloud" can be manipulated to produce a variety of end products, including 2D or 3D CAD drawings and object based 3D modelling.

From a place of safety, a static scanner at the side of the track can make a complete 360° field-of-view scan of all details within a range of 50m to an accuracy of better than $\pm 5\text{mm}$: in excess of 40 million points are collected in little more than six minutes.



GIS (Geographic Information Systems)

GIS is a collection of computer hardware, software, and geographic data for capturing, managing, analysing, and displaying all forms of geographically referenced information.

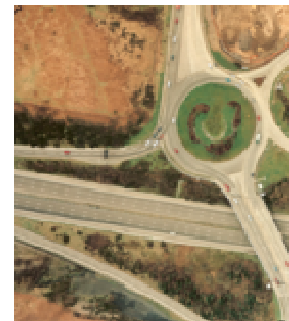
We have a wealth of experience in the collection, management and interpretation of spatial data into invaluable knowledge. We can deliver remote sensing, mapping, and GIS solutions to clients in the public and private sector. From large mapping programmes for land-use to rapid response mapping for disaster relief and recovery, we have the technology to assist our Clients.



Aerial Photogrammetric Services

We provide a multi-aspect photographic imagery acquisition and interpretation service. Some of the benefits are:

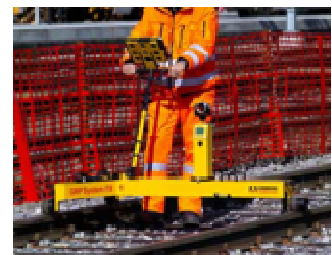
- It is a non-contact method of measurement, thereby enabling areas to be surveyed where access is limited; such as railways or busy motorway interchange junctions.
- It enables rapid data capture, using specialist cameras fitted to fixed wing aircraft, helicopters, tall observation masts or simply hand held.
- Images are a permanent record of the subject area at a specific time and date.



Track Geometry Surveys

Using a trolley mounted system the level and alignment of the track is surveyed; at the same time the track twist, cant and gauge are collected. A cross section measurement unit enables for object surveying in the track environment.

The data can be delivered in 2D and 3D formats, in AutoCAD and Microstation. With clearance, twist, cant and gauge data located relative to track axis, issued in tabular or sectional formats; allowing clearance envelope compliance to be assessed.



Tower Surveys 
Ltd

Chartered Surveyors
Geomatics - Land, Utilities, Engineering & Building

www.towersurveys.co.uk