

Land Survey / Geomatics

The provision of quality geodetic and land survey services to the civil engineering, land development, utility and geo-environmental sectors. The geomatics capability is designed to offer integral support to all services provided by LandScope and it is with the surveyor's respect for data quality and integrity that all other service offerings have been designed.

LandScope utilises the latest technologies from Trimble offering complete solutions for advanced surveying including the real-time kinematic (RTK) Trimble R7/R8 and VRS NOW systems, and Trimble S6 and Trimble S8 robotic and reflector-less total stations. These latest technologies revolutionise the land survey operation in delivering increased efficiencies in quality controlled data gathering and display, and subsequent processing and delivery.



Topographic Survey

Whether a site is subject to a change of use or is planned for development a high quality and up to date plan represents an essential basis for assessment, planning and subsequent design works. This plan and its derivatives will most likely be an integral part of the whole development project life-cycle and must therefore be of an appropriate accuracy and detail.

Wherever possible LandScope Engineering will encourage the client's involvement in the definition of survey specifications - this may be simply the agreement of end-user generated specifications or a check-list approach to level of survey detail. In cases where such a process is not possible then we work to the RICS Specification Guidelines 2nd Edition -1996 standard.

The presentation of topographic survey data may vary from 2D paper plots through to sophisticated 3D digital models. LandScope places emphasis on agreeing the deliverable format with the customer and/or end-user so as to ensure that this is best suited to its future application.

3D digital terrain models are easily generated within our Autodesk Civil 3D software from which sectional information and complex volumetric (cut and fill) models may be generated. Because Civil 3D calculates volumes automatically using a single, intelligent model, it is both extremely fast and accurate. This model creates relationships between objects so that design changes update without further intervention. In other words, a change to one part of the design can propagate throughout an entire project.

Rigorous quality control has been designed in to our data acquisition, data processing & management and presentation process. A registry of drawing reference and revision forms the basis of our quality system; data and results from all stages of survey works are routinely and independently checked by senior survey personnel.





Engineering Survey

Once a scheme has been designed then it is the responsibility of the surveyor to transfer the design data on to the ground at site. The scope of work may vary from simply marking proposed pile locations to assisting with the installation of a complex structure such as a bridge or part of an offshore facility. Modern survey instrumentation may assist greatly in engineering survey however there remains a great responsibility on the surveyor to ensure absolute best practice through all stages of an engineering survey or setting-out project. Often design of a scheme will occur many months or years prior to installation or construction and inevitably the level and accuracy of information will change significantly as the process evolves. In an ideal world a high quality and detailed land / topographic survey would form the basis of all engineering and design work so as to reduce ambiguity when transferring this data to the ground, however, this is not always the case and often additional survey and checks need to be made prior to any setting-out activity.

This may involve, for example, the reconciling of vertical datums or the dimensional checks of existing buildings or even the integration of multiple existing drawings – whatever the case it is essential that very strong and open lines of communication are maintained with the customer.

LandScope Engineering will assign only senior and experienced personnel to engineering survey and setting-out works. Our survey equipment pool and our data management systems have been designed to ensure that all software is fully conversant with the field instrumentation. Given this, plans, coordinate listings and layouts can be digitally uploaded and downloaded to and from the field respectively. This saves time but more importantly avoids expensive 'keying in' errors and increases the ability to field check more rigorously.



Related Inserts Available

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