4D Survey and Geotechnical Monitoring Achieving Enhanced Project Outcomes for Construction.

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SUMMARY

The Southpoint Development project in Brisbane's Southbank precinct, is a working example of how Land Solution Australia has effectively used consulting surveying knowledge and latest advancement in technology to solve a complicated construction challenge.

The 4D monitoring system developed in conjunction with a major Australian Building and Civil construction company, uses multiple robotic instruments and geotechnical sensors to feed real time survey and geotechnical data to a host of engineers, builders and public stakeholders. Alarming capability is also a by product of the system which can alert key stakeholders of movement and change in the construction environment in a shorter timeframe than traditional methods.

This has allowed the builder to demonstrate greater corporate responsibility in terms of managing the risk of damage or deformation of neighbouring assets and maximise their efficiency by having minimal interruptions to their construction program.

The combination of both survey and geotechnical instrumentation including vibration, tilt and displacement was expertly installed and managed by Land Solution Australia so that it could work with minimal human intervention for a period of 18 months. The system serves up nearly 2500 precise measurements per day which are delivered in near real time via a remote server login to 40 project managers and engineers. The complete 'geospatial' ecosystem devised is also remotely scalable with the ability to increase or decrease observation frequency automatically.

The 4D automated monitoring solution devised by Land Solution has resulted in enhanced efficiency and collaboration when dealing with a complex construction and public safety challenge.