

Queensland Spatial Excellence Awards 2017

Citation

Undergraduate Student Award (*Highly Commended*)

Scott Archbold

Scott Archbold works for private firm Cullen & Couper in Hervey Bay. He was first registered as a surveying associate in February 2016. Following his completion of the Bachelor of Spatial Science with a major in Surveying at the University of Southern Queensland in October 2016, he became registered as a surveying graduate.

He has since been gaining experience and knowledge in cadastral surveys throughout the Fraser Coast region and endeavours to become a registered surveyor with cadastral endorsement.

His final year of study in 2016 required him to complete a research project based around his work. He chose to address the topic of “connection to datum” which has been a requirement for certain types of cadastral surveys since July 2015 and is part of his duties when completing cadastral surveys.

The research project undertaken was titled “An investigation into the accuracies and limitations of different methods of connecting to datum”. The aim of the research project was to evaluate the existing requirements for a connection to datum and the available field and office methodology for connecting cadastral surveys to the State control survey.

This was done by completing a connection to datum using the various field and office procedures over three separate sites. The project discussed the accuracies achieved and how they differed from expected results. The results of the surveys were then processed and presented in various formats. These formats gave the reader a graphic visualisation of the accuracies achieved by each method. The limitations of each method were also included in the dissertation. The dissertation was concluded with a discussion of the optimal approach for a connection to the State control survey given the prevailing site conditions.

This project was of use to Cullen and Couper as it was used as guide each time the company was to complete a connection to datum for a cadastral survey. Following the grading of the project, it was made available through the USQ library and can be sourced online.

The requirement for connecting survey plans to the State control survey was introduced in July, 2015. Apart from DNRMs CSR (Version 7.1) and the Intergovernmental Committee on Surveying and Mapping (ICSM) GDA Technical Manual (Version 2.4) and Special Publication 1 (SP1) (Version 2.1), there is no literature that Surveyors must adhere to. The methodology for surveys may be influenced by the Surveyors' instruments technical manuals. This project was completed to give cadastral Surveyors a comparison of what can be expected from the different methods of connecting survey plans to the State control survey.

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The project described the State control survey and outlined why, how and when Surveyors are required to make the relevant connections. The methodology used in the project was chosen to fulfil the requirements of the CSR. The SP1 standards and guidelines were extensively used for the methodology. As the requirement for connection to datum was in its infancy, it gave readers, who may not have yet encountered the requirement an idea of what is expected.

The project was assessed by USQ staff and given a High Distinction.

Scott has attended Central and Northern Group Conferences yearly for the last three years. When requested he has assisted the SSSI CPD officer in running these events. Further Scott attends town group meetings.

It is hoped that Scott will present on this subject at the next Central Group Conference.

Judges' Comments

“Project on topic of interest to all surveyors by a young surveyor studying while working in the industry.”

“Scott's project is a practical contribution to his profession and is recognized as such by its inclusion in the USQ library and access to same. He also shows great engagement by his attendance and assistance at the regional group conferences and attendance at town group meetings.”