Michael Grear Surveys

The Survey Datum

Summer Edition, 2014

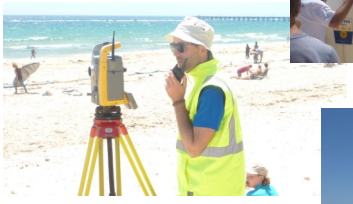
Welcome to Summer in 2014.

You know it's been hot when 35 is a cool change.

Summer brings with it fires - some that will just not go out, heat -plenty of that, and going to the beach to surf!

We were lucky enough to be asked to help with the Onkaparinga Council's Surfboard Guinness World Record attempt. Many of you would remember their call to arms (or boards!) just prior to Christmas to make the record at the Port Noarlunga Beach. In the end they smashed the previous record of 200 boards in South Africa and recorded 398 boards measuring 783.5metres long- end to end. This was an official Guinness World Record event and as professional measurers, we ratified the final results. See some pictures of the event below and also a link to a video presentation of the day, put together by the Onkaparinga Council.

http://m.youtube.com/watch?v=wdVqFm69aOE



This edition talks about what really happens when you ask for your boundary to be re surveyed. Mark recently received his Licence from the Surveyors Board, so we have an opportunity to celebrate with him. We discuss water meter locations as part of your land division application and Paul shares a little on the broader involvement of Surveyors in monitoring volcanos to predict possible eruptions.

Enjoy! Michael—Ed

Boundary Surveying

... is so much more than just the final placement of boundary pegs

A Word From Helen

- MGS Director/Office Manager

To start, the Licensed Surveyor searches for current and historical data and plans through the Lands Titles Office (LTO). This information assists the Surveyor to locate original and permanent survey markers in the neighbouring area, streets and beyond, if needed, to ensure that they can find sufficient physical evidence to re-establish boundaries as they were originally surveyed. Surveyors use a "hierarchy of evidence" to assist in this process.

Hierarchy of Evidence

1. Evidence of Natural Boundaries
2. Evidence of Original Monuments/Survey marks
3. Old/Long Established Occupation (fencing/walls/buildings)
4. Plan Measurements

With the use of Survey Equipment, measurements are made from these survey markers and other evidence, and then calculations and professional judgement is used to determine the correct boundaries of the subject property.

Boundaries are then pegged, (these are white topped square pegs that usually sit about 25 mm above the ground (see photo), plus a stake with some highlighting ribbon (tape) to assist with their location. If the pegs cannot be placed in position, a suitable 'offset' mark is used (usually a metal pin or masonry nail).

Back in the office, using Computer Aided Drafting (CAD), a plan is prepared of the property showing the survey marks placed and the boundary in relation to the adjacent fences and other structures. This is then signed by the Licensed Surveyor and sent to the client as a certificate / record of the survey undertaken.

Quote ... Education is the most powerful weapon which you can use to change the world - Nelson Mandela

Land Divisions and SA Water

As part of the Land Division process.... a new water meter will be required for the new allotment/s. It is the owner who requests the position of the new water meter. For many, the meter location has not previously been considered and this can cause a dilemma as to where to locate it.

There a few things to consider –

- Location of the driveway (existing and new)
- Obstacles - there needs to be a direct, straight path from the proposed meter to the road... no diversions around stobie poles, trees (including tree canopy), stormwater culverts, service pits etc.

When this information is required by SA Water, *Michael Grear Surveys* forward a plan to the owner so that they can mark their preferred location for the water meter and we then inform SA Water. Our office is always available to discuss your options. Alternatively, SA Water has information on their website regarding location restrictions; http://www.sawater.com.au/NR/rdonlyres/D122E611-D5DC-4EA9-8283-1C8D9CCB5414/0/LocationRestrictions.pdf

SA Water generally choose the location of the new sewer connection, however if you have a specific location in mind our office can make a request to SA Water on your behalf.

Riddle Answers from the last Edition

… Thanks for Joining in the Fun

1. Pop Corn, 2. A Sea Saw, 3. A Cyclone

Take a look at the ***Michael Grear Surveys*** website for more information and past issues of *The Survey Datum*

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bsi. ISO 9001 Quality Management

…CONGRATULATIONS …

Congratulations to

Mark Whitford on gaining your Survey Licence.

Michael Grear Surveys welcomes another Licensed Surveyor to our team!

Surveyors Involvement Around the World!

Volcanic eruptions can be extremely destructive events. Dangers posed to humans from these eruptions include, earthquakes, lava flows, pyroclastic flows (which are basically an avalanche of rock and hot gases up to 800 degree Celsius!!), and gas and ash clouds. Because of these dangers, scientists need to monitor volcanoes to try and predict possible eruptions.

Multiple methods of monitoring need to be analysed to be able to accurately predict when an eruption might occur. The 3 most important processes to monitor are: seismic activity, gas emissions and ground surface deformation.

Ground surface deformation observations are where Surveyors' broad range of skills and technology are on show.

Traditional methods of monitoring include using Survey Total Stations and levelling techniques to monitor any millimetre movements in benchmarks that have been placed in a number of locations on the volcano. Survey accurate satellite surveying systems e.g. GPS, are also used to monitor these benchmarks at specific locations.

More advanced methods of monitoring include airborne laser scanning from aircraft. Laser scanning can be used to monitor the entire ground surface, not just fixed bench marks as the traditional methods do. While not as accurate as traditional survey methods, the huge volumes of information gathered, give scientists valuable data that can be used to predict an eruption more accurately.