

Phil Napper

From: [s 9(2)(a)]
Sent: Monday, 26 February 2024 11:15 AM
To: Philip Napper
Subject: RE: Notice of Significant Failure

Good morning Phil.

[s 9(2)(a)] so when we secured the additional land, I offered to do the survey at no cost.

I began the survey on August 15 2021 under the old SG's rules. I'm not a day-to-day user of the GPS for surveying. I planned, downloaded and uploaded the control I thought I'd find onto the data controller. 12D put -999 on the heights of the marks, but the vectors I measured were not greatly out of position when compared to previously measured vectors (considering the 2010 rules) (see attached reductions)

I had problems with the gear. Rawhitiroa Road is in a valley that drains to the Patea River. Aorere Road climbs a ridgeline, so signal from the base station was restrained. I took a repeater, but it was flat, so I leapfrogged the base. Being the weekend, (and no cellphone coverage) I couldn't ask one of my technicians more familiar with the gear for help – so I boxed on as best I could.

The BTW marks I closed onto were proud or flush, so I was able to walk onto them. When I did my reductions of the observations, I achieved a 0.12m close with an RF of over 1:20,000.

Because this was a 'free' survey, I couldn't afford to have my regular staff committing hours to assisting me with reductions and QA that the survey deserved – I was boxing through the information in my spare time.

My methodology for definition was to hold the marks I found on Aorere Road, which defined the northern end of the boundary I was connecting to.

The BTW marks I found at the reserve defined the southern end.

The adoption of the observations between the two ends didn't close by about 4m along the ~45° bearing of the line between the two.

The perpendicular original boundaries also didn't close (but in a different bearing to the 45° misclose above), but my work did, so I surveyed my boundaries and joined onto an adopted corner position along this 45° line.

I uploaded the data into Landonline, making sure I wrote the survey report while it was fresh and set it aside.

And then the rules changed, and I lost it all.

I rewrote the report and redid the captured, but I was still somewhat unfamiliar with the new rules when I lodged the survey.

I submitted what I thought was a fieldnote (handwritten observations along with finders) as required by the new rules, but had to instead go back to my raw data and prepare one that was (I got a graduate to do it in the end)

I adopted through old traverses correctly, but under the new rules, the miscloses had to be addressed.

I was not comfortable recalculating traversed lines – to me, that loses weight to measurement, so I had to apply for dispensation for a Class C boundary.

To get rid of the 4m, I did the following;

- from Aorere Road, I did a hanging traverse along the observed boundary.
- I did the same from the unmarked BTW location,
- I pegged the \hanging positions and recalculated the vector in between.

How 4m is missing along adoptions to mark NB is baffling – but now the 4m is resolved.

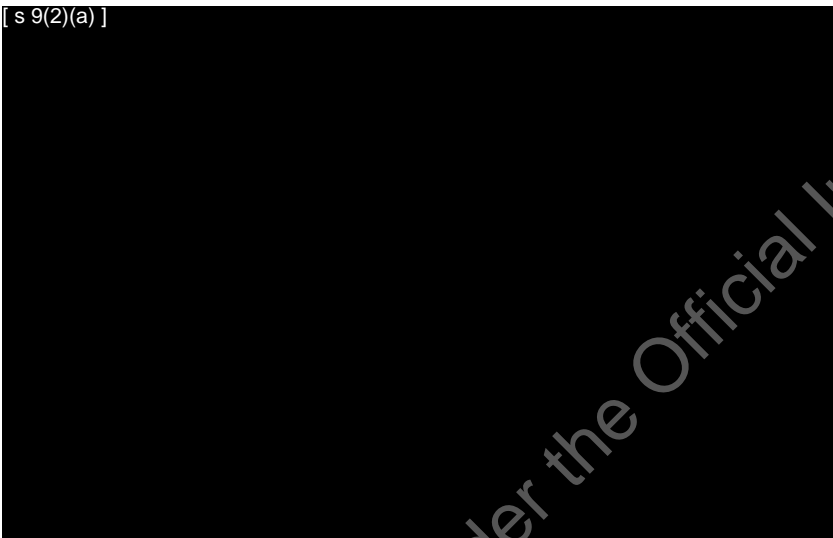
To answer your question, “mitigating circumstances or lessons you’ve learned from it?” trying to fit a Class B surveying into a rugged hill country underlying survey proved difficult.

The lesson I learned is that a free survey needs rigorous processing and independent reviews, which is standard procedure for other ‘paying’ jobs that I lodge.

This job rapidly taught me how to apply the new accuracy standards of each vector in a survey so I can isolate a vector that doesn’t meet the required accuracies and investigate any error.

My thanks to Lloyd for guiding me through the new rules for this transitory survey.

Regards



From: Philip Napper <secretary@cslb.org.nz>
Sent: Wednesday, February 21, 2024 12:16 PM
To: [s 9(2)(a)]
Subject: Notice of Significant Failure

Hello [s]
Please refer to the attached letter from the Board. I look forward to your response before 22 March.

Thank-you
Phil

Phil Napper
Secretary,
Cadastral Surveyors Licensing Board of NZ

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