



Survey and Spatial New Zealand
Tātai Whenua

PO Box 5304, Wellington 6145

Tel: 04 4711774

Website: www.surveyspatialnz.org

31 January 2025

The Secretary

Cadastral Surveyors Licensing Board of New Zealand

PO Box 1208

Wellington 6140

Email: secretary@cslb.org.nz

Dear Phil

S+SNZ Professional Examinations October 2024 – Summary and Review

The latest round of Professional Examinations were held in Wellington over four days from Monday 14 October – Thursday 17 October 2024.

A total of 23 candidates applied for this round. This compares with 16 in April 2024 and 12 in October 2023. It was the highest number since October 2022 when 20 candidates applied.

Two candidates did not pass vetting and were declined an interview. One of these candidates was declined on the basis of their cadastral project submission not meeting the necessary complexity requirement. The other was declined due to insufficient evidence of their industry experience being provided. The remaining 21 candidates passed vetting and were invited to be interviewed. Of these, 15 candidates were considered to be a pass and were awarded a certificate of competency. 5 candidates were issued with requisition letters requiring them to submit further evidence to the satisfaction of the relevant examiners before they could be considered to be a pass. The one remaining candidate failed and was advised to re-apply for a subsequent round of interviews.

Analysing the requisitions further, 3 candidates were requisitioned in cadastral, 4 candidates were requisitioned in geodetic and 2 were requisitioned in spatial measurement. No candidates received requisitions in planning or engineering. One candidate received a requisition in one subject (cadastral) while four candidates received requisitions in two subjects. 24% of interviewed candidates received at least one requisition, though this is less than the average of 30% over the last 6 rounds of interviews since April 2022. Cadastral, Spatial and Geodetic have consistently been the most requisitioned disciplines over this time period.

One candidate that received a pass at the October 2024 interviews was considered to be of a standard high enough to warrant consideration for the Maurice Crompton-Smith Memorial Prize. This is awarded to the best candidate presenting to the panel across two rounds of interviews starting in October and finishing in April. This candidates projects have been held by S+SNZ until April, when a decision will be made as to the prize winner.

The examinations panel report that overall they were pleased with the standard of the candidates for this round. Projects were generally well written and professionally presented. The examiners noted that nerves played a part in several of the interviews. It is suggested that candidates could arrange to do a mock interview with senior surveyors in their area, ideally someone they don't know. This would help to improve their confidence, make them more relaxed and reduce the chances of a poor interview due to nervousness. Supervising licensed cadastral surveyors are encouraged to facilitate this where possible to best prepare their candidates.

In the cadastral interviews, the examiners found that there were some general deficiencies in water boundary and limited title survey knowledge, especially where the candidate had little post-graduate experience in these specific areas. Candidates applying for their licenses for the first time are certainly not going to be experts in these areas, but a good general knowledge is expected. If a candidate has not worked on a survey involving a water boundary or a limited title before themselves, it is suggested that they find a colleague or peer that has and glean as much information from them as they can.

The cadastral examiners also noted that some candidates are not putting enough emphasis on effective quality assurance. This is an area where requisitions of cadastral datasets are common. Completed QA checklists and an understanding of the purpose of QA, both during the survey and prior to lodgement, are critical. It is important that candidates adequately demonstrate the level of competence and professionalism with respect to QA that is required to operate as a Licensed Cadastral Surveyor.

The spatial measurement examiners report that the candidates were able to show good understanding of operating modern survey equipment in order to undertake survey measurements and present the results appropriately, whether that be on a topographical plan or documented calculations. While the candidates were able to discuss the processes happening 'behind the scenes' in the software when orally questioned, the reports were often brief and light on detail with regard to error analysis and quality assurance measures.

Future candidates are advised to write their reports in such a way that the concepts and processes, often taken for granted by a surveyor, are explained as they would to a layperson. Reports need to show an in-depth understanding of the concepts. For example, how stringing works and is handled by software, what a TIN is and how different survey techniques can affect its accuracy. Candidates need to ensure they make connections to the CSLB competencies in their written reports.

In the geodetic interviews, the examiners report that most project datasets were well observed, but the areas that let some down were around insufficient robustness in the observation of the network. There is often a correlation between candidates that make the necessary effort to observe a network with good network geometry and well-placed independent vectors, and those who clearly understand and can discuss their methodology at the interview.

The geodetic examiners encourage all candidates to be comfortable in their understanding of underlying principles and terminology such as horizontal and vertical datums, projections, GNSS error sources and least squares principles. When candidates are requested to do more work after the interview, their subsequent submissions are typically of a high standard, so it is clear that that the information is available to them and they are well able to understand it. It is much more efficient if they can demonstrate that knowledge at the interview.

Candidates should consider the geodetic project as an example of their work experience. This can demonstrate their understanding of geodetic principles, such as those commonly used in cadastral surveys. Key concepts include selecting and confirming the right datum and projection, understanding common error sources in GNSS observations, and expected accuracies in different environments. Additionally, candidates should be familiar with the statistics and processes related to least squares, as this method is used to integrate data into Landonline. Producing a report that is fit for purpose and of professional quality is also essential.

Candidates often struggle when they focus too much on simply completing a survey, detailing aspects such as fieldwork processes. Instead, they should emphasize the concepts and principles that underpin their choices and decisions along the way.

The planning examiner noted that the overall standard of planning projects (with few exceptions) was high, with candidates demonstrating genuine interest and engagement with their project of choice and demonstrating their understanding of the planning process in action. All were able to explain well the surveyors role in subdivisions (a core competency for surveyors) and their developing knowledge in broader resource management considerations. A smaller number of candidates had gained experience that put them well on track to becoming all round "land development professionals" with the ability to lead multi-disciplinary projects.

The engineering examiner was generally pleased with the level of knowledge and experience displayed by the candidates during their interviews. There were several outstanding candidates that had clearly been well supported by their firms and were very confident in discussing a wide range of land development engineering principles, backed up with high quality projects, plans and contracts. The examiner notes that the annual circular does not necessarily reflect the diversity of land development engineering projects happening across the country and is pleased to see candidates taking the initiative in this regard, while still demonstrating their competency in terms of the CSLB standards.

Finally, the examinations panel would like to acknowledge the time and effort put into the project submissions and the interviews by both the candidates themselves and their supporting colleagues. The process of achieving a first-time licence as a cadastral surveyor is challenging and rightly so, considering the risk and responsibility that goes with it. The panel looks forward to seeing many more enthusiastic and well-prepared candidates presenting in April 2025.

Yours sincerely



Kris Gough
Examinations Panel Chair



Andrew Blackman
President