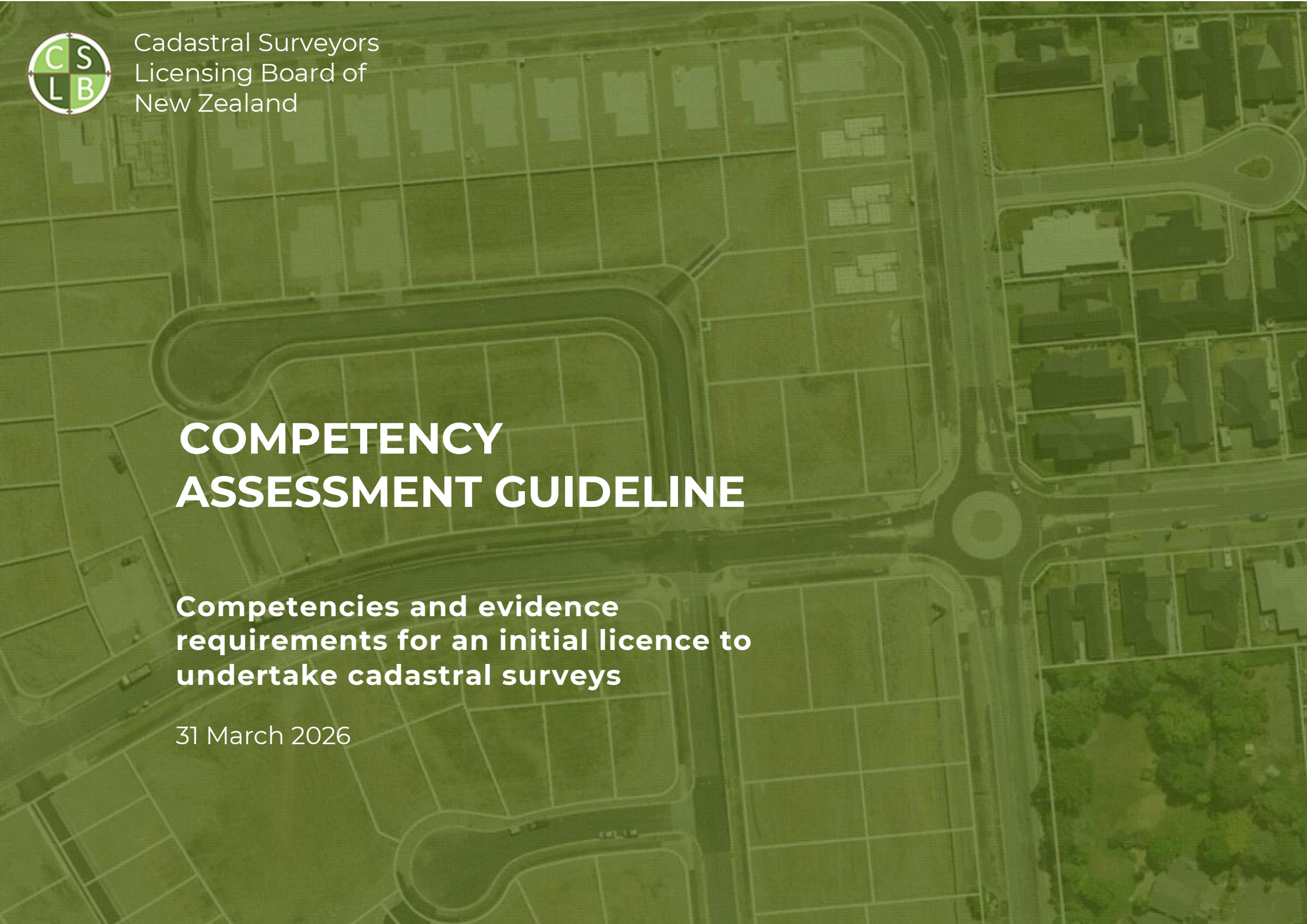
Cadastral Surveyors
Licensing Board of
New Zealand

COMPETENCY ASSESSMENT GUIDELINE

Competencies and evidence requirements for an initial licence to undertake cadastral surveys

31 March 2026

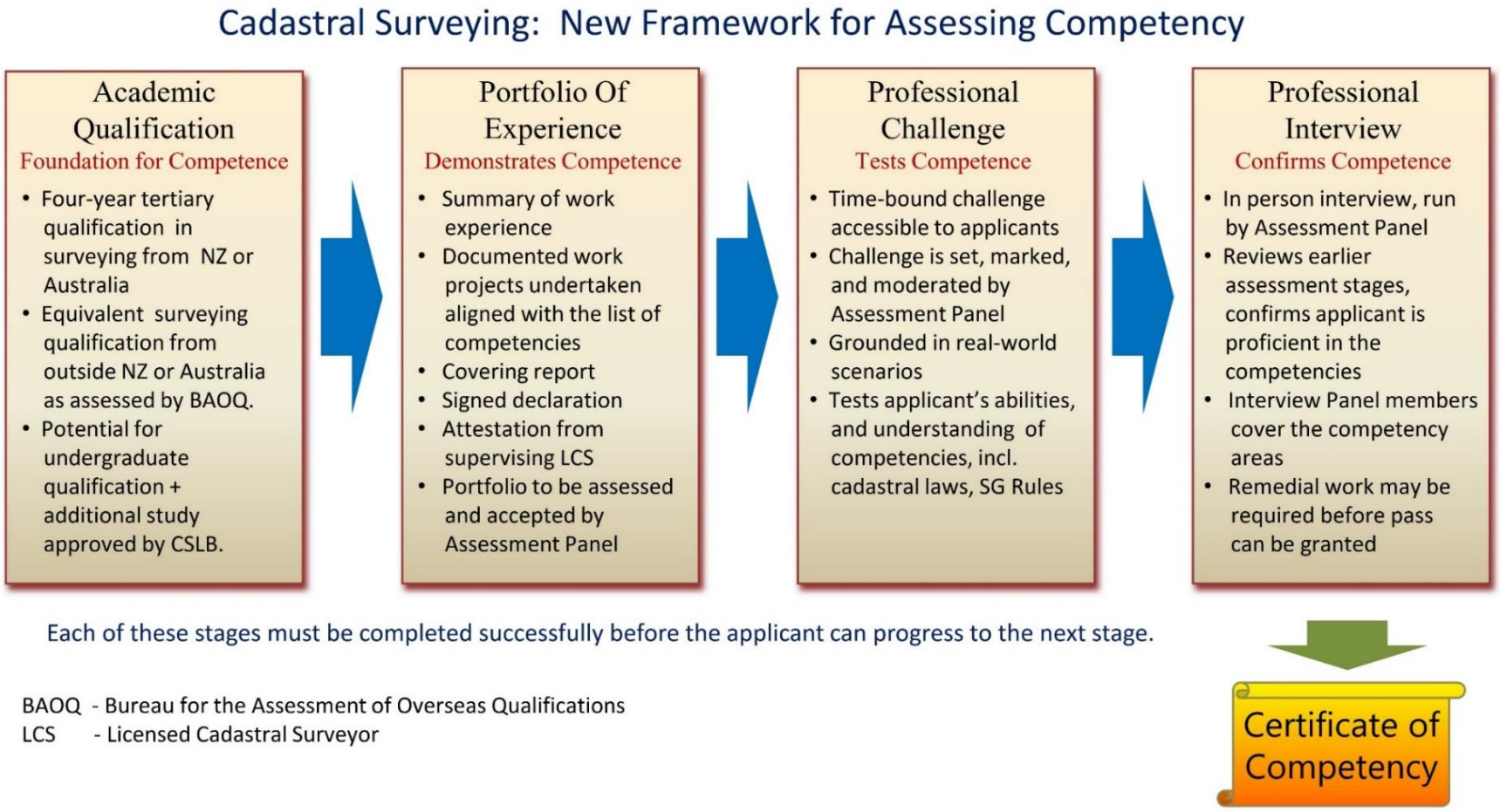


Cadastral Surveyors Licensing Board of New Zealand

TABLE OF CONTENTS

COMPETENCY ASSESSMENT FRAMEWORK

The Cadastral Surveyors Licensing Board (the Board) has developed a framework to assess the competence of applicants seeking an initial licence to undertake cadastral surveys. The framework involves four stages of assessment that are undertaken sequentially. The diagram below shows the four stages, with a summary of the requirements contained in each.



COMPETENCIES

Standards for Licensing of Cadastral Surveyors 2021

Schedule 1 of the Standards for Licensing Cadastral Surveyors 2021 (the Standards) lists the competencies that applicants are to be assessed against, broken down into the following eight broad categories.

Survey measurement	Land tenure systems	Boundary definition	Land information systems
The statutory planning process	Land development engineering principles	Professional conduct	Communication skills

The detailed list of sub-competencies listed in Schedule 1 of the Standards applies to all Licensed Cadastral Surveyors for the years that they hold a licence.

The Standards can be found here Standards for Licensing Cadastral Surveyors 2021

COMPETENCIES FOR AN INITIAL LICENCE

An applicant for an initial licence is not expected to have the depth of experience to cover all the competencies listed in Schedule 1 of the Standards to an expert level. Therefore, this document identifies the important sub-competencies that an applicant for an initial licence is required to be proficient in. Different aspects of the competencies are addressed at each stage of the framework.

The evidence requirements outlined in this document link to the applicable sub-competencies that will be assessed during each separate stage. The following table outlines an aspirational statement of the skills a new licensed cadastral surveyor should have for each competency area. However, these statements do not overrule the sub-competencies identified for each assessment stage.

Competency Area	Aspirational Statement
Survey measurement	A new licensed cadastral surveyor is proficient in land surveying and will understand the various survey disciplines for collecting spatial data. They will be able to undertake accurate measurements, analyse and adjust the data correctly, and present the results in a clear format to suit the purpose of the survey
Land tenure systems	A new licensed cadastral surveyor will understand the law and administrative systems relating to land. They will identify the current status of land and any rights and interests associated with it. When the tenure of the land needs to change or new rights and interests are to be created, they will choose the correct survey type and process to support those actions.
Boundary definition	A new licensed cadastral surveyor will correctly define cadastral boundaries. They will begin this process by gathering all the relevant evidence. They will then use sound judgement and established principles to analyse the evidence and arrive at the best boundary definition possible.
Land information systems	A new licensed cadastral surveyor will understand the data sources and inherent limitations of land information systems. They will utilise these systems appropriately for the purposes of cadastral surveying and subdividing land.
Statutory planning process	A new licensed cadastral surveyor will understand the entire subdivision process and the regulatory framework that controls it. They will be able to obtain subdivision consents and implement them by preparing the appropriate land transfer surveys and obtaining the necessary certifications to successfully support the issue of new titles.
Land development engineering principles	A new licensed cadastral surveyor will understand the information needed to determine if land is appropriate to subdivide. They will know the process for ensuing that new titles are accessible and serviceable. Most importantly, they will know how to correctly define new boundaries and rights relative to the constructed works.
Professional conduct	A new licensed cadastral surveyor will act honestly and maintain high standards of professionalism. They will acknowledge the limits of their expertise and take full responsibility for the surveys they undertake, as well as continue to develop their competence.
Communication	A new licensed cadastral surveyor will have good oral and written communication skills. They will be able to clearly convey information to a variety of audiences in a professional manner.

ASSESSMENT STAGES – EVIDENCE REQUIREMENTS

Learning Management System (LMS)

The Cadastral Surveyors Licensing Board use a dedicated digital platform to support the administration of the competency assessment framework. The Moodle learning management system is currently used for this purpose. This platform serves as the primary portal for communication between the applicants and the Examinations Coordinator and is where applicable documentation for each stage is uploaded and stored for the duration of the initial licensing process. All applicants seeking an initial Cadastral Surveyors License must first register with the platform at the following link https://lms.cslb.org.nz/.

1. Academic Qualification

The academic qualification sets the foundation for competence. To begin the approval process, applicants will need to provide evidence of their qualification through one of the categories outlined below.

Qualification	Qualification Description	Evidence needed
Compliant New Zealand or Australian Qualification	A four-year university qualification from New Zealand or Australia in surveying recognised by the Board The current qualifications recognised by the Board are: Bachelor of Surveying degree from the University of Otago, with a pass in the advanced cadastral surveying paper SURV457 or its equivalent.	Copy of degree University transcript confirming critical cadastral surveying paper(s) passed
Compliant Qualifications outside New Zealand	A university qualification in surveying from outside New Zealand that is the equivalent of the compliant four-year degree	Copy of degree and university transcript Copy of advice from BAOQ[1] confirming that qualification is equivalent
Non-compliant Qualification	A university qualification in surveying that is not the equivalent of the compliant four-year degree	Copy of degree and university transcript Copy of advice from Board specifying extra qualification(s) required University transcript confirming pass in extra qualification(s) specified

1 BAOQ = Bureau for Assessment of Overseas Qualifications. Contact the Examinations Coordinator for advice on how to have your qualification assessed by the BAOQ examinations.coordinator@cslb.org.nz

2. Portfolio of Experience

The applicants are to present a portfolio of work that demonstrates they have achieved the appropriate level of proficiency in each of the applicable competencies specified below. The portfolio must directly indicate how the work completed addresses the competency requirements.

Work Experience

Clause 10(4)(b) of the Standards outlines the practical experience requirements for a certificate of competency. This is stated as a minimum of two years post graduate practical training and experience under the guidance of a licensed cadastral surveyor, of which at least one year must include cadastral surveys involving the subdivision of land and boundary definition.

Minimum periods of time are also required in other competency areas to complete the post-graduate work experience of the applicants under this assessment framework.

For the purposes of this section, the post-graduation period starts on the date that the applicable university declares that the requirements of the degree, or any subsequent qualifications required by the Board, have been completed. This date will be indicated on the transcript of studies from the university. The practical experience timeframes mentioned shall be calculated at a rate of 40 hours or 5 days per week and 4 weeks per month.

Notwithstanding these minimum timeframes, an applicant should not submit a Portfolio of Experience until they are confident that it demonstrates the required level of proficiency in the competencies. They also need to be confident that they are ready to progress to the subsequent stages to be tested against the competencies.

Experience	Experience description	Evidence needed
Summary of Work Experience	A summary of the applicant's post-graduate work experience outlining the: • Company of employment, location; • Start and finish dates for each place of employment (to the nearest month), accumulated time; • Role description(s); • Brief summary of range of work undertaken; • Names of Supervising Licensed Cadastral Surveyor(s).	Documented summary of post-graduate work experience in the required form

Experience	Experience description	Evidence needed
	A schedule recording the accumulated post-graduation practical experience under the guidance of a licensed cadastral surveyor to the following standards: • **Minimum 24 months** total surveying experience • **Minimum 12 months** on cadastral surveys involving the subdivision of land and boundary definition • **Minimum 4 months** obtaining and implementing subdivision consents. This experience would cover competencies in the statutory planning process and land development engineering principles.	Schedule of accumulated post-graduate experience in the required form
	Up to six months of suitable pre-graduate experience may be included in the summary of work experience. This can be approved by the Assessment Panel, under a delegation by the Board, in the following circumstances: • the applicant held a survey technician qualification during the pre-graduate period being claimed; and • the work was done under the supervision of a LCS.	Details of compliant pre-graduate experience, including copies of: • Technician qualification • Schedule and summary of accumulated pre-graduate experience in the required forms • Attestation by supervising LCS in the required form
	Applicants with pre-graduate experience that does not align with the above criteria can submit a request to the Board for consideration and approval.	Copy of advice from Board approving pre-graduate experience, including start and end dates and total accumulated time involved.
Attestations	The applicant must provide a formal declaration that: • The summary of work experience is true and accurate • That each covering report supplied with the selected work projects is entirely their own work • Any parts of the covering reports prepared using artificial intelligence have been verified by them • That the descriptions of the extents of their involvement in each of the projects submitted are accurate.	Attestation by applicant in the required form(s)
	Each Supervising Licensed Cadastral Surveyor (LCS) must attest to the extents of the experience obtained by the applicant while under their supervision.	Attestation by each Supervising LCS in the required form

Selected Work Projects

A portfolio of selected work projects is required to demonstrate proficiency in the competency areas specified below. It is not expected that each project will cover all the sub-competencies on its own, but rather that the group of projects between them will do so.

It is anticipated that the information submitted would be the documentation produced as part of the project deliverables. Examples of this might include calculation sheets or copies of any referenced survey plans. However, further background information will need to be included to fully explain the competency areas being demonstrated.

Some projects may be used to demonstrate proficiency in more than one competency area. However, the project file, with applicable background information, will need to be loaded into each competency area where it is used.

It is important that the filename convention used for the projects is unambiguous to ensure easy cross-referencing in the covering reports. The files are to be saved in PDF format and uploaded into the applicable areas of the online learning management system.

Covering Reports

Each group of projects for the main competency areas must be supported by a covering report. It is important that the covering report focuses on and addresses each sub-competency within the main competency area. The report must clearly describe how the projects demonstrate proficiency in all the individual sub-competencies.

The covering report is the critical link between the projects contained in the portfolio and the sub-competencies. The assessor can understand WHAT an applicant did by looking at the project information provided. However, the report needs to explain HOW and WHY a submitted project demonstrates a particular sub-competency. For example, a boundary recalculation in a project shows that an anomaly or conflict in the cadastre was resolved, but the covering report needs to go deeper and demonstrate that the applicant is competent to do this. It might explain what evidence was searched for, analysed and discussed in order to reach a decision. It might discuss what alternatives were considered, or what the potential consequences of an incorrect decision might be.

The covering reports are to be presented to a high professional standard. The reports should include a table of contents, graphical cues, captioned photographs and contextual images to effectively communicate the information.

The discussion in the covering report should be supported by evidence such as drawings, maps, emails, calculations, photos or other documents that have been submitted as part of the portfolio. References to evidence in supporting documents must be unambiguous so that the assessor can easily find the information. Images or diagrams embedded in the body of the report can make it much easier for the assessor to quickly understand what is being explained.

Applicants are encouraged to keep the covering reports focussed on the relevant information that demonstrates their proficiency in a competency area. Long project descriptions or technical detail should not be necessary.

To enable the assessors to clearly understand how the projects demonstrate proficiency in each sub-competency, it is strongly suggested that the covering reports follow the broad structure outlined below:

1. **Projects:** Include a brief explanation of each project being submitted for the competency area. There is no need to go into detail, just enough information to set the context for the assessor. Applicants can assume that the assessor reading the report will be a subject matter expert with a good understanding of technical terms and concepts. For each project the applicant should provide the following information:
    a. Project name, location and date
    b. A description of the project
    c. The role(s) of the applicant in the project
2. **Sub-Competencies:** Structure the report by using the sub-competencies as section headings. This will be the main part of the report, and it is important that it explains how a project demonstrates proficiency in the sub-competency. In some cases, it might be appropriate to group some of the sub-competencies together to avoid repetition. Applicants should make it clear how their projects demonstrate their competence so that the assessor does not have to infer.
3. **Reflections:** Reflections are an opportunity for an applicant to demonstrate that they understand the 'why' behind the competencies. This section should be used to explain what went well, or what difficulties were encountered and resolved, to articulate their professional learning in the competency area.

If artificial intelligence (AI) is used in the preparation of any covering report, this must be disclosed at the start of the report and the assessor referred to an appendix containing an AI disclosure statement. The AI disclosure statement must contain information about the AI assistance methods used and how the AI generated content has been thoroughly verified by the applicant. This appendix is not included in the word count of the covering report.

Processing of Portfolio of Experience

Once an applicant has uploaded all the required information in the Moodle platform and pressed the 'submit' button, the Examinations Coordinator will undertake a check to confirm that all the required documents are there and readable. The Examinations Coordinator will contact the applicant if any document is missing. However, the Examinations Coordinator will not review the quality of the content uploaded because that will be undertaken by the assessors.

When the portfolio is deemed complete, an invoice will be sent to the applicant for payment. Once the payment has been received, the Examinations Coordinator will release the portfolio to the members of the Assessment Panel.

The assessors will review the information that has been uploaded to the Moodle platform for each applicant they are to assess. They will read through the covering report that links the projects to the sub-competencies for each competency area. They will decide if the portfolio submitted adequately demonstrates the proficiency of the applicant in the competencies.

Any exemptions that may have been sought by an applicant in consultation with the Examinations Coordinator and/or Board should be uploaded as part of the portfolio material. As an example, this could include any pre-graduate experience being claimed.

Request for Further Information

The system allows for an assessor to request further information of a minor nature if it is needed to fully understand if the evidence provided adequately demonstrates the proficiency of the applicant in the competency area. This further information could be in the form of missing project documentation (e.g. field notes) or minor alterations to the covering report. The applicant would respond by uploading the required information within an agreed timeframe (likely to be 1-2 weeks).

The ability for an assessor to request further information of a minor nature should not be viewed as an opportunity for an extension of time. The initial documentation uploaded should be viewed as the final best submission for the demonstration of competence.

Conditional Pass

The system allows for a conditional pass in the Portfolio of Experience, if the Assessment Panel chooses to use it. This facility could be used to grant an applicant an overall pass subject to some further evidence being provided. It could apply in a situation where there is a matter of process that is outside the applicant's control and can be satisfied before the Certificate of Competency is issued. A conditional pass would allow an applicant to at least progress to the next stage. An example of a conditional pass could be accepting an unapproved mandatory cadastral survey used as a project, on the proviso that it be approved before the applicant passes the Professional Interview. The grounds for any conditional pass will be clearly defined. A conditional pass is different to a request for further information, which is of a minor nature and required earlier in the process. It will not be used if the evidence provided by the applicant is insufficient to demonstrate their proficiency in the competency area.

Final Decision and Feedback

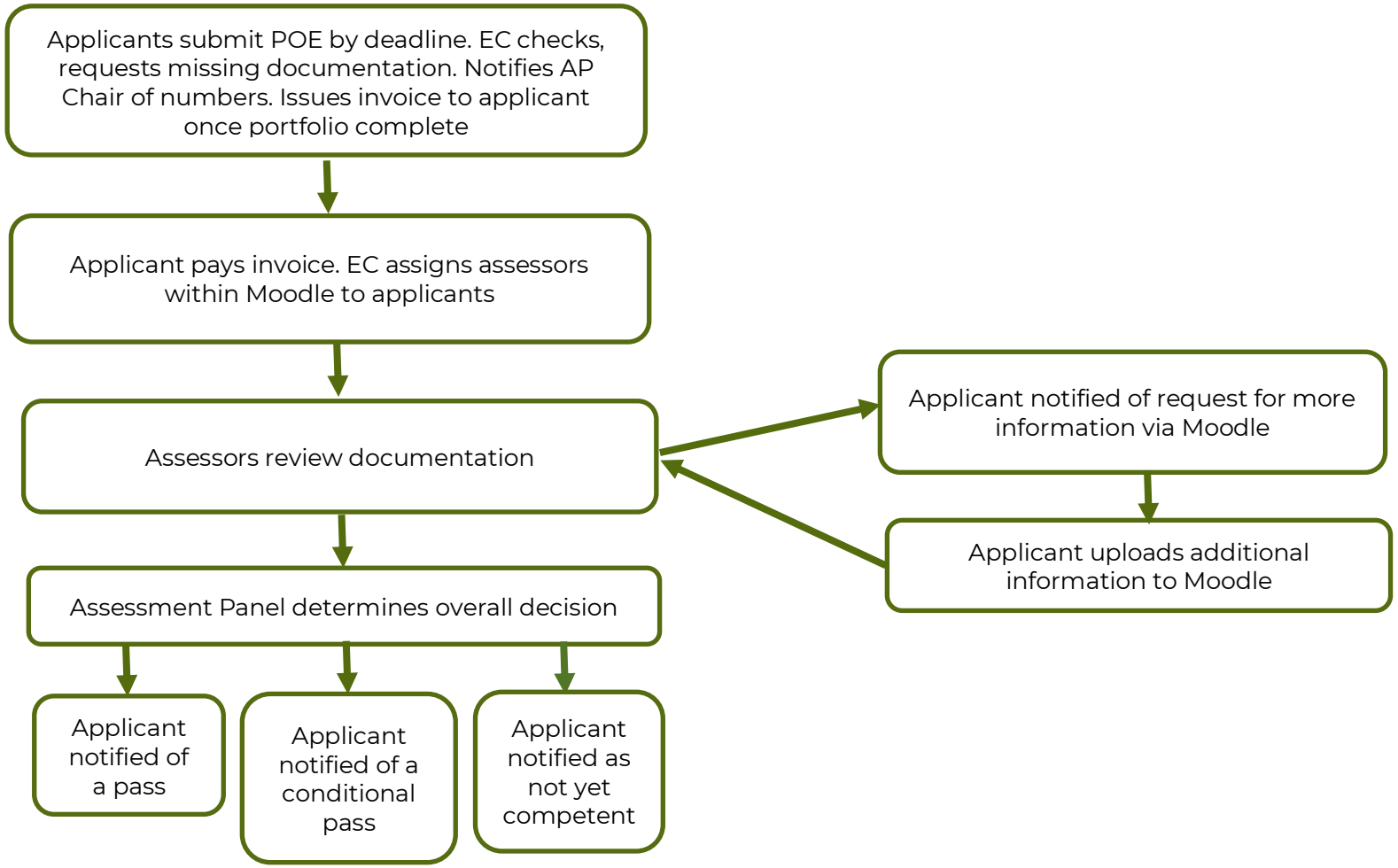
Once all the competencies for the candidates have been assessed, the Assessment Panel will convene to make an overall decision on each applicant. The deliberations of the Assessment Panel will result in one of three possible outcomes:

- Approved (a pass)
- Approved with conditional pass (a pass)
- Not approved (not yet competent)

Feedback from the assessors to an applicant will also be provided, which will highlight potential gaps or areas of weakness demonstrated in their portfolio. Applicants are strongly advised to use this feedback to strengthen their skills as they prepare for the latter stages of the competency assessment framework. This feedback will also be available to the assessors, which may inform the question topics during the Professional Interview.

Flowchart for Portfolio of Experience

The flowchart below illustrates the process for the review of the Portfolio of Experience.



Competency Description	Evidence needed
Survey Measurement *Conducting survey measurements* • Demonstrate the principles of surveying for the disciplines of cadastral surveying, geodetic surveying, and topographical surveying. • Apply sufficient independent checks and eliminate material observational errors to achieve the required measurement accuracies that will support the application of these survey principles and disciplines. • Determine the appropriate equipment and techniques to achieve the level of accuracy required for the purpose of the survey. • Describe the functions and limitations of the different types of survey equipment, how to use them correctly and how to ensure they are properly calibrated. • Interpret and determine topographic and hydrographic features relevant to the definition or location of boundaries. • Record and document measurements and other survey observations accurately and unambiguously. *Analysing survey measurements* • Demonstrate an ability to apply statistical analysis and appropriate mathematical reductions and adjustments to horizontal and vertical survey measurements, and cadastral and geodetic control networks, using appropriate map projections and vertical datums. • Undertake coordinate transformations and relate measurements to the appropriate geodetic reference systems and datums. • Interpret and incorporate historical survey data relevant to the purpose of the survey. • Present spatial data correctly and unambiguously. *Quality assurance* • Apply an appropriate quality assurance process when gathering and processing survey measurements, including sufficient independent checks.	A selection of work projects (in horizontal and vertical dimensions) that demonstrate the competencies for survey measurement to an appropriate level of complexity. Complexity can be determined by a combination of factors such as: • Area or size • Varied topography • Multiple buildings / structures • Varied accuracy requirements • Combinations of equipment, methods or data • Level of detail presented • Logistical constraints Two mandatory projects: 1. Topographical survey that relates the measurements to relevant cadastral boundaries and legal interests. 2. Survey control network design, measurement, adjustment and analysis If the mandatory projects do not demonstrate all the required competencies, an applicant can submit further projects. These could include: • Construction set-out of buildings or infrastructure relative to relevant cadastral boundaries and interests • As-built survey of building or infrastructure relative to relevant cadastral boundaries and interests • Earth/structure/building position monitoring • Any other project that clearly demonstrates proficiency in the survey measurement competencies to a suitable level of complexity A covering report of between 5000 to 10000 words which explains how the projects submitted demonstrate each of the competencies.

Competency Description	Evidence needed
Land Tenure Systems • Explain the different land tenure systems in New Zealand and the different central and local government regulatory processes that affect them. • Explain the different legislation that affects rights and interests in land, land use, subdivision, and cadastral surveying in New Zealand. • Determine the status of land and the associated interests and rights, and how these affect the use and development of the land. • Apply the correct types of surveys and their purposes in relation to land tenure and the subdivision of land.	Work project(s) that demonstrate the competencies for land tenure systems. Projects could include: • A survey to support unit titles, leases, licences, legalisation actions, rentable areas or defining land in the tidal area • Surveys of different types of subdivisions that do not involve a land transfer plan (e.g. Crown land, Māori land partition) • Documented research into ad medium filum aquae properties of a title to support an accretion claim • Land status investigation or research (e.g. Crown land, land held under the Deeds system, land subject to a claim of adverse possession) • Plan graphic showing encumbrances, rights and restrictions on a parcel of land • Any other project that clearly demonstrates proficiency in the land tenure systems competencies A covering report of between 5000 to 10000 words which explains how the projects submitted demonstrate each of the competencies. The first two sub-competencies can be addressed in essay form within the report.

Competency Description	Evidence needed
Boundary Definition *Evidence gathering* • Interrogate and correctly interpret existing survey, title and land information records and databases. • Explain the information required, and the processes involved, in claiming rights to land. • Gather all the relevant physical evidence in the field, including old survey marks, occupation and natural boundaries. *Interpretation* • Interpret cadastral survey datasets, field notes, reports, and other supporting documentation from the cadastral record. • Apply the principles of boundary definition and the hierarchy of evidence. • Correctly resolve anomalies and conflicts in the cadastre. • Interpret building design and construction as far as they relate to the definition of cadastral boundaries and rights associated with buildings, services and structures. *Determination of boundaries* • Determine the position of all boundaries, with respect to existing boundaries, lines of occupation, interests, and property rights. • Determine the positions of natural boundaries (water or irregular). • Describe the process to correctly define permanent structure boundaries. • Describe the process to correctly define the position of height limited boundaries, interests, and rights with reference to a vertical datum. • Present a range of cadastral survey datasets, reports and supporting evidence that are appropriate for their intended purposes. • Conduct cadastral surveys that comply with the Surveyor-General's rules for cadastral surveys.	A selection of work projects that demonstrate the competencies for boundary definition. At least one must be in an urban context and at least one must be in a rural context. One mandatory project: 1. An approved survey containing a complex boundary definition, for example, supporting accretion or adverse possession claim, removal of limitation as to parcels, resolving significant conflict, re-defining earlier diagram on transfer subdivisions, or defining (not adopting) natural boundaries (water or irregular). At least one other project, which could include: • A survey that involves the definition of permanent structure boundaries or boundaries relative to permanent structures • A survey that involves strata or height-limited boundaries • A survey that involves resolving the effect of land movement on boundaries • Any other cadastral survey that clearly demonstrates proficiency in the boundary definition competencies. It is expected that cadastral datasets submitted as non-mandatory projects will be approved as to survey. However, if approval cannot be obtained in time, the project must be accompanied by an attestation from the signing surveyor that the dataset has been thoroughly checked and is ready for lodgement. The dataset will need to be approved before a pass in the Professional Interview will be given. A covering report of between 5000 to 10000 words which explains how the projects submitted demonstrate each of the competencies.

Competency Description	Evidence needed
Land Information Systems • Apply knowledge of survey information, survey data sources and systems to access, retrieve, and interpret land information relevant to cadastral surveying and the subdivision of land. • Merge and transfer digital spatial and attribute data into and between other formats or systems. • Determine the inherent limitations of different sources of data and interpret them correctly. • Use digital spatial and attribute data effectively and present it unambiguously.	Work project(s) that demonstrate the competencies for land information systems. Projects could include: • Plan graphic for a specific purpose that utilizes different sources of spatial data (with appropriate attributions and disclaimers) • Documented advice to a client or landowner on the positions of their boundaries relative to publicly available aerial mapping • Maps or visualisations using GIS to show land boundaries, regulatory overlays, natural features etc. • Any other project that clearly demonstrates proficiency in the land information systems competencies A covering report of between 2000 to 5000 words which explains how the projects submitted demonstrate each of the competencies.

Competency Description	Evidence needed
Statutory Planning Process • Identify other legal interests in land that may affect the completion of the subdivision process and the issue of records of title. • Interpret rules in regulatory planning documents as they relate to the subdivision of land. • Interpret all types of planning consents that require the definition of spatial rights to give effect to them. • Interpret the conditions of a subdivision consent and understand the processes required to satisfy them.	A selection of work projects that demonstrate the competencies for the statutory planning process. Two mandatory projects: 1. EITHER preparation of the application documentation, including application plan, for a subdivision consent that has been granted by the appropriate territorial authority, OR an essay of at least 2500 words critiquing an approved subdivision consent, covering the entire planning process through to the issue of the decision by the territorial authority. 2. A land transfer subdivision plan that gives effect to a subdivision consent (that has obtained at least the s.223 RMA certificate from the relevant territorial authority). It must include new boundaries, as well as some other complexity to be spatially defined as a condition of consent such as multiple easements, a covenant, consent notice area or land to vest. If the mandatory projects do not demonstrate all the required competencies, an applicant can submit further projects. These could include: • Successful application to territorial authority for formal confirmation that all the conditions of a subdivision consent have been satisfied • Documented feasibility report on the development potential of a piece of land for a client or landowner • Report outlining the hierarchy of planning documents from the national to local level and their relative influences on the development of a piece of land. • Any other project that clearly demonstrates proficiency in the statutory planning process competencies A covering report of between 3000 to 7500 words which explains how the projects submitted demonstrate each of the competencies.

Competency Description	Evidence needed
Land Development Engineering Principles • Describe the basic principles of soil properties, land stability, inundation, and other natural hazards, as they relate to the subdivision of land. • Describe the basic principles of earthworks, access, roads, wastewater and stormwater drainage, water supply systems, and the provision of utility services as they relate to the subdivision of land. • Describe the different regulatory documents that control the provision of access and services to a subdivision. • Interpret an engineering design to the extent necessary to identify where a design may be incompatible with either the topography, subdivision consent, existing rights and interests, or existing cadastral boundaries. • Correctly define the boundaries of all titles, easements and other rights or restrictions to ensure the proper extent of ownership and protection of rights associated with the constructed works.	Work project(s) that demonstrate the competencies of land development engineering principles. Projects could include: • As-built survey of infrastructure such as roading, access, structures, pipelines or services that is used to define new title and easement boundaries • Documented feasibility report for a proposed development covering factors such as access, drainage, services, natural hazards, construction constraints, regulatory framework etc. • Engineering investigation and testing to support the subsequent design of land development roading, drainage and services • An engineering design of access, drainage and services approved or accepted by a territorial authority to satisfy conditions of a subdivision consent • Documented clearance certificate application to Council where; access/drainage/services works have been undertaken to give effect to a subdivision consent, accompanied by the s.224 RMA certificate • Any other project that clearly demonstrates proficiency in the land development engineering principles competencies • An essay of at least 2500 words critiquing an engineering design by others A covering report of between 3000 to 7500 words which explains how the projects submitted demonstrate each of the competencies.

Competency Description	Evidence needed
Professional Conduct • Describe what it means to always act professionally and honestly to maintain public confidence in the cadastral survey and land tenure systems. This includes acknowledging limits of personal knowledge or expertise and seeking help when required. • Apply systems of professional practice management and effective quality assurance to all aspects of a cadastral survey to ensure compliance with the Surveyor-General's Rules. • Describe what it means to actively supervise, and be responsible for, work undertaken on a cadastral survey by any other person under the direction of a licensed cadastral surveyor. • Describe the benefits of professional development in relation to cadastral surveying and how to apply systems to ensure this remains ongoing.	Work project(s) that demonstrate the competencies of professional conduct. Any documented quality assurance process that is submitted must be for a project that is already part of the Portfolio of Experience. Projects could include: • A documented quality assurance process completed for all stages of a cadastral survey and supporting documentation, including a response to any requisitions received. • A documented quality assurance process completed for all stages of any other type of survey • Documented instructions to staff • Reflections on a situation where a conflict of interest was encountered and how it was resolved • Recent CPD record of training applicable to the competency areas • Any other project that clearly demonstrates proficiency in the professional conduct competencies A covering report of between 2000 to 5000 words which explains how the projects submitted demonstrate each of the competencies. The first and last two sub-competencies can be addressed in essay form within the report, substantiated with real-world examples experienced by the applicant.
Communication • Write clear, logical, and unambiguous documents and reports to a professional standard that can be easily understood by the recipient.	There is no separate project to be submitted under this competency in the Portfolio of Experience. The ability to communicate unambiguously to a professional standard must be demonstrated in the reporting for the other competency areas.

3. Professional Challenge

The purpose of the Professional Challenge is to independently test the applicant's knowledge, understanding, and abilities in the applicable competencies specified below. The Examinations Coordinator, in consultation with the Assessment Panel, will determine and communicate the date and location of each Professional Challenge.

The pre-requisite to attend the Professional Challenge is to have had the Portfolio of Evidence accepted by the Assessment Panel within the previous 2 years.

The Professional Challenge will be conducted over a day. It will consist of an examination on cadastral survey law and the current Cadastral Survey Rules, followed by a number of real-world scenarios to test the practical application of the competency areas.

An exemption to the examination component of the Professional Challenge will be granted to applicants who have passed the Cadastral Law Exam within the previous 5 years.

This stage will be completed once a pass in the Professional Challenge has been awarded by the Assessment Panel.

The individual sub-competencies below are potential areas for testing by this assessment method. The Assessment Panel will release highlighted sub-competency areas that are likely to be tested in advance of each Professional Challenge. This will allow applicants to focus their preparation.

Further details about the Professional Challenge will be provided later.

Competency Description

Survey Measurement

Conducting survey measurements

- Demonstrate the principles of surveying for the disciplines of cadastral surveying, geodetic surveying, and topographical surveying.
- Determine the appropriate equipment and techniques to achieve the level of accuracy required for the purpose of the survey.
- Describe the functions and limitations of the different types of survey equipment, how to use them correctly and how to ensure they are properly calibrated.

Analysing survey measurements

- Demonstrate an ability to apply statistical analysis and appropriate mathematical reductions and adjustments to horizontal and vertical survey measurements, and cadastral and geodetic control networks, using appropriate map projections and vertical datums.
- Undertake coordinate transformations and relate measurements to the appropriate geodetic reference systems and datums.
- Interpret and incorporate historical survey data relevant to the purpose of the survey.

Quality assurance

- Present spatial data correctly and unambiguously.
- Apply an appropriate quality assurance process when gathering and processing survey measurements, including sufficient independent checks.

Competency Description

Land Tenure Systems

- Explain the different land tenure systems in New Zealand and the different central and local government regulatory processes that affect them.
- Explain the different legislation that affects rights and interests in land, land use, subdivision, and cadastral surveying in New Zealand.
- Describe the Registrar-General of Land's role and responsibilities so far as they interact with cadastral surveying.
- Describe the roles and responsibilities of the Surveyor General, Land Information NZ and the Cadastral Surveyors Licensing Board in the cadastral survey system.
- Determine the status of land and the associated interests and rights, and how these affect the use and development of the land.
- Describe the role of the Māori Land Court and the survey requirements applicable to Māori land surveys.

Boundary Definition

Evidence gathering

- Interrogate and correctly interpret existing survey, title and land information records and databases.
- Explain the information required, and the processes involved, in claiming rights to land.

Interpretation

- Interpret and apply all Acts, legislative instruments, rules, and case law relating to cadastral boundaries (including Māori land court orders).
- Interpret cadastral survey datasets, field notes, reports, and other supporting documentation from the cadastral record.
- Apply the principles of boundary definition and the hierarchy of evidence.
- Interpret building design and construction as far as they relate to the definition of cadastral boundaries and rights associated with buildings, services and structures.

Determination of boundaries

- Determine the positions of natural boundaries (water or irregular).
- Describe the process to correctly define permanent structure boundaries.
- Describe the process to correctly define the position of height limited boundaries, interests, and rights with reference to a vertical datum.
- Explain the need to balance the interests of all affected parties in relation to boundary definition when defining and describing interests in land.
- Conduct cadastral surveys that comply with the Surveyor-General's Rules.

Land Information Systems

- Determine the inherent limitations of different sources of data and interpret them correctly.

Competency Description

Statutory Planning Process

- Explain the current legislation, and the relevant statutory and regulatory documents, that affect the subdivision of land.
- Identify other legal interests in land that may affect the completion of the subdivision process and the issue of records of title.
- Interpret rules in regulatory planning documents as they relate to the subdivision of land.
- Interpret all types of planning consents that require the definition of spatial rights to give effect to them.
- Interpret the conditions of a subdivision consent and understand the processes required to satisfy them.

Land Development Engineering Principles

- Describe the basic principles of soil properties, land stability, inundation, and other natural hazards, as they relate to the subdivision of land.
- Describe the basic principles of earthworks, access, roads, wastewater and stormwater drainage, water supply systems, and the provision of utility services as they relate to the subdivision of land.
- Describe the different regulatory documents that control the provision of access and services to a subdivision.
- Interpret an engineering design and constructed works to the extent necessary to identify where a design or constructed work may be incompatible with either the topography, subdivision consent, existing rights and interests, or existing cadastral boundaries.
- Correctly define the boundaries of all titles, easements and other rights or restrictions to ensure the proper extent of ownership and protection of rights associated with the constructed works.

Professional Conduct

Not applicable

Communication

(written only)

- Write clear, logical, and unambiguous documents and reports to a professional standard that can be easily understood by the recipient.

4. Professional Interview

The purpose of the Professional Interview is to confirm that an applicant has achieved proficiency in the competencies. The Examinations Coordinator, in consultation with the Assessment Panel, will determine and communicate the date and location of each Professional Interview.

The pre-requisite to attend the Professional Interview is to have passed the Professional Challenge within the previous 2 years.

The Professional Interview will be conducted face to face with three members of the Assessment Panel. The interviewers will have between them significant expertise across all the competency areas. The interviewers may utilise the applicant's Portfolio of Experience and Professional Challenge results to help shape the discussion.

This stage will be completed when a pass in the Professional Interview, after any remedial work has been satisfactorily completed, has been awarded by the Assessment Panel.

Assessors may interview applicants across the range of competencies where they have identified areas that need further exploration. Therefore, apart from the highlighted professional conduct sub-competencies, none of the individual sub-competencies are identified as high priority areas for this assessment method.

Further details about the Professional Interview will be provided later.

Competency Description

Survey Measurement

Conducting survey measurements

Describe the principles of surveying for the disciplines of cadastral surveying, geodetic surveying, and topographical surveying.

- Determine the appropriate equipment and techniques to achieve the level of accuracy required for the purpose of the survey.
- Describe the functions and limitations of the different types of survey equipment, how to use them correctly and how to ensure they are properly calibrated.

Analysing survey measurements

Describe how to apply statistical analysis and appropriate mathematical reductions and adjustments to horizontal and vertical survey measurements, and cadastral and geodetic control networks, using appropriate map projections and vertical datums.

Quality assurance

- Apply an appropriate quality assurance process when gathering and processing survey measurements, including sufficient independent checks.

Competency Description

Land Tenure Systems

- Explain the different land tenure systems in New Zealand and the different central and local government regulatory processes that affect them.
- Explain the different legislation that affects rights and interests in land, land use, subdivision, and cadastral surveying in New Zealand.
- Describe the Registrar-General of Land's role and responsibilities so far as they interact with cadastral surveying.
- Describe the roles and responsibilities of the Surveyor General, Land Information NZ and the Cadastral Surveyors Licensing Board in the cadastral survey system.
- Determine the status of land and the associated interests and rights, and how these affect the use and development of the land.
- Apply the correct types of surveys and their purposes in relation to land tenure and the subdivision of land.
- Describe the role of the Māori Land Court and the survey requirements applicable to Māori land surveys.

Boundary Definition

Evidence gathering

- Explain the information required, and the processes involved, in claiming rights to land.
- Gather all the relevant physical evidence in the field, including old survey marks, occupation and natural boundaries.

Interpretation

- Correctly resolve anomalies and conflicts in the cadastre.
- Interpret and apply all Acts, legislative instruments, rules, and case law relating to cadastral boundaries (including Māori land court orders).
- Apply the principles of boundary definition and the hierarchy of evidence.
- Interpret building design and construction as far as they relate to the definition of cadastral boundaries and rights associated with buildings, services and structures.

Determination of boundaries

- Determine the position of all boundaries, with respect to existing boundaries, lines of occupation, interests, and property rights.
- Determine the positions of natural boundaries (water or irregular).
- Describe the process to correctly define permanent structure boundaries.
- Explain the need to balance the interests of all affected parties in relation to boundary definition when defining and describing interests in land.

Competency Description

Land Information Systems

- Apply knowledge of survey information, survey data sources and systems to access, retrieve, and interpret land information relevant to cadastral surveying and the subdivision of land.
- Determine the inherent limitations of different sources of data and interpret them correctly.
- Use digital spatial and attribute data effectively and present it unambiguously.

Statutory Planning Process

- Explain the current legislation, and the relevant statutory and regulatory documents, that affect the subdivision of land.
- Interpret the conditions of a subdivision consent and understand the processes required to satisfy them.

Land Development Engineering Principles

- Describe the basic principles of soil properties, land stability, inundation, and other natural hazards, as they relate to the subdivision of land.
- Describe the basic principles of earthworks, access, roads, wastewater and stormwater drainage, water supply systems, and the provision of utility services as they relate to the subdivision of land.
- Describe the different regulatory documents that control the provision of access and services to a subdivision.

Professional Conduct

- **Describe what it means to always act professionally and honestly to maintain public confidence in the cadastral survey and land tenure systems. This includes acknowledging limits of personal knowledge or expertise and seeking help when required.**
- Apply systems of professional practice management and effective quality assurance to all aspects of a cadastral survey to ensure compliance with the Surveyor-General's Rules.
- **Describe what it means to actively supervise, and be responsible for, work undertaken on a cadastral survey by any other person under the direction of a licensed cadastral surveyor.**
- **Describe the benefits of professional development in relation to cadastral surveying and how to apply systems to ensure this remains ongoing.**

Communication

(oral only)

- Communicate clearly and concisely in English.
- Communicate professionally at a level appropriate to the audience.