post graduate training plan

**(ptp)**

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| Name of Graduate: |  |
| Signature: |   |
| This training plan has been prepared in conjunction with the graduate surveyor’s supervisor. |
| NAME OF SUPERVISOR: |  |
| Registration Status:  |  |
| Signature: |   |

Statement of Progression to Surveyor Registration

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| Unit 1: Personal Qualities  |
| **Element** | **Descriptors** | **Proposed Work Experience** | **Proposed Timeframe** | **Date CER Assessed** |
| S 1.1 Possess a tertiary qualification in surveying  | Applicants will need to demonstrate that they:1. Have completed a course of study of at least three years fulltime duration acceptable to the Surveyors Board of Queensland or have been previously registered as a Surveyor by the Surveyors Board of Queensland
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| S 1.2 Are professional in their dealings with the public  | Applicants will need to demonstrate that they:1. Have not conducted themselves in a manner that erodes the public confidence in the profession
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| 1. Have not been unfair or unethical in their dealings with the public
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| S 1.3 Know and comply with published ethical codes | Applicants will need to demonstrate that they:1. Understand and can explain the Surveyors Board of Queensland’s *Code of Practice for Surveyors*
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| S 1.4 Keep their knowledge and skills current | Applicants will need to demonstrate that they have made themselves aware of changes in surveying practice through activities such as:1. Attending continuing professional development events
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| 1. Reading literature relevant to surveying practice
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| S 1.5 Know what limitations apply to their work | Applicants will need to demonstrate that they:1. Can describe the regulation of surveying in Queensland
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| 1. Have not undertaken work beyond limits of personal skills and expertise
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| Unit 2: Collection of Data and Measurement |
| **Element** | **Descriptors** | **Proposed Work Experience** | **Proposed Timeframe** | **Date CER Assessed** |
| S 2.1 Collect data by measurement | Applicants will need to demonstrate that they:1. Use adequate redundant measurements to validate data
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| 1. Ensure measurements are legally traceable
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| 1. Evaluate the various measurements methods and procedures available
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| 1. Assess the effectiveness of the measurement method adopted
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| S 2.2 Search and acquire existing data | Applicants will need to demonstrate that they are able to:1. Extract required information from relevant geographic and land information records, survey data bases, and general information depositories
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| S 2.3 Can use and maintain GNSS surveying instruments | Applicants will need to demonstrate that they are able to:1. Define coordinates systems likely to be encountered by GNSS users and calculate GNSS coordinates
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| 1. Discuss the principles of GNSS observations
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| 1. Make observations using a GNSS receiver
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| 1. Explain GNSS observations techniques, and calculate and evaluate levels of accuracy associated with GNSS observations
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| 1. Identify error sources in GNSS observations, and explain the uses and critical factors of differential GNSS techniques
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| 1. Output GNSS observations in existing local co-ordinate systems including ground based systems
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| S 2.4 Apply quality assurance principles | Applicants will need to demonstrate that they are able to:1. Comply with an accepted quality assurance program
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| 1. Rectify non-compliance with quality standards
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| Unit 3: Development Surveys |
| **Element** | **Descriptors** | **Proposed Work Experience** | **Proposed Timeframe** | **Date CER Assessed** |
| S 3.1 Setout minor works | Applicants will need to demonstrate that they are able to :1. Read, interpret and understand design and construction plans
 |  |  |  |
| 1. Set out works
 |  |  |  |
| 1. Communicate results to client, construction staff and other consultants
 |  |  |  |
| 1. Use adequate redundant measurements to validate data
 |  |  |  |
| S 3.2 Perform topographic surveys | Applicants will need to demonstrate that they have:1. Completed a variety of topographic surveys that were fit for purpose using terrestrial and GNSS instruments.
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| 1. Use adequate redundant measurements to validate data
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| 1. Accurately described the origin of datums and other explanatory notes
 |  |  |  |
| S 3.3 Survey and calculate volumes and quantities | Applicants will need to demonstrate that they:1. Collect topographic data at appropriate accuracy and density for volume purpose
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| 1. Calculate and report volumes to an accuracy justified by the measurement method
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| S 3.4 Know and apply occupational health and safety requirements | Applicants will need to demonstrate that they:1. Can describe the requirements of occupational health and safety legislation in Queensland that is pertinent to their work environment
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| 1. Use occupational health and safety procedures that comply with the relevant legislation
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| ***Unit 4: Process Field Measurements*** |
| **Element** | **Descriptors** | **Proposed Work Experience** | **Proposed Timeframe** | **Date CER Assessed** |
| S 4.1 Can detect errors in existing data and field observations. | Applicants will need to demonstrate that they are able to:1. Identify errors in data that is supplied by other parties
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| 1. Use quality assurance processes to ensure that errors are detected and eliminated
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| S 4.2 Understands the accuracy of existing data and creates new data with appropriate accuracy. | Applicants will need to demonstrate that they are able to:1. Determine the accuracy and reliability of data
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| 1. Define the limitations of collected data
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| S 4.3 Can combine existing data with new survey data  | Applicants will need to demonstrate that they: 1. Are able to deduce or estimate the accuracy limitations of existing data sets
 |  |  |  |
| 1. Do not use data sources of insufficient accuracy in survey products
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| S 4.4 Can produce plans that are accurate, legible and useful | Applicants will need to demonstrate that they are able to:1. Use a computer aided drafting package to produce paper plans
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| 1. Produce sketches that are fit for purpose
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| S 4.5 Can produce electronic models and plans | Applicants will need to demonstrate that they are able to:1. Use a computer aided drafting package to produce electronic plans
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| 1. Create digital models of physical surfaces
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| 1. Attach attribute information to a digital model
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| 1. Transfer files between various formats
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| ***Unit 5: Communication*** |
| **Element** | **Descriptors** | **Proposed Work Experience** | **Proposed Timeframe** | **Date CER Assessed** |
| S 5.1 Communicate effectively | Applicants will need to demonstrate that they are able to:1. Communicate effectively, orally and in writing
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| 1. Issue clear, accurate instructions to subordinates
 |  |  |  |
| 1. Successfully use electronic communications technologies
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| S 5.2 Can speak effectively at meetings |  Applicants will need to demonstrate that they are able to:1. Explain surveying matters in comprehensible and unambiguous language at small meetings of allied professions
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| S 5.3 Prepare reports | Applicants will need to demonstrate that they are able to:1. Prepare logical and coherent reports for the benefit of surveyors, other professions and clients
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| S 5.4 Certify data | Applicants will need to demonstrate that they are able to:1. Write certificates that are accurate and limited to areas of their professional competence
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| S 5.5 Provide advisory services | Applicants will need to demonstrate that they are able to:1. Provide sound advice to clients and fellow professionals on surveying and land management matters at an appropriate level of detail.
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| ***Unit 6: Survey Control***  |
| **Element** | **Descriptors** | **Proposed Work Experience** | **Proposed Timeframe** | **Date CER Assessed** |
| S 6.1 Use geodetic reference systems | Applicants will need to demonstrate that they are able to:1. Use appropriate geodetic datums and map projections
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| 1. Perform geodetic calculations of traverses and intersections using geographic coordinates
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| 1. Perform geodetic calculations of traverses and intersections using UTM grid coordinates
 |  |  |  |
| 1. Transform three dimensional coordinates between systems and between datums, with the aid of suitable software, to the required level of accuracy
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| S 6.2 Integrate survey control  | Applicants will need to demonstrate that they are able to:1. Describe and comply with the regulation of surveying and mapping infrastructure in Queensland
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| 1. Find and recognise evidence of previous surveys
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| S 6.3 Establish, measure and adjust horizontal survey control | Applicants will need to demonstrate that they are able to:1. Establish project control networks using GNSS and terrestrial measurements
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| 1. Evaluate and adjust measurements by appropriate adjustment methods
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| 1. Use adequate redundant measurements to validate data
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| 1. Mathematically adjust survey networks by the method of least squares using computer software packages
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| 1. Analyse and critically evaluate the adjustment
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| S 6.4 Establish, measure and adjust vertical survey control | Applicants will need to demonstrate that they are able to:1. Perform precise level measurements
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| 1. Identify the effects of curvature and refraction on levelling and apply this knowledge to trigonometrical levelling
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| 1. Identify the equipment and methods used in precise levelling and the sources of error and the techniques to minimise their effects
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