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 |  |  |  |
| 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 |  |  |  |
| 1. Have not been unfair or unethical in their dealings with the public |  |  |  |
| 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* |  |  |  |
| 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 |  |  |  |
| 1. Reading literature relevant to surveying practice |  |  |  |
| 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 |  |  |  |
| 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 |  |  | | | |  |
| 1. Ensure measurements are legally traceable |  |  | | | |  |
| 1. Evaluate the various measurements methods and procedures available |  |  | | | |  |
| 1. Assess the effectiveness of the measurement method adopted |  |  | | | |  |
| 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 |  |  | | | |  |
| 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 |  |  | | |  | |
| 1. Discuss the principles of GNSS observations |  |  | | |  | |
| 1. Make observations using a GNSS receiver |  |  | | |  | |
| 1. Explain GNSS observations techniques, and calculate and evaluate levels of accuracy associated with GNSS observations |  |  | | |  | |
| 1. Identify error sources in GNSS observations, and explain the uses and critical factors of differential GNSS techniques |  |  | | |  | |
| 1. Output GNSS observations in existing local co-ordinate systems including ground based systems |  |  | | |  | |
| 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 |  |  | | |  | |
| 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. |  |  | |  | | |
| 1. Use adequate redundant measurements to validate data |  |  | |  | | |
| 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 |  |  |  | | | |
| 1. Calculate and report volumes to an accuracy justified by the measurement method |  |  |  | | | |
| 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 |  |  |  | | | |
| 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 |  |  | |  |
| 1. Use quality assurance processes to ensure that errors are detected and eliminated |  |  | |  |
| 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 |  |  | |  |
| 1. Define the limitations of collected data |  |  | |  |
| 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 |  |  |  | |
| 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 |  |  |  | |
| 1. Produce sketches that are fit for purpose |  |  |  | |
| 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 |  |  |  | |
| 1. Create digital models of physical surfaces |  |  |  | |
| 1. Attach attribute information to a digital model |  |  |  | |
| 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 |  |  | |  |
| 1. Issue clear, accurate instructions to subordinates |  |  | |  |
| 1. Successfully use electronic communications technologies |  |  | |  |
| 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 |  |  | |  |
| 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 |  |  | |  |
| 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 |  |  | |  |
| 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 |  |  | |  |
| 1. Perform geodetic calculations of traverses and intersections using geographic coordinates |  |  | |  |
| 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 |  |  | |  |
| 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 |  |  | |  |
| 1. Find and recognise evidence of previous surveys |  |  | |  |
| 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 |  |  | |  |
| 1. Evaluate and adjust measurements by appropriate adjustment methods |  |  | |  |
| 1. Use adequate redundant measurements to validate data |  |  | |  |
| 1. Mathematically adjust survey networks by the method of least squares using computer software packages |  |  | |  |
| 1. Analyse and critically evaluate the adjustment |  |  | |  |
| 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 |  |  |  | |
| 1. Identify the effects of curvature and refraction on levelling and apply this knowledge to trigonometrical levelling |  |  |  | |
| 1. Identify the equipment and methods used in precise levelling and the sources of error and the techniques to minimise their effects |  |  |  | |