Modification history

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| Release | Comments |
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0. |

| AHCGRIXX2 | Build or install rooftop gardens, green walls and green facades |
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| Application | This unit of competency describes the skills and knowledge required to build or install a designed green infrastructure including rooftop gardens, green walls and green facades to comply with building regulations, standards and codes and meet design plans and specifications.  The unit applies to individuals who build or install green infrastructures on new or existing residential or commercial buildings.  This unit of competency is suitable for individuals using their own judgment to deal with predictable and unpredictable problems and decide on solutions to a range of complex problems during the building or installation process.  Rooftop garden, green wall and green facade installation or construction must meet all the requirements of building regulations, standards and codes.  No licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Green Infrastructure (GRI) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Plan and prepare | 1.1 Read and interpret building plans, specifications and permits in conjunction with green infrastructure design and resolve any discrepancies  1.2 Identify and interpret building structural principles  1.3 Identify and implement safe work practices to comply with state and territory work health and safety legislation and regulation  1.4 Calculate material and component quantities, check material availability with suppliers, schedule delivery and discuss site access and method of locating material onsite  1.5 Determine job priorities and sequence job tasks in consultation with others on site  1.6 Identify potential hazards and apply control measures following relevant work health and safety and environmental requirements  1.7 Select plant, equipment and tools and check for serviceability and rectify and report any faults  1.8 Select, correctly fit and use personal protective equipment (PPE)  1.9 Check delivered materials and components for conformity and report any discrepancies or damage to appropriate person |
| 2. Build rooftop garden project | 2.1 Establish finished heights, levels and falls from datum  2.2 Set out mark and install designed layers for rooftop garden  2.3 Ensure waterproofing is installed to specified area using approved materials and methods  2.4 Set out and install irrigation and drainage system and check for leaks  2.5 Install soil profile ensuring interface between profile layers is uniform and unbroken  2.6 Compact each soil profile layer to reflect the final contour  2.7 Plant vegetation and follow supplier establishment information |
| 3. Build and install green wall project | 3.1 Set out and mark position, levels and fixing points appropriate for the selected green wall configuration  3.2 Ensure waterproofing is installed to specified area using approved materials and methods  3.3 Install irrigation and drip tray system and check for leaks  3.4 Install specialised lighting  3.5 Fix green wall panels following manufacturer’s specifications  3.6 Install and finish growing media to the specified levels  3.7 Plant specified vegetation to meet design patterns and following supplier establishment information |
| 4. Install green facade project | 4.1 Erect exclusion zones and place signage for public protection  4.2 Assemble and fix facade framework without damage to existing structure and comply with building codes and standards  4.3 Install garden bed or containers to design specification  4.4 Install, fix and test irrigation and drainage systems  4.5 Select and install growing media to specified depth, compaction and finish height  4.6 Plant specified plants following supplier establishment information |
| 5. Clean up | 5.1 Clear the work area and dispose of, reuse or recycle materials following workplace and environmental requirements  5.2 Clean tools and equipment, check for serviceability and report damage or faults  5.3 Store and secure tools and equipment following workplace procedures. |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |
| Oral communication | * Communicate effectively with suppliers * Work effectively with others |
| Numeracy | * Use measurements and formulas to calculate material quantities |
| Reading | * Access and extract information from plans, specifications and regulatory information including using digital technologies |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCGRIXX2 Build or install rooftop gardens, green walls and green facades |  |  | No equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet:  [Agriculture Horticulture and Conservation and Land Management Training Package](https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72) |

| TITLE | Assessment requirements for AHCGRIXX2 Build or install rooftop gardens, green walls and green facades |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.  There must be evidence that the individual has, in an existing building:   * built one rooftop garden with a minimum area of 100 square metres * installed one green wall with a minimum of 20 square metres and * installed a green facade with a minimum of 20 square metres   and has:   * sequenced the building and installation process to efficiently and effectively complete the project with minimum disruption to operation of residents and the public * complied with design plans and specifications and relevant building codes and standards * installed systems and components to manufacturer specification and without damage. | |

| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * characteristics, properties and limitations of materials and plants used for green infrastructure: * waterproofing material * substrates and growing media * soils and growing media for sustainable use * root barrier * plant selection, including plants which cause damage * drainage systems * irrigation systems * storing and recycling water systems * lighting systems * types of green wall construction: * hydroponic green wall system * substrate based system * internal and external * facade * types of roofs: * concrete * tiles * corrugated iron * timber * components and layers of rooftop garden construction: * roof deck * waterproofing * root barrier * protection mat * drainage layer * filter sheet * growing substrate or media * vegetation layer * building regulations, standards and codes * current and relevant work health and safety and environmental requirements * organisational policies, procedures and quality systems * functional and operational features of plant, equipment, hand and power tools: * scaffold * elevated work platforms * mobile cranes * compressors and generators * hand power tools * battery operated tools * workplace safety: * hierarchy of control * safety data sheets (SDS) * working at heights * personal protective equipment (PPE) * falling objects * hazardous manual labour * hazardous materials * worker and public safety * high-risk work * traffic management. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * skills must be demonstrated in workplace or an environment that accurately represents workplace conditions * resources, equipment and materials: * plant, equipment and power tools relevant for the project * proprietary or custom green infrastructure systems * personal protective equipment * specifications: * specific organisational policies, procedures and processes * manufacturer’s fixing and fastening specifications for green wall systems * work health and safety and environmental documentations * building regulations, standards and codes * relationships: * clients to discuss green infrastructure construction requirements * building professional to determine building structural integrity.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, framework and/or standards. |

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