UNIT CODE	CPCCPA3001
UNIT TITLE	Prepare subgrade, base and bedding course for segmental paving
APPLICATION	This unit specifies the skills and knowledge required to use various materials to prepare subgrade, base and bedding courses in preparation for laying segmental paving. It includes identifying soil types, determining levels and grades, calculating material and screeding and compacting base materials. This unit applies to those who pave external areas on new and existing sites. It is suitable for people operating with some autonomy. A person working at this level would be expected to take responsibility for organising and completing tasks assigned to them without needing close supervision. Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCCWHS1001 Prepare to work safely in the construction industry* meets this requirement. No licensing, legislative or certification requirements apply to this unit at the time of publication.
PREREQUISITE UNIT	CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry
ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe what needs to be done to demonstrate achievement of the element.
1. Plan the work.	1.1 Select, fit correctly and use personal protective equipment (PPE) appropriate for job. 1.2 Read and interpret subgrade, base and bedding material requirements from current plans, specifications, standards and codes. 1.3 Follow relevant information from workplace procedures, workplace safety and environmental documentation. 1.4 Identify type and class of soil using soil charts and determine its properties. 1.5 Determine subgrade requirements from penetration test results.

	1.6 Calculate material quantities using measurements and formulas. 1.7 Determine job priorities and sequence job tasks in consultation with others on site. 1.8 Identify underground services and potential hazards and determine and implement control measures.
2. Prepare for work.	2.1 Select and check condition of equipment and tools and report any damage or faults to relevant person. 2.2 Check conformity of materials against the specifications and place materials in preparation for the work. 2.3 Identify drainage needs and apply remedial action. 2.4 Identify termite barriers and damp-proof courses and ensure integrity is maintained and not compromised during paving construction.
3. Excavate the site and install base course.	3.1 Set out finish height of pavers, grades and excavation depth according to plan and specifications. 3.2 Calculate the bulking factor for different soil types. 3.3 Remove top soil, weeds and their roots. 3.4 Excavate site to required depth and remove spoil using appropriate equipment. 3.5 Distribute and compact base material.
4. Install bedding course material.	4.1 Install geotextile material as a drainage or a separation layer. 4.2 Stabilise bedding course for area with slopes of greater than 1:15 and install transverse concrete supports for driveways with a sloping pavement of greater than 5 metres. 4.3 Distribute and compact bedding material.
5. Screed base material.	5.1 Screed bedding material to set out heights. 5.2 Remove excess material.
6. Clean up.	6.1 Clear the work area, and dispose of, reuse or recycle materials following workplace and environmental requirements. 6.2 Clean tools and equipment, check for serviceability and report damage or faults. 6.3 Store and secure tools and equipment following workplace

	procedures.
FOUNDATION SKILLS Candidates require: • technology skills to: o use digital tools and devices to source job information and communicate effectively with others.	
UNIT MAPPING INFORMATION	Supersedes and is equivalent to CPCCPA3001A Prepare subgrade, base and bedding course for segmental paving
LINKS	Companion volumes to this training package are available at the VETNet website: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad

TITLE	Assessment requirements for CPCCPA3001 Prepare subgrade, base and bedding course for segmental paving

PERFORMANCE EVIDENCE

To demonstrate competency in this unit, a candidate must meet the performance criteria of this unit by preparing an area of a minimum of 2.0 m x 3.0 m for segmental paving.

In doing this, the candidate must:

- excavate the area to be paved using manual and mechanical means
- install suitable surface and subsoil drainage
- compact subgrade, based and bedding courses to required compaction specifications
- screed bedding material flat and avoid any ponding.

KNOWLEDGE EVIDENCE

To be competent in this unit, a person must demonstrate knowledge of:

- characteristics, applications and limitations of approved paving materials:
    - various bedding materials
    - types of segmental pavers
    - waterproofing materials
    - geotextile materials
    - mortar ingredients and consistency
- soil types
- processes and techniques relating to paving:
    - manual and mechanical excavation
    - compacting subgrades, bases and bedding courses
    - stabilising bedding sand
    - laying of various paving patterns
- terminology relating to paving
- principles of California bearing ratio (CBR)
- brick and paver expansion, and control and articulation joints
- functional and operational features of plant, equipment and hand and power tools:
    - skid steer loader
    - backhoe
    - excavator
    - plate compactors
- workplace safety:
    - job safety and environmental analysis (JSEA)
    - hazardous manual tasks
    - overhead and underground hazards
    - operating excavation and compacting equipment

o exposure to silica o exposure to loud noise • features of working drawings and specifications • environmental requirements for workplace processes and waste disposal • specifications relating to preparing subgrades, bases and bedding for paving.
ASSESSMENT CONDITIONS
Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations. This unit must be assessed in the workplace or a close simulation reflecting workplace conditions and standards, materials, equipment, activities, responsibilities, procedures, safety requirements and environmental considerations.

LINKS	Companion volumes to this training package are available at the VETNet website: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad