



Australian Government

Department of Education, Employment and Workplace Relations

AHCTRF301A Construct turf playing surfaces

Release: 1

AHCTRF301A Construct turf playing surfaces

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of constructing soil profiles for the establishment of high performance sports and recreational turf surfaces and defines the standard required to: determine turf construction requirements from plans; survey and create working plans for turf construction sites; excavate earthworks and establish working and finished levels; install drainage and irrigation systems; implement a turf construction project.
------------------------	---

Application of the Unit

Application of the unit	This unit applies to the construction of turf playing surfaces in new projects and in the complete renovation of existing soil profiles in sporting, commercial and public recreational open spaces such as golf greens and tees, cricket pitches and other turfed sporting surfaces in urban and regional areas.
--------------------------------	---

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
-----------------------------	--

Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Plan for construction activities	1.1. The construction site for high performance turf playing surfaces and the construction method are identified according to the site and construction plans and enterprise work procedures. 1.2. Soil tests of existing soil are undertaken using representative samples, and according to testing instrument instructions and enterprise work procedures. 1.3. Locations and layout of services and utilities are identified, depths checked against the site or construction plan, and discrepancies are reported to the supervisor and the relevant authorities. 1.4. History of site is determined and taken into account in planning construction details. 1.5. Likely consequences of site aspect, features and run-off from adjacent sites are determined and incorporated in site and construction plans. 1.6. Occupational Health and Safety (OHS) hazards are identified, risks assessed, controls implemented and reported to the supervisor. 1.7. Suitable safety equipment and Personal Protective Equipment (PPE) are selected, used and maintained.
2. Survey the construction site	2.1. Surveying equipment is set up and used according to industry standards. 2.2. Existing levels are surveyed and temporary benchmark established. Details are recorded accurately and legibly according to industry standards. 2.3. New levels are set according to specifications and pegs placed according to industry convention. 2.4. Contour map with reduced levels and a cross section is developed and drawn using accepted industry symbols and mapping conventions.
3. Prepare for construction work	3.1. Enterprise work team, contractors and design consultants are identified and, where required, engaged. 3.2. Work tasks are scheduled in a logical, timely and effective manner in consultation with the supervisor. 3.3. Materials required are estimated and costed according to accepted industry practice and ordered. 3.4. Plans for the new construction profile are obtained or developed.

ELEMENT	PERFORMANCE CRITERIA
4. Set out site for construction	4.1. Symbols and terminology are interpreted to ensure the concept of the construction plan is clearly understood according to industry practice. 4.2. Boundaries and features contained in the site and construction plans are checked and verified against the actual site and existing features. 4.3. Finishing levels, provision for drainage and irrigation, and drainage head of the site are identified and checked against the construction plan to ensure nominated levels are workable. 4.4. Measurements are checked against the construction plan, the construction area is pegged out, and variances are notified to the supervisor according to enterprise work procedures.
5. Excavate the construction site	5.1. Excess soil is removed and the construction site cleared with the stockpile being placed in a designated area according to enterprise work procedures. 5.2. The base is graded to the level and slope specified in the base design. 5.3. The base of the profile is consolidated to achieve uniform compaction over the entire site according to the construction plan. 5.4. Sub-surface irrigation system components and fittings are installed to the required depth and design specified in the construction plan.
6. Install drainage system	6.1. Drainage trenches are dug to the required depth and design specified in the construction plan. 6.2. Drainage material is laid on the base of the trench, pipes are laid/installed, and trenches are covered according to industry standards.
7. Install soil profile	7.1. Quantities of material required to be spread over the designated area are calculated and measured according to the construction plan. 7.2. Equipment is calibrated according to manufacturer's guidelines to distribute the required amount of material over the designated area. 7.3. Each profile layer is compacted to reflect the final contour. 7.4. The interface between profile layers is uniform and unbroken according to the construction plan and enterprise work procedures.

ELEMENT	PERFORMANCE CRITERIA
	7.5. Soil amendments are prepared according to enterprise work procedures, mixed thoroughly and applied evenly over the designated area. 7.6. The finishing soil surface is given a final levelling and consolidated, ready for planting, according to the construction plan and enterprise work procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communicate effectively with work team members, supervisors, contractors and consultants
- interpret existing site and construction plans and specifications
- draft basic working plans
- survey site levels and dimensions
- install drainage and irrigation systems
- measure materials, interpret , survey and assess site measurements, and interpret and apply test results
- coordinate work group, contractors and own activities to sequentially and effectively complete construction in a timely and cost effective manner
- use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- practical understanding of the range and use of materials, tools, equipment and machinery available to the enterprise for construction of soil profiles, including soil amendments and base construction materials
- practical understanding of the range of construction methods that may be used to construct soil profiles for high performance turf surfaces, and the association of construction methods with site limitations, environmental implications, and end use of the turf surface
- practical understanding of surveying principles and techniques
- soil testing techniques and the application of results to the construction process

REQUIRED SKILLS AND KNOWLEDGE

- awareness of the comparative environmental implications associated with construction and excavation activity, drainage and irrigations systems, soil amendments and waste disposal procedures.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following: • determine turf construction requirements from plans • organise work and use tools and equipment for turf construction project • implement a turf construction project.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Playing surfaces may include:	• sites for high performance sports and recreation such as: • golfing greens • cricket pitches • purpose built sporting facilities.

Unit Sector(s)

Unit sector	Turf
--------------------	------

Co-requisite units

Co-requisite units		

Competency field

Competency field	
------------------	--