



National Unit Specification: general information

UNIT Roads Maintenance: An Introduction to Repair and Reinstatement of Excavations and Pavement Surfaces (SCQF level 5)

CODE F55E 11

SUMMARY

This Unit covers essential knowledge and practical experience relating to the repair and reinstatement of excavations and pavement surfaces in the Roads and Highways Maintenance environment. The Unit is suitable for candidates who have had little or no experience to date in the Roads Maintenance environment and who want to gain and apply knowledge and understanding of repairing and reinstating excavations and pavement surfaces in the workplace environment. Candidates will safely prepare for, carry out and reinstate an excavation whilst complying with all relevant legislation.

OUTCOMES

- 1 Prepare for and carry out excavation of pavement layers and surfaces within the road.
- 2 Carry out reinstatement of the excavation and pavement structure to given specifications.

RECOMMENDED ENTRY

Entry to this Unit is at the discretion of the centre. This Unit is suitable for inexperienced or entry level candidates.

CREDIT VALUE

1 credit at SCQF level 5 (6 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Administrative Information

Superclass: TK

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National Unit Specification: general information (cont)

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CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

This Unit provides opportunities to develop aspects of the following Core Skills:

- ◆ Communication at SCQF level 3
- ◆ Numeracy at SCQF level 3
- ◆ Working with Others at SCQF level 3

National Unit Specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Prepare for and carry out excavation of pavement layers and surfaces within the road.

Performance Criteria

- (a) Accurately interpret the given information to identify the area to be excavated.
- (b) Correctly mark-off the area for excavation to receive backfill and sub-base layers.
- (c) Demonstrate and explain how to correctly select tools and equipment for the task.
- (d) Excavate an area no greater than 1m² and 900mm depth to receive backfill layers and sub-base layers.
- (e) Explain clearly how to select and store suitable excavated materials for re-use.

OUTCOME 2

Carry out reinstatement of the excavation and pavement structure to given specifications.

Performance Criteria

- (a) Select appropriate PPE equipment for a given task, in accordance with organisational requirements.
- (b) Select compaction equipment correctly for the given task.
- (c) Lay backfill and sub-base layers to correct depths and ensure optimum compaction is achieved.
- (d) Lay and compact bituminous materials to required depth for the material type used.
- (e) Demonstrate the correct adherence to statutory requirements and/or safety notices and warning signs displayed in the workplace.
- (f) Dispose of waste in accordance with legislation.

National Unit Specification: statement of standards (cont)

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Candidates should carry out a risk assessment before any practical activity.

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria. The specific Evidence Requirements for each Outcome are outlined below.

Written and/or oral evidence is required to demonstrate that the candidates have achieved Outcomes 1 and 2. The evidence will be produced under open-book supervised conditions within a time limit of 30 minutes.

Performance evidence supplemented with an assessor observation checklist is required to demonstrate that candidates have achieved all of the Performance Criteria in Outcomes 1 and 2. The evidence will be produced under supervised conditions at appropriate points in the Unit once candidates have developed the necessary knowledge and skills.

These Evidence Requirements will be met by the completion of the Assessment Support Pack (ASP) that provides detailed assessment material for this Unit. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard.

National Unit Specification: support notes

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This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is a mandatory Unit in the NPA in Roads Maintenance at SCQF level 5 but can also be taken as a free-standing Unit.

The content and context of this Unit is aimed at candidates who are interested in pursuing a career in highways maintenance. Candidates will be introduced to the repair and reinstatement of excavations and pavement surfaces and will gain practical experience of how to carry them out.

The repair and reinstatement of excavations and pavement surfaces are integral and key to the Roads Maintenance Industry therefore throughout the Unit emphasis will be placed on the application of Safe Working Practices in line with current safety codes of practice and policies and regulations.

Centres may find opportunities to integrate this Unit with a range of others in the Roads Maintenance NPA at SCQF level 5 eg some parts of this Unit could be combined with *Roads Maintenance: An Introduction to Searching for Underground Services* at SCQF level 5.

Site conditions should reflect as near as possible realistic working conditions.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The learning environment for this Unit will be a combination of classroom and workshop based learning where the candidate will be involved in group activities and discussions. The knowledge element of this Unit would be taught in a classroom environment and put into practice in conjunction with the practical Outcomes.

Candidates could work in pairs or groups on the practical activity, although they will need to meet all Evidence Requirements individually.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Opportunities may arise in this Unit for candidates to develop aspects of the following Core Skills:

- ◆ Communication at SCQF level 3 by reading and interpreting information
- ◆ Numeracy at SCQF level 3 by reading diagrams
- ◆ Working with Others at SCQF level 3 by working in groups

National Unit Specification: support notes (cont)

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GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Centres may use the instruments of Assessment which they consider to be most appropriate but are encouraged to use the Assessment Support Pack (ASP) developed centrally by SQA. It is expected that candidates will be given as much practise as possible in the methods of safe working practice and risk assessment methods etc, prior to being set the assessment tasks.

For all Outcomes a suitable method for assessing candidate knowledge and understanding of repair and reinstatement of excavations and pavement structures could be through a set of multiple choice questions. To allow candidates to generate the Performance Evidence centres should set a series of practical assignments which accurately reflect the Unit content.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs (www.sqa.org.uk)*.