

# **Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance (Construction)**

## **Specification**

NVQs/Competence-based qualifications

First registration May 2019

## **Edexcel, BTEC and LCCI qualifications**

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# 1 Introducing Edexcel NVQs/ Competence-based qualifications

## What are NVQs/Competence-based qualifications?

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National Vocational Qualifications (NVQs)/Competence-based qualifications are work-based qualifications that give learners the opportunity to develop and demonstrate their competence in the area of work or job role to which the qualification relates.

NVQs/Competence-based qualifications are based on recognised occupational standards for the appropriate sector. Occupational Standards define what employees, or potential employees, must be able to do and know, and how well they should undertake work tasks and work roles. These standards are written in broad terms to enable employers and providers to apply them to a wide range of related occupational areas.

NVQs/Competence-based qualifications are outcomes based with no fixed learning programme, therefore allowing flexible delivery to meet the individual learner's needs. At Level 2 and above, these qualifications are recognised as approved training and development for employees who have been in the workplace for some time. The qualifications are also a way of inducting, training and developing new entrants into the workplace. Qualifications at Level 1 can be used in Traineeships, which enables progression to entry-level employment or to Apprenticeship programmes.

Learners will work towards their qualification in the workplace or in settings that replicate the working environment as specified in the assessment requirements. Colleges, training centres and/or employers can offer these qualifications as long as they have access to appropriate physical and human resources, and have the necessary quality assurance systems in place.

## Sizes of NVQs/Competence-based qualifications

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For all regulated qualifications, Pearson specifies a total estimated number of hours that learners will require to complete and show achievement for the qualification – this is the Total Qualification Time (TQT). The TQT value indicates the size of a qualification.

Within the TQT, Pearson identifies the number of Guided Learning Hours (GLH) that we estimate a centre delivering the qualification might provide. Guided learning means activities, such as lessons, tutorials, online instruction, supervised study and giving feedback on performance, that directly involve tutors and assessors in teaching, supervising and invigilating learners. Guided learning includes the time required for learners to complete external assessment under examination or supervised conditions.

In addition to guided learning, other required learning directed by tutors or assessors includes private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

As well as TQT and GLH, qualifications can also have a credit value – equal to one tenth of the TQT, rounded to the nearest whole number.

TQT and credit values are assigned after consultation with users of the qualifications.

NVQs/Competence-based qualifications are generally available in the following sizes:

- Award – a qualification with a TQT value of 120 or less (equivalent to a range of 1–12 credits)
- Certificate – a qualification with a TQT value in the range of 121–369 (equivalent to a range of 13–36 credits)
- Diploma – a qualification with a TQT value of 370 or more (equivalent to 37 credits and above).

## 2 Qualification summary and key information

Qualification title	Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance (Construction)
Qualification Number (QN)	603/4368/0
Regulation start date	01/05/2019
Operational start date	01/05/2019
Approved age ranges	16–18 19+ Please note that sector-specific requirements or regulations may prevent learners of a particular age from embarking on this qualification. Please refer to the assessment requirements in <i>Section 8 Assessment</i> .
Total Qualification Time (TQT)	180
Guided Learning Hours (GLH)	75
Assessment	Portfolio of evidence (internal assessment).
Grading information	The qualification and units are graded pass/fail.
Entry requirements	No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. However, centres must follow the <i>Pearson Guide for Centres to Enrolling onto Qualifications</i> (see <i>Section 7 Access and recruitment</i> ).
Funding	Qualifications eligibility for 16–19, apprenticeship and 19+ advanced learner loan funding can be found on the funding Hub. The Education and Skills Funding Agency (ESFA) also publishes a list of the qualifications eligible for the 19–23 Level 2 and Level 3 legal entitlement, and a list of the qualifications eligible for 19+ advanced learner loans.

Centres will need to use the Qualification Number (QN) when they seek public funding for their learners. The qualification title, unit titles and QN will appear on each learner's final certificate. Centres should tell learners this when recruiting them and registering them with Pearson. There is more information about certification in our *UK Information Manual*, available on our website.

## 3 Qualification purpose

### Qualification objectives

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The Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance (Construction) is for learners who work in, or who want to work in, the construction and built environment sector, primarily as road building and highways maintenance operatives.

The qualification gives learners the opportunity to:

- develop the technical skills, role-related knowledge and understanding, and behaviours required to work in a job role such as construction operative in highway construction and maintenance, responsible for operating a range of machinery and plant in specific conditions and for specific tasks
- demonstrate competence in the relevant job roles
- gain recognition for existing skills and knowledge
- achieve a nationally-recognised Level 2 qualification
- develop personal growth and engagement in learning.

### Relationship with previous qualifications

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This qualification is part of the replacement group of qualifications for those formerly titled 'Construction Operations and Civil Engineering Services', following a review of National Occupational Standards. This has resulted in title changes for qualifications in this branch of civil engineering.

### Progression opportunities

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We also offer a Level 2 NVQ Diploma in Roadbuilding and Maintenance, which covers specialist highways maintenance activities that therefore require a longer period of time to achieve competence. Learners who achieve the Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance (Construction) can progress to supervisory and management qualifications, for example occupational work supervision or site supervision at Levels 3 and 4 respectively.

## **Industry support and recognition**

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This qualification is supported by the Construction Industry Training Board (CITB), the Sector Skills Council for construction and the built environment.

## **Relationship with occupational standards**

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This qualification is based on the National Occupational Standards (NOS) in Roadbuilding and Maintenance, which were set and designed by the CITB.

## 4 Qualification structure

### Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance (Construction)

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Learners will need to meet the mandatory requirements outlined in the table below and one from eleven pathways, outlined in the following pages, before the qualification can be awarded.

Number of units that must be achieved from the mandatory group	2
Number of units that must be achieved at Level 2 or above	1

Unit number	Group A – mandatory units for all pathways	Level	Guided Learning Hours
1	Conforming to General Health, Safety and Welfare in the Workplace	1	7
2	Conforming to Productive Working Practices in the Workplace	2	10

## Pathway 1: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Manual Road Building – Flexible Pavement Construction (Manual)

Number of units that must be achieved for this pathway, including the mandatory units from Group A	4
Total Qualification Time for this pathway	220
Guided Learning Hours for this pathway	115

Unit number	Group B – mandatory units for Pathway 1	Level	Guided Learning Hours
3	Laying Flexible Pavement Materials in the Workplace	2	75
4	Setting Out Secondary Dimensional Work Control in the Workplace	2	23
Unit number	Group C – optional units for Pathway 1 Learners must complete ONE unit from this group	Level	Guided Learning Hours
4	Setting out Secondary Dimensional Work Control in the Workplace	2	23
6	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	2	23
9	Reinstating Trenches in Paved Surfaces in the Workplace	2	65
10	Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace	2	65
11	Locating and Excavating to Expose Buried Utility Services in the Workplace	2	163
12	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	2	50
13	Placing and Finishing Non-specialist Concrete in the Workplace	2	70
14	Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace	2	55

<b>Unit number</b>	<b>Group C – optional units for Pathway 1</b> Learners must complete ONE unit from this group	<b>Level</b>	<b>Guided Learning Hours</b>
15	Cutting, Drilling and Shaping Construction-related Materials in the Workplace	1	65
16	Preparing and Mixing Construction-related Materials in the Workplace	1	75
17	Segregating the Area for Highways Works in the Workplace	2	65
18	Installing, Maintaining and Removing Temporary Excavation Support in the Workplace	2	70
19	Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace	2	53
20	Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace	2	53
21	Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace	2	40
22	Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace	2	33
23	Installing Drainage in the Workplace	2	100
24	Moving, Handling and Storing Resources in the Workplace	2	17
25	Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace	2	60

## Pathway 2: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Modular Pavement Construction

Number of units that must be achieved for this pathway, including the mandatory units from Group A	5
Total Qualification Time for this pathway	250
Total Guided Learning Hours for this pathway	138

Unit number	Group D – mandatory units for Pathway 2	Level	Guided Learning Hours
4	Setting Out Secondary Dimensional Work Control in the Workplace	2	23
5	Laying Modular Pavement in the Workplace	2	75
6	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	2	23

## Pathway 3: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Laying Kerbs and Channels

Number of units that must be achieved for this pathway, including the mandatory units from Group A	4
Total Qualification Time for this pathway	220
Total Guided Learning Hours for this pathway	115

Unit number	Group E – mandatory units for Pathway 3	Level	Guided Learning Hours
4	Setting Out Secondary Dimensional Work Control in the Workplace	2	23
7	Laying Pre-formed Kerbs and Channels in the Workplace	2	75

<b>Unit number</b>	<b>Group F – optional units for Pathway 3</b> Learners must complete ONE unit from this group	<b>Level</b>	<b>Guided Learning Hours</b>
4	Setting out Secondary Dimensional Work Control in the Workplace	2	23
6	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	2	23
9	Reinstating Trenches in Paved Surfaces in the Workplace	2	65
10	Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace	2	65
11	Locating and Excavating to Expose Buried Utility Services in the Workplace	2	163
12	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	2	50
13	Placing and Finishing Non-specialist Concrete in the Workplace	2	70
14	Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace	2	55
15	Cutting, Drilling and Shaping Construction-related Materials in the Workplace	1	65
16	Preparing and Mixing Construction-related Materials in the Workplace	1	75
17	Segregating the Area for Highways Works in the Workplace	2	65
18	Installing, Maintaining and Removing Temporary Excavation Support in the Workplace	2	70
19	Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace	2	53
20	Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace	2	53

<b>Unit number</b>	<b>Group F – optional units for Pathway 3</b> Learners must complete ONE unit from this group	<b>Level</b>	<b>Guided Learning Hours</b>
21	Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace	2	40
22	Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace	2	33
23	Installing Drainage in the Workplace	2	100
24	Moving, Handling and Storing Resources in the Workplace	2	17
25	Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace	2	60

## Pathway 4: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Excavation and Reinstatement

Number of units that must be achieved for this pathway, including the mandatory units from Group A	5
Total Qualification Time for this pathway	280
Guided Learning Hours for this pathway	154

Unit number	Group G – mandatory units for Pathway 4	Level	Guided Learning Hours
8	Forming and Finishing Excavations Manually in the Workplace	2	55
9	Reinstating Trenches in Paved Surfaces in the Workplace	2	65
Unit number	Group H – optional units for Pathway 4 Learners must complete ONE unit from this group	Level	Guided Learning Hours
4	Setting out Secondary Dimensional Work Control in the Workplace	2	23
6	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	2	23
10	Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace	2	65
11	Locating and Excavating to Expose Buried Utility Services in the Workplace	2	163
12	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	2	50
13	Placing and Finishing Non-specialist Concrete in the Workplace	2	70
14	Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace	2	55

<b>Unit number</b>	<b>Group H – optional units for Pathway 4</b> Learners must complete ONE unit from this group	<b>Level</b>	<b>Guided Learning Hours</b>
15	Cutting, Drilling and Shaping Construction-related Materials in the Workplace	1	65
16	Preparing and Mixing Construction-related Materials in the Workplace	1	75
17	Segregating the Area for Highways Works in the Workplace	2	65
18	Installing, Maintaining and Removing Temporary Excavation Support in the Workplace	2	70
19	Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace	2	53
20	Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace	2	53
21	Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace	2	40
22	Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace	2	33
23	Installing Drainage in the Workplace	2	100
24	Moving, Handling and Storing Resources in the Workplace	2	17
25	Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace	2	60

## Pathway 5: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Excavation

Number of units that must be achieved for this pathway, including the mandatory units from Group A	4
Total Qualification Time for this pathway	200
Guided Learning Hours for this pathway	89

Unit number	Group I – mandatory unit for Pathway 5	Level	Guided Learning Hours
8	Forming and Finishing Excavations Manually in the Workplace	2	55
Unit number	Group J – optional units for Pathway 5 Learners must complete ONE unit from this group	Level	Guided Learning Hours
4	Setting out Secondary Dimensional Work Control in the Workplace	2	23
6	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	2	23
9	Reinstating Trenches in Paved Surfaces in the Workplace	2	65
10	Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace	2	65
11	Locating and Excavating to Expose Buried Utility Services in the Workplace	2	163
12	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	2	50
13	Placing and Finishing Non-specialist Concrete in the Workplace	2	70
14	Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace	2	55

15	Cutting, Drilling and Shaping Construction-related Materials in the Workplace	1	65
<b>Unit number</b>	<b>Group J – Optional units for Pathway 5</b> Learners must complete ONE unit from this group	<b>Level</b>	<b>Guided Learning Hours</b>
16	Preparing and Mixing Construction-related Materials in the Workplace	1	75
17	Segregating the Area for Highways Works in the Workplace	2	65
18	Installing, Maintaining and Removing Temporary Excavation Support in the Workplace	2	70
19	Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace	2	53
20	Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace	2	53
21	Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace	2	40
22	Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace	2	33
23	Installing Drainage in the Workplace	2	100
24	Moving, Handling and Storing Resources in the Workplace	2	17
25	Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace	2	60

## Pathway 6: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Reinstatement

Number of units that must be achieved for this pathway, including the mandatory units from Group A	4
Total Qualification Time for this pathway	220
Guided Learning Hours for this pathway	99

Unit number	Group K – mandatory unit for Pathway 6	Level	Guided Learning Hours
9	Reinstating Trenches in Paved Surfaces in the Workplace	2	65
Unit number	Group L – optional units for Pathway 6 Learners must complete ONE unit from this group	Level	Guided Learning Hours
4	Setting out Secondary Dimensional Work Control in the Workplace	2	23
6	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	2	23
10	Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace	2	65
11	Locating and Excavating to Expose Buried Utility Services in the Workplace	2	163
12	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	2	50
13	Placing and Finishing Non-specialist Concrete in the Workplace	2	70
14	Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace	2	55
15	Cutting, Drilling and Shaping Construction-related Materials in the Workplace	1	65

<b>Unit number</b>	<b>Group L – optional units for Pathway 6</b> Learners must complete ONE unit from this group	<b>Level</b>	<b>Guided Learning Hours</b>
16	Preparing and Mixing Construction-related Materials in the Workplace	1	75
17	Segregating the Area for Highways Works in the Workplace	2	65
18	Installing, Maintaining and Removing Temporary Excavation Support in the Workplace	2	70
19	Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace	2	53
20	Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace	2	53
21	Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace	2	40
22	Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace	2	33
23	Installing Drainage in the Workplace	2	100
24	Moving, Handling and Storing Resources in the Workplace	2	17
25	Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace	2	60

## Pathway 7: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Locate and Excavate Utilities

Number of units that must be achieved for this pathway, including the mandatory units from Group A	5
Total Qualification Time for this pathway	310
Guided Learning Hours for this pathway	262

Unit number	Group M – mandatory units for Pathway 7	Level	Guided Learning Hours
10	Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace	2	65
11	Locating and Excavating to Expose Buried Utility Services in the Workplace	2	163
Unit number	Group N – optional units for Pathway 7 Learners must complete ONE unit from this group	Level	Guided Learning Hours
4	Setting out Secondary Dimensional Work Control in the Workplace	2	23
6	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	2	23
9	Reinstating Trenches in Paved Surfaces in the Workplace	2	65
12	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	2	50
13	Placing and Finishing Non-specialist Concrete in the Workplace	2	70
14	Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace	2	55
15	Cutting, Drilling and Shaping Construction-related Materials in the Workplace	1	65

<b>Unit number</b>	<b>Group N – optional units for Pathway 7</b> Learners must complete ONE unit from this group	<b>Level</b>	<b>Guided Learning Hours</b>
16	Preparing and Mixing Construction-related Materials in the Workplace	1	75
17	Segregating the Area for Highways Works in the Workplace	2	65
18	Installing, Maintaining and Removing Temporary Excavation Support in the Workplace	2	70
19	Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace	2	53
20	Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace	2	53
21	Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace	2	40
22	Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace	2	33
23	Installing Drainage in the Workplace	2	100
24	Moving, Handling and Storing Resources in the Workplace	2	17
25	Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace	2	60

## Pathway 8: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Street Ironwork

Number of units that must be achieved for this pathway, including the mandatory units from Group A	4
Minimum Total Qualification Time for this pathway	190
Minimum Guided Learning Hours for this pathway	84

Unit number	Group O – mandatory unit for Pathway 8	Level	Guided Learning Hours
12	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	2	50
Unit number	Group P – optional units for Pathway 8 Learners must complete ONE unit from this group	Level	Guided Learning Hours
4	Setting out Secondary Dimensional Work Control in the Workplace	2	23
6	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	2	23
9	Reinstating Trenches in Paved Surfaces in the Workplace	2	65
10	Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace	2	65
11	Locating and Excavating to Expose Buried Utility Services in the Workplace	2	163
12	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	2	50
13	Placing and Finishing Non-specialist Concrete in the Workplace	2	70
14	Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace	2	55

<b>Unit number</b>	<b>Group P – optional units for Pathway 8</b> Learners must complete ONE unit from this group	<b>Level</b>	<b>Guided Learning Hours</b>
15	Cutting, Drilling and Shaping Construction-related Materials in the Workplace	1	65
16	Preparing and Mixing Construction-related Materials in the Workplace	1	75
17	Segregating the Area for Highways Works in the Workplace	2	65
18	Installing, Maintaining and Removing Temporary Excavation Support in the Workplace	2	70
19	Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace	2	53
20	Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace	2	53
21	Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace	2	40
22	Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace	2	33
23	Installing Drainage in the Workplace	2	100
24	Moving, Handling and Storing Resources in the Workplace	2	17
25	Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace	2	60

## Pathway 9: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Road Maintenance – Maintenance Response Team Operations

Number of units that must be achieved for this pathway, including the mandatory units from Group A	5
Total Qualification Time for this pathway	200
Guided Learning Hours for this pathway	122

Unit number	Group Q – mandatory units for Pathway 9	Level	Guided Learning Hours
26	Preparing Maintenance Response Teams' Vehicles	2	20
27	Responding to and Assisting with Road-related Incidents in Operational Circumstances	2	45
28	Installing and Removing Emergency Temporary Traffic Management on Motorways, High-speed Dual Carriageways or Rural and Urban Roads in the Workplace	2	40

## Pathway 10: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Road Maintenance – Vehicle Fencing

Number of units that must be achieved for this pathway, including the mandatory units from Group A	4
Total Qualification Time for this pathway	220
Total Guided Learning Hours for this pathway	145

Unit number	Group R – mandatory units for Pathway 10	Level	Guided Learning Hours
29	Excavate, Prepare and Form Foundations for Vehicle Restraint Systems	2	38
30	Place and Fix Vehicle Restraint Systems	2	90

## Pathway 11: Pearson Edexcel Level 2 NVQ Certificate in Roadbuilding and Maintenance – Plant – Road Sweeping

Number of units that must be achieved for this pathway, including the mandatory units from Group A	3
Total Qualification Time for this pathway	180
Total Guided Learning Hours	75

Unit number	Group S – mandatory unit for Pathway 11	Level	Guided Learning Hours
32	Preparing and Operating Plant or Machinery to Sweep, Clean or Clear in the Workplace	2	58

## Unit endorsements

Unit	Unit reference number	Unit title	Endorsement
4	401v2	Setting out Secondary Dimensional Work Control in the Workplace	<p><b>Three</b> of the following endorsements are required:</p> <ul style="list-style-type: none"> <li>• line</li> <li>• level</li> <li>• depth</li> <li>• area</li> <li>• height</li> <li>• angle.</li> </ul>
5	367v3	Laying Modular Pavement in the Workplace	<p>The following endorsement is required (i.e. own area of work):</p> <ul style="list-style-type: none"> <li>• manual road building</li> <li>• plus <b>two</b> of the following endorsements are required: <ul style="list-style-type: none"> <li>• block paving</li> <li>• brick paving</li> <li>• stone and/or concrete setts</li> <li>• flags</li> <li>• natural stone uniformly cut</li> <li>• natural stone rough cut.</li> </ul> </li> </ul>
6	400v2	Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace	<p><b>One</b> of the following endorsements is required:</p> <ul style="list-style-type: none"> <li>• generators</li> <li>• pumps</li> <li>• pedestrian-operated plant or machines</li> <li>• mixers</li> <li>• compressors</li> <li>• self-powered tools.</li> </ul>

Unit	Unit reference number	Unit title	Endorsement
8	373v3	Forming and Finishing Excavations Manually in the Workplace	The following endorsement is required (i.e. own area of work): <ul style="list-style-type: none"> <li>• manual road building.</li> </ul>
9	374v3	Reinstating Trenches in Paved Surfaces in the Workplace	The following endorsement is required (i.e. own area of work): <ul style="list-style-type: none"> <li>• manual road building</li> <li>• plus <b>one</b> of the following endorsements is required:</li> <li>• bituminous materials</li> <li>• sealants and emulsions</li> <li>• concrete</li> <li>• modular structures.</li> </ul>
10	372v3	Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace	The following endorsement is required (i.e. own area of work): <ul style="list-style-type: none"> <li>• manual road building.</li> </ul>
12	366v3	Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)	One of following endorsements is required: <ul style="list-style-type: none"> <li>• new</li> <li>• reinstatement.</li> </ul>
13	45v3	Placing and Finishing Non-specialist Concrete in the Workplace	<b>Three</b> of the following endorsements are required: <ul style="list-style-type: none"> <li>• concrete slabs/bases</li> <li>• form slab edging</li> <li>• position reinforcement</li> <li>• form surface finish.</li> </ul>

Unit	Unit reference number	Unit title	Endorsement
14	360v3	Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace	<p>The following endorsement is required (i.e. own area of work):</p> <ul style="list-style-type: none"> <li>• manual road building</li> </ul> <p>plus <b>two</b> of the following endorsements are required:</p> <ul style="list-style-type: none"> <li>• flexible pavement construction</li> <li>• modular pavement construction</li> <li>• laying kerbs and channels</li> <li>• excavation and reinstatement</li> <li>• locate and excavate utilities</li> <li>• street ironwork.</li> </ul>
17	365v3	Segregating the Area for Highways Works in the Workplace	<p>The following endorsement is required (i.e. own area of work):</p> <ul style="list-style-type: none"> <li>• manual road building.</li> </ul>
18	370v3	Installing, Maintaining and Removing Temporary Excavation Support in the Workplace	<p>The following endorsement is required (i.e. own area of work):</p> <ul style="list-style-type: none"> <li>• manual road building</li> </ul> <p>plus <b>one</b> of the following endorsements is required:</p> <ul style="list-style-type: none"> <li>• proprietary system</li> <li>• open and closed support system</li> <li>• piling systems</li> <li>• bespoke support system.</li> </ul>
19	391Bv3	Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace	<p><b>One</b> of the following endorsements is required:</p> <ul style="list-style-type: none"> <li>• forward tipping dumper wheeled</li> <li>• forward tipping dumper tracked.</li> </ul>

Unit	Unit reference number	Unit title	Endorsement
20	394Av3	Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace	The following endorsement is required: <ul style="list-style-type: none"> <li>ride-on roller.</li> </ul>

Unit	Unit reference number	Unit title	Endorsement
21	394Av3	Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace	<b>One</b> of the following endorsements is required: <ul style="list-style-type: none"> <li>movement guide marshaller</li> <li>loader/securer.</li> </ul>
22	402Av1	Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace	The following endorsement is required: <ul style="list-style-type: none"> <li>slinger signaller 'occupation-specific' only (own area of work, i.e. manual road building).</li> </ul>
23	639v3	Installing Drainage in the Workplace	The following endorsement is required (i.e. own area of work): <ul style="list-style-type: none"> <li>manual road building plus <b>one</b> of the following endorsements is required: <ul style="list-style-type: none"> <li>inspection chamber</li> <li>surface water system</li> <li>foul water system.</li> </ul> </li> </ul>
25	760v1	Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace	The following endorsement is required: <ul style="list-style-type: none"> <li>operations guide banksman – manual road building.</li> </ul>
28	538v5	Installing and Removing Emergency Temporary Traffic Management on Motorways, High-speed Dual Carriageways	<b>One</b> of the following endorsements is required: <ul style="list-style-type: none"> <li>high-speed roads</li> <li>rural and urban roads.</li> </ul>

Unit	Unit reference number	Unit title	Endorsement
		or Rural and Urban Roads in the Workplace	

Unit	Unit reference number	Unit title	Endorsement
31	378v3	Installing and Removing Permanent Road Studs in the Workplace	<p>The following endorsement is required (i.e. own area of work):</p> <ul style="list-style-type: none"> <li>• manual road building</li> </ul> <p>plus <b>two</b> of the following endorsements are required:</p> <ul style="list-style-type: none"> <li>• inset milled stud</li> <li>• inset drilled stud</li> <li>• fixed surface mounted studs</li> <li>• stud maintenance.</li> </ul>
32	761v2	Preparing and Operating Plant or Machinery to Sweep, Clean or Clear in the Workplace	<p><b>One</b> of the following endorsements is required:</p> <ul style="list-style-type: none"> <li>• road sweeper</li> <li>• pavement sweeper</li> <li>• self-propelled sweeper</li> <li>• pedestrian controlled sweeper</li> <li>• gully cleaner</li> <li>• gully sucker</li> <li>• pedestrian controlled cleaner</li> </ul>

## 5 Programme delivery

Centres are free to offer these qualifications using any mode of delivery (for example full-time, part-time, evening only, distance learning) that meets learners' needs. So that they can develop and demonstrate the occupational competence required, learners must be in employment or working with a training provider on a programme.

Whichever mode of delivery is used, centres must make sure that learners have access to specified resources and to the sector specialists delivering and assessing the units. Centres must adhere to the Pearson policies that apply to the different modes of delivery. Our *Collaborative and Consortium Arrangements for the Delivery of Vocational Qualifications Policy* document is available on our website.

There are various approaches to delivering a successful competence-based qualification. The section below outlines elements of good practice that centres can adopt in relation to learner recruitment, preparation and support, training and assessment delivery, and employer engagement.

### Elements of good practice

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#### Learner recruitment, preparation and support

Good practice in relation to learner recruitment, preparation and support includes:

- giving potential learners initial advice and guidance, including work tasters, to give them an insight into the relevant industry and the learning programme
- using a range of appropriate and rigorous selection methods to ensure that learners are matched to the programme best suited to their needs
- carrying out a thorough induction for learners to ensure that they completely understand the programme and what is expected of them. The induction should include, for example, the requirements of the programme, an initial assessment of current competency levels, assessment of individual learning styles, identification of training needs, an individual learning plan, details of training delivery and the assessment process. It is good practice to involve employers in the induction process. This helps them to understand what will be taking place during the programme and enables them to start building a relationship with the centre to support the effective delivery of the programme
- keeping in regular contact with the learner to keep them engaged and motivated, and ensuring that there are open lines of communication between the learner, the assessor, the employer and teaching staff.

## Training and assessment delivery

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Good practice in relation to training and assessment delivery includes:

- offering flexible delivery and assessment to meet the needs of the employer and learner through the use of a range of approaches, for example virtual learning environments (VLEs), online lectures, video, printable online resources, virtual visits, webcams for distance training, e-portfolios
- planning opportunities for the development and practising of skills on the job. On-the-job training presents an excellent opportunity to develop the learner's routine expertise, resourcefulness, craft skills and business-like attitude. It is therefore important that there is intentional structuring of practice and guidance to supplement the learning and development provided through engagement in everyday work activities. Learners need to have structured time to learn and practise their skills separate from their everyday work activities. Teaching and learning methods, such as coaching, mentoring, shadowing, reflective practice, collaboration and consultation, could be used in this structured on-the-job learning
- developing an holistic approach to assessment by matching evidence to different assessment criteria, learning outcomes and units as appropriate, thereby reducing the assessment burden on learners and assessors. It is good practice to draw up an assessment plan that aligns the units with the learning process and the acquisition of knowledge and skills, and which indicates how and when the units will be assessed
- discussing and agreeing with learners and employers suitable times, dates and work areas where assessment will take place. Learners and employers should be given regular and relevant feedback on performance and progress.

## Employer engagement

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Good practice in relation to employer engagement includes:

- communicating with employers at the start of the programme to understand their business contexts and requirements so that the programme can be tailored to meet their needs
- working with employers to ensure that learners are allocated a mentor in the workplace to assist them in the day-to-day working environment and who can act as a contact for the assessor/tutor
- helping employers to better understand their role in the delivery of the programme. It is important that employers understand that learners must be given sufficient and relevant work in order to provide a culture of learning and to ensure that they are given every opportunity to participate in aspects of continuous professional development (CPD).

## 6 Centre resource requirements

As part of the approval process, centres must make sure that the resource requirements given below are in place before offering the qualification.

### General resource requirements

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- Centres must have the appropriate physical resources to support delivery and assessment of the qualification. For example, a workplace in line with industry standards or a Realistic Working Environment (RWE) (where permitted, as specified in the assessment strategy for the sector), equipment, IT, learning materials, teaching rooms.
- Where RWE is permitted, it must offer the same conditions as the normal, day-to-day working environment, with a similar range of demands, pressures and requirements for cost-effective working.
- Centres must meet any specific human and physical resource requirements outlined in the assessment strategy in *Annexe A*. Staff assessing learners must meet the occupational competence requirements within the overarching assessment strategy for the sector.
- There must be systems in place to ensure continuing professional development for staff delivering the qualification.
- Centres must have appropriate health and safety policies, procedures and practices in place for the delivery and assessment of the qualification.
- Centres must have in place robust internal verification systems and procedures to ensure the quality and authenticity of learners' work as well as the accuracy and consistency of assessment decisions between assessors operating at the centre. For information on the requirements for implementing assessment processes in centres, please refer to the document *General Guidance for Centres and Learners Pearson NVQ/SVQ and Competence-based Qualifications*. Additionally, centres offering the qualification as stand-alone should refer to the document *Centre Guide to Quality Assurance Pearson NVQ/SVQ and Competence-based Qualifications*. Centres offering the qualification within BTEC Apprenticeship frameworks should refer to the document *Quality Assurance Handbook, BTEC Apprenticeship*. All three documents are available on our website.
- Centres must deliver the qualification in accordance with current equality legislation. For further details on Pearson's commitment to the Equality Act 2010, please see *Section 7 Access and recruitment*. For full details on the Equality Act 2010, visit [www.legislation.gov.uk](http://www.legislation.gov.uk)

## 7 Access and recruitment

Our policy on access to our qualifications is that:

- they should be available to everyone who is capable of reaching the required standards
- they should be free from barriers that restrict access and progression
- there should be equal opportunities for all wishing to access the qualifications.

Centres must ensure that their learner recruitment process is conducted with integrity. This includes ensuring that applicants have appropriate information and advice about the qualification so that they can be sure that it meets their needs.

Centres should review applicants' prior qualifications and/or experience, considering whether this profile shows that they have the potential to achieve the qualification.

### **Prior knowledge, skills and understanding**

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No prior knowledge, understanding, skills or qualifications are required for learners to register for this qualification.

### **Access to qualifications for learners with disabilities or specific needs**

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Equality and fairness are central to our work. Pearson's *Equality and Diversity Policy* document requires all learners to have equal opportunity to access our qualifications and assessments and that our qualifications are awarded in a way that is fair to every learner.

We are committed to making sure that:

- learners with a protected characteristic (as defined by the Equality Act 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to learners who do not share that characteristic
- all learners achieve the recognition they deserve from undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

For learners with disabilities and specific needs, the assessment of their potential to achieve the qualification must identify, where appropriate, the support that will be made available to them during delivery and assessment of the qualification. Please see the information regarding reasonable adjustments and special consideration in *Section 8 Assessment*.

## 8 Assessment

To achieve a pass for this qualification, the learner must achieve all the units required in the stated qualification structure.

### Language of assessment

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Assessments for the units in this qualification are in English only.

A learner taking the qualification may be assessed in British or Irish Sign Language where it is permitted for the purpose of reasonable adjustment.

Further information on the use of language in qualifications is available in our *Use of Languages in Qualifications Policy* document, available on our website at: [qualifications.pearson.com](http://qualifications.pearson.com)

Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) *Access Arrangements and Reasonable Adjustments*. The document is available on our website.

### Internal assessment

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The units in this qualification are assessed through an internally- and externally quality-assured Portfolio of Evidence, made up of evidence gathered during the course of the learner's work.

Each unit has specified learning outcomes and assessment criteria. To pass each unit the learner must:

- achieve **all** the specified learning outcomes
- satisfy **all** the assessment criteria by providing sufficient and valid evidence for each criterion
- prove that the evidence is their own.

There must be workplace evidence against each learning outcome and assessment criterion. Where the workplace evidence does not cover the whole scope/range, knowledge evidence must be provided to cover the remaining items of scope/range for each relevant learning outcome and assessment criterion. Please refer to page 41 for further information on the assessment of knowledge and understanding.

The learner must have an assessment record that identifies the assessment criteria that have been met. The assessment record should be cross-referenced to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment. Suitable centre documentation should be used to form an assessment record.

It is important that the evidence provided to meet the assessment criteria for the unit and learning outcomes:

<b>valid</b>	is relevant to the standards for which competence is claimed
<b>authentic</b>	is produced by the learner
<b>current</b>	is sufficiently recent to create confidence that the same skill, understanding or knowledge persists at the time of the claim
<b>reliable</b>	indicates that the learner can consistently perform at this level
<b>sufficient</b>	fully meets the requirements of the standards.

Learners can provide evidence of occupational competence from:

- **current practice** – where evidence is generated from a current job role
- a **programme of development** – where evidence comes from assessment opportunities built into a learning programme. The evidence provided must meet the assessment requirements for the qualification
- the **Recognition of Prior Learning (RPL)** – where a learner can demonstrate that they can meet a unit's assessment criteria through knowledge, understanding or skills they already possess without undertaking a course of development. They must submit sufficient, reliable, authentic and valid evidence for assessment. Evidence submitted that is based on RPL should give the centre confidence that the same level of skill, understanding and knowledge exists at the time of the claim as existed at the time the evidence was produced. RPL is acceptable for accrediting a unit, several units, or a whole qualification; further guidance is available in our *Recognition of Prior Learning Policy and Process* document, available on our website
- a combination of the above.

## Assessment requirements

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The assessment strategy for the qualification is included in *Annexe A*. It sets out the overarching assessment principles and the framework for assessing the units to ensure that the qualification remain valid and reliable. It has been developed by ConstructionSkills in partnership with employers, training providers, awarding organisations and the regulatory authorities.

## Types of evidence

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To achieve a unit, the learner must gather evidence that shows that they have met the required standard specified in the assessment criteria, Pearson's quality assurance arrangements (please see *Section 10 Quality assurance of centres*) and the requirements of the assessment strategy given in *Annexe A*.

In line with the assessment strategy, evidence for internally-assessed units can take a variety of forms as indicated below:

- direct observation of the learner's performance by their assessor (O)
- outcomes from oral or written questioning (Q&A)
- products of the learner's work (P)
- personal statements and/or reflective accounts (RA)
- professional discussion (PD)
- authentic statements/witness testimony (WT)
- expert witness testimony (EWT)
- evidence of Recognition of Prior Learning (RPL).

Taken as a whole, the evidence must show that the candidate consistently meets all the learning outcomes and assessment criteria across the scope/range within each unit.

Learners can use the abbreviations in their portfolios for cross-referencing purposes.

Learners can also use one piece of evidence to prove their knowledge, skills and understanding across different assessment criteria and/or across different units. It is not necessary for learners to have each assessment criterion assessed separately. They should be encouraged to reference evidence to the relevant assessment criteria. However, the evidence provided for each unit must clearly reference the unit assessed. Evidence must be available to the Assessor, the Internal Verifier and the Pearson Standards Verifier.

Any specific evidence requirements for a unit are given in the *Unit assessment requirements* section of the unit.

Further guidance on the requirements for centre quality assurance and internal verification processes is available on our website. Please see *Section 12 Further information and useful publications* for details.

## Assessment of knowledge and understanding

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Knowledge and understanding are key components of competent performance, but it is unlikely that performance evidence alone will provide sufficient evidence for knowledge-based learning outcomes and assessment criteria. Where the learner's knowledge and understanding is not apparent from performance evidence, it must be assessed through other valid methods and be supported by suitable evidence. The evidence provided to meet these learning outcomes and assessment criteria must be in line with ConstructionSkills assessment strategy.

In line with ConstructionSkills assessment strategy, knowledge evidence may be established from questioning the candidate, or from industry recognised industry education and training programme assessment, or professional interview assessment, that has been matched to the requirements of the National Occupational Standards. Such assessments should also have their own independent external assessment, moderation or verification.

Any specific assessment requirements are stated in the *Unit assessment requirements* section of each unit in *Section 11 Units*.

## Appeals

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Centres must have a policy for dealing with appeals from learners. Appeals may relate to incorrect assessment decisions or unfairly conducted assessment. The first step in such a policy is a consideration of the evidence by a Lead Internal Verifier or other member of the programme team. The assessment plan should allow time for potential appeals after learners have been given assessment decisions.

Centres must document all learners' appeals and their resolutions. Further information on the appeals process can be found in our *Enquiries and Appeals about Pearson Vocational Qualifications Policy* document, available on our website.

## Dealing with malpractice

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Malpractice means acts that undermine the integrity and validity of assessment, the certification of qualifications and/or may damage the authority of those responsible for delivering the assessment and certification.

Pearson does not tolerate actions (or attempted actions) of malpractice by learners, centre staff or centres in connection with Pearson qualifications. Pearson may impose penalties and/or sanctions on learners, centre staff or centres where incidents (or attempted incidents) of malpractice have been proven.

Malpractice may arise or be suspected in relation to any unit or type of assessment within the qualification. For further details on malpractice and advice on preventing malpractice by learners please see Pearson's *Centre Guidance: Dealing with Malpractice*, available on our website.

## Internal assessment

Centres are required to take steps to prevent malpractice and to investigate instances of suspected malpractice. Learners must be given information that explains what malpractice is for internal assessment and how suspected incidents will be dealt with by the centre. The *Centre Guidance: Dealing with Malpractice* document gives full information on the actions we expect you to take.

Pearson may conduct investigations if we believe that a centre is failing to conduct internal assessment according to our policies. The above document gives more information and examples, and details the penalties and sanctions that may be imposed.

In the interests of learners and centre staff, centres need to respond effectively and openly to all requests relating to an investigation into an incident of suspected malpractice.

## Learner malpractice

The head of centre is required to report incidents of suspected learner malpractice that occur during Pearson examinations. We ask centres to complete JCQ Form M1 ([www.jcq.org.uk/exams-office/malpractice](http://www.jcq.org.uk/exams-office/malpractice)) and email it with any accompanying documents (signed statements from the learner, invigilator, copies of evidence, etc.) to the Investigations Team at [pqsmalpractice@pearson.com](mailto:pqsmalpractice@pearson.com). The responsibility for determining appropriate sanctions or penalties to be imposed on learners lies with Pearson.

Learners must be informed at the earliest opportunity of the specific allegation and the centre's malpractice policy, including the right of appeal. Learners found guilty of malpractice may be disqualified from the qualification for which they have been entered with Pearson.

## Teacher/centre malpractice

The head of centre is required to inform Pearson's Investigations Team of any incident of suspected malpractice by centre staff, before any investigation is undertaken. The head of centre is requested to inform the Investigations Team by submitting a JCQ M2(a) form (downloadable from [www.jcq.org.uk/exams-office/malpractice](http://www.jcq.org.uk/exams-office/malpractice)) with supporting documentation to [pqsmalpractice@pearson.com](mailto:pqsmalpractice@pearson.com). Where Pearson receives allegations of malpractice from other sources (for example Pearson staff, anonymous informants), the Investigations Team will conduct the investigation directly or may ask the head of centre to assist.

Incidents of maladministration (accidental errors in the delivery of Pearson qualifications that may affect the assessment of learners) should also be reported to the Investigations Team using the same method.

Heads of centres/principals/chief executive officers or their nominees are required to inform learners and centre staff suspected of malpractice of their responsibilities and rights, please see 6.15 of the Joint Council for Qualifications (JCQ) document *Suspected Malpractice in Examinations and Assessments Policies and Procedures*.

Pearson reserves the right in cases of suspected malpractice to withhold the issuing of results/certificates while an investigation is in progress. Depending on the outcome of the investigation, results and/or certificates may not be released or they may be withheld.

We reserve the right to withhold certification when undertaking investigations, audits and quality assurances processes. You will be notified within a reasonable period of time if this occurs.

## Sanctions and appeals

Where malpractice is proven, we may impose sanctions or penalties.

Where learner malpractice is evidenced, penalties may be imposed such as:

- mark reduction for affected external assessments
- disqualification from the qualification
- debarment from registration for Pearson qualifications for a period of time.

If we are concerned about your centre's quality procedures we may impose sanctions such as:

- working with you to create an improvement action plan
- requiring staff members to receive further training
- placing temporary blocks on your certificates
- placing temporary blocks on registration of learners
- debarring staff members or the centre from delivering Pearson qualifications
- suspending or withdrawing centre approval status.

The centre will be notified if any of these apply.

Pearson has established procedures for centres that are considering appeals against penalties and sanctions arising from malpractice. Appeals against a decision made by Pearson will normally be accepted only from the head of centre (on behalf of learners and/or members or staff) and from individual members (in respect of a decision taken against them personally). Further information on appeals can be found in our *Enquiries and Appeals about Pearson Vocational Qualifications Policy* document, available on our website. In the initial stage of any aspect of malpractice, please notify the Investigations Team (via [pqsmalpractice@pearson.com](mailto:pqsmalpractice@pearson.com)) who will inform you of the next steps.

## Reasonable adjustments to assessment

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Centres are able to make adjustments to assessments to take account of the needs of individual learners in line with the guidance given in the document *Pearson Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units*. In most instances, adjustments can be achieved by following the guidance; for example allowing the use of assistive technology or adjusting the format of the evidence. We can advise you if you are uncertain as to whether an adjustment is fair and reasonable. Any reasonable adjustment must reflect the normal learning or working practice of a learner in a centre or working within the occupational area.

Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements and Reasonable Adjustments*.

Both documents are on our website.

## Special consideration

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Centres must operate special consideration in line with the guidance given in the Pearson document *Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units*. Special consideration may not be applicable in instances where:

- assessment requires the demonstration of practical competence
- criteria have to be met fully
- units/qualifications confer licence to practice.

Centres cannot apply their own special consideration; applications for special consideration must be made to Pearson and can be made only on a case-by-case basis. A separate application must be made for each learner and certification claims must not be made until the outcome of the application has been received.

Further information on special consideration can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements and Reasonable Adjustments*.

Both of the documents mentioned above are on our website.

## 9 Centre recognition and approval

### Centre recognition

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Centres that have not previously offered Pearson competence-based qualifications need to apply for and be granted centre recognition and approval as part of the process for approval to offer individual qualifications.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by a new qualification and the conditions for automatic approval are met.

Guidance on seeking approval to deliver Pearson vocational qualifications is available on our website.

### Approvals agreement

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All centres are required to enter into an approval agreement, which is a formal commitment by the head or principal of a centre, to meet all the requirements of the specification and any associated codes, conditions or regulations. Pearson will act to protect the integrity of the awarding of qualifications. If centres do not comply with the agreement, this could result in the suspension of certification or withdrawal of approval.

## 10 Quality assurance of centres

Quality assurance is at the heart of vocational qualifications. Centres are required to declare their commitment to ensuring quality and to giving learners appropriate opportunities that lead to valid and accurate assessment outcomes.

Centres must follow quality assurance requirements for standardisation of assessors and internal verifiers and the monitoring and recording of assessment processes. Pearson uses external quality assurance procedures to check that all centres are working

to national standards. It gives us the opportunity to identify and provide support to safeguard certification and quality standards. It also allows us to recognise and support good practice.

Centres offering competence-based qualifications will receive at least **one** visit from our Standards Verifier, followed by ongoing support and development. This may result in more visits or remote support, as required to complete standards verification. The exact frequency and duration of Standards Verifier visits will reflect the centre's performance, taking account of the:

- number of assessment sites
- number and throughput of learners
- number and turnover of assessors
- number and turnover of internal verifiers.

In order for certification to be released, confirmation is required that the Occupational Standards for assessment and verification, and for the specific occupational sector are being met consistently.

For further details, please go to the document *General Guidance for Centres and Learners Pearson NVQ/SVQ and Competence-based Qualifications*.

Additionally, centres offering the qualification as stand-alone should refer to the document *Centre Guide to Quality Assurance Pearson NVQ/SVQ and Competence-based Qualifications*. Centres offering the qualification within BTEC Apprenticeship frameworks should refer to the document *Quality Assurance Handbook BTEC Apprenticeship*.

All three documents mentioned above are available on our website.

# 11 Units

## Unit format

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Each unit has the following sections.

### Unit number

The number is in a sequence in the specification. Where a specification has more than one qualification, numbers may not be sequential for an individual qualification.

### Unit title

This is the formal title of the unit and it will appear on the learner's certificate.

### Level

All units and qualifications have a level assigned to them. The level assigned is informed by the level descriptors defined by Ofqual, the qualifications regulator.

### Unit type

This says if the unit is mandatory or optional for the qualification. See information in *Section 4 Qualification structure* for full details.

### Guided Learning Hours (GLH)

Guided Learning Hours (GLH) is the number of hours that a centre delivering the qualification needs to provide. Guided learning means activities, for example lectures, tutorials, online instruction, supervised study, that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners.

Pearson has consulted with users of the qualification and has assigned a number of hours to this activity for each unit.

### Unit summary

This summarises the purpose of the unit and the learning the unit offers.

## **Unit assessment requirements**

This outlines the requirements for the assessment of the unit. Learners must provide evidence according to each of the requirements stated in this section.

## **Learning outcomes**

The learning outcomes set out what a learner will know, understand or be able to do as the result of a process of learning.

## **Assessment criteria**

The assessment criteria specify the standard the learner is required to meet to achieve a learning outcome.

# **Unit 1: Conforming to General Health, Safety and Welfare in the Workplace**

<b>Level:</b>	<b>1</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>7</b>

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## **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in conforming to general health, safety and welfare in the workplace in the relevant sector of industry.

## **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Comply with all workplace health, safety and welfare legislation requirements	1.1	Comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area			
		1.2	Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements			
		1.3	Comply with statutory requirements, safety notices and warning notices displayed within the workplace and/or on equipment			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		1.4 State why and when health and safety control equipment, identified by the principles of protection, should be used relating to types, purpose and limitations of each type, the work situation, occupational use and the general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			
		1.5 State how the health and safety control equipment relevant to the work should be used in accordance with the given instructions			
		1.6 State which types of health, safety and welfare legislation, notices and warning signs are relevant to the occupational area and associated equipment			
		1.7 State why health, safety and welfare legislation, notices and warning signs are relevant to the occupational area			
		1.8 State how to comply with control measures that have been identified by risk assessments and safe systems of work			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Recognise hazards associated with the workplace that have not been previously controlled and report them in accordance with organisational procedures	2.1	Report any hazards created by changing circumstances within the workplace in accordance with organisational procedures			
		2.2	List typical hazards associated with the work environment and occupational area in relation to resources, substances, asbestos, equipment, obstructions, storage, services and work activities			
		2.3	List the current Health and Safety Executive top ten safety risks			
		2.4	List the current Health and Safety Executive top five health risks			
		2.5	State how changing circumstances within the workplace could cause hazards			
		2.6	State the methods used for reporting changed circumstances, hazards and incidents in the workplace			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Comply with organisational policies and procedures to contribute to health, safety and welfare	3.1	Interpret and comply with given instructions to maintain safe systems of work and quality working practices			
		3.2	Contribute to discussions by offering/providing feedback relating to health, safety and welfare			
		3.3	Contribute to the maintenance of workplace welfare facilities in accordance with workplace welfare procedures			
		3.4	Safely store health and safety control equipment in accordance with given instructions			
		3.5	Dispose of waste and/or consumable items in accordance with legislation			
		3.6	State the organisational policies and procedures for health, safety and welfare in relation to: <ul style="list-style-type: none"> <li>• dealing with accidents and emergencies associated with the work and environment</li> <li>• methods of receiving or sourcing information</li> <li>• reporting</li> <li>• stopping work</li> <li>• evacuation</li> <li>• fire risks and safe exit procedures</li> <li>• consultation and feedback</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.7	State the appropriate types of fire extinguishers relevant to the work			
		3.8	State how and when the different types of fire extinguishers are used in accordance with legislation and official guidance			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Work responsibly to contribute to workplace health, safety and welfare while carrying out work in the relevant occupational area	4.1	Demonstrate behaviour which shows personal responsibility for general workplace health, safety and welfare			
		4.2	State how personal behaviour demonstrates responsibility for general workplace health, safety and welfare in relation to: <ul style="list-style-type: none"> <li>• recognising when to stop work in the face of serious and imminent danger to self and/or others</li> <li>• contributing to discussions and providing feedback</li> <li>• reporting changed circumstances and incidents in the workplace</li> <li>• complying with the environmental requirements of the workplace</li> </ul>			
		4.3	Give examples of how the behaviour and actions of individuals could affect others within the workplace			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Comply with and support all organisational security arrangements and approved procedures	5.1	Provide appropriate support for security arrangements in accordance with approved procedures: <ul style="list-style-type: none"> <li>• during the working day</li> <li>• on completion of the day's work</li> <li>• for unauthorised personnel (other operatives and the general public)</li> <li>• for theft</li> </ul>			
		5.2	State how security arrangements are implemented in relation to the workplace, the general public, site personnel and resources			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 2: Conforming to Productive Working Practices in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>10</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in conforming to productive working practices in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Communicate with others to establish productive work practices	1.1	Communicate in an appropriate manner with line management, colleagues and/or customers to ensure that work is carried out productively			
		1.2	Describe the different methods of communicating with line management, colleagues and customers			
		1.3	Describe how to use different methods of communication to ensure that the work carried out is productive			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Follow organisational procedures to plan the sequence of work	2.1	Interpret relevant information from organisational procedures in order to plan the sequence of work			
		2.2	Plan the sequence of work, using appropriate resources, in accordance with organisational procedures to ensure work is completed productively			
		2.3	Describe how organisational procedures are applied to ensure work is planned and carried out productively in relation to: <ul style="list-style-type: none"> <li>• using resources for own and others' work requirements</li> <li>• allocating appropriate work to employees</li> <li>• organising the work sequence</li> <li>• reducing carbon emissions</li> </ul>			
		2.4	Describe how to contribute to zero/low carbon work outcomes within the built environment			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain relevant records in accordance with the organisational procedures	3.1	Complete relevant documentation according to the occupation as required by the organisation			
		3.2	Describe how to complete and maintain documentation in accordance with organisational procedures in relation to: <ul style="list-style-type: none"> <li>• job cards</li> <li>• worksheets</li> <li>• material/resource lists</li> <li>• time sheets</li> </ul>			
		3.3	Explain the reasons for ensuring documentation is completed clearly and within given timescales			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain good working relationships when conforming to productive working practices	4.1	Carry out work productively, to the agreed specification, in conjunction with line management, colleagues, customers and/or other relevant people involved in the work to maintain good working relationships			
		4.2	Apply the principles of equality and diversity and respect the needs of individuals when communicating and working with others			
		4.3	Describe how to maintain good working relationships in relation to: <ul style="list-style-type: none"> <li>• individuals</li> <li>• customer and operative</li> <li>• operative and line management</li> <li>• own and other occupations</li> </ul>			
		4.4	Describe why it is important to work effectively with line management, colleagues and customers			
		4.5	Describe how working relationships could have an effect on productive working			
		4.6	Describe how to apply principles of equality and diversity when communicating and working with others			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 3: Laying Flexible Pavement Materials in the Workplace**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 75

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in laying flexible pavement materials in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when laying flexible pavement materials	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, official guidance and current regulations governing the laying of flexible pavement materials</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when laying flexible pavement materials	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when laying flexible pavement materials	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when laying flexible pavement materials			
		3.2	Demonstrate compliance with given information and relevant legislation when laying flexible pavement materials relating to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to laying flexible pavement materials and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to lay flexible pavement materials	4.1	Select resources associated with own work in relation to materials, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• unbound sub-base materials</li> <li>• jointing materials</li> <li>• flexible pavement materials, asphalt concretes, hot rolled asphalt, stone mastic asphalt, mastic asphalt and resin bound versions</li> <li>• hand tools, power tools, pedestrian operated plant and ancillary equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation the quantity, length, area and wastage associated with the method and procedure to lay flexible pavement materials			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when laying flexible pavement materials	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when laying flexible pavement materials	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how time is estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to lay flexible pavement materials to the required specification	7.1	Demonstrate the following work skills when laying flexible pavement materials: <ul style="list-style-type: none"> <li>measuring, marking out, preparing, laying, spreading, levelling, compacting and finishing</li> </ul>			
		7.2	Use and maintain hand tools, power tools, pedestrian operated plant and ancillary equipment			
		7.3	Lay flexible pavement materials to given working instructions relating to: <ul style="list-style-type: none"> <li>unbound sub-base construction</li> <li>preparing and forming joints</li> <li>flexible surface material</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• confirm the area and location of work, the operations, safety and security requirements, including temporary traffic management and immediate area protection:</li> <li>• prepare the area for laying of flexible pavement materials</li> <li>• conform to agreed specifications</li> <li>• determine the suitability of flexible pavement materials</li> <li>• lay, compact and finish unbound sub-base</li> <li>• prepare and form joints</li> <li>• lay, compact and finish flexible pavement materials</li> <li>• work around street furniture and ironwork</li> <li>• apply sealers, sealants, tack and bond coats and bitumen</li> <li>• work with, around and in close proximity to plant and machinery</li> <li>• return infrastructure to operational status</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools, pedestrian operated plant and equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.5	Describe the needs of other occupations and how to effectively communicate within a team when laying flexible pavement materials			
		7.6	Describe how to maintain the tools and equipment used when laying flexible pavement materials			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to setting out dimensional control of the work	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and reference points			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, reference points and current regulations governing buildings and construction work</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance to set out dimensional control of the work	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when setting out dimensional control of the work	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during setting out dimensional control of the work			
		3.2	Demonstrate compliance with given information and relevant legislation when setting out dimensional control of the work in relation to <b>two</b> or more of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment/working platforms</li> <li>• safe handling of materials</li> <li>• safe use and storage of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to setting out dimensional control of the work, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources to set out dimensional control of the work	4.1	Select resources associated with the work in relation to measuring tools and instruments, marking materials/components, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• measuring tools and instruments</li> <li>• marking equipment</li> <li>• level and alignment tools</li> </ul>			
		4.3	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.5	Describe any potential hazards associated with the resources and methods of work			
		4.6	Describe how to identify quantity of resources associated with the method/procedure to set out for secondary dimensional work control			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when setting out dimensional control of the work	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Prevent damage and maintain a clean work area			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Complete the work within the allocated time when setting out dimensional control of the work	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			
7	Comply with the given contract information to set out dimensional control of the work to the required specification	7.1	Demonstrate the following work skills when setting out dimensional control of the work: <ul style="list-style-type: none"> <li>• transferring, transposing, levelling, measuring, marking, positioning, fixing and securing</li> </ul>			
		7.2	Use and maintain hand tools, measuring and marking equipment			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		7.3 Set out secondary dimensional control for the work to given working instructions for <b>three</b> or more of the following: <ul style="list-style-type: none"> <li>• line</li> <li>• level</li> <li>• depth</li> <li>• area</li> <li>• height</li> <li>• angle</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• measure and set out secondary dimensional control for the work</li> <li>• measure, align and level to dimensional control requirements</li> <li>• transfer and set out lines, angles and levels to dimensional control requirements</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• use hand tools, measuring and marking equipment</li> <li>• work at height</li> <li>• use access equipment</li> </ul>			
		7.5 Describe how to calculate height, depth, angle, length and area associated with the method/procedure to set out secondary dimensional work control			
		7.6 Describe the needs of other occupations and how to effectively communicate within a team when setting out dimensional control of the work			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
	7.7	Describe how to maintain the hand tools, measuring, marking and ancillary and equipment used to set out dimensional control of the work			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 5: Laying Modular Pavement in the Workplace**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 75

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in laying modular pavement in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when laying modular pavement	1.1	Interpret and extract relevant information from drawings, risk assessments, method statements, specifications, schedules and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information and regulations governing the laying of modular pavement</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when laying modular pavement	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when laying modular pavement	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when laying modular pavement			
		3.2	Demonstrate compliance with given information and relevant legislation when laying modular pavement in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to laying modular pavement, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to lay modular pavement	4.1	Select resources associated with own work in relation to materials and components, and tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• graded granular material, mortar and concrete</li> <li>• blocks, stone setts, bricks, flags, natural stone</li> <li>• kerbs, channels, drainage</li> <li>• hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation, quantity, length, area, volume and wastage associated with the method and procedure to lay modular paving			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when laying modular pavement	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when laying modular pavement	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to lay modular pavement to the required specification	7.1	Demonstrate the following work skills when laying modular pavement: <ul style="list-style-type: none"> <li>• setting out, preparing, measuring, marking out, cutting, placing, laying, levelling, aligning, compacting and finishing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Place bedding and lay modular paving manually and/or by machine to given working instructions, to produce a bound or unbound pavement using at least <b>two</b> of the following: <ul style="list-style-type: none"> <li>• block paving</li> <li>• brick paving</li> <li>• stone and/or concrete setts</li> <li>• flags</li> <li>• natural stone rough cut (riven and/or cropped)</li> <li>• natural stone uniformly cut (sawn in dimension)</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
	7.4	<p>Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• confirm the area and location of work, the operations, safety and security requirements, including temporary traffic management and immediate area protection</li> <li>• confirm the type of block, brick, sett, flag and natural stone modular paving unit, bedding and jointing materials</li> <li>• conform to the agreed specifications</li> <li>• identify the differences between rigid (bound) and flexible (unbound) pavements</li> <li>• inspect and confirm substrate as acceptable for laying modular paving to given specification</li> <li>• set out the area and prepare substrate for modular pavement construction</li> <li>• install kerbs, channels, edgings and drainage</li> <li>• mark and cut modular paving</li> <li>• lay modular block, brick, sett, flag and natural stone paving manually and by machine to the required design, pattern, levels and stability</li> <li>• work around street furniture and ironwork</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>• work with, in close proximity to and around plant or machinery</li> <li>• monitor and check work against specification(s)</li> <li>• lift modular paving for removal, maintenance and repair</li> <li>• maintain and repair modular paving to match existing design functions</li> <li>• return infrastructure to operational status</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools and equipment</li> </ul>			
		7.5 Describe the needs of other occupations and how to effectively communicate within a team when laying modular pavement			
		7.6 Describe how to maintain the tools and equipment used when laying modular pavement			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 6: Preparing and Operating Powered Units, Tools or Pedestrian Plant, Machinery or Equipment in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>23</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of powered units, tools or pedestrian plant, machinery or equipment	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, operating instructions and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, legislation, codes of practice, manufacturers' information and operating instructions</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance to prepare and use powered units, tools or pedestrian plant, machinery or equipment	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when preparing for and using powered units, tools or pedestrian plant, machinery or equipment	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when using powered units, tools or pedestrian plant, machinery or equipment			
		3.2	Demonstrate compliance with given information and relevant legislation when using powered units, tools or pedestrian plant, machinery or equipment in relation to <b>two</b> or more of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe handling of materials</li> <li>• safe use and storage of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	3.3 Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to powered units, tools or pedestrian plant, machinery or equipment use, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources to prepare for and sustain powered units, tools or pedestrian plant, machinery or equipment	4.1	Select resources associated with the type of work in relation to fuel/power source, lubricants and consumables			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• power source/fuels</li> <li>• consumables, lubricants</li> </ul>			
		4.3	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.5	Describe any potential hazards associated with the resources and methods of work			
		4.6	Describe how to identify quantity, length, area and wastage associated with the method/procedures to operate powered units, tools or pedestrian plant, machinery or equipment			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when preparing to and using powered units, tools or pedestrian plant, machinery or equipment	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Prevent damage and maintain a clean work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when preparing to and using powered units, tools or pedestrian plant, machinery or equipment	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to operate powered units, tools or pedestrian plant, machinery or equipment to the required specification	7.1	Demonstrate the following work skills when using powered units, tools or pedestrian plant, machinery or equipment: <ul style="list-style-type: none"> <li>starting, stopping, replenishing, controlling and cleaning</li> </ul>			
		7.2	Use and maintain powered units, tools and ancillary equipment			
		7.3	Operate and monitor powered units and tools or pedestrian plant, machinery or associated equipment to given working instructions relating to: <ul style="list-style-type: none"> <li>continual running</li> <li>closing down</li> <li>cleaning</li> </ul>			
		7.4	Return powered unit, tools or pedestrian plant, machinery or equipment to a safe operational condition on completion of work			
		7.5	Disassemble and/or clean powered unit, tools or pedestrian plant, machinery or equipment			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• prepare, position and set up for work</li> <li>• secure accessories and tool attachments</li> <li>• carry out pre-use and function checks to manufacturers' and suppliers' information/ and procedures</li> <li>• complete pre-start and post-stop checks</li> <li>• recognise the characteristics of the plant, machinery and equipment</li> <li>• identify specific operating and safety requirements for the task and work</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• operate, use and control</li> <li>• monitor and maintain</li> <li>• replenish consumables</li> <li>• close down and secure</li> <li>• disassemble and clean</li> <li>• use access equipment</li> <li>• transport and store</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		7.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and using powered units, tools or pedestrian plant, machinery or equipment			
		7.8 Describe how to maintain the hand tools, portable power tools, powered units, pedestrian plant, machinery and ancillary equipment used for the work			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 7: Laying Pre-formed Kerbs and Channels in the Workplace**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 75

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in laying pre-formed kerbs and channels in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when laying pre-formed kerbs and channels	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations for laying pre-formed kerbs and channels</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when laying pre-formed kerbs and channels	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when laying pre-formed kerbs and channels	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when laying pre-formed kerbs and channels			
		3.2	Demonstrate compliance with given information and relevant legislation when laying pre-formed kerbs and channels in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> <li>• others affected by the work</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to laying pre-formed kerbs and channels, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to lay pre-formed kerbs and channels	4.1	Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• sand, cement, aggregates, additives, sealants and resins</li> <li>• kerbs, channels and combined drainage and kerb systems</li> <li>• hand tools, power tools and ancillary equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.7	Describe how to identify by calculation, quantity, length, area and wastage associated with the method and procedure to lay pre-formed kerbs, channels and combined drainage and kerb systems			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when laying pre-formed kerbs and channels	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when laying pre-formed kerbs and channels	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to lay pre-formed kerbs and channels to the required specification	7.1	Demonstrate the following work skills when laying pre-formed kerbs and channels: <ul style="list-style-type: none"> <li>measuring, marking out, cutting, positioning, levelling, aligning, compacting, sealing and finishing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Lay pre-formed kerbs and/or channels and/or combined drainage and kerb systems to given working instructions			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• confirm the area and location of work, the operations, safety and security requirements, including temporary traffic management and immediate area protection</li> <li>• identify different types of kerbs, channels and combined drainage and kerb systems</li> <li>• conform to agreed specifications</li> <li>• set out the area and prepare substrate and foundation for laying kerbs, channels and combined drainage and kerb systems</li> <li>• lay and align kerbs, channels and combined drainage and kerb systems to the required specifications</li> <li>• mark and cut kerbs, channels and combined drainage and kerb systems</li> <li>• work around street furniture and ironwork</li> <li>• protect completed work for curing process</li> <li>• deal with others affected by the work</li> <li>• return infrastructure to operational status</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools and equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.5	Describe the needs of other occupations and how to effectively communicate within a team when laying pre-formed kerbs, channels and combined drainage and kerb systems			
		7.6	Describe how to maintain the tools and equipment used when laying pre-formed kerbs, channels and combined drainage and kerb systems			

Learner name: \_\_\_\_\_

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Learner signature: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 8: Forming and Finishing Excavations Manually in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>55</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in forming and finishing excavations manually in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when forming and finishing excavations manually	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and method statements			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, permits, current legislation and official guidance governing excavations and the support of excavations</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when forming and finishing excavations manually	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when forming and finishing excavations manually	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when forming and finishing excavations manually			
		3.2	Demonstrate compliance with given information and relevant legislation when forming and finishing excavations manually in relation to at least <b>two</b> of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to forming and finishing excavations manually and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to form and finish excavations manually	4.1	Select resources associated with own work in relation to materials and components, and tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>digging equipment</li> <li>hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to calculate quantity, length, area, volume and wastage associated with the method and procedure to form and finish excavations manually			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when forming and finishing excavations manually	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when forming and finishing excavations manually	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to form and finish excavations manually to the required specification	7.1	Demonstrate the following work skills when forming and finishing excavations manually: <ul style="list-style-type: none"> <li>checking, locating, measuring, marking out, excavating and securing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Form and finish excavations manually to given working instructions			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• locate, position, identify and confirm the type of surface and sub-surface composition, including ground water</li> <li>• conform to agreed specifications</li> <li>• plan, prepare, set out and mark out excavations</li> <li>• remove surface courses, street furniture and sub-surface structures</li> <li>• protect and monitor adjacent structures</li> <li>• excavate, form and finish ground manually</li> <li>• recognise changes in ground conditions, ground water conditions, soil types and excavation stability</li> <li>• recognise the dangers of loads and structures at the edge of excavations</li> <li>• identify and locate utility services, excavate around services and protect</li> <li>• monitor and check accuracy during progress and on completion of work</li> <li>• recognise inspection and test criteria for excavations</li> <li>• identify and store excavated and reusable materials</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>confirm the disposal of unusable materials</li> <li>recognise the need for positioning, securing and removing excavation supports</li> <li>provide for access and egress</li> <li>work with, around and in close proximity to plant and machinery</li> <li>recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>use hand tools, power tools and equipment</li> <li>use access equipment</li> <li>work at height</li> </ul>			
		7.5 Describe the needs of other occupations and how to effectively communicate within a team when forming and finishing excavations manually			
		7.6 Describe how to maintain the tools and equipment used when forming and finishing excavations manually			

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Assessor signature: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

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*(if sampled)*

## **Unit 9: Reinstating Trenches in Paved Surfaces in the Workplace**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 65

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in reinstating trenches in paved surfaces in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when reinstating trenches in paved surfaces	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations governing reinstating trenches in paved surfaces</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when reinstating trenches in paved surfaces	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when reinstating trenches in paved surfaces	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when reinstating trenches in paved surfaces			
		3.2	Demonstrate compliance with given information and relevant legislation when reinstating trenches in paved surfaces in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> <li>• others affected by the work</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to reinstating trenches in paved surfaces, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to reinstate trenches in paved surfaces	4.1	Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• new and re-usable materials, sub-base, road-base and pavement surface</li> <li>• cold-lay, warm-lay and hot-lay bituminous materials</li> <li>• sands, jointing materials</li> <li>• concrete, blocks and flags</li> <li>• natural soil-based materials</li> <li>• hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation, quantity, length, area and wastage associated with the method and procedure to reinstate trenches in paved surfaces			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when reinstating trenches in paved surfaces	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when reinstating trenches in paved surfaces	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how time is estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to reinstate trenches in paved surfaces to the required specification	7.1	Demonstrate the following work skills when reinstating trenches in paved surfaces: <ul style="list-style-type: none"> <li>backfilling, laying, compacting, levelling, securing and finishing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Reinstate trenches in paved surfaces to given working instructions, for sub-grades, sub-bases and foundations relating to at least <b>one</b> of the following: <ul style="list-style-type: none"> <li>bituminous materials</li> <li>sealants and emulsions</li> <li>concrete</li> <li>modular structures</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• confirm the area and location of work, the operations, safety and security requirements, including temporary traffic management and immediate area protection</li> <li>• confirm the type of ground structure for reinstatement (bituminous, concrete, modular, natural)</li> <li>• conform to the agreed specification</li> <li>• reinstate and compact backfill, sub-grades, sub-bases, foundations and pavement bases for the relevant type of ground structure</li> <li>• protect service apparatus and sub-structures during reinstatement</li> <li>• reinstate the relevant type of ground surface, pavement surface, specialist surface treatments, kerbs, edge restraints, street ironwork and pavement markings</li> <li>• work around street furniture and ironwork</li> <li>• dispose of surplus materials</li> <li>• return infrastructure to operational status</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>use hand tools, power tools and equipment</li> </ul>			
	7.5	Describe the needs of other occupations and how to effectively communicate within a team when reinstating trenches in paved surfaces			
	7.6	Describe how to maintain the tools and equipment used when reinstating trenches in paved surfaces			

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Internal verifier signature: \_\_\_\_\_

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*(if sampled)*

## **Unit 10: Identifying and Marking the Location of Utilities Apparatus and Sub-structures in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>65</b>

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### **Unit summary**

This unit provides learners with the skills, knowledge and understanding required to confirm competence in identifying and marking the location of utilities apparatus and sub-structures in the workplace within the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when identifying and marking the location of utilities apparatus and sub-structures	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, survey and utility company information, and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, organisational and manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing utilities</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when identifying and marking the location of utilities apparatus and sub-structures	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			
		2.4	Describe the types of fire extinguishers available when identifying and marking the location of utilities apparatus and sub-structures and describe how and when they are used			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when identifying and marking the location of utilities apparatus and sub-structures	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when identifying and marking the location of utilities apparatus and sub-structures			
		3.2	Demonstrate compliance with given information and relevant legislation when identifying and marking the location of utilities apparatus and sub-structures in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> <li>• others affected by the work</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to identifying and marking the location of utilities apparatus and sub-structures, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries, damage to utilities apparatus and sub-structures and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to identify and mark the location of utilities apparatus and sub-structures	4.1	Select resources associated with own work in relation to materials, components, tools, equipment and electronic location instruments			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• electronic location instruments</li> <li>• marking materials and equipment</li> <li>• hand tools, power tools and equipment</li> <li>• ancillary equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation, quantity, length and area associated with the method and procedure to identify and mark the location of utilities apparatus and sub-structures			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when identifying and marking the location of utilities apparatus and sub-structures	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Complete the work within the allocated time when identifying and marking the location of utilities apparatus and sub-structures	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to Identify and mark the location of utilities apparatus and sub-structures to the required specification	7.1	Demonstrate the following work skills when identifying and marking the location of utilities apparatus and sub-structures: <ul style="list-style-type: none"> <li>measuring, locating, identifying, marking out, positioning, protecting and securing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Survey, identify and mark the location of utilities apparatus and sub-structures to given working instructions			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <p>confirm the area and location of work, the operations, safety and security requirements, including temporary traffic management and immediate area protection:</p> <ul style="list-style-type: none"> <li>• ensure electronic equipment is calibrated</li> <li>• conform to agreed specification and local utility providers' requirements</li> <li>• identify utilities apparatus and sub-structures by electronic locators and visually</li> <li>• confirm the type of service, including gas, fuel, electric, communication, water, sewage</li> <li>• work around street furniture and ironwork</li> <li>• recognise identification markers for utility types</li> <li>• confirm structures (foundations, inspection chambers, joint and junction boxes)</li> <li>• confirm the impact of the natural environment (tree roots, watercourses)</li> <li>• mark the position of the utilities apparatus and sub-structures</li> <li>• return infrastructure to operational status</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>use hand tools, power tools and equipment</li> <li>work at height</li> </ul>			
		7.5 Describe the needs of other occupations and how to effectively communicate within a team when identifying and marking the location of utilities apparatus and sub-structures			
		7.6 Describe how to maintain the tools, equipment and electronic instruments used when identifying and marking the location of utilities apparatus and sub-structures			

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Internal verifier signature: \_\_\_\_\_

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*(if sampled)*

# **Unit 11: Locating and Excavating to Expose Buried Utility Services in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>70</b>

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## **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in locating and excavating to expose buried utility services in the workplace in the relevant sector of industry.

## **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when locating and excavating to expose buried utility services	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, survey and utility company information and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, permits, verbal, written and graphical instructions, organisational and manufacturers' information, current regulations and official guidance governing utility services</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when locating and excavating to expose buried utility services	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			
		2.4	Describe the types of fire extinguishers available when locating and excavating to expose buried utility services and describe how and when they are used			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when locating and excavating to expose buried utility services	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when locating and excavating to expose buried utility services			
		3.2	Demonstrate compliance with given information and relevant legislation when locating and excavating to expose buried utility services in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> <li>• working with and around utility services including ground penetration</li> <li>• working in excavations</li> <li>• others affected by the work</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to locating and excavating to expose buried utility services, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries, damage to utilities apparatus and sub-structures and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work when locating and excavating to expose buried utility services	4.1	Select resources associated with own work in relation to materials, components, tools, equipment and electronic location instruments			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• electronic instruments</li> <li>• marking and protection materials</li> <li>• excavation plant and machinery</li> <li>• hand tools, power tools, and equipment including specialist tools (insulated and non-sparking tools)</li> <li>• ancillary equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation, the quantity, length, volume and area associated with the method/procedure to locate and excavate to expose buried utility services			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when locating and excavating to expose buried utility services	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when locating and excavating to expose buried utility services	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information when locating and excavating to expose buried utility services to the required specification	7.1	Demonstrate the following work skills when locating and excavating to expose buried utility services: <ul style="list-style-type: none"> <li>measuring, locating, exposing, marking out, positioning, protecting and securing</li> </ul>			
		7.2	Use and maintain hand tools, power tools, ancillary equipment and electronic instruments			
		7.3	Locate and excavate to expose buried utility services to given working instructions			
		7.4	Apply protection measures to utility services			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• confirm the area and location of work, the operations, safety and security requirements, including temporary traffic management and immediate area protection</li> <li>• ensure electronic equipment is calibrated</li> <li>• conform to agreed specification and local utility services providers' requirements</li> <li>• identify utility services by electronic locators, trial holes and visually</li> <li>• recognise criteria for operating location equipment and their limitations</li> <li>• confirm the type of service, including gas, fuel, electric, communication, water, sewage</li> <li>• liaise with utility services organisations</li> <li>• recognise identification markers for utility types</li> <li>• excavate by hand and with the assistance of plant or machinery</li> <li>• work with, in close proximity to, and around plant and machinery</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<ul style="list-style-type: none"> <li>• recognise the criteria for directing and guiding the operations and movement of plant and machinery</li> <li>• work around street furniture and ironwork</li> <li>• work in excavations, including the need for excavation supports, edge protection and access equipment</li> <li>• provide for the recognition and protection of the utility services, sub-structure and the natural environment during operational activities</li> <li>• install supports for exposed utility services</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, portable power tools and equipment including specialist equipment</li> <li>• use access equipment</li> <li>• work at height</li> </ul>			
	7.6 Describe the needs of other occupations and how to effectively communicate within a team when locating and excavating to expose buried utility services			
	7.7 Describe how to maintain the tools and equipment used to locate and excavate to expose buried utility services			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 12: Installing Street Ironwork in the Workplace (Metal, Plastic, Concrete and Composite Materials)**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>50</b>

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### **Unit summary**

This unit provides learners with the skills, knowledge and understanding required to confirm competence in installing street ironwork in the workplace (metal, plastic, concrete and composite materials) within the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when installing street ironwork (metal, plastic, concrete and composite materials)	1.1	Interpret and extract relevant information from drawings, risk assessments, method statements, specifications, schedules and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations for installing street ironwork fixtures (metal, plastic, concrete and composite materials)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when installing street ironwork (metal, plastic, concrete and composite materials)	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when installing street ironwork (metal, plastic, concrete and composite materials)	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing street ironwork (metal, plastic, concrete and composite materials)			
		3.2	Demonstrate compliance with given information and relevant legislation when installing street ironwork (metal, plastic, concrete and composite materials) in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> <li>• those affected by the work</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to installing street ironwork (metal, plastic, concrete and composite materials), and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given instructions		
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to install street ironwork (metal, plastic, concrete and composite materials)	4.1	Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• sand, cement, mortar, resin-based materials</li> <li>• bricks, shims and proprietary products for adjusting</li> <li>• access covers and frames, gully grates and frames</li> <li>• hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation, quantity and size associated with the method and procedure to install street ironwork (metal, plastic, concrete and composite materials)			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when installing street ironwork (metal, plastic, concrete and composite materials)	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when installing street ironwork (metal, plastic, concrete and composite materials)	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to install street ironwork (metal, plastic, concrete and composite materials) to the required specification	7.1	Demonstrate the following work skills when installing street ironwork (metal, plastic, concrete and composite materials): <ul style="list-style-type: none"> <li>measuring, marking out, positioning, fitting, levelling, aligning and securing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Install street ironwork (metal, plastic, concrete and composite materials) to new and/or reinstated pavements to given working instructions relating to the following: <ul style="list-style-type: none"> <li>access covers and frames</li> <li>gully grates and frames</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• confirm the area and location of work, the operations, safety and security requirements, including temporary traffic management and immediate area protection</li> <li>• locate the area and position where the street ironwork is to be installed</li> <li>• conform to agreed specifications</li> <li>• remove, take up and set aside street ironworks</li> <li>• confirm the street ironwork, fixing and bedding requirements</li> <li>• work around street furniture</li> <li>• adjust height of existing street ironwork</li> <li>• position, fit, align, level and secure the street ironwork</li> <li>• protect ironwork during curing</li> <li>• return infrastructure to operational status</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools and equipment</li> <li>• use ancillary equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.5	Describe the needs of other occupations and how to effectively communicate within a team when installing street ironwork (metal, plastic, concrete and composite materials)			
		7.6	Describe how to maintain the tools and equipment used when installing street ironwork (metal, plastic, concrete and composite materials)			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 13: Placing and Finishing Non-specialist Concrete in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>70</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in placing and finishing non-specialist concrete in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when placing and finishing non-specialist concrete	1.1	Interpret and extract relevant information from drawings, risk assessments, method statements, specifications, schedules and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, risk assessments, method statements, specifications, schedules, manufacturers' information and current regulations associated with placing and finishing non-specialist concrete</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when placing and finishing non-specialist concrete	2.1	Describe their responsibilities regarding potential accidents and health hazards while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when placing and finishing non-specialist concrete	3.1	Use health and safety control equipment safely to carry out the activity in accordance with current legislation and organisational requirements when placing and finishing non-specialist concrete			
		3.2	Comply with information relating to specific risks to health when placing and finishing non-specialist concrete			
		3.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to placing and finishing non-specialist concrete, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to place and finish non-specialist concrete	4.1	Select resources associated with own work in relation to materials, components and fixings, and tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>concrete, fabric reinforcement, timber, plywood, proprietary slab edgings and fixings</li> <li>hand tools and equipment</li> </ul>			
		4.3	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.5	Describe any potential hazards associated with the resources and methods of work			
		4.6	Describe how to calculate quantity, length, area and wastage associated with the method/procedure to place and finish non-specialist concrete			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when placing and finishing non-specialist concrete	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Minimise damage and maintain a clean work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Complete the work within the allocated time when placing and finishing non-specialist concrete	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			
7	Comply with the given contract information to place and finish non-specialist concrete to the required specification	7.1	Demonstrate the following work skills when placing and finishing non-specialist concrete: <ul style="list-style-type: none"> <li>measuring, marking out, laying, compacting, finishing, positioning and securing</li> </ul>			
		7.2	Lay and finish concrete to given working instructions for <b>three</b> of the following: <ul style="list-style-type: none"> <li>concrete slabs/bases (footing, oversites or paths)</li> <li>form slab edging</li> <li>position reinforcement</li> <li>form surface finish (tamped, floated, brushed and trowelled)</li> </ul>			
		7.3	Safely use materials, hand tools and ancillary equipment			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		7.4 Safely store the materials, tools and equipment used when placing and finishing non-specialist concrete			
		7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: <ul style="list-style-type: none"> <li>• handle, transport and test concrete</li> <li>• transport, lay, compact, cure and protect concrete with tamped, floated, brushed and trowelled finishes</li> <li>• cure and protect</li> <li>• place fabric reinforcement</li> <li>• concrete mix ratios (volume and gauge boxes)</li> <li>• place concrete into formwork and shuttering</li> <li>• form slab edging</li> <li>• work with plant and machinery</li> <li>• use hand tools and ancillary equipment</li> </ul>			
		7.6 Describe the needs of other occupations and how to effectively communicate within a team when placing and finishing non-specialist concrete			
		7.7 Describe how to maintain the tools and equipment used when placing and finishing non-specialist concrete			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 14: Installing, Maintaining and Removing Work Area Protection and Safety Equipment in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>55</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in installing, maintaining and removing work area protection and safety equipment in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when installing, maintaining and removing work area protection and safety equipment	1.1	Interpret and extract relevant information from drawings, plans, risk assessments, method statements, specifications, schedules and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, plans, risk assessments, method statements, specifications, schedules, site inspection reports, manufacturers' information, verbal and written instructions, current regulations and official guidance associated with protecting work areas</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when establishing work area protection and safety	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when installing, maintaining and removing work area protection and safety equipment	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing, maintaining and removing work area protection and safety equipment			
		3.2	Demonstrate compliance with given information and relevant legislation when installing, maintaining and removing work area protection and safety equipment in relation to at least <b>two</b> of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to installing, maintaining and removing work area protection and safety equipment, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to install, maintain and remove work area protection and safety equipment	4.1	Select resources associated with own work in relation to materials, components and fixings, and tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• safety and security equipment (cones, tapes, fences, barriers, hoarding, doors, gates)</li> <li>• protection and safety notices</li> <li>• signs and lighting</li> <li>• hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to calculate quantity, length and area associated with the method and procedure to install, maintain and remove work area protection and safety equipment			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when installing, maintaining and removing work area protection and safety equipment	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when installing, maintaining and removing work area protection and safety equipment	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to install, maintain and remove work area protection and safety equipment to the required specification	7.1	Demonstrate the following work skills when installing, maintaining and removing work area protection and safety equipment: <ul style="list-style-type: none"> <li>measuring, setting out, positioning, assembling, constructing, securing, dismantling and removing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Install, maintain and remove temporary protection and safety arrangements for the work area, to given working instructions, relating to protection equipment, barriers, fences and at least <b>one</b> of the following: <ul style="list-style-type: none"> <li>protection and safety notices</li> <li>safety lighting</li> </ul>			
		7.4	Report work undertaken			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• plan for the protection and the safety of the work and surrounding environment</li> <li>• conform to agreed specification</li> <li>• confirm the location of utility services and ensure they are protected</li> <li>• prepare and set out area protection equipment to required dimensions</li> <li>• install, check and maintain the protection and safety equipment</li> <li>• dismantle and remove protection and safety equipment</li> <li>• install safety notices</li> <li>• install lighting systems</li> <li>• monitor and check accuracy during progress and on completion of work</li> <li>• install, maintain and remove work area protection equipment in public areas</li> <li>• transport, load and offload work area protection equipment</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>use hand tools, power tools and equipment</li> <li>work at height</li> <li>use access equipment</li> </ul>			
	7.6	Describe the needs of other occupations and how to communicate effectively within a team when installing, maintaining and removing work area protection and safety equipment in the workplace			
	7.7	Describe how to maintain the tools and equipment used when installing, maintaining and removing work area protection and safety equipment in the workplace			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 15: Cutting, Drilling and Shaping Construction-related Materials in the Workplace**

<b>Level:</b>	<b>1</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>65</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in cutting, drilling and shaping construction-related materials in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when cutting, drilling and shaping construction-related materials	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, permits, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance associated with cutting, drilling and shaping construction-related materials</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when cutting, drilling and shaping construction-related materials	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials, by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Describe what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when cutting, drilling and shaping construction-related materials	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when cutting, drilling and shaping construction-related materials			
		3.2	Demonstrate compliance with given information and relevant legislation when cutting, drilling and shaping construction-related materials in relation to at least <b>two</b> of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to cutting, drilling and shaping construction-related materials, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to cut, drill and shape construction-related materials	4.1	Select resources associated with own work in relation to materials, components, fixings, tools, equipment and consumables			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• composites, plastic, masonry, vitreous clay, metal, timber, timber-based products and cementitious materials</li> <li>• bituminous materials and geotextiles</li> <li>• jigs and clamps</li> <li>• blades and bits</li> <li>• hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Describe any potential hazards associated with the resources and methods of work			
		4.6	Describe how to calculate length, quantity, area and wastage associated with the method and procedure to cut, drill and shape construction-related materials			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when cutting, drilling and shaping construction-related materials	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when cutting, drilling and shaping construction-related materials	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to cut, drill and shape construction-related materials to the required specification	7.1	Demonstrate the following work skills when cutting, drilling and shaping construction-related materials: <ul style="list-style-type: none"> <li>measuring, marking out, positioning, securing, severing, cutting, drilling and shaping</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Select tools to cut, drill or shape at least <b>four</b> of the following materials to line or mark and to given working instructions: <ul style="list-style-type: none"> <li>composites</li> <li>plastic</li> <li>masonry</li> <li>vitreous clay</li> <li>metal</li> <li>timber and timber-based</li> <li>cementitious</li> <li>bituminous</li> <li>geotextiles</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• plan, mark and set out for cutting and severing, drilling and shaping</li> <li>• conform to agreed specifications</li> <li>• cut, drill, shape and prepare composite, plastic, masonry, vitreous clay, metal, timber and timber-based materials, concrete, bituminous materials and geotextiles for use</li> <li>• operate specialist cutting, drilling and shaping equipment</li> <li>• change cutting, drilling and shaping blades and bits</li> <li>• suppress and control dust, fumes and debris</li> <li>• monitor and check accuracy during progress and on completion of work</li> <li>• recognise hazards not previously identified while cutting, drilling and shaping</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools and equipment</li> <li>• work at height</li> <li>• use access equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.5	Describe the needs of other occupations and how to communicate effectively within a team when cutting, drilling and shaping construction-related materials			
		7.6	Describe how to maintain the tools and equipment used when cutting, drilling and shaping construction-related materials			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 16: Preparing and Mixing Construction-related Materials in the Workplace**

<b>Level:</b>	<b>1</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>75</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in preparing and mixing construction-related materials in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when preparing and mixing construction-related materials	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance associated with preparing and mixing construction-related materials</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when preparing and mixing construction-related materials	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe working practices when preparing and mixing construction-related materials	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when preparing and mixing construction-related materials			
		3.2	Demonstrate compliance with given information and relevant legislation when preparing and mixing construction-related materials in relation to at least <b>two</b> of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to preparing and mixing construction-related materials, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to prepare and mix construction-related materials	4.1	Select resources associated with own work in relation to materials, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• cementitious materials, plasters, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts and pre-mixed compounds</li> <li>• hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work, including those identified by the Control of Substances Hazardous to Health Assessments (COSHH)			
		4.7	Describe how to calculate quantity, length, area, volume and wastage associated with the method and procedure to prepare and mix construction-related materials			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when preparing and mixing construction-related materials	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when preparing and mixing construction-related materials	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to prepare and mix construction-related materials to the required specification	7.1	Demonstrate the following work skills when preparing and mixing construction-related materials: <ul style="list-style-type: none"> <li>measuring, gauging, stirring, mixing, agitating and blending</li> </ul>			
		7.2	Use and maintain hand tools, power tools and equipment			
		7.3	Prepare at least <b>two</b> of the following materials for use to given working instructions: <ul style="list-style-type: none"> <li>cementitious</li> <li>plasters</li> <li>resins</li> <li>adhesives</li> <li>bonding agents</li> <li>colourings</li> <li>waterproof coatings</li> <li>grouts</li> <li>pre-mixed compounds</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• plan, set out and prepare cementitious materials, plasters, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts and pre-mixed compounds for use</li> <li>• conform to agreed specifications</li> <li>• set up, prepare, conduct pre-start checks, start, operate, monitor the operation of and close down specialist mixing machinery and equipment</li> <li>• recognise types of materials and constituents</li> <li>• work with, around and in close proximity to plant or machinery and lifting equipment</li> <li>• monitor and check accuracy during progress and on completion of work</li> <li>• protect constituents and mixed materials</li> <li>• identify requirements for quality control, including tests</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools and equipment</li> <li>• use access equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.5	Describe the needs of other occupations and how to communicate effectively within a team when preparing and mixing construction-related materials			
		7.6	Describe how to maintain the tools and equipment used when preparing and mixing construction-related materials			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 17: Segregating the Area for Highways Works in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>65</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in segregating the area for highways works in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when segregating the area for highways works	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, site inspections and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, electronic data, current regulations, current legislation, official guidance and codes of practice governing traffic management relating to highways works</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when segregating the area for highways works	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when segregating the area for highways works	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when segregating the area for highways works			
		3.2	Demonstrate compliance with given information and relevant legislation when segregating the area for highways works in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> <li>• others affected by the work</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to segregating the area for highways works, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to segregate the area for highways works	4.1	Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• signs, lights, guards and portable traffic signals</li> <li>• pedestrian and vehicular traffic control systems</li> <li>• hand tools, power tools and ancillary equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation, quantity, length, area and wastage associated with the method and procedure to segregate the area for highways works			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when segregating the area for highways works	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when segregating the area for highways works	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information when segregating the area for highways works to the required specification	7.1	Demonstrate the following work skills when segregating the area for highways works: <ul style="list-style-type: none"> <li>measuring, locating, setting out, positioning, assembling, maintaining and removing</li> </ul>			
		7.2	Use and maintain hand tools and ancillary equipment			
		7.3	Segregate the area for live highways works in compliance with recognised current legislation, official guidance and given working instructions relating to the following: <ul style="list-style-type: none"> <li>access and egress to site</li> <li>work activity and storage of resources</li> <li>signs, cones, lighting and guarding, portable traffic signals for temporary traffic management control</li> </ul>			
		7.4	Maintain and remove signs, lighting and guarding, portable traffic signals in compliance with recognised current legislation and official guidance			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• plan and implement the agreed plan for site safety, access and egress, work activities and storage of resources and temporary traffic management control around the highways works</li> <li>• set out signs, cones, lights, portable traffic signals and guarding for temporary traffic management control</li> <li>• work around street furniture and ironwork</li> <li>• deal with others affected by the work</li> <li>• check and maintain operation of traffic control equipment</li> <li>• dismantle and remove signs, lights, cones, portable traffic signals and guarding for temporary traffic management control</li> <li>• return infrastructure to operational status</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools and equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.6	Describe the needs of other occupations and how to effectively communicate within a team when segregating the area for highways works			
		7.7	Describe how to maintain the hand tools, power tools, ancillary equipment and traffic control equipment used when segregating the area for highways works			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 18: Installing, Maintaining and Removing Temporary Excavation Support in the Workplace**

**Level:** 2

**Unit type:** Optional

**Guided Learning Hours:** 70

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in installing, maintaining and removing temporary excavation support in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when installing, maintaining and removing temporary excavation support	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing construction works and the support of excavations</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when installing, maintaining and removing temporary excavation support	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when installing, maintaining and removing temporary excavation support	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing, maintaining and removing temporary excavation support			
		3.2	Demonstrate compliance with given information and relevant legislation when installing, maintaining and removing temporary excavation support in relation to the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to providing temporary excavation support, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to install, maintain and remove temporary excavation support	4.1	Select resources associated with own work in relation to materials, components and fixings, and tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• proprietary systems</li> <li>• open and closed support systems</li> <li>• piling systems</li> <li>• bespoke equipment</li> <li>• fixing devices</li> <li>• hand tools, power tools and ancillary equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to calculate quantity, length, area and wastage associated with the method and procedure to provide excavation support			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when installing, maintaining and removing temporary excavation support	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clean and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when installing, maintaining and removing temporary excavation support	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to install, maintain and remove temporary excavation support to the required specification	7.1	Demonstrate the following work skills when installing, maintaining and removing temporary excavation support: <ul style="list-style-type: none"> <li>measuring, marking out, preparing, positioning, fitting, supporting, fixing, securing, dismantling and removing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Install, maintain and remove temporary excavation support to given working instructions, relating to at least <b>one</b> of the following: <ul style="list-style-type: none"> <li>proprietary systems, e.g. drag box, trench box, manhole box</li> <li>open and closed support systems</li> <li>piling systems, e.g. diaphragm wall, trench sheets, sheet piles, secant support or contiguous support</li> <li>bespoke support systems</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• recognise types of temporary support for excavations</li> <li>• conform to agreed specifications</li> <li>• plan, prepare and set out for the installation of the excavation support and edge protection</li> <li>• remove surface courses, ironwork, modular components, street furniture and sub-surface structures</li> <li>• recognise changes in ground conditions, ground water conditions, soil types and excavation stability</li> <li>• recognise the dangers of loads and structures at the edge of excavations</li> <li>• identify and locate utility services, excavate around services and protect</li> <li>• recognise inspection and test criteria for excavation support systems</li> <li>• provide for safe access and egress into the excavation and around the temporary excavation support</li> <li>• protect and monitor adjacent structures</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<ul style="list-style-type: none"> <li>• excavate manually for the installation, maintenance and removal of excavation supports</li> <li>• construct, erect and install temporary excavation support as excavations progress and on completion</li> <li>• monitor and check accuracy at start, during progress and on completion of work</li> <li>• work with, around and in close proximity to plant and machinery, including lifting equipment</li> <li>• inspect and maintain the integrity and safety of the temporary support structures</li> <li>• dismantle and remove the excavation support structure</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools and equipment</li> <li>• work at height and in confined spaces</li> <li>• use access equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.5	Describe the needs of other occupations and how to communicate effectively within a team when installing, maintaining and removing temporary excavation support			
		7.6	Describe how to maintain the tools and equipment used when installing, maintaining and removing temporary excavation support			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 19: **Preparing and Operating Forward Tipping Dumpers to Receive, Transport and Discharge Materials in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>53</b>

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## **Unit summary**

This unit gives learners with the skills, knowledge and understanding required to confirm competence in preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace in the relevant sector of industry.

## **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of forward tipping dumpers to carry out transporting and discharging operations	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of forward tipping dumpers</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which transporting and discharging operations using forward tipping dumpers are to be carried out	2.1	Organise the work according to given information or instructions			
		2.2	Describe how to communicate ideas between team members			
		2.3	Organise and communicate with team members and other associated occupations			
		2.4	Describe how to organise resources prior to and during transporting and discharging operations			
3	Know how to comply with relevant legislation and official guidance when carrying out transporting and discharging operations using forward tipping dumpers	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and carrying out transporting and discharging operations using forward tipping dumpers	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during transporting and discharging operations			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out transporting and discharging operations using forward tipping dumpers in relation to <b>two</b> or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of plant or machinery</li> <li>• safe use and storage of tools and equipment</li> <li>• specific risks to health</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to forward tipping dumper use, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to prepare for and carry out transporting and discharging operations using forward tipping dumpers	5.1	Request and select resources associated with forward tipping dumpers in relation to consumables, materials, tools, ancillary equipment and/or accessories			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and load coverings</li> <li>• hand tools, ancillary equipment and accessories</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		5.5	Describe any potential hazards associated with the resources and methods of work			
		5.6	Describe how to identify weight, quantity, pressure, length and area associated with the method/procedures to carry out transporting and discharging operations			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to and transporting and discharging materials	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		6.2	Prevent damage and maintain a clean work space			
		6.3	Dispose of waste in accordance with current legislation			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
7	Complete the work within the allocated time when preparing to and transporting and discharging materials using forward tipping dumpers	7.1	Demonstrate completion of the work within the allocated time			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to receive, transport and discharge materials using forward tipping dumpers to the required specification	8.1	Demonstrate the following work skills when preparing for and transporting and discharging materials using forward tipping dumpers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, depositing, transporting, discharging and cleaning</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories			
		8.3	Prepare to, position, set up and operate forward tipping dumpers to receive, transport and discharge loads to given working instructions			
		8.4	Shut down and secure forward tipping dumpers			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the characteristics of the forward tipping dumpers used for transporting and discharging work</li> <li>• carry out function checks to receive, transport and discharge loads</li> <li>• identify characteristics, type and volume of loads to receive and transport</li> <li>• prepare, set up and adjust for operational requirements</li> <li>• carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• identify the area for discharging</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• receive, transport and discharge materials safely and securely</li> <li>• be on the public highway</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>shut down and secure the forward tipping dumper</li> <li>use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.6	Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out transporting and discharging operations			
	8.7	Describe how to maintain the plant and machinery, hand tools and ancillary equipment used for transporting and discharging operations			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 20: Preparing and Operating Ride-on Rollers to Compact Materials in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>53</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in preparing and operating ride-on rollers to compact materials in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of ride-on rollers to carry out compacting operations	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of ride-on rollers for compaction work</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which compacting operations using ride-on rollers are to be carried out	2.1	Organise the work according to given information or instructions			
		2.2	Describe how to communicate ideas between team members			
		2.3	Organise and communicate with team members and other associated occupations			
		2.4	Describe how to organise resources prior to and during compacting operations using ride-on rollers			
3	Know how to comply with relevant legislation and official guidance when carrying out compacting operations using ride-on rollers	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and carrying out compacting operations using ride-on rollers	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during compacting operations			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out compacting operations using ride-on rollers in relation to <b>two</b> or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of plant or machinery</li> <li>• safe use and storage of tools and equipment</li> <li>• specific risks to health</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to ride-on roller use, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to prepare for and carry out compacting operations using ride-on rollers	5.1	Request and select resources associated with ride-on rollers in relation to consumables, materials, tools, ancillary equipment and/or accessories			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and compaction operational aids</li> <li>• hand tools, ancillary equipment and accessories</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out compaction work using ride-on rollers			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing for and compacting materials	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		6.2	Prevent damage and maintain a clean work space			
		6.3	Dispose of waste in accordance with current legislation			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
7	Complete the work within the allocated time when preparing to and compacting materials	7.1	Demonstrate completion of the work within the allocated time			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to compact materials using ride-on rollers to the required specification	8.1	Demonstrate the following work skills when preparing for and compacting materials using ride-on rollers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning and compacting</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories			
		8.3	Prepare for, position, set up and operate ride-on rollers to compact a variety of materials, in various locations, to given working instructions			
		8.4	Shut down and secure ride-on rollers			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the characteristics of the ride-on roller used for compaction operations</li> <li>• carry out function checks for compaction operations</li> <li>• identify the area for the compaction work</li> <li>• prepare, set up and adjust for operational requirements</li> <li>• carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>• identify geological, environmental and material changes and report</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise different compaction methods</li> <li>• recognise and work compaction patterns</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• compact materials safely and securely</li> <li>• complete compaction work</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>• be on the public highway</li> <li>• shut down and secure the ride-on roller</li> <li>• use hand tools, ancillary equipment and accessories</li> </ul>			
		8.6 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out compacting operations			
		8.7 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to compact materials			

Learner name: \_\_\_\_\_

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Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 21: Preparing to and Directing and Guiding the Movement of Vehicles, Plant or Machinery in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>40</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in preparing to and directing and guiding plant and plant operations in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to preparing to and directing and guiding the movement of vehicles, plant or machinery	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, plant and vehicle movement plans and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, plant and vehicle movement plans, manufacturers' information and codes of practice for the direction and guidance of vehicles, plant and machinery</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which directing and guiding the movement of vehicles, plant or machinery is to be carried out	2.1	Organise the work according to given information or instructions			
		2.2	Describe how to communicate ideas between team members			
		2.3	Organise and communicate with team members and other associated occupations			
		2.4	Describe how to organise resources prior to and during directing and guiding vehicles, plant or machinery			
3	Know how to comply with relevant legislation and official guidance when directing and guiding the movement of vehicles, plant or machinery	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing to, directing and guiding the movement of vehicles, plant or machinery	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when directing and guiding vehicles, plant or machinery			
		4.2	Demonstrate compliance with given information and relevant legislation when directing and guiding the movement of vehicles, plant or machinery in relation to <b>two</b> or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of tools</li> <li>• safe use and storage of equipment</li> <li>• specific risks to health</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to directing and guiding vehicles, plant or machinery, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Select the required quantity and quality of resources to prepare to and direct and guide the movement of vehicles, plant or machinery	5.1	Select resources associated with directing and guiding vehicles, plant or machinery in relation to hand tools, ancillary equipment and signalling and communication equipment			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• signalling and communication equipment</li> <li>• barriers, cones, signs</li> <li>• lighting equipment</li> <li>• hand tools and ancillary equipment</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		5.5	Describe any potential hazards associated with the resources and methods of work			
		5.6	Describe how to identify weight/bearing pressures, quantity, length and area associated with the method/procedures for directing and guiding the movement of vehicles, plant and machinery			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to and directing and guiding the movement of vehicles, plant or machinery	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		6.2	Prevent damage and maintain a clean work space			
		6.3	Dispose of waste in accordance with current legislation			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
7	Complete the work within the allocated time when preparing to and directing and guiding the movement of vehicles, plant or machinery	7.1	Demonstrate completion of the work within the allocated time			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to prepare to and direct and guide the movement of vehicles, plant or machinery to the required specification	8.1	Demonstrate the following work skills when preparing to and directing and guiding vehicles plant or machinery: <ul style="list-style-type: none"> <li>measuring, gauging, estimating, interpreting, judging, explaining, preparing, commanding, directing, guiding, indicating, informing, instructing, signing, positioning, moving, securing, signalling and relaying</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and signalling equipment			
		8.3	Prepare to and direct and guide the movement of loaded and unloaded vehicles, including articulated vehicles and plant or machinery (wheeled or tracked) to given working instructions, relating to the following: <ul style="list-style-type: none"> <li>hand signals</li> <li>hand signalling equipment</li> <li>verbal/electronic communication equipment</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the differences between directing and guiding movement, directing and guiding operations and slinging and signalling</li> <li>• interpret a work management plan and vehicle movement plan</li> <li>• identify the hierarchy of traffic control measures and pedestrian separation</li> <li>• organise and ensure the maintenance of holding areas, routes, exclusion zones, markers and signs</li> <li>• assess and determine the movement of vehicles, plant and machinery, to include own position of safety, visibility, ground conditions and features, proximity hazards and weight limits</li> <li>• recognise and react to changing conditions, ground, environment, weather, light, numbers and types of vehicles, plant and machinery</li> <li>• liaise with, convey and collect information from and to, drivers and operators</li> <li>• recognise and utilise movement aids (cameras, mirrors, audio and visual warnings, etc.)</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<ul style="list-style-type: none"> <li>• recognise blind spots, potential crush zones and other limitations to driver visibility</li> <li>• recognise the requirements of directing and guiding the movement of vehicles, plant and machinery onto and from public highways</li> <li>• recognise the requirements of working on public highways</li> <li>• direct and guide different vehicle types and size, e.g. height, weight, length, width, tracked, wheeled and articulated</li> <li>• assess and determine the movement of loads, including unloading, discharging and loading requirements</li> <li>• direct and guide vehicles, plant and machinery across rough or uneven terrain</li> <li>• check the integrity of load securing equipment and stability of loads prior to commencement of movements and on arrival, prior to release</li> <li>• signal and communicate following recognised and agreed operational procedures</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• use hand tools and ancillary equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		8.5	Describe the needs of other occupations and how to effectively communicate within a team when preparing to and directing and guiding vehicles, plant or machinery			
		8.6	Describe how to maintain the hand tools, ancillary equipment, and signalling and communication equipment used to direct and guide vehicles, plant or machinery			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 22: Slinging and Hand Signalling the Movement of Suspended Loads in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>33</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in slinging and signalling the movement of loads (secondary role) in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation for and the slinging and signalling of loads	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements (lift plans) and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, lift plans, work instructions, manufacturers' information, approved procedures and codes of practice</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which the slinging and signalling of loads is to be carried out	2.1	Organise the work according to given information or instructions			
		2.2	Describe how to communicate ideas between team members			
		2.3	Organise and communicate with team members and other associated occupations			
		2.4	Describe how to organise resources prior to and when slinging and signalling loads			
3	Know how to comply with relevant legislation and official guidance to carry out slinging and signalling of loads	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and slinging and signalling loads	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when slinging and signalling loads			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out the slinging and signalling of loads in relation to at least <b>three</b> of the following: <ul style="list-style-type: none"> <li>• safe use and storage of tools and equipment</li> <li>• safe use, storage and handling of lifting accessories</li> <li>• safe use of access equipment</li> <li>• specific risks to health</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to the slinging and signalling of loads, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Select the required quantity and quality of resources to prepare for and when slinging and signalling loads	5.1	Select resources associated with slinging/signalling in relation to lifting accessories/aids, hand tools and ancillary equipment			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• lifting accessories</li> <li>• signalling and communication equipment</li> <li>• hand tools and ancillary equipment</li> </ul>			
		5.3	Describe how the resources should be used correctly, and how problems associated with the resources are reported			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		5.5	Describe any potential hazards associated with the resources and methods of work			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out slinging/signalling			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to and slinging and signalling loads	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		6.2	Prevent damage and maintain a clean work space			
		6.3	Dispose of waste in accordance with current legislation			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
7	Complete the work within the allocated time when preparing to and slinging and signalling loads	7.1	Demonstrate completion of the work within the allocated time			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to prepare to and sling and signal suspended loads for movement to the required specification	8.1	Demonstrate the following work skills when preparing to and slinging and signalling loads: <ul style="list-style-type: none"> <li>measuring, gauging, estimating, calculating, fitting, fixing, testing, balancing, interpreting, inspecting, judging, explaining, preparing, indicating, informing, instructing, signing, positioning, adjusting, configuring, moving, securing, signalling and relaying</li> </ul>			
		8.2	Use and maintain lifting accessories, lifting aids and equipment			
		8.3	Inspect and prepare lifting accessories prior to slinging			
		8.4	Prepare to and attach suspended loads to lifting equipment, using appropriate lifting accessories and load securing methods, to given working instructions for three of the following: <ul style="list-style-type: none"> <li>balanced</li> <li>unbalanced</li> <li>loose</li> <li>bundled</li> <li>container</li> <li>drum</li> <li>a load where the machine operator cannot observe its full movement path</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		8.5 Guide, move and place suspended loads to specified destinations, using hand signals, to given working instructions for <b>three</b> of the following: <ul style="list-style-type: none"> <li>• balanced</li> <li>• unbalanced</li> <li>• loose</li> <li>• bundled</li> <li>• container</li> <li>• drum</li> <li>• a load where the machine operator cannot observe its full movement path</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
	8.6	<ul style="list-style-type: none"> <li>• Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</li> <li>• identify the differences between: slinging and signalling, directing and guiding movement of vehicles, plant and machinery, and directing and guiding operations of plant and machinery not being used for lifting operations</li> <li>• confirm the authority, duties and responsibilities allocated</li> <li>• identify characteristics of lifting equipment and lifting accessories</li> <li>• identify and interpret valid certification for maintenance, inspection and thorough examination</li> <li>• lift and transfer people</li> <li>• sling balanced, unbalanced, loose, live, bundled, container drum loads and loads that are blind to the equipment operator</li> <li>• communicate using hand signals, hand signalling equipment (lights, wands, fluorescent gloves, flags) and electronic communication equipment (loudhailers, radios)</li> <li>• confirm methods of communication</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		<ul style="list-style-type: none"> <li>• recognise blind spots, potential crush zones and other limitations to driver visibility</li> <li>• consider the load characteristics, including centre of gravity and lifting points to determine the method of slinging</li> <li>• determine and check the route of the load before and during the lift, including distances, clearances and landing position</li> <li>• select, handle, inspect and use (assemble, set up and adjust) lifting accessories and aids</li> <li>• identify rejection criteria for removing lifting accessories from service</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• attach lifting accessories and sling loads securely</li> <li>• ensure balance and stability of loads</li> <li>• attach and use load guidance equipment (tag lines)</li> <li>• guide and place suspended loads by recognised methods of communication and agreed operational procedures</li> <li>• land and position loads safely and securely</li> <li>• remove and store lifting accessories</li> <li>• use hand tools and ancillary equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		8.7	Describe the needs of other occupations and how to communicate within a team when preparing to and slinging and signalling loads			
		8.8	Describe how to maintain the lifting accessories, lifting aids and signalling and communication equipment used to sling and signal loads			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 23: Installing Drainage in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>100</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in installing drainage in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when installing drainage	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, permits, current regulations and official guidance governing the installation and construction of drainage systems</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when installing drainage	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when installing drainage	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing drainage			
		3.2	Demonstrate compliance with given information and relevant legislation when installing drainage in relation to at least <b>two</b> of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to installing drainage, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to install drainage	4.1	Select resources associated with own work in relation to materials, components and fixings, and tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• pipes, fittings and ancillary components</li> <li>• pre-cast (metal, concrete, clay or plastic) components</li> <li>• bricks, blocks and sandbags</li> <li>• granular materials, aggregates, cement, concrete, mortars and sand</li> <li>• sealant materials (adhesives, compounds, solvents)</li> <li>• hand tools, power tools and ancillary equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to calculate quantity, length, volume, area and wastage associated with the method and procedure to install drainage			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when installing drainage	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when installing drainage	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of progress charts, timetables, productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to install drainage to the required specification	7.1	Demonstrate the following work skills when installing drainage: <ul style="list-style-type: none"> <li>checking, measuring, marking out, cutting, laying, positioning, fitting, joining, levelling, plumbing, aligning, securing and testing</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Lay bedding materials, install and test pipework (e.g. clay, concrete, metal or plastic) for new and/or replacement, foul and/or surface water drainage for at least <b>one</b> of the following to given working instructions: <ul style="list-style-type: none"> <li>inspection chambers (e.g. brick, concrete, metal or plastic)</li> <li>surface water systems (e.g. cells, culverts, high capacity, linear, balancing ponds, interceptors, recycling equipment, soakaways, sustainable urban drainage systems)</li> <li>foul water systems (e.g. cesspools, septic tanks, reed beds, treatment plants)</li> <li>surround pipe with specified materials</li> <li>place backfill to trench using given work instructions for both compacted and free drainage material</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• excavate trenches and provide trench support</li> <li>• confirm ground conditions, site and excavations are suitable for the drainage installation work</li> <li>• recognise the dangers of loads and structures at the edge of excavations</li> <li>• deal with groundwater</li> <li>• work around other utility services</li> <li>• install geotextile materials</li> <li>• prepare different types of bedding for pipework, e.g. sand, shingle, cementitious</li> <li>• determine levels and gradients</li> <li>• identify the differences between surface and foul water drainage</li> <li>• measure, mark and cut drainage materials</li> <li>• lay, position, level, plumb, align, fit, join, fix and secure new and replacement drainage systems</li> <li>• construct structures of a drainage system (storm alleviation, culverts, inspection chambers, lateral</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>drains, overflows, sumps, filter drains, sustainable urban drainage systems)</p> <ul style="list-style-type: none"> <li>• assemble pre-cast components (metal, concrete, clay and plastic) of a drainage system structure (inspection chambers, street ironwork)</li> <li>• connect and seal new systems to existing systems</li> <li>• prepare for conducting smoke, water, ball, air and mandrel tests on drainage systems</li> <li>• work with, around and in close proximity to, plant and machinery, including lifting equipment</li> <li>• store and dispose of removed drainage components</li> <li>• follow specified hygiene procedures particularly when dealing with foul water draining systems</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance</li> <li>• use hand tools, power tools and equipment</li> <li>• work at height and below ground level</li> <li>• use access equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.5	Describe the needs of other occupations and how to communicate effectively within a team when installing drainage			
		7.6	Describe how to maintain the tools and equipment used when installing drainage			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 24: Moving, Handling and Storing Resources in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Guided Learning Hours:</b>	<b>17</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in moving, handling and storing resources in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Comply with given information when moving, handling and/or storing resources	1.1	Interpret the given information relating to moving, handling and/or storing resources, relevant to the given occupation			
		1.2	Interpret the given information relating to the use and storage of lifting aids and equipment			
		1.3	Describe the different types of technical, product and regulatory information, their source and how they are interpreted			
		1.4	State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.5	Describe how to obtain information relating to using and storing lifting aids and equipment			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when moving, handling and/or storing resources	2.1	Describe their responsibilities under current legislation and official guidance while working: <ul style="list-style-type: none"> <li>in the workplace, in confined spaces, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making the reports			
		2.4	State the appropriate types of fire extinguishers relevant to the work			
		2.5	Describe how and when the different types of fire extinguishers, relevant to the given occupation, are used in accordance with legislation and official guidance			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe working practices when moving, handling and/or storing resources	3.1	Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements when moving, handling and/or storing resources			
		3.2	Use lifting aids safely as appropriate to the work			
		3.3	Protect the environment in accordance with safe working practices as appropriate to the work			
		3.4	<p>Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to moving, handling and/or storing resources, and the types, purpose and limitations of each type, the work situation, occupational use and the general work environment in relation to:</p> <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			
		3.5	Describe how the health and safety control equipment relevant to the work should be used in accordance with the given instructions			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.6	State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to move, handle and/or store occupational resources	4.1	Select the relevant resources to be moved, handled and/or stored, associated with own work			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the occupational resources in relation to: <ul style="list-style-type: none"> <li>• lifting and handling aids</li> <li>• container(s)</li> <li>• fixing, holding and securing systems</li> </ul>			
		4.3	Describe how the resources should be handled and how any problems associated with the resources are reported			
		4.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.5	Describe any potential hazards associated with the resources and methods of work			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Prevent the risk of damage to occupational resources and surrounding environment when moving, handling and/or storing resources	5.1	Protect occupational resources and their surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Dispose of waste and packaging in accordance with legislation			
		5.3	Maintain a clean work space when moving, handling or storing resources			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when moving, handling and/or storing resources	6.1	Demonstrate completion of the work within the allocated time			
		6.2	State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given occupational resource information to move, handle and/or store resources to the required guidance	7.1	Demonstrate the following work skills when moving, handling and/or storing occupational resources: <ul style="list-style-type: none"> <li>• moving, positioning, storing, securing and/or using lifting aids and kinetic lifting techniques</li> </ul>			
		7.2	Move, handle and/or store occupational resources to meet product information and organisational requirements relating to <b>three</b> of the following: <ul style="list-style-type: none"> <li>• sheet material</li> <li>• loose material</li> <li>• bagged or wrapped material</li> <li>• fragile material</li> <li>• tools and equipment</li> <li>• components</li> <li>• liquids</li> </ul>			
		7.3	Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them when moving, handling and/or storing occupational resources			
		7.4	Describe the needs of other occupations when moving, handling and/or storing resources			

Learner name: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

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*(if sampled)*

## **Unit 25: Controlling, Directing and Guiding the Operation of Plant or Machinery in the Workplace**

**Level:** 2

**Unit type:** Optional

**Guided Learning Hours:** 60

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in controlling, directing and guiding the operation of plant or machinery in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to controlling, directing and guiding the operation of plant or machinery	1.1	Interpret and extract relevant information from specifications, schedules, risk assessments and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, work instructions, manufacturers' information and official guidance for controlling, directing and guiding the operations of plant and machinery</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which directing and guiding operations are to be carried out	2.1	Organise the work according to given information or instructions			
		2.2	Describe how to communicate ideas between team members			
		2.3	Organise and communicate with team members and other associated occupations			
		2.4	Describe how to organise resources prior to and during directing and guiding the operation of plant and machinery			
3	Know how to comply with relevant legislation and official guidance when carrying out controlling, directing and guiding operations of plant or machinery	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when controlling, directing and guiding the operation of plant and machinery	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during controlling, directing and guiding the operation of plant and machinery			
		4.2	Demonstrate compliance with given information and relevant legislation when controlling, directing and guiding the operation of plant and machinery in relation to <b>two</b> or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of tools</li> <li>• safe use and storage of equipment</li> <li>• specific risks to health</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to directing and guiding operations of plant and machinery, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			
5	Select the required quantity and quality of resources to direct and guide the operation of plant and machinery	5.1	Select resources associated with directing and guiding the operation of plant and machinery in relation to hand tools, ancillary equipment, and signalling and communication equipment			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• signalling and communication equipment</li> <li>• hand tools and ancillary equipment</li> <li>• electronic guidance equipment, global positioning systems and laser marking devices</li> <li>• measuring equipment (pegs, tapes, strings, lines and levels)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		5.5	Describe any potential hazards associated with the resources and methods of work			
		5.6	Describe how to identify weight and bearing pressures quantity, length, area and volume associated with the method/procedure for controlling, directing and guiding the operation of plant and machinery			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when controlling, directing and guiding the operation of plant and machinery	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		6.2	Prevent damage and maintain a clean work space			
		6.3	Dispose of waste in accordance with current legislation			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
7	Complete the work within the allocated time when controlling, directing and guiding the operation of plant and machinery	7.1	Demonstrate completion of the work within the allocated time			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to control, direct and guide the operation of plant or machinery to the required specification	8.1	Demonstrate the following work skills when controlling, directing and guiding the operation of plant or machinery: <ul style="list-style-type: none"> <li>measuring, gauging, estimating, interpreting, judging, explaining, preparing, commanding, directing, guiding, indicating, informing, instructing, signing, positioning, moving, securing, signalling and relaying</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment, and signalling and communication equipment			
		8.3	Control, direct and guide the operation of plant or machinery not being used for lifting operations but including plant or machinery used as work platforms, to given working instructions, relating to the following: <ul style="list-style-type: none"> <li>hand signals</li> <li>hand signalling equipment</li> <li>verbal and electronic communication equipment</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		<p>8.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the differences between directing and guiding operations, directing and guiding movement and slinging and signalling</li> <li>• interpret work plans</li> <li>• assess and determine the operation of plant and machinery (not being used for lifting operations but including plant or machinery used as work platforms), to include own position, visibility, ground conditions and features, proximity hazards and weight limits</li> <li>• identify the operational characteristics and limitations of plant and machinery, width, length, height, radius, reach, capacity</li> <li>• recognise blind spots, potential crush zones and other limitations to operator visibility</li> <li>• control, direct and guide the operation of plant and machinery not being used for lifting operations to extract, excavate, construct, form, receive, transport, access, lay, distribute, compact, process, sweep, clean and clear</li> <li>• assess and determine the movement of extracted and excavated materials or commodities, including the</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		<p>formation and removal of stockpiles, unloading, discharging and loading</p> <ul style="list-style-type: none"> <li>• control, direct and guide the operation of plant and machinery not being used for lifting operations on rough, uneven terrain and in areas of restricted movement</li> <li>• ensure the integrity of equipment, structures, materials and components close to operations while directing and guiding</li> <li>• recognise and utilise measurement and operation monitoring aids, pegs, tapes, strings, lines and levels, electronic guidance equipment, global positioning systems and laser marking devices</li> <li>• check measurements</li> <li>• signal and communicate following recognised and agreed operational procedures</li> <li>• recognise requirements for working on public highways</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• use hand tools, ancillary equipment, and signalling and communication equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		8.5	Describe the needs of other occupations and how to effectively communicate within a team when controlling, directing and guiding the operation of plant and machinery			
		8.6	Describe how to maintain hand tools, ancillary equipment, signalling and communication equipment used to control, direct and guide the operation of plant and machinery			

Learner name: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

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*(if sampled)*

## **Unit 26: Preparing Maintenance Response Teams' Vehicles**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 20

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in preparing maintenance response teams' vehicles in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when preparing maintenance response teams' vehicles	1.1	Interpret and extract relevant information from specifications, risk assessments, inventory and/or check sheets, method statements and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official and statutory guidance governing vehicle use on roads, highways and motorways</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when preparing maintenance response teams' vehicles	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, at height, with tools and equipment, with materials and substances, with movement and storage of materials, by manual handling and mechanical lifting, and when driving vehicles</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			
		2.4	Describe the types of fire extinguishers available when preparing maintenance response teams' vehicles and describe how and when they are used			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when preparing maintenance response teams' vehicles	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when preparing maintenance response teams' vehicles			
		3.2	Demonstrate compliance with given information and relevant legislation when preparing maintenance response teams' vehicles in relation to at least <b>three</b> of the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• safe use of fire extinguishers, as appropriate to the fire</li> <li>• maintenance of documentation (personal and vehicle)</li> <li>• specific risks to health</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to preparing maintenance response teams' vehicles, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to prepare maintenance response teams' vehicles	4.1	Select resources associated with own work in relation to replenishable items (consumables), tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• maintenance response teams' vehicle and consumables</li> <li>• designated equipment</li> <li>• hand tools, power tools and equipment</li> <li>• documentation</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculating, quantity and wastage of resources associated with the method and procedure to prepare maintenance response teams' vehicles			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when preparing maintenance response teams' vehicles	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when preparing maintenance response teams' vehicles	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to prepare maintenance response teams' vehicles to the required specification	7.1	Demonstrate the following work skills when preparing maintenance response teams' vehicles: <ul style="list-style-type: none"> <li>inspecting, checking, washing, cleaning, replenishing and reporting</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Prepare maintenance response teams' vehicles to given working instructions, relating to the following: <ul style="list-style-type: none"> <li>complete pre-use checks, e.g. coolant, oil, fuel, tyres, lights, indicators</li> <li>complete pre-driving checks, e.g. security (equipment and passengers), vision (mirrors windscreen and windows), driving position</li> <li>designated carried equipment checks</li> <li>complete motion checks, brakes</li> <li>complete after use checks on vehicle and equipment</li> </ul>			
		7.4	Report defects and discrepancies using the appropriate method when preparing maintenance response teams' vehicles			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• identify and maintain fit for driving levels</li> <li>• conform to agreed specification</li> <li>• maintain the operational status of maintenance response teams' vehicles</li> <li>• maintain the operational status of the vehicles' equipment (cones, signs, lighting, lamps, disc cutter, chainsaw)</li> <li>• complete pre-use checks</li> <li>• complete pre-driving checks</li> <li>• complete motion checks</li> <li>• complete after-use checks on vehicle and equipment</li> <li>• maintain vehicle records (daily log book, patrol sheets, vehicle and drive sheets)</li> <li>• report defects and discrepancies (vehicle defects sheets, equipment checklists)</li> <li>• complete point of work risk assessments</li> <li>• prepare the vehicle in accordance with prevailing conditions (type of road, daytime, night time, traffic volumes, road surface, visibility, weather conditions)</li> <li>• use hand tools, power tools and equipment</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.6	Describe the needs of other occupations and how to effectively communicate within a team when preparing maintenance response teams' vehicles			
		7.7	Describe how to maintain the tools and equipment used when preparing maintenance response teams' vehicles			

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Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 27: Responding to and Assisting with Road-related Incidents in Operational Circumstances**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 45

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in responding to and assisting with road-related incidents in operational circumstances in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when responding to and assisting with road-related incidents	1.1	Interpret and extract relevant information, method statements, risk assessments in relation to the nature, extent and location of the incident			
		1.2	Extract relevant information to plan assistance for the incident			
		1.3	Comply with information and/or instructions derived from risk assessments and method statements			
		1.4	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.5	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official and statutory guidance governing work and incidents on motorways, high-speed dual carriage ways, rural and urban roads</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when responding to and assisting with road-related incidents	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			
		2.4	Describe the types of fire extinguishers available when responding to and assisting with road-related incidents and describe how and when they are used			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when responding to and assisting with road-related incidents	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when responding to and assisting with road-related incidents			
		3.2	Demonstrate compliance with given information and relevant legislation when responding to and assisting with road-related incidents in relation to at least <b>three</b> of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• safe use of fire extinguishers, as appropriate to the fire</li> <li>• flow and movement of traffic</li> <li>• specific risks to health</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
		<p>3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to responding to and assisting with road-related incidents, and the types, purpose and limitations of each type, the work situation and general work environment in relation to:</p> <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>		
		<p>3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given instructions</p>		
		<p>3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities</p>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to respond to and assist with road-related incidents	4.1	Select resources associated with own work in relation to materials, components, consumables, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• traffic signals</li> <li>• temporary traffic management teams</li> <li>• temporary traffic management equipment</li> <li>• lifting equipment and accessories</li> <li>• clean-up specialists</li> <li>• highway repair and maintenance teams</li> <li>• highways maintenance and repair materials</li> <li>• hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation quantity, length, area and wastage associated with the method and procedure to respond to and assist with road-related incidents			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when responding to and assisting with road-related incidents	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when responding to and assisting with road-related incidents	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to respond to and assist with road-related incidents to the required specification	7.1	Demonstrate the following work skills when responding to and assisting with road-related incidents: <ul style="list-style-type: none"> <li>planning, relaying, clearing, controlling, guiding and communicating</li> </ul>			
		7.2	Use and maintain hand tools, portable power tools and ancillary equipment			
		7.3	Respond to and assist with road-related incidents (routine, major or critical) to given working instructions, for at least <b>four</b> of the following: <ul style="list-style-type: none"> <li>flooding</li> <li>spillage or debris</li> <li>infrastructure failure</li> <li>adverse weather</li> <li>collision without injury</li> <li>collision with injury</li> <li>collision with fatality</li> <li>terrorist activity</li> </ul>			
		7.4	Liaise with incident controller and follow instructions ensuring compliance with organisational procedures			
		7.5	Report on the conclusion of the incident in accordance with current legislation and organisational procedures			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• assess response and assistance required for specific incidents, flooding, spillage, infrastructure failure, adverse weather, collision without injury, collision with injury, collision with fatality and terrorist activity</li> <li>• conform to agreed specification</li> <li>• complete point of work risk assessments (type of incident, incident duration, traffic speeds and volumes, lighting levels, weather and road geometry)</li> <li>• liaise with incident controllers (emergency services) and follow instructions ensuring compliance with organisational procedures (visual, oral and electronic)</li> <li>• deal with prevailing conditions, type of road, time of day, traffic volume, road surface, visibility, weather conditions</li> <li>• prioritise activities</li> <li>• adhere to response times</li> <li>• apply the principles of equality and diversity</li> <li>• report on the conclusion of the incident in accordance with current legislation and organisational procedures</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>• use hand tools, power tools and equipment</li> <li>• install and operate lighting equipment</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• work at height</li> <li>• use access equipment</li> <li>• working with, around and in close proximity to plant and machinery</li> <li>• record details of the incident and complete organisational documentation (site sketch, photographs, incident report forms, emails, accident and emergency report)</li> </ul>			
		7.7 Describe the needs of other occupations and how to effectively communicate within a team when responding to and assisting with road-related incidents			
		7.8 Describe how to maintain the tools and equipment used when responding to and assisting with road-related incidents			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 28: Installing and Removing Emergency Temporary Traffic Management on Motorways, High-speed Dual Carriageways or Rural and Urban Roads**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>40</b>

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in installing and removing emergency temporary traffic management on motorways, high-speed dual carriageways or rural and urban roads in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when installing and removing emergency temporary traffic management	1.1	Interpret and extract relevant information from instructions, drawings, specifications, schedules, method statements, risk assessments and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing work on motorways, high-speed dual carriage ways, rural and urban roads</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when installing and removing emergency temporary traffic management	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			
		2.4	Describe the types of fire extinguishers available when installing and removing emergency temporary traffic management and describe how and when they are used			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when installing and removing emergency temporary traffic management	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing and removing emergency temporary traffic management			
		3.2	Demonstrate compliance with given information and relevant legislation when installing and removing emergency temporary traffic management in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• flow and movement of traffic</li> <li>• completed point of work risk assessments</li> <li>• specific risks to health</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to installing and removing emergency temporary traffic management, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given instructions			
	3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to install and remove emergency temporary traffic management	4.1	Select resources associated with own work in relation to materials, components, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• traffic control equipment (cones, signs, lights, lamps, guards and barriers)</li> <li>• communication equipment</li> <li>• hand tools, power tools and equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation quantity, length, area and wastage associated with the method and procedure to install and remove emergency temporary traffic management			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when installing and removing emergency temporary traffic management	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clean and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when installing and removing emergency temporary traffic management	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to install and remove emergency temporary traffic management to the required specification	7.1	Demonstrate the following work skills when installing and removing emergency temporary traffic management: <ul style="list-style-type: none"> <li>planning, locating, setting out, positioning, installing, maintaining and removing</li> </ul>			
		7.2	Use and maintain hand tools, portable power tools and ancillary equipment			
		7.3	Install and remove emergency temporary traffic management to given working instructions on motorways, high-speed dual carriage ways or rural and urban roads: <ul style="list-style-type: none"> <li>select and prepare materials, components and equipment</li> <li>unload and load temporary traffic management equipment</li> <li>co-ordinate communications and procedures for setting up and maintaining the emergency temporary traffic management</li> <li>maintain the operational integrity of the emergency temporary traffic management components and equipment while in use</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
	7.4	<p>Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• liaise with incident controllers (police, ambulance, fire, highways agency, local authority)</li> <li>• conform to the agreed specifications</li> <li>• apply the principles of incident control, including survey, assess, disseminate, casualties, hazards, access, location, emergency services and type (SADCHALET)</li> <li>• identify a setting-down location</li> <li>• control the flow of traffic</li> <li>• protect the scene of the incident from contamination, danger or damage by position of the incident support vehicle and controlling traffic flow</li> <li>• deal with displaced and damaged equipment</li> <li>• select and prepare materials, components and equipment</li> <li>• unload and load traffic management equipment</li> <li>• install and remove emergency temporary traffic management systems</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		<ul style="list-style-type: none"> <li>• co-ordinate communications and procedures for setting up and maintaining the emergency temporary traffic management</li> <li>• maintain the operational integrity of the emergency temporary traffic management components and equipment while in use</li> <li>• apply compliant relief measures, trapped traffic, reverse flow, road closure, diversion, lane restrictions</li> <li>• record and communicate the resolution of the incident and the removal of the emergency temporary traffic management</li> <li>• return infrastructure to operational status</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• use hand tools, power tools and equipment</li> <li>• apply the principles of equality and diversity</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.5	Describe the needs of other occupations and how to effectively communicate within a team when installing and removing emergency temporary traffic management at an incident			
		7.6	Describe how to maintain the hand tools and/or portable power tools and ancillary equipment used when installing and removing emergency temporary traffic management			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 29: Excavate, Prepare and Form Foundations for Vehicle Restraint Systems**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 38

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in excavate, prepare and form foundations for vehicle restraint systems in the relevant sector of industry.

### **Unit assessment requirements**

The Proskills Assessment Strategy applies to this unit.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to work safely in line with legislation and codes of practice	1.1	Carry out work in accordance with relevant health and safety legislation			
		1.2	Carry out work in a manner which causes minimal disturbance to the surrounding area			
		1.3	Dispose of waste and excess materials safely			
		1.4	Ensure a safe work area is established and maintained			
2	Be able to excavate ground for vehicle restraint systems	2.1	Carry out all work in accordance with instructions and specifications			
		2.2	Select and prepare tools, equipment and resources ready for use			
		2.3	Use recommended working practices to excavate ground to required specifications			
3	Be able to form foundations for vehicle restraint systems	3.1	Place concrete and compact to form for foundation of specified strength, size, profile and finish			
		3.2	Establish appropriate provision to support the future installation of posts			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Know the relevant legislation and codes of practice	4.1	Outline the health and safety requirements associated with excavation work			
		4.2	Outline the health and safety requirements associated with sign and barrier installation, including permit-to-work schemes			
		4.3	Describe the legal requirements controlling the disposal of waste and excess materials			
		4.4	Outline the potential impact of your work on the surrounding area and how to minimise this			
		4.5	State the reasons for traffic management when working adjacent to highways and other transport systems			
		4.6	Describe what signs and protective barriers may be used during installation works			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Know how to excavate foundations for vehicle restraint systems	5.1	Describe where to obtain instructions on how to carry out your work			
		5.2	Describe the equipment used for excavating post holes and strip trenches			
		5.3	Outline the procedures to follow when uncharted services or substructures are located			
		5.4	Outline the procedures to follow if services or sub-structures are damaged			
		5.5	Explain how and when temporary supports should be used to support excavations			
		5.6	Outline the precautions to take when shafts or hidden sub-structures are located			
6	Know how to excavate foundations for vehicle restraint systems	6.1	Describe the methods and ratios used for mixing, placing, compacting, finishing and curing concrete			
		6.2	Describe the methods used for forming pockets in concrete for future fixing			
		6.3	Describe the techniques used for casting-in fixing items			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 30: Place and Fix Vehicle Restraint Systems**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 90

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in placing and fixing vehicle restraint systems in the relevant sector of industry.

### **Unit assessment requirements**

The Proskills Assessment Strategy applies to this unit.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to work safely in line with legislation and codes of practice	1.1	Carry out work in accordance with relevant health and safety legislation			
		1.2	Carry out work in a manner which causes minimal disturbance to the surrounding area			
		1.3	Dispose of waste and excess materials safely			
		1.4	Ensure a safe work area is established and maintained			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to place and fix posts and vehicle restraint systems	2.1	Carry out all work in accordance with instructions and specifications			
		2.2	Select and prepare tools, equipment and resources ready for use			
		2.3	Obtain fence components of specified type, material, quality and grade			
		2.4	Position and fix permanent supports at specified lines, levels and angles			
		2.5	Assemble vehicle restraint systems to meet specifications			
		2.6	Position, tension and securely fix assembled components at specified lines and levels			
		2.7	Maintain the integrity of protective finishes during fixing			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know the relevant legislation and codes of practice	3.1	Outline the health and safety requirements associated with sign and barrier installation, including permit-to-work schemes			
		3.2	Describe the legal requirements controlling the disposal of waste and excess materials			
		3.3	Outline the potential impact of your work on the surrounding area and how to minimise this			
		3.4	State the reasons for traffic management when working adjacent to highways and other transport systems			
		3.5	Describe what signs and protective barriers may be used during installation works			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Know how to place and fix vehicle restraint systems	4.1	Describe where to obtain instructions on how to carry out your work			
		4.2	Describe the methods used for assembling fencing and fencing components			
		4.3	Describe different vehicle safety fencing systems and their components			
		4.4	Describe how to handle and position posts			
		4.5	Outline the methods used for providing temporary supports and aligning and levelling posts set in concrete			
		4.6	State the reasons for, and methods of, setting posts to allow for tensioning			
		4.7	Describe backfill and methods of consolidation			
		4.8	Outline the precautions to take to avoid distortion during the tensioning process			
		4.9	Describe how to fix fence materials to posts			
		4.10	Describe different types of protective finishes			
		4.11	Describe how to deal with difficulties experienced during work			
		4.12	Outline the reasons for using transitions and how they are installed			
		4.13	Describe the use of a terminal and how they are installed			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 31: Installing and Removing Permanent Road Studs in the Workplace**

<b>Level:</b>	<b>2</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Guided Learning Hours:</b>	<b>163</b>

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## **Unit summary**

This unit provides learners with the skills, knowledge and understanding required to confirm competence in installing and removing permanent road studs in the workplace within the relevant sector of industry.

## **Unit assessment requirements**

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when installing and removing permanent road studs	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations governing installing and removing permanent road studs</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance when installing and removing permanent road studs	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when installing and removing permanent road studs	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing and removing permanent road studs			
		3.2	Demonstrate compliance with given information and relevant legislation when installing and removing permanent road studs in relation to the following: <ul style="list-style-type: none"> <li>• safe use, storage and handling of materials, tools and equipment</li> <li>• specific risks to health</li> </ul>			
		3.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to installing and removing permanent road studs, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Select the required quantity and quality of resources for the methods of work to install and remove permanent road studs	4.1	Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• setting and marking out equipment</li> <li>• road studs</li> <li>• fixing materials</li> <li>• maintenance materials</li> <li>• hand tools, power tools and ancillary equipment</li> </ul>			
		4.3	Describe how to confirm that the resources and materials conform to the specification			
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		4.6	Describe any potential hazards associated with the resources and methods of work			
		4.7	Describe how to identify by calculation, quantity, length, area and wastage associated with the method and procedure to install and remove permanent road studs			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when installing and removing permanent road studs	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		5.2	Maintain a clear and tidy work space			
		5.3	Dispose of waste in accordance with current legislation			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6	Complete the work within the allocated time when installing and removing permanent road studs	6.1	Demonstrate completion of the work within the allocated time			
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of productivity targets and timescales</li> <li>• how times are estimated</li> <li>• organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to install and remove permanent road studs to the required specification	7.1	Demonstrate the following work skills when installing and removing permanent road studs: <ul style="list-style-type: none"> <li>measuring, setting out, marking, positioning, fitting, fixing, securing and communicating</li> </ul>			
		7.2	Use and maintain hand tools, power tools and ancillary equipment			
		7.3	Install, maintain and remove permanent road studs to given working instructions, relating to at least <b>two</b> of the following: <ul style="list-style-type: none"> <li>inset milled stud</li> <li>inset drilled stud</li> <li>fixed surface mounted studs</li> <li>maintenance of studs by replacing parts</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• confirm the area and location of work, the operations, safety and security requirements, including temporary traffic management and immediate area protection</li> <li>• establish agreed time frame for installing, maintaining and removing permanent road studs</li> <li>• conform to agreed specification</li> <li>• prepare area, materials and equipment for installing, maintaining and removing permanent road studs</li> <li>• set and mark out for the installation of permanent road studs</li> <li>• install, maintain and remove milled, drilled and surface mounted road studs and permanent road studs</li> <li>• work around street furniture and ironwork</li> <li>• work with, around and in close proximity to plant and machinery</li> <li>• communicate and co-ordinate progress on the installation, maintenance and removal of permanent road studs</li> <li>• return infrastructure to operational status</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>use hand tools, power tools and equipment</li> </ul>			
	7.5	Describe the needs of other occupations and how to effectively communicate within a team when installing maintaining and removing permanent road studs			
	7.6	Describe how to maintain the tools and equipment used when installing and removing permanent road studs			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 32: Preparing and Operating Plant or Machinery to Sweep, Clean or Clear in the Workplace**

**Level:** 2

**Unit type:** Mandatory

**Guided Learning Hours:** 58

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### **Unit summary**

This unit gives learners the skills, knowledge and understanding required to confirm competence in preparing and operating plant or machinery to sweep, clean or clear in the workplace in the relevant sector of industry.

### **Unit assessment requirements**

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ structure applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of plant or machinery to sweep, clean or clear	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements			
		1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
		1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> <li>drawings, specifications, schedules, method statements, risk assessments, work instructions, manufacturers' information, waste carriers register and current regulations governing the operation of plant or machinery</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which sweeping, cleaning or clearing operations using plant or machinery are to be carried out	2.1	Organise the work according to given information or instructions			
		2.2	Describe how to communicate ideas between team members			
		2.3	Organise and communicate with team members and other associated occupations			
		2.4	Describe how to organise resources prior to and during sweeping, cleaning or clearing operations with plant or machinery			
3	Know how to comply with relevant legislation and official guidance when carrying out sweeping, cleaning or clearing operations	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment while working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and operating plant or machinery to sweep, clean or clear	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during sweeping, cleaning or clearing operations			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out sweeping, cleaning or clearing operations using plant or machinery in relation to the following: <ul style="list-style-type: none"> <li>• safe use and storage of plant or machinery</li> <li>• safe use and storage of tools and equipment</li> <li>• specific risks to health</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to plant or machinery use, and the types, purpose and limitations of each type, the work situation and general work environment in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV)</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to prepare for and carry out sweeping, cleaning or clearing operations using plant or machinery	5.1	Request and select resources associated with sweeping, cleaning or clearing operations in relation to consumables, materials, tools, ancillary equipment and accessories			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables</li> <li>• brushes, hoses and nozzles</li> <li>• hand tools, ancillary equipment and accessories</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
		5.5	Describe any potential hazards associated with the resources and methods of work			
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to operate plant or machinery for sweeping, cleaning or clearing operations			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing for and operating plant or machinery to sweep, clean or clear	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		6.2	Prevent damage and maintain a clean work space			
		6.3	Dispose of waste in accordance with current legislation			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
7	Complete the work within the allocated time when preparing to and operating plant or machinery to sweep, clean or clear	7.1	Demonstrate completion of the work within the allocated time			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to operate plant or machinery to sweep, clean or clear to the required specification	8.1	Demonstrate the following work skills when preparing for, and operating plant or machinery to sweep, clean or clear: <ul style="list-style-type: none"> <li>checking, preparing, refilling, replenishing, setting up, aligning, engaging, adjusting, manoeuvring, emptying, washing out, clearing and cleaning</li> </ul>			
		8.2	Use and maintain hand tools and ancillary equipment			
		8.3	Prepare, set up and operate plant or machinery to sweep and carry out <b>two</b> or more of the following operations to given working instructions: <ul style="list-style-type: none"> <li>tipping of lifted materials</li> <li>scrub clean</li> <li>hose clean, wet sweep</li> <li>pressure wash clean</li> <li>empty or clear by suction</li> <li>blow clear</li> </ul>			
		8.4	Shut down and secure plant or machinery			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the characteristics of the plant, machinery and equipment used to sweep, clean and clear</li> <li>• liaise with site representative</li> <li>• complete pre-use and post-stop checks for sweeper, cleaner, clearer and ancillary equipment</li> <li>• carry out functional checks</li> <li>• identify the area to be swept, cleaned and cleared</li> <li>• check to avoid damage to structures, utilities service apparatus, vehicles, people and animals</li> <li>• prepare, set up and adjust for operational requirements, safety and security</li> <li>• operate plant, machinery and equipment; gears, clutch, brake, steering, reversing aids, speed and position for sweeping, cleaning and clearing patterns, sequences and operations</li> <li>• monitor operations making use of audio and visual aids</li> <li>• identify and deal with waste streams</li> <li>• empty and discharge hopper and dispose of lifted materials</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		<ul style="list-style-type: none"> <li>• recognise and avoid fly-tipping</li> <li>• form stockpiles</li> <li>• replenish, refill water from remote hydrants</li> <li>• monitor brush wear</li> <li>• recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>• be on the public highway</li> <li>• deal with spills of oil, diesel, petrol and chemicals</li> <li>• wash out hopper</li> <li>• operate in various conditions, e.g. day, night, low light, restricted visibility, changing weather conditions</li> <li>• shut down and secure plant or machinery</li> <li>• use hand tools, ancillary equipment and accessories</li> </ul>			
		8.6 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and operating plant or machinery to sweep, clean or clear			
		8.7 Describe how to maintain the plant or machinery, hand tools, ancillary equipment and accessories used to sweep, clean or clear			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## 12 Further information and useful publications

### Key publications

- Access Arrangements and Reasonable Adjustments (Joint Council for Qualifications (JCQ))
- Centre Guidance: Dealing with Malpractice (Pearson)
- Centre Guide to Quality Assurance Pearson NVQ/SVQ and Competence-based Qualifications (Pearson)
- Collaborative and Consortium Arrangements for the Delivery of Vocational Qualifications Policy (Pearson)
- Enquiries and Appeals about Pearson Vocational Qualifications Policy (Pearson)
- Equality and Diversity Policy (Pearson)
- General Guidance for Centres and Learners Pearson NVQ/SVQ and Competence-based Qualifications (Pearson)
- Guide for Centres to Enrolling onto Qualifications (Pearson)
- Quality Assurance Handbook BTEC Apprenticeship (Pearson)
- Recognition of Prior Learning Policy and Process (Pearson)
- Suspected Malpractice in Examinations and Assessments Policies and Procedures (Joint Council for Qualifications (JCQ))
- Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units (Pearson)
- UK Information Manual (Pearson)
- Use of Languages in Qualifications Policy (Pearson).

All of these publications are available on our website: [qualifications.pearson.com](http://qualifications.pearson.com)

Further information and publications on the delivery and quality assurance of SVQ/Competence-based qualifications are available on our website.

To order publications, please go to the resources page of our website.

For books, software and online resources for UK schools and colleges, please go to: [www.pearsonschoolsandfecolleges.co.uk](http://www.pearsonschoolsandfecolleges.co.uk)

# 13 Professional development and training

## Professional development and training

Pearson supports customers with training related to our qualifications. This support is available through a choice of training options offered on our website.

The support we offer focuses on a range of issues, such as:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing learner-centred learning and teaching approaches
- building in effective and efficient quality assurance systems.

The national programme of training we offer is on our website. You can request centre-based training through the website or you can contact one of our advisers in the Training from Pearson UK team via Customer Services to discuss your training needs.

## Training and support for the lifetime of the qualifications

**Training and networks:** our training programme ranges from free introductory events through sector-specific opportunities to detailed training on all aspects of delivery, assignments and assessment. We also host some regional network events to allow you to share your experiences, ideas and best practice with colleagues in your region.

**Regional support:** our team of Regional Quality Managers, based around the country, are responsible for providing quality assurance support and guidance to anyone managing and delivering NVQs/Competence-based qualifications. The Regional Quality Managers can support you at all stages of the standard verification process as well as in finding resolutions of actions and recommendations as required.

To get in touch with our dedicated support teams please visit our website at: [qualifications.pearson.com/en/support/contact-us.html](https://qualifications.pearson.com/en/support/contact-us.html)

**Online support:** find the answers to your questions in *Knowledge Base*, a searchable database of FAQs and useful videos that we have put together with the help of our subject advisors to support you in your role. Whether you are a teacher, administrator, Assessment Associate (AA) or training provider, you will find answers to your questions. If you are unable to find the information you need please send us your query and our qualification or administrative experts will get back to you.

## 14 Contact us

To get in touch with us, please visit our 'Contact us' pages for Pearson Work Based Learning customers:

<http://qualifications.pearson.com/en/support/support-for-you/work-based-learning/contact-us.html>

## Annexe A: Assessment strategy

### Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs)

#### Introduction

This assessment strategy<sup>1</sup> provides principles and guidance to awarding organisations so the assessment of units within qualifications denoted as NVQs in the Regulated Qualification Framework (RQF) and SVQs in the Scottish Credit and Qualification Framework (SCQF) is valid, effective and consistent, and has credibility across the Construction and Built Environment sector<sup>2</sup>. This is a consolidated ConstructionSkills Assessment Strategy covering construction and the built environment – craft, operative, supervisory, technical, managerial and professional NVQs and SVQs.

These principles are in addition to the requirements that awarding organisations must meet for the delivery of qualifications as required by the qualification regulators' documentation.

This consolidated assessment strategy provides the overarching principles as systems may vary from one awarding organisation to another. Awarding organisations must consistently put these principles into practice.

Appendix A provides guidance to help awarding organisations incorporate relevant parts of these principle requirements in their documentation.

Appendix B provides additional information on assessment guidance for awarding organisations relevant to specific NVQ or SVQ qualifications and units.

Appendix C provides guidance on the use of simulation; it is a SSC's responsibility to define the acceptability of evidence from simulation in the context of National Occupational Standards (NOS) and NVQs/SVQs. Simulation will only usually apply as a result of **one or more** of the listed constraints.

Appendix D provides guidance on Scottish Vocational Qualifications at SCQF Level 6 and related Industry Skills Tests.

Awarding organisations must make this Strategy and the appendices available to assessors, verifiers, candidates and assessment centres.

*1 Please note that there is now a separate Assessment Strategy for Construction and the Built Environment – Plant and Lifting Operations. This assessment strategy will also apply where plant or lifting units, sourced from the Plant Operations or Controlling Lifting Operations' suite of units, are used in other NVQs and SVQs*

*2 Please note that the Consolidated Assessment Strategy will also apply to existing learners currently registered to the Qualifications and Credit Framework (QCF) until they achieve their qualification.*

## Principles

### 1. External quality control of assessment

1.1 Awarding organisations must use risk management for external quality control of assessment. They must evaluate all external verification reports and other data relating to assessment centres. Awarding organisations must address any risks relating to quality control, considering the sector assessment strategy requirements for:

- workplace evidence
- the use of simulation
- the occupational competence of assessors and verifiers.

1.2 The monitoring and standardisation of assessment decisions must be achieved by robust and strong internal and external verification systems that meet the requirements of the qualification regulators' documentation.

1.3 Awarding organisations must be members of the sector's Built Environment Awarding Body Forum. Members will be expected to provide feedback on National Occupational Standards (NOS), NVQs or SVQs, including aspects informing incremental change.

1.4 The Forum will, in respect of this strategy:

- build on the good relationships with awarding organisations
- provide opportunities to identify and address particular issues of external quality control
- contribute to improving quality and consistency
- support awarding organisations to monitor assessment centres' performance to identify areas and levels of risk
- provide information and statistics about take-up and completion, as well as trends and developments that can be used by ConstructionSkills and awarding organisations to identify any problem areas and agree remedial action
- discuss matters concerning quality assurance, as well as providing the opportunity to identify issues arising from implementation of NOS and related vocational qualifications
- inform the continuous improvement of NOS, and awards derived from them
- identify and share best practices to build a whole industry approach to pursue excellence in education and work-based learning and assessment process to achieve competence.

1.5 Awarding organisations and their partners, assessment centres, verifiers and assessors must maintain robust and transparent operational arrangements. They must preserve independence in assessment, certification and quality assurance processes. Awarding organisations must ensure clear separation of their NVQ/SVQ assessment responsibilities from their industry, training, membership, certification, accreditation and commercial interests and resolve any conflicts of interest.

1.6 Where e-assessment is used, it must meet the requirements of the qualification regulators' documentation.

## **2 Aspects to be assessed through performance in the workplace**

2.1 Direct evidence produced through normal performance in the workplace is the primary source for meeting the requirements. This includes naturally occurring documentary evidence (hard copy and electronic), direct observation of activities and witness testimony as relevant. ConstructionSkills' National Working Groups will specify any exceptions to this position (see section 3).

2.2 Workplace evidence must be supported by the required evidence of knowledge and understanding. This evidence may be identified by:

- questioning the candidate
- recognised industry education and training programme assessment or professional interview assessment that has been matched to NOS requirements
- performance evidence.

2.3 A holistic approach towards the collection of evidence should be encouraged. The focus should be on assessing activities generated by the whole work experience rather than focusing on specific tasks. This would show how evidence requirements could be met across the qualification to make the most efficient use of evidence. Appendix A suggests standard evidence notes for awarding organisations.

## **3 How simulated working conditions may be used to assess competence**

3.1 Simulations (designed situations for producing artificially generated evidence) may only be used where candidates are prevented from gathering direct evidence from the workplace in the normal way because:

- there are hazards
- it is difficult to distinguish individual performance in team situations
- circumstances occur infrequently or long term results are involved
- confidentiality is important
- there are organisational constraints.

3.2 Any instances where simulation is considered to be acceptable as an alternative

(to direct workplace evidence) means of generating evidence, will be determined by the relevant ConstructionSkills National Working Group and stated in the unit. Appendix A suggests standard evidence notes for awarding organisations.

3.3 The ConstructionSkills National Working Group will determine and specify on the required realistic working environment and context to be adopted.

This could include appropriate:

- tools, equipment and instruments
- materials
- types of contingencies
- standards and quality specifications
- real timescales
- quantities of work
- physical conditions
- relationships with people
- types of interaction
- communication methods and media
- information and data.

3.4 Where simulated evidence is stated as acceptable in the unit, the circumstances and requirements for the simulation needs to be confirmed by discussions between the candidate and the assessor, and which are then agreed by the internal and external verifiers.

3.5 Where other Standard Setting Bodies' units are imported into a ConstructionSkills suite, the evidence requirements of the originating body will be adopted and specified.

#### **4 Occupational expertise requirements for assessors and verifiers**

4.1 Awarding organisations must ensure that **assessors**:

- 4.1.1 have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging candidates' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:
  - curriculum vitae and employer endorsement or references
  - possession of a relevant NVQ/SVQ, or vocationally related qualification
  - corporate membership of a relevant professional institution
  - interview

(The verification process must be recorded and available for audit)

4.1.2 have sufficient occupational expertise so they have up-to-date experience, knowledge and understanding of the particular aspects of work they are assessing. This could be verified by records of continuing professional development achievements

4.1.3 only assess in their acknowledged area of occupational competence

4.1.4 have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and the Assessment Strategy (this document)

4.1.5 are prepared to participate in activities for their continued professional development

4.1.6 hold, or are working towards, a qualification as listed within 'Assessing and Assuring Quality of Assessment':

- RQF/QCF Level 3 Award in Assessing Competence in the Work Environment
- RQF/QCF Level 3 Award in Assessing Vocationally Related Achievement
- RQF/QCF Level 3 Certificate in Assessing Vocationally Related Achievement
- RQF/QCF Level 3 Certificate in Assessing Vocational Achievement
- an appropriate Assessor qualification in the SCQF as identified by SQA Accreditation
- or hold **one** of the following:
  - A1 Assess candidates using a range of methods
  - D32/33 Assess candidate performance, using differing sources of evidence
  - Holders of A1 and D32/33 must assess to the current National Occupational Standards (NOS) for Learning and Development.

In Scotland, approval for exemptions must be obtained from SQA Accreditation.

4.2 Awarding organisations must ensure that **internal verifiers**:

4.2.1 have sufficient, verifiable, relevant up to date experience, knowledge and understanding of the occupational working area at, or above, the level being verified. This must be of sufficient depth to be effective and reliable when verifying judgements about assessors' assessment processes and decisions. Internal verifiers' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit)

4.2.2 have expertise so they have up to date experience, knowledge and understanding of the particular aspects of work they are verifying. This could be verified by records of continuing professional development achievements

4.2.3 have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and the Assessment Strategy (this document)

4.2.4 are prepared to participate in activities for their continued professional development

4.2.5 hold, or are working towards, a qualification as listed in 'Assessing and Assuring Quality of Assessment':

- RQF/QCF Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- RQF/QCF Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- an appropriate Internal Verifier qualification in the SCQF as identified by SQA Accreditation

or hold **one** of the following

- V1 Conduct internal quality assurance of the assessment process
- D34 Internally verify the assessment process
- Holders of V1/D34 must quality assure to the current National Occupational Standards (NOS) for Learning and Development.

It is strongly recommended that within the role of Internal Quality Assurance **one** of the following qualifications is held.

- RQF/QCF Level 3 Award in Assessing Competence in the Work Environment
- RQF/QCF Level 3 Certificate in Assessing Vocational Achievement
- an appropriate Assessor qualification in the SCQF as identified by SQA Accreditation or one of the following

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence.

4.3 Awarding organisations must ensure that **external verifiers**:

4.3.1 have sufficient, verifiable, relevant experience, knowledge and a broad understanding of the occupational working area at, or above, the level being verified. This must be of sufficient depth to be effective and reliable when verifying judgements about internal verification and assessment processes and decisions. External verifiers' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview

(The verification process must be recorded and available for audit)

4.3.2 have sufficient expertise so they have an up-to-date experience, knowledge and understanding of the particular aspects of work they are verifying. This could be verified by records of continuing professional development achievements

4.3.3 have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and the Assessment Strategy (this document)

4.3.4 are prepared to participate in activities for their continued professional development

4.3.5 hold, or are working towards, a qualification as listed in 'Assessing and Assuring Quality of Assessment':

- RQF/QCF Level 4 Award in the External Quality Assurance of the Assessment Process and Practice
- RQF/QCF Level 4 Certificate in Leading the External Quality Assurance of Assessment
- an appropriate External Verifier qualification in the SCQF as identified by SQA Accreditation

or hold **one** of the following:

- V2 Conduct external quality assurance of the assessment process
- D35 Externally verify the assessment process
- Holders of V2/D35 must quality assure to the current National Occupational Standards (NOS) for Learning and Development.
- It is strongly recommended that within the role of External Quality Assurance one of the following qualifications is held at Level 3 and Level 4.

Level 3:

- RQF/QCF Level 3 Award in Assessing Competence in the Work Environment
- RQF/QCF Level 3 Certificate in Assessing Vocational Achievement
- an appropriate Assessor qualification in the SCQF as identified by SQA Accreditation or one of the following:
- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence.

Level 4:

- RQF/QCF Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- RQF/QCF Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- an appropriate Internal Verifier qualification in the SCQF as identified by SQA Accreditation
- V1 Conduct internal quality assurance of the assessment process
- D34 Internally verify the assessment process

#### 4.4 Selection and appointment of **assessors and verifiers**.

All applicants should be advised that they may be interviewed. Applicants' CVs should be profiled against the activities and range of the NVQ/SVQ(s) they will assess/verify to check that the applicant has the relevant current experience, knowledge and understanding of the occupational working area:

- at, or above, the level they will be assessing
- of sufficient depth to credibly verify judgements and assessments
- to uphold the integrity of the NOS and this Consolidated Assessment Strategy. All assessors should have experience as well as, not in lieu of, qualifications.

Where there seem to be gaps in a potentially suitable applicant's experience and knowledge, the applicant should be interviewed. Successful applicants' CVs, profiling, reasons for not needing to interview and interview records should be available for audit.

## Appendix A

### ConstructionSkills' standard evidence notes for awarding organisations

These guidance notes have been produced to ensure consistency in interpreting the principles set out in *Sections 2 and 3* of the ConstructionSkills' Assessment Strategy. The notes should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for construction and built environment – craft, supervisory, technical, managerial and professional NVQs/SVQs. The following general standard notes are strongly recommended for adoption by awarding organisations in their assessment specification:

Standard note 1:

*"Taken as a whole, the evidence must show that the candidate consistently meets all the following performance criteria/learning outcomes and assessment criteria across the scope/range."*

Standard note 2:

*"There must be workplace evidence against each performance criterion/learning outcome and assessment criterion. Where the workplace evidence does not cover the whole scope/range, knowledge evidence must be provided to cover the remaining items of scope/range for each relevant performance criterion/learning outcome and assessment criterion."*

Standard note 3:

*"Knowledge evidence may be established from questioning the candidate, or from industry recognised industry education and training programme assessment, or professional interview assessment, that has been matched to the requirements of the National Occupational Standards. Such assessments should also have their own independent external assessment, moderation or verification. A candidate's knowledge and understanding can also be demonstrated through presented performance evidence."*

Standard note 4: Either:

*"Simulations are not considered to be acceptable for producing this evidence."*

OR

*"Simulations are considered to be an acceptable alternative for producing evidence for the following item(s) which is/are considered to be rare/infrequent, but key/critical to demonstrating competence. The following realistic working environment and context must be adopted for the simulation, with appropriate: tools, equipment and instruments; materials; types of contingencies; standards and quality specifications; real timescales; quantities of work; physical conditions; relationship with people; type of interaction; communication methods and media; information and data\*." [\*include as appropriate]*

See also Annex C: 'Guidance on the use of simulation' which also includes guidance on the acceptable use and characteristics of simulation within N/SVQs during the current economic climate.

## Appendix B

### Additional information on assessment guidance for awarding organisations relevant to specific NVQ or SVQ qualifications and units

The information below should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for construction and built environment NVQs and SVQs. The following guidance is strongly recommended for adoption by awarding organisations in their assessment methodology.

#### Additional Information on the Assessment of CITB NVQ Units only

- CITB NVQ Unit Ref: 641 – Assessment Criteria 2.3 and 2.4
  - 2.3 – 'List the current Health and Safety Executive top ten safety risks' should be assessed as 'List the current common safety risks'.
  - 2.4 - 'List the current Health and Safety Executive top five health risks' should be assessed as 'List the current common health risks'.
- All CITB NVQ units – Assessment Criteria 1.4
  - 1.4 – 'State why and when health and safety control equipment, identified by the principles of protection' should be assessed as 'State why and when health and safety control equipment, identified by the principles of prevention'.

#### Thermal Insulation NVQ and SVQ units and qualifications

- Training Providers offering Thermal Insulation NVQ and SVQ units and qualifications:
- must ensure that their Thermal Insulation assessors are registered with the Thermal Insulation Contractor Association (TICA) and are Thermal Installation installers with at least 5 years verifiable, relevant, current industry experience, knowledge and understanding of the occupational area at, or above the level being assessed. This must be of sufficient depth to be effective and reliable when judging candidates' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:
  - curriculum vitae and employer endorsement
  - references
  - possession of a relevant NVQ/SVQ, or vocationally related qualification
  - interview

(The verification process must be recorded and available for audit)

- will provide opportunities to identify and address particular issues of external control, including the assessment of Thermal Insulation NVQ/SVQ qualifications and Apprenticeship Standards.

## Appendix C

## Guidance on the use of simulation

### Introduction

National Occupational Standards (NOS) are developed by Sector Skills Councils (SSCs) and describe the level of occupational competence required of a particular job role. NOS are then used to build National and Scottish Vocational Qualifications (NVQs/SVQs) that are competence-based qualifications and demand assessment in a workplace environment.

Assessment of NVQs/SVQs through simulation is indicated where the achievement of valid and reliable assessment calls for evidence of performance under workplace conditions, but where it will be difficult to assess through normal working practice. This will usually apply as a result of **one** or more of the following constraints:

- activities which are inherently hazardous and where mistakes made in carrying them out would pose unacceptable risks to the candidate, other people, animals or property (e.g. electricity and gas sectors, fire service etc.)
- the costs incurred would be unacceptably high if mistakes were made during an activity and a candidate would therefore be required to 'prove' competence before progressing onto the actual work (e.g. handling rare or precious objects)
- situations where the qualities and outcomes of the candidate's behaviour are almost impossible to distinguish from those of their peers or colleagues, making authenticity uncertain (e.g. in some teamwork contexts)
- activities or situations which are sufficiently rare (e.g. where processes, such as a 'shut-down', may only occur on an annual basis)
- when the collection and/or review of evidence of workplace performance would intrude unacceptably on personal privacy or confidentiality, or would significantly alter the nature of an interaction or relationship (e.g. in some health care settings)
- a requirement to work with new techniques and/or work practices which may not be available in all workplaces.

Where permitted, simulation can take one or a combination of the two following forms:

- the candidate is presented with an activity to perform using equipment and/or in a location which replicates that found in the workplace
- the candidate is presented with a situation to which they must respond; taking and playing the role they would expect to play in the workplace.

It is a SSC's responsibility to define the acceptability of evidence from simulation in the context of National Occupational Standards (NOS) and National and Scottish Vocational Qualifications (NVQs/SVQs). The ConstructionSkills Consolidated Assessment Strategy provides this guidance.

### Guidance on the acceptable use and characteristics of simulation within NVQs/SVQs during the current economic climate

Due to the UK's economic recession over the past few years, ConstructionSkills had implemented flexibilities relating to simulation of NVQs/SVQs for displaced Apprentices and although there were small signs of a recovery in 2014 ConstructionSkills agreed to extend these flexibilities for a further twelve months.

Now that the construction industry has shown definite signs of growth, these flexibilities were withdrawn on 31st May 2015. However, in regard to Apprentices registered before the 1st January 2015, the flexibilities will remain in place until their completion date.

Therefore **only** for Apprentices who registered before the 1st January 2015 the following can apply:

In situations where a displaced or employed apprentice (this does not apply to full-time learners) will not be able to demonstrate evidence in the workplace within an acceptable time span, Awarding Bodies can arrange with their centres to apply the following principles.

- 1 Units cannot be assessed using simulation alone – there must be some supporting work-based evidence.
- 2 A centre's strategy for simulation must be examined and approved by the external verifier.
- 3 The location and environment of simulation must be agreed with the internal verifier prior to taking place, and must be checked by the internal verifier.
- 4 The **nature of the contingency** and the **physical environment must be realistic** and candidates should not be given any indication as to exactly what contingencies they may come across.
- 5 All simulations must be planned, developed and documented by the centre in a way that ensures the simulation correctly reflects what the unit seeks to assess, and all simulations must follow these documented plans.
- 6 There should be a range of simulation to cover the same aspect of the unit so that the risk of candidates successfully colluding is reduced.
- 7 All simulation must reflect the urgency with which the activity would normally be carried out and the normal time needed to complete it, including the usual complexity of factors affecting the activity.
- 8 All simulation should involve the same personnel as would normally be included (e.g. bricklayer, supervisor, labourer etc.) and also similar realistic facilities.

9 Any instances of insufficient work-based evidence must be supported by adequate supplementary evidence which might include questioning; interviews with professional discussion; work projects; case studies; special assignments; self-testimony.

ConstructionSkills would strongly recommend that centres explore strategies with the candidate's employers for obtaining work-based evidence before considering the use of simulation. Examples might include using Group Training Associations, thereby carrying out real jobs within the college/training centre and/or involvement with community projects.

Group Training Association (GTA) is the government term for a training group which also shares Apprentices. The GTA model is where a number of like-minded employers come together to create a separate business entity, which sources appropriate training and delivers Apprenticeships by providing work experience across the range of engaged businesses.

## Appendix D

### Guidance on Scottish Vocational Qualifications at SCQF Level 6 and related Industry Skills Tests

#### 1 Introduction

This Appendix refers only to the SVQs in the following craft areas at SCQF Level 6

- Bricklaying
- Carpentry and Joinery
- Floorcovering
- Painting and Decorating
- Plastering
- Roofing Occupations
- Stonemasonry
- Wall and Floor Tiling
- Woodmachining

An Industry Skills Test Unit is included in the SVQ structures and involves the candidate attending a competence assessment in the final six months of the delivery of the SVQ. Successful achievement of this Skills Test/SVQ demonstrates that the learner has sufficient technical expertise, knowledge and skill to meet the expectations of employers in terms of Occupational Competence.

The Occupational Competence of learners must be assessed in accordance with industry requirements as prescribed in National Occupational Standards and Skills Testing Criteria available from CITB.

Learners should not be put forward for their Skills Test until they are deemed ready to be assessed as competent.

Simulation must take place for the Industry Skills Test Units. The activities that will be undertaken should demonstrate competence in these craft areas, as contained within each Skills Test Criteria.

#### 2 Industry Skills Test

The Industry Skills Test is the final part of the assessment process for the SVQ. Each craft occupation will have its own arrangements developed by the Awarding Organisation which will be compliant with the Skills Test Criteria.

Details of these assessments will be based on Industry recommendations and will be developed by the Awarding Organisation. Each Awarding Organisation shall ensure a nationally consistent approach to Skills Testing for the industry/occupation concerned.

### **3 Arrangements to be made between Skills Test Providers and Awarding Organisations**

3.1 The Skills Test is part of the assessment process/requirements for the qualification structures identified in this appendix. It is to be conducted at the end of the assessment process to confirm occupational competence.

3.2 Each industry will have its own requirements which are compatible to and reflect their particular necessities in terms of assessing occupational competence within the Skills Test Criteria. The arrangements will be agreed by Awarding Organisations and delivering centres accordingly.

3.3 The purpose of these arrangements is to define the roles and responsibilities of the Awarding Organisations and centres involved with facilitating, managing and administering the Skills Tests for each industry.

3.4 These arrangements only relate to the SVQs listed in this appendix of the assessment strategy or their revisions/replacements as determined by CITB.

### **4 Roles and responsibilities**

4.1 The Skills Test Criteria will be determined by CITB in partnership with industry employers and the Skills Test Specifications/Assessments will be determined by the Awarding Organisations.

4.2 The Skills Test venues and facilities will be provided by Awarding Organisations' approved centres and comply with the requirements identified in the Skills Test Criteria and Specifications developed by Awarding Organisations.

4.3 Awarding Organisation External Verifiers (EVs) will be responsible for quality assuring the Assessment Materials and Marking Guidance in accordance with the Awarding Organisation's compliance requirements. CITB will provide Awarding Organisations with a summary of the principles of the Skills Test marking regime and criteria as examples of best practice in terms of its integrity, robustness and consistency.

4.4 CITB will be responsible for the maintenance of the Skills Test Criteria.

## 5 Currency of these arrangements

It is expected that the currency of these arrangements will match with the accreditation period of the qualifications, or units therein as relevant. CITB, in partnership with the Awarding Organisations will review the arrangements bi-annually or as appropriate, subject to any revisions to the qualifications.

## 6 Occupational expertise requirements for Industry Skills Test Assessors and Industry Expert Witnesses

6.1 Awarding organisations must ensure that assessors meet the occupational expertise requirements as detailed in section 4.1 of the Assessment Strategy.

- The Assessor's role is to uphold the integrity and standards during the test and to make judgement and final assessment decisions after the test. Final assessment decisions should be accurately recorded for evidence (including photographic)

6.2 Skills Test Industry Expert Witnesses:

- must not employ any of the candidates involved in the Skills Test to ensure an independent observation
- must have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area being assessed. This must be of sufficient depth to be effective and reliable when observing the marking of the Skills Test. Expert Witnesses' experience, knowledge and understanding could be verified by any of the following:
  - curriculum vitae
  - references
  - possession of a relevant vocationally related qualification
  - corporate membership of a relevant professional institution
  - interview
- must only observe in their acknowledged area of occupational competence
- have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and this appendix
- are prepared to participate in training activities for their continued professional development

6.3 Selection and appointment of Skills Test Industry Expert Witnesses.

All applicants should be advised that they may be interviewed. Applicants' CVs should be profiled against the activities and range of the occupational area they will observe, to check that the applicant has the relevant current experience, knowledge and understanding of the occupational working area. This should be of sufficient depth to credibly verify judgements and assessments to uphold the integrity of the NOS and this Consolidated Assessment Strategy.

Whilst Expert Witnesses cannot accredit the final award of the Skills Test, if they disagree with the assessment decision made by the Assessor, they can appeal directly to the Awarding Organisation.

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