



# **QUALIFICATION HANDBOOK**

**SVQ in Construction and Civil Engineering  
Operations (Construction) at SCQF Level 5**

***Qualification reference number: GP36 45***

<b>Contents</b>	<b>Page</b>
1. Introduction	3
2. Qualification objective(s)	3
3. Progression	3
4. Entry requirements	4
5. Qualification structure	4
6. Assessment	7
7. Assessors	11
8. Internal verification	12
9. Internal verifiers	13
10. External verification	14
11. Certification	14
12. Equality and diversity	14
13. Fees	14

## **Appendices**

Appendix 1 – Candidate template documents	15
Appendix 2 – Units	16
Appendix 3 – Assessment template documents	108
Appendix 4 – Assessor template documents	114
Appendix 5 – Internal Verifier template documents	116

<b>Document control and history</b>	
Document status:	External
Owner:	JM
Version and date:	Version 1 – July 2018
Summary of revisions:	Revisions to V1: N/A

## **1. Introduction**

1.1 This qualification has been developed to seek to ensure that those that carry out construction and civil engineering operations in a construction setting meet minimum requirements of technical competence and health and safety.

1.2 These requirements have been specified in the National Occupational Standards (NOS) developed by the Sector Skills Council (SSC) Construction Skills in liaison with employers and industry/ sector representatives. This qualification is based upon those NOS and incorporates the Qualification Structure approved by SQA Accreditation.

1.3 Successful completion of this qualification will allow candidates to show they have sufficient knowledge, understanding and skills to demonstrate competence in relation to construction and civil engineering operations in accordance with their chosen pathway.

1.4 This Handbook provides the information required to assist approved centres in delivering the qualification and preparing candidates for assessment. This includes some template forms that may be used / adapted by centres. Note that you are able to create your own, or use existing forms for this purpose. Alternatively, QFI makes its E-Portfolio system available to its approved centres.

This document should be read in conjunction with QFI's policies and the Centre Handbook.

## **2. Qualification objective(s)**

2.1 The qualification is suitable for apprentices / those already in employment that wish to develop their knowledge and skills of construction and civil engineering operations in the construction sector. The characteristics of the target market are operatives aged 18+ in employment/ apprentices and undertaking the roles relating to construction and civil engineering as operatives i.e. Modular pavement construction, Laying kerbs and channels, Drainage construction, Structural concreting, Non-structural concreting, Construction Operations, General construction, Excavation and Reinstatement, Excavation, Reinstatement, Construction and Civil Engineering Operations.

2.2 In order to do this, the qualification covers technical and health and safety standards, and supports roles relating to construction and civil engineering operations.

## **3. Progression**

3.1 This qualification is primarily designed to allow candidates to progress to employment in roles relating to construction and civil engineering operations in the construction sector. These roles may be in addition to other construction related roles. Successful completion of this qualification may therefore lead to additional employment opportunities relating to construction and civil engineering operations.

3.2 Candidates achieving this qualification may also wish to progress to higher level qualifications those aimed at supervisory/ management roles.

3.3 Candidates may also choose to undertake qualifications in more generic subjects such as a health and safety in the workplace, e.g.

- Award in Health and Safety in a Construction Environment at SCQF level 4

## 4. Entry requirements

4.1 Candidates must be at least 18 years of age to be able to undertake this qualification.

4.2 Those that will be driving construction vehicles as part of their chosen pathway/ additional units must hold a full driving licence.

4.3 There are no other specific entry requirements, though the National Careers Service does recommend physical fitness.

4.4 Candidates taking this qualification must be made fully aware of what this entails. Centres must be satisfied that candidates have the experience and skills and will have sufficient assessment opportunities within their job role to provide evidence of competence for this qualification. Where this may not be the immediate case, candidates should check with their employer whether they are able to go out with departmental or immediate job role boundaries to gain the necessary assessment opportunities.

4.5 A sample induction checklist is included at Appendix 1.

## 5. Qualification structure

5.1 The structure for this qualification is set by the Sector Skills Council Construction Skills and approved by SQA Accreditation.

5.2 To achieve this qualification candidates must achieve:

- 4 mandatory units
- 3 optional units (depending upon chosen pathway)

### Mandatory Units

SSC code	Title of mandatory unit	SCQF level	SCQF credits
COSVR641v2	Conform to general workplace health, safety and welfare	6	12
COSVR642v1	Conform to productive work practices	5	5
VR360 v4	Install, maintain and remove work area protection and safety equipment	5	10

**Plus one of the following optional routes:**

<b>Modular Pavement Construction Option Route (total 6)</b>			
<b>SSC code</b>	<b>Title of unit</b>	<b>SCQF level</b>	<b>SCQF credits</b>
VR367 v3	Lay modular pavement	5	14
VR400 v2	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
VR401 v2	Set out secondary dimensional work control	5	7
<b>Laying Kerbs and Channels Option Route (total 6)</b>			
VR368 v3	Lay preformed kerbs and channels	5	14
VR400 v2	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
VR401 v2	Set out secondary dimensional work control	5	7
<b>Drainage Construction Option Route (total 6)</b>			
VR370 v4	Install, maintain and remove temporary excavation support	5	15
VR401 v2	Set out secondary dimensional work control	5	7
VR639 v3	Install drainage	5	19
<b>Structural Concreting Option Route (total 6)</b>			
VR371 v3	Pour concrete to form structures	5	18
VR400 v2	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
<i>Plus one other from the Construction and Civil Engineering Operations list</i>			
<b>Non-Structural Concreting Option Route (total 6)</b>			
VR45 v3	Place and finish non-specialist concrete	5	21
VR640 v2	Erect and strike proprietary formwork	5	17
<i>Plus one other from the Construction and Civil Engineering Operations list</i>			
<b>Construction Operations Option Route (total 6)</b>			
VR643 v1	Move, handle and store resources	5	5
Plus one from the following			
VR371 v3	Pour concrete to form structures	5	18
VR639 v3	Install drainage	5	19

<i>Plus one other from the Construction and Civil Engineering Operations list</i>			
<b>General Construction Option Route (total 4)</b>			
<i>Optional (one from the following)</i>			
VR45 v3	Place and finish non-specialist concrete	5	21
VR639 v3	Install drainage	5	19
<i>Plus one other from the Construction and Civil Engineering Operations list</i>			
<b>Excavation and Reinstatement Option Route (total 7)</b>			
VR172 v2	Reinstate ground condition	5	12
VR373 v5	Form and finish excavations manually	5	10
<i>Plus optional (two from the following)</i>			
VR372 v4	Identify and mark the location of utilities apparatus and sub-structures	5	12
VR400 v2	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
VR760 v1	Control, direct and guide the operation of plant or machinery	5	18
VR782 v1	Locate and excavate to expose buried utility services	5	13
<b>Excavation Option Route (total 6)</b>			
VR373 v5	Form and finish excavations manually	5	10
<i>Plus optional (two from the following)</i>			
VR372 v4	Identify and mark the location of utilities apparatus and sub-structures	5	12
VR400 v2	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
VR760 v1	Control, direct and guide the operation of plant or machinery	5	18
VR782 v1	Locate and excavate to expose buried utility services	5	13
<b>Reinstatement Option Route (total 5)</b>			
VR172 v2	Reinstate ground condition	5	12
<i>Plus optional (one from the following)</i>			
VR400 v2	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
VR760 v1	Control, direct and guide the operation of plant or machinery	5	18

### Construction and Civil Engineering Operations Option List

VR36 v2	Prepare and mix concrete and mortars	4	18
VR172 v2	Reinstate ground condition	5	12
VR250 v2	Erect and dismantle access/working platforms	5	11
VR361 v3	Cut, drill and shape construction related materials	4	12
VR362 v3	Lay, place or apply construction related materials	4	18
VR363 v3	Prepare and mix construction related materials	4	16
VR370 v4	Install, maintain and remove temporary excavation support	5	15
VR371 v3	Pour concrete to form structures	5	18
VR372 v4	Identify and mark the location of utilities apparatus and sub-structures	5	12
VR391 v2	Operate plant or machinery to receive and transport loads	5	16
VR394 v2	Operate plant or machinery to compact	5	16
VR400 v2	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
VR402 v2	Slinging and signalling the movement of suspended loads	5	10
VR643 v1	Move, handle and store resources	5	5
VR760 v1	Control, direct and guide the operation of plant or machinery	5	18
VR763 v1	Install, construct, maintain, dismantle and remove temporary works	5	22
VR782 v1	Locate and excavate to expose buried utility services	5	13

All units are included in Appendix 2 of to this document.

## 6. Assessment

### 6.1 Roles and responsibilities

There are a number of people involved in the assessment process and the role of each needs to be clearly understood by each.

- Candidates – must familiarise themselves with the content of the units that they are taking and how these are to be assessed. They should co-operate with the assessment process, looking for opportunities to evidence the elements and gathering evidence where this arises. Candidates must take on board feedback from their assessor and work with their assessor to develop realistic plans for assessment. An Assessment Plan and Review template is included at Appendix 3.
- Assessors - must familiarise themselves with the content of the units that they are assessing and how these are to be assessed. They must assist candidates in

identifying assessment opportunities, gathering, and presenting evidence. Assessors must assess all elements and record these assessments. Templates for recording elements, and for unit achievement, are at Appendix 4. Assessors must feedback and work with candidates to identify any gaps and develop realistic plans for assessment. They must also work with the Internal Verifier and External Verifier to ensure a common standard of assessment.

- Internal Verifiers – sometimes known as Internal Quality Assurers (IQAs), their role is to ensure that the assessment process is appropriate, consistent, fair and transparent; that assessors receive on-going support and that they are assessing to a common standard; and that awards are valid, reliable and consistent. IVs must develop a strategy that includes standardisation activities such as reviewing samples of evidence from each assessor, and countersigning the decisions of unqualified assessors.
- External Verifiers - sometimes known as External Quality Assurers (EQAs), are appointed by QFI and are independent of the centre. Their role is to check that internal processes are in place to ensure robust, consistent assessment. This includes sampling assessment evidence.

## **6.2 SCQF level 5 descriptors**

The following are descriptions of what a candidate should be able to do or demonstrate at SCQF level 5. These are for guidance only – it is not expected that every point will be covered.

### **Knowledge and understanding**

Demonstrate and/or work with: Basic knowledge. A range of simple facts, ideas and theories in, about, and associated with, a subject/discipline/sector. Knowledge and understanding of basic processes, materials and terminology.

### **Applied knowledge, skills and understanding**

Relate knowledge and ideas to personal and/or practical contexts. Use a range of skills associated with the subject/discipline/sector to complete some routine and non-routine tasks. Plan and organise both familiar and unfamiliar tasks. Select appropriate tools and materials and use them safely and effectively. Adjust tools where necessary following safe practices.

### **Generic cognitive skills**

Use a process to deal with a problem, situation or issue that is straightforward. Operate in a familiar context, but where there is a need to take account of or use additional information of different kinds, some of which will be theoretical or hypothetical.

### **Communication, ICT and numeracy skills**



Use a range of routine skills, for example: Produce and respond to detailed written and oral communication in familiar contexts. Use standard ICT applications to process, obtain and combine information. Use a range of numerical and graphical data in routine contexts that may have some non-routine elements.

### **Autonomy, accountability and working with others**

Work alone or with others on tasks with minimum directive supervision. Agree goals and responsibilities for self and/or work team. Take lead responsibility for some tasks. Show an awareness of own and/or others' roles, responsibilities and requirements in carrying out work and contribute to the evaluation and improvement of practices and processes.

### **6.3 The assessment process**

Assessment for this qualification, and for individual units that comprise the qualification, must take place in accordance with '*Construction Skills Consolidated Assessment Strategy for Construction and the Built Environment: Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs)*' (published December 2016, approved by ACG February 2017).

This document translates the requirements of the assessment strategy and gives guidance to ensure that centres meet these.

Centres delivering the qualification must ensure that assessors and Internal Verifiers are aware of the assessment strategy and how to access this. External Verifiers may check this requirement during monitoring visits to centres.

Assessment involves the following key stages: planning; producing evidence; assessing evidence; recording. Each of these is considered in more detail below.

#### **6.3.1. Planning**

The assessor must create an Assessment Plan with each candidate that he/ she will be assessing. The Assessment Plan will need to be reviewed as the candidate progresses through the units. A template for assessment planning and review is at Appendix 3 of this document.

A wide range of assessment methods exist that can be used to assess knowledge and skills. Methods of assessment that are commonly used for assessing competence based qualifications such as N/SVQs include the following:

- Product evidence – this relates to the outcome of the candidate's work, and the actual product that is generated as a result of their work.
- Direct observation – where an assessor (or credible witness) will directly observe the candidate undertaking certain tasks/ creating products that occur as part of their role. Observations must be referenced to the elements covered
- Question/ answer – these will often supplement the methods above, for example the assessor may ask the candidate a number of questions whilst they are undertaking a task. Questioning is a useful way to establish knowledge and to generate evidence of this
- Witness testimony – credible witnesses may be identified who can for example testify that the candidate can successfully undertake certain tasks

- Personal statement – declaration made by the candidate that should be referenced to elements

Centres should ensure that their Assessors use the methods above to assess candidates for this qualification.

Template assessment documents including an Assessor Report can be found at Appendix 3.

### **6.3.2 Producing evidence**

The methods of assessment must generate evidence to demonstrate the candidates' competence. Evidence produced in the workplace is central to Construction Skills Consolidated Assessment Strategy. Workplace evidence is vital to ensuring that the candidate is competent to industry standards and a suitable way of recording this must be used.

The following indicates the type of evidence generated by the methods on the section above:

- Product evidence –Photographic or video evidence is often used to record this, or it may also be recorded via the method below. Labelled photographs and/or videos that clearly show the candidate are sources of evidence for this purpose.
- Direct observation –observations must be recorded via an Assessor or other report (e.g. witness statement)
- Question/ answer –both the questions and the candidate's responses to these must be recorded either in writing or via some audio or visual device (e.g. part of a video recording).
- Witness testimony – this may be written, audio or visual recordings
- Personal statement – the declaration made by the candidate must be recorded

All of the above must be referenced to the evidence that they cover. Templates that may be used for recording evidence are at Appendix 3.

Feedback should be given to the candidate on an on-going basis and where there are any gaps or shortfalls in evidence then these should be incorporated into the Assessment Plan.

Assessment must meet the requirements of the performance criteria, knowledge and understanding documented for each unit of assessment. Methods of assessment must ensure coverage of all elements, scope and range, and generate sufficient evidence to demonstrate competence. A holistic approach towards the collection of evidence is 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.

Direct evidence produced through normal performance in the workplace is the primary source for meeting these requirements. This includes naturally occurring evidence, direct observation of activities and witness testimony as relevant, all of which must be recorded. 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/ completed work

All of which must be recorded and made available for verification purposes.

Workplace evidence of skills cannot be simulated for this qualification.

### **6.3.3 Assessing evidence**

Evidence must be assessed against the units/ elements to establish whether the candidate is competent with regards to their performance and knowledge. In order to achieve the qualification candidates must achieve a 'pass'. The evidence must show that the candidate consistently (i.e. on more than one occasion) meets all of the elements across the scope/range of each unit.

If there is insufficient evidence to make this judgement, then plans must be made as to how the candidate can produce further evidence in order to demonstrate competence.

Assessors must check that the evidence produced is sufficient in volume, relevant and current. They must also be confident that the evidence has been generated by the candidate. Assessors and candidates normally sign documentation to declare that the evidence produced is that of the candidate and no other.

### **6.3.4 Recording evidence**

Evidence (or reference to where certain evidence is located) is normally kept in a portfolio. This may be paper-based or electronic. All evidence contained within the portfolio must be clearly referenced to the units and elements. Candidates' progress can therefore be tracked. Note that certain pieces of evidence can be recorded across more than a single element. Tracking is important to show where this is that case.

It is helpful to give each piece of evidence a number so that this can be mapped across elements. See the template forms at Appendix 4. Assessment decisions made against the evidence must also be recorded so that an IV or an EV can see these. All evidence must be kept for internal and external verification.

## **7. Assessors**

7.1 The occupational competence of assessors is defined in '*Construction Skills Consolidated Assessment Strategy for Construction and the Built Environment: Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs)*' (published December 2016, approved by ACG February 2017).

7.2 The roles and responsibilities of assessors is outlined in the section above.

Assessors must be competent to perform their role and either hold the qualifications needed to carry out assessment – or achieve within 18 months of commencing their role:

- D32 or D33
- A1
- Level 3 Award in Assessing Competence in the Work Environment

- Level 3 Award in Assessing Vocationally Related Achievement
- Level 3 Certificate in Assessing Vocational Achievement
- an appropriate Assessor qualification as identified by SQA Accreditation

Assessors must also:

- have a sound, in-depth knowledge of, and uphold the integrity of, the relevant NOS and Assessment Strategy to enable them to carry out assessment to the standards specified
- have the occupational expertise (craft/ trade specific) before commencing their role so they have up to date experience, knowledge and understanding of the particular aspects of work they are assessing
- only assess in their acknowledged area of occupational competence
- maintain the currency of this for the duration of their role
- know QFI's requirements for recording assessment decisions and maintaining assessment records

7.3 Holders of A1 and D32/33 must assess to the current National Occupational Standards (NOS) for Learning and Development.

7.4 Assessors must be registered with QFI. The Centre Handbook provides details.

7.5 The assessment decisions of unqualified assessors must be countersigned by the IV.

## **8. Internal verification**

8.1 Centres' internal assessment processes and practices must be effective and support the integrity and consistency of the qualification. This is achieved through the internal quality assurance that is undertaken by the approved centre, and the external quality assurance that is undertaken by QFI. Centres must operate explicit, written internal quality assurance procedures to ensure:

- the accuracy and consistency of assessment decisions between assessors operating at the centre
- that assessors are consistent in their interpretation and application of the qualifications or unit(s) learning outcomes

8.2 Centres must appoint IVs who will be responsible for:

- regular sampling evidence of assessment decisions made by all assessors across all aspects of assessment for the qualification. Sampling must include direct observation of assessment practice
- maintaining up-to-date records of IV and sampling activity (what was evidence was sampled or assessors / IV observed where there is more than one) and ensuring that these are available for external quality assurance

- establishing procedures to ensure that all assessors interpret the learning outcomes in the same way
- monitoring and supporting the work of assessors
- facilitating appropriate staff development and training for assessors
- providing feedback to the EV on the effectiveness of assessment
- ensuring that any corrective action required by QFI is carried out within agreed timescales.

8.3 Centres must ensure that the decisions of unqualified IVs are checked, authenticated and countersigned by an IV who is appropriately qualified and occupationally expert. QFI will monitor a centre's compliance with these requirements through monitoring visits and certification claims.

8.4 The IV is also responsible and accountable for arranging the checking and countersigning process. IVs may verify only evidence that they did not assess themselves. Further guidance on internal quality assurance/verification is provided in the Centre Handbook. Appendix 5 of this document indicates suggested content for an IV strategy, and a template for sampling assessment evidence.

## **9. Internal verifiers**

9.1 The occupational competence of IVs is defined in '*Construction Skills Consolidated Assessment Strategy for Construction and the Built Environment: Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs)*' (published December 2016, approved by ACG February 2017).

9.2 The roles and responsibilities of IVs is outlined above. IVs must be competent to perform their role and either hold the qualifications needed to carry out internal verification – or achieve within 18 months of commencing their role:

- D34
- V1
- Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- an appropriate Internal Verifier qualification as identified by SQA Accreditation

9.3 It is strongly recommended that IVs also hold assessor qualifications (see section above).

9.4 Holders of V1/D34 must quality assure to the current National Occupational Standards (NOS) for Learning and Development.

9.5 IVs must be registered with QFI. The Centre Handbook provides details

## **10. External verification**

10.1 External verification of this qualification ensures that the requirements are met for the '*Construction Skills Consolidated Assessment Strategy for Construction and the Built Environment: Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs)*' (published December 2016, approved by ACG February 2017).

10.2 Centre visits will normally take place on an annual basis, though these could be more frequent if deemed necessary as a result of QFI's risk assessments. The Centre Handbook provides further details on external verification including to prepare for centre visits.

QFI's appointed External Verifiers meet the requirements of the assessment strategy.

## **11. Certification**

11.1 Note that there is a lapsing period of two years for this qualification. This means that when the qualification expires, is withdrawn or replaced by a revised version, candidates registered have two years from the expiry date in which to complete the qualification. This will allow sufficient time for candidates to compete and allow for currency of evidence.

## **12. Equality and diversity**

12.1 This qualification must be assessed in English.

12.2 Assessment must be inclusive and where appropriate reasonable adjustments made to ensure equality of access in line with QFI's Equality and Diversity Policy. Full details are included in the QFI Centre Handbook.

12.3 Special consideration is not normally given for competence based qualifications as it is necessary for candidates to demonstrate that they have the necessary skills and knowledge to achieve the qualification and operate safely in the workplace.

12.4 Equality data will be collected at the point of registration. This is for monitoring purposes only and will include age, gender, ethnicity, and disability.

## **13. Fees**

13.1 The current fees for this qualification, and for individual units, are included in the QFI Fees and Invoicing document. This document also details what is/ is not included in fees.

13.2 Fees may be broken down to a reasonable level upon request to QFI.



## APPENDIX 1 - CANDIDATE TEMPLATE DOCUMENTS

### Sample Form Induction checklist

This document indicates what may be covered as part of a candidate's induction. This list is not exhaustive.

	Tick
Qualification information: <ul style="list-style-type: none"> <li>• Units</li> <li>• Structure</li> <li>• Summary of assessment</li> <li>• Awarding body</li> </ul>	
Roles and responsibilities: <ul style="list-style-type: none"> <li>• Candidate</li> <li>• Assessor</li> <li>• Internal Verifier</li> <li>• External Verifier</li> </ul>	
Training and assessment process: <ul style="list-style-type: none"> <li>• Planning</li> <li>• Collection of evidence (including methods)</li> <li>• Review of evidence</li> <li>• Feedback on evidence</li> <li>• Verification of evidence</li> <li>• Certification</li> </ul>	
Policies: <ul style="list-style-type: none"> <li>• Complaints</li> <li>• Appeals</li> <li>• Malpractice</li> <li>• Data protection</li> <li>• Health and safety</li> <li>• Equality (including reasonable adjustments/ additional support)</li> </ul>	
Forms: <ul style="list-style-type: none"> <li>• Enrolment</li> <li>• Other</li> </ul>	
I confirm that I have received this induction and the associated documents: Candidate name: ..... Candidate signature: ..... Date: .....	

**UNITS**

**COSVR641**

**Conform to general workplace health, safety and welfare**

**Overview**

This standard, in the context of your occupation and work environment, is about awareness of relevant current statutory requirements and official guidance; responsibilities, to self and others, relating to workplace health, safety and welfare; personal behaviour and security in the workplace.

**Performance criteria**

You must be able to:

- P1 comply with all workplace health, safety and welfare legislation requirements at all times
- P2 recognise hazards, associated with the workplace, that have not been previously controlled, and report them in accordance with organisational procedures
- P3 accept responsibility for, and comply with, organisational policies and procedures in order to contribute to health, safety and welfare
- P4 comply with and support all organisational security arrangements and approved procedures.

**Knowledge and understanding**

You need to know and understand:

Performance Criteria 1

Workplace health, safety and welfare

- K1 what and why health, safety and welfare legislation is relevant to the occupational area
- K2 what health, safety and welfare legislation notices and warning signs are relevant to the occupational area and associated equipment
- K3 how to comply with control measures identified by risk assessments and safe systems of work
- K4 why, when and how health and safety control equipment should be used

Performance Criteria 2

Recognition of hazards

- K5 the hazards associated with the work environment
- K6 how changing circumstances can create hazards
- K7 the method of reporting hazards in the workplace

Performance Criteria 3

Organisational policies and procedures

- K8 what the organisational policies and procedures are for health, safety and welfare
- K9 how to take active responsibility for health, safety and welfare
- K10 how individual actions and behaviour may affect others
- K11 what the types of fire extinguishers are and how and when they are used

Performance Criteria 4

Security arrangements

- K12 how security arrangements are implemented in the workplace

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 avoidance of risk by complying with given information relating to the following
  - 1.1 induction
  - 1.2 briefings
  - 1.3 application of prior training (safe use of health and safety control equipment)



2 adherence to statutory requirements and/or safety notices and warning signs displayed in the workplace or on equipment

Performance Criteria 2

3 hazards created by changing circumstances in the workplace are reported

Performance Criteria 3

4 show personal behaviour which demonstrates active responsibility for general workplace health, safety and welfare

5 comply with organisational policies and procedures relating to the following

5.1 consideration of others

5.2 interpretation of given instructions to maintain safe systems of work

5.3 contributing to discussions (offer and provide feedback)

5.4 maintaining quality working practices

5.5 contributing to the maintenance of workplace welfare facilities

5.6 storage and use of equipment provided to keep people safe

5.7 disposal of waste and/or consumable items

Performance Criteria 4

6 comply with organisational procedures for maintaining the security of the workplace

6.1 during the working day

6.2 on completion of the day's work

6.3 from unauthorised personnel (other operatives and/or the general public)

6.4 from theft

#### **Additional information**

##### **Scope/ range related to knowledge and understanding**

Fire extinguishers

1 water, CO<sub>2</sub>, foam, powder, vaporising liquid and their uses

Hazards

2 associated with the occupational area

2.1 resources, workplace, environment, substances, asbestos, equipment, obstructions, storage, services and work activities

2.2 current common safety risks

2.3 current common health risks

Health and safety control equipment

3 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

3.1 collective protective measures

3.2 local exhaust ventilation (LEV)

3.3 personal protective equipment (PPE)

3.4 respiratory protective equipment (RPE)

Notices and warning signs

4 statutory requirements and/or official guidance for the occupation and the work area

Policies and procedures

5 in accordance with organisational requirements

5.1 dealing with accidents and emergencies associated with the type of work being undertaken and the work environment

5.2 methods of receiving or sourcing information

5.3 reporting

5.4 stopping work

5.5 evacuation

5.6 fire risks and safe exit procedures

5.7 consultation and feedback

Reporting

6 organisational recording procedures and statutory requirements

Responsibility

7 behaviour that affects health, safety and welfare

7.1 recognising when to stop work in the face of serious and imminent danger

7.2 contributing to discussions and providing feedback

7.3 reporting changed circumstances and incidents in the workplace

7.4 adhering to the environmental requirements of the workplace

Security

8 organisational procedures relating to the workplace, general public, site personnel and resources.

Developed by: ConstructionSkills Version number:2

Date approved: April 2014, Indicative review date: April 2019

Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR641

Relevant occupations: Construction and Building Trades nec

Suite: Wood Occupations (Construction); Accessing Operations and Rigging (Construction); Associated Industrial Services Occupations (Construction); Building Maintenance Multi trade Repair and Refurbishment Operations; Carving Occupations (Construction); Chimney Engineering (Construction); Cladding Occupations (Construction); Construction Operations and Civil Engineering Services; Construction Diving Operations; Construction Plant or Machinery Maintenance (Construction); Controlling Lifting Operations (Construction); Decorative Finishing and Industrial Painting Occupations (Construction); Demolition; Erection of Precast Concrete (Construction); Fitted Interiors (Construction); Floorcovering Occupations (Construction); Formwork (Construction); Heritage Skills (Construction); Innovative/Modern Methods of Construction; Insulation and Building Treatments (Construction); Interior Systems (Construction); Mastic Asphaltting (Construction); Piling Operations (Construction); Plant Installations (Construction); Plant Operations (Construction); Plastering (Construction); Post Tensioning Operations (Construction), Refractory Installations (Construction); Removal of Hazardous and Non-hazardous Waste (Construction); Roofing Occupations (Construction); Site Logistics (Construction); Specialist Concrete Occupations (Construction); Specialist Installation Occupations (Construction); Steelfixing (Construction); Stonemasonry (Construction); Sub-structure Work Occupations (Construction); Super-structure Work Occupations (Construction); Temporary Traffic Management (Construction); Thermal Insulation (Construction); Trowel Occupations (Construction); Tunnelling Operations (Construction); Wall and Floor Tiling (Construction); Waterproof Membrane Roofing systems (Construction); Wood Machining (Construction/Sawmilling Extrusion/Furniture); Wood Preserving – Industrial Pre-treatment (Construction)

Key words: Hazards; Safety; Welfare; Regulations; Security; Signs; Control Equipment; PPE; RPE; LEV; Legislation; Risk assessment.

## COSVR642

### Conform to productive work practices

#### Overview

This standard, in the context of your occupation and work environment, is about

1 productive communication with line management, colleagues and customers

2 interpreting information

3 planning and carrying out productive work practices

4 working with others or as an individual.

#### Performance criteria

You must be able to:

P1 communicate with others

P2 follow organisational procedures to plan the sequence of work in order to conform to productive work practices and maintain records

P3 maintain good work relationships.

**Knowledge and understanding**

You need to know and understand:

Performance Criteria 1

Communicate with others

K1 how to use methods of communication with other workplace personnel and customers

K2 how to communicate to ensure work is productive

Performance Criteria 2

Follow procedures

K3 how organisational procedures are applied to plan and carry out productive work

K4 how to maintain documentation in accordance with organisational procedures

K5 how to contribute to zero/low carbon outcomes in the built environment

Performance Criteria 3

Work relationships

K6 how to maintain good work relationships

K7 how to apply the principles of equality and diversity.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

1 communicate with line management, colleagues or customers to ensure work is carried out productively

2 respect the needs of others when communicating

Performance Criteria 2

3 interpret procedures and use resources to plan the sequence of work, so that it is completed productively

4 complete documentation as required by the organisation

Performance Criteria 3

5 work productively with line management, colleagues, customers or other people

6 apply the principles of equality and diversity.

**Additional information**

**Scope/ range related to knowledge and understanding**

Communication

1 listening, written, oral visual and electronic

Documentation

2 job cards, worksheets, material/resources lists and time sheets

Procedures

3 use of resources for own and other's work requirements

4 allocation of appropriate work to employees

5 organisation of work sequence

6 reduction of carbon emissions

Relationships

7 individuals, workplace groups (customer and operative, operative and line management, own occupation and allied occupations)

8 show consideration for the needs of individuals by applying the principles of equality and diversity.

Developed by: ConstructionSkills Version number: 1

Date approved: Feb 2011, Indicative review date: Feb 2016

Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR642

Relevant occupations: Construction and Building Trades nec

Suite: Wood Occupations (Construction); Accessing Operations and Rigging (Construction); Applied Waterproof Membranes (Construction); Associated Industrial Services Occupations (Construction); Building Maintenance Multi trade Repair and Refurbishment Operations; Chimney Engineering (Construction); Cladding Occupations (Construction); Construction Diving Operations (Construction); Construction Operations and Civil Engineering Services (Construction); Decorative Finishing and Industrial Painting Occupations (Construction); Demolition;

Erection of Precast Concrete (Construction); Fitted Interiors (Construction); Floorcovering Occupations (Construction); Formwork (Construction); Innovative/Modern Methods of Construction; Insulation and Building Treatments (Construction); Interior Systems (Construction); Mastic Asphaltting (Construction); Piling Operations (Construction); Plant Operations (Construction); Plastering (Construction); Post Tensioning Operations (Construction); Refractory Installations (Construction); Removal of Hazardous and Non-hazardous Waste (Construction); Roofing Occupations (Construction); Site Logistics (Construction); Specialist Concrete Occupations (Construction); Specialist Installation Occupations (Construction); Steelfixing (Construction); Stonemasonry (Construction); Sub-structure Work Occupations ; Super-structure Work Occupations (Construction); Temporary Traffic Management (Construction); Thermal Insulation (Construction); Trowel Occupations (Construction); Tunnelling Operations (Construction); Wall and Floor Tiling (Construction); Wood Machining (Construction/Sawmilling Extrusion/Furniture); Wood Preserving – Industrial Pre-treatment (Construction); Fencing; Treework

Key words: Communication; Colleagues; Customer; Procedures; Records; Relationships; Zero/low carbons.

## COSVR360

### Install, maintain and remove work area protection and safety equipment

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment. It is also about determining the protection and safety requirements, preparing, providing for and maintaining the protection and safety of the occupational area of work

This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers

#### Performance criteria.

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

##### Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K11 how the resources should be used and how any problems associated with the resources are reported

K12 the organisational procedures to select resources, why they have been developed and how they are used

K13 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, plans, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to at least four of the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use of access equipment
  - 2.4 safe use, storage and handling of materials, tools and equipment
  - 2.5 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 materials, components and fixings
  - 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, set out, position, assemble, construct, secure, dismantle and remove
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 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 one of the following
  - 9.1 protection and safety notices
  - 9.2 safety lighting
- 10 report work undertaken

Performance Criteria 6

11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Hazards

3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 local exhaust ventilation (LEV)

4.3 personal protective equipment (PPE)

4.4 respiratory protective equipment (RPE)

Information

5 drawings, plans, specifications, schedules, risk assessments, method statements, site inspection reports, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance associated with protecting work areas

Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

Maintenance

7 operative care of hand tools, power tools and ancillary equipment

Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

8.1 plan for the protection and the safety of the work and surrounding environment

8.2 conform to agreed specification

8.3 confirm the location of utility services and ensure they are protected

8.4 prepare and set out area protection equipment to required dimensions

8.5 install, check and maintain the protection and safety equipment

8.6 dismantle and remove protection and safety equipment

8.7 install safety notices

8.8 install lighting systems

8.9 monitor and check accuracy during progress and on completion of work

8.10 install, maintain and remove work area protection equipment in public areas

8.11 transport, load and off load work area protection equipment

8.12 recognise and determine when specialist skills and knowledge are required and report accordingly

8.13 use hand tools, power tools and equipment

8.14 work at height

8.15 use access equipment

- 9 team work and communication
- 10 needs of other occupations associated with installation, maintenance and removal of work area protection and safety equipment
- Problems
- 11 those arising from information, resources and methods of work
  - 11.1 own authority to rectify
  - 11.2 organisational reporting procedures
- Programme
- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
  - 16.1 safety and security equipment (cones, tapes, fences, barriers, hoarding, doors, gates)
  - 16.2 protection and safety notices
  - 16.3 signs and lighting
  - 16.4 hand tools, power tools and equipment
- 17 how to confirm resources and materials conform with the given specification
- 18 methods of calculating quantity, length and area associated with the method and procedure used to install, maintain and remove work area protection and safety equipment
- Security procedures
- 19 site, workplace, company and operative.

**Behaviours**

- When performing to this standard you are likely to demonstrate the following behaviours:
- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
  - 2 Effective communication: oral, written, electronic, listening, body language, presentation
  - 3 Respect: apply equality, diversity and inclusion in dealing with others.
  - 4 Team work: work effectively and safely with others with limited supervision.
  - 5 Independent working: take responsibility for safe completion of your own work.
  - 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions
  - 7 Working effectively: undertake the work in a reliable, safe and productive manner.
  - 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
  - 9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version number: 4  
 Date approved: February 20146, Indicative review date: January 2021  
 Validity: Current, Status: Original  
 Originating organisation: ConstructionSkills, Original URN: VR360  
 Relevant occupations: Road Construction Operatives; Construction Operatives  
 Suite: Construction and Civil Engineering Operations; Accessing Operations and Rigging (Construction); Interior Systems (Construction); Building Maintenance Multi-trade Repair and Refurbishment Operations; Removal of Hazardous and Non-hazardous Waste (Construction); Roofing Occupations (Construction); Site Logistics Operations (Construction); Specialist Installation Occupations (Construction); Specialist Concrete Occupations (Construction); Sub-structure Work Occupations (Construction); Post Tensioning (Construction)  
 Key words: Barriers; Safety-lighting; Signs; Safety notices; Cones; Tapes; Fences; Hoarding



**COSVR367**
**Lay Modular Pavement**
**Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing and laying modular paving manually or by machine

This standard is for people working in the occupational area of pavement construction and maintenance, and can be used by operatives, supervisors and managers.

**Performance criteria**

You must be able to:

P1 interpret the given information relating to the work and resources to confirm its relevance

P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices

P3 select the required quantity and quality of resources for the methods of work

P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

P5 comply with the given contract information to carry out the work efficiently to the required specification

P6 complete the work within the allocated time, in accordance with the programme of work

**Knowledge and understanding**

You need to know and understand:

Performance Criteria 1

Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied

K5 how emergencies should be responded to and who should respond

K6 the organisational security procedures for tools, equipment and personal belongings

K7 what the accident reporting procedures are and who is responsible for making the report

K8 why, when and how health and safety control equipment should be used

K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K11 how the resources should be used and how any problems associated with the resources are reported

K12 the organisational procedures to select resources, why they have been developed and how they are used

K13 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported



K17 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional Information**

Scope/range

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use, storage and handling of materials, tools and equipment

2.4 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials and components

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to set out, prepare, measure, mark out, cut, place, lay, level, align, compact and finish

8 use and maintain hand tools, power tools and ancillary equipment

9 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 two of the following

9.1 block paving

9.2 brick paving

9.3 stone and/or concrete setts

9.4 flags

9.5 natural stone rough cut (riven and/or cropped)

9.6 natural stone uniformly cut (sawn in dimension)

Performance Criteria 6

10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Hazards

- 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance
- Health and safety control equipment
- 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
- 4.1 collective protective measures
- 4.2 personal protective equipment (PPE)
- 4.3 respiratory protective equipment (RPE)
- Information
- 5 drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations governing the laying of modular paving
- Legislation and official guidance
- 6 this relates to the operative's responsibilities regarding potential accidents health hazards and the environment whilst working 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
- Maintenance
- 7 operative care of hand tools, power tools and ancillary equipment
- Methods of work
- 8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
- 8.1 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
- 8.2 confirm the type of block, brick, sett, flag and natural stone modular paving unit, bedding and jointing materials
- 8.3 conform to the agreed specifications
- 8.4 identify the differences between rigid (bound) and flexible (unbound) pavements
- 8.5 Inspect and confirm substrate as acceptable for laying modular paving to given specification
- 8.6 set out the area and prepare substrate for modular pavement construction
- 8.7 install kerbs, channels, edgings and drainage
- 8.8 mark and cut modular paving
- 8.9 lay modular block, brick, sett, flag and natural stone paving manually and by machine to the required design and pattern, levels and stability
- 8.10 work around street furniture and ironwork
- 8.11 work with, in close proximity to and around plant or machinery
- 8.12 monitor and check work against specification(s)
- 8.13 lift modular paving for removal, maintenance and repair
- 8.14 maintain and repair modular paving to match existing design functions
- 8.15 return infrastructure to operational status
- 8.16 recognise and determine when specialist skills and knowledge are required and report accordingly
- 8.17 use hand tools, power tools and equipment
- 9 team work and communication
- 10 needs of other occupations associated with laying modular paving
- Problems
- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
- 11.2 organisational reporting procedures
- Programme
- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme

**Protect work**

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

**Resources**

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:

16.1 graded granular material, mortar and concrete

16.2 blocks, stone setts, bricks, flags, natural stone

16.3 kerbs, channels, drainage

16.4 hand tools, power tools and equipment

17 identify by calculation, quantity, length, area, volume and wastage associated with the method and procedure to lay modular paving

**Security procedures**

18 site, workplace, company and operative.

Developed by: ConstructionSkills Version number: 3

Date approved: February 2016 Indicative review date: January 2021

Validity: Current Status: Original

Originating organisation: ConstructionSkillsOriginal URN: VR367

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite: Road building and Maintenance

Key words: Pavement; Blocks; Stone-setts; Flags; Natural stone; Paving

**COSVR400**

**Operate powered units, tools or pedestrian plant, machinery or equipment**

**Overview**

This standard is about Interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and preparing powered tools and ancillary equipment, operating powered units, tools or pedestrian plant, machinery or equipment

This standard is for people working independently or in a team to operate power units, tools, pedestrian plant, machinery or equipment and can be used by operatives, supervisors and managers.

**Performance criteria**

You must be able to:

P1 interpret the given information relating to the use of plant or machinery and confirm its relevance

P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices

P3 select the required quantity and quality of resources for the methods of work

P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

P5 comply with the given contract information to carry out the work efficiently to the required specification

P6 complete the work within the allocated time, in accordance with the programme of work.

**Knowledge and understanding**

You need to know and understand:

**Performance Criteria 1**

**Interpretation of information**

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

**Performance Criteria 2**

**Safe work practices**

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond
- K7 the organisational security procedures for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how health and safety control equipment should be used
- K10 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 3

Selection of resources

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K12 how the resources should be used and how any problems associated with the resources are reported
- K13 the organisational procedures to select resources, why they have been developed and how they are used
- K14 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

- K15 how to protect work from damage and the purpose of protection
- K16 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

- K17 how methods of work, to meet the specification, are carried out and problems reported
- K18 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

- K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, operating instructions and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to at least four of the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use of access equipment
  - 2.4 safe use, storage and handling of materials
  - 2.5 safe use and storage of tools and equipment
  - 2.6 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 fuel/power source
  - 3.2 lubricants
  - 3.3 consumables

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 prevent damage and maintain a clean work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to start, stop, replenish, control and clean
  - 8 use and maintain powered units, tools and ancillary equipment
  - 9 operate and monitor powered unit, tools or pedestrian plant, machinery or equipment to given working instructions, relating to
    - 9.1 continual running
    - 9.2 closing down
    - 9.3 cleaning
  - 10 return powered units, tools or pedestrian plant, machinery or equipment to a safe operational condition on completion of work
  - 11 disassemble and/or clean powered unit, tools or pedestrian plant, machinery or equipment
- Performance Criteria 6
- 12 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
  - 2.1 fires, spillages, injuries
  - 2.2 emergencies relating to occupational activities

Fire extinguishers

- 3 water, CO2, foam, powder and their uses

Hazards

- 4 those identified by risk/COSHH assessments, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment
  - 5.1 collective protective measures
  - 5.2 local exhaust ventilation (LEV)
  - 5.3 personal protective equipment (PPE)
  - 5.4 respiratory protective equipment (RPE)

Information

- 6 drawings, specifications, schedules, method statements, risk assessments, legislation, Codes of Practice, manufacturers' information and operating instructions

Legislation and official guidance

- 7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

Maintenance

- 8 operative care of hand tools, portable power tools, powered units, pedestrian plant, machinery and ancillary equipment

Methods of work

- 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to
  - 9.1 prepare, position and set up for work
  - 9.2 secure accessories and tool attachments

- 9.3 carry out pre-use and function checks to manufacturers' and suppliers' information and procedures
- 9.4 complete pre-start and post stop checks
- 9.5 recognise the characteristics of the plant, machinery and equipment
- 9.6 identify specific operating and safety requirements for the task and work
- 9.7 recognise and determine when specific skills and knowledge are required and report accordingly
- 9.8 operate, use and control
- 9.9 monitor and maintain
- 9.10 replenish consumables
- 9.11 close down and secure
- 9.12 disassemble and clean
- 9.13 transport and store
- 10 team work and communication
- 11 needs of other occupations associated with operating powered units, tools and equipment
- Problems
- 12 those arising from information, resources and methods of work
- 12.1 own authority to rectify
- 12.2 organisational reporting procedures
- Programme
- 13 types of progress charts, timetables and estimated times
- 14 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
- 16.1 power source/fuels
- 16.2 consumables, lubricants
- 17 identify quantity, length, area and wastage associated with the method/procedure to operate powered units, tools and equipment
- Security procedures
- 18 site, workplace, company and operative.

Developed by: ConstructionSkills Version number: 2  
Date approved: January 2014, Indicative review date: January 2018  
Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: V400  
Relevant occupations: Construction Operatives

Suite: Plant Operations (Construction); Construction Operations and Civil Engineering Services; Demolition; Innovative/Modern Methods of Construction; Piling Operations (Construction); Removal of Hazardous and Non-hazardous Waste (Construction); Site Logistics (Construction); Specialist Concrete Occupations (Construction); Specialist Installation Occupations (Construction); Sub-structure Work Occupations (Construction); Super-structure Work Occupations (Construction); Temporary Traffic Management (Construction); Tunnelling Operations (Construction)

Key words: Specialised-tools; Powered-tools; Powered-units; Pedestrian operated

## **COSVR401**

### **Set out secondary dimensional control work**

#### **Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting setting out equipment and ancillary resources, preparing and setting out secondary dimensional control of the work

This standard is for people working independently or in a team to set out dimensional controls for work to be completed and can be used by operatives, supervisors and managers.

**Performance criteria**

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

**Knowledge and understanding**

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time



K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information and reference points related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to at least four of the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use of access equipment/working platforms
  - 2.4 safe use, storage and handling of materials
  - 2.5 safe use and storage of tools and equipment
  - 2.6 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 measuring tools and instruments
  - 3.2 marking materials/components
  - 3.3 tools and equipment

Performance Criteria 4

- 1 protection of the work and its surrounding area from damage
- 2 prevent damage and maintain a clean work area
- 3 disposal of waste in accordance with current legislation

Performance Criteria 5

- 4 demonstration of work skills to transfer, transpose, level, measure, mark, position, fix and secure
- 5 use and maintain hand tools, measuring and marking equipment
- 6 set out secondary dimensional control for the work to given working instructions for any three of the following
  - 6.1 line
  - 6.2 level
  - 6.3 depth
  - 6.4 area
  - 6.5 height
  - 6.6 angle

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
  - 2.1 fires, spillages, injuries
  - 2.2 emergencies relating to occupational activities

Hazards

- 3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance



#### Health and safety control equipment

4 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 local exhaust ventilation (LEV)

4.3 personal protective equipment (PPE)

4.4 respiratory protective equipment (RPE)

#### Information

5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, reference points and current regulations governing buildings and construction work

#### Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

#### Maintenance

7 operative care of hand tools, measuring, marking and ancillary equipment

#### Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to

8.1 measure and set out secondary dimensional control for the work

8.2 measure, align and level to dimensional control requirements

8.3 transfer and set out lines, angles and levels to dimensional control requirements

8.4 recognise and determine when specific skills and knowledge are required and report accordingly

8.5 use hand tools, measuring and marking equipment

8.6 work at height

8.7 use access equipment

9 methods of calculating height, depth, angle, length and area associated with the method/procedure to set out for secondary dimensional work control

10 team work and communication

11 needs of other occupations associated with setting out secondary dimensional control

#### Problems

12 those arising from information, resources and methods of work

12.1 own authority to rectify

12.2 organisational reporting procedures

#### Programme

13 types of progress charts, timetables and estimated times

14 organisational procedures for reporting circumstances which will affect the work programme

#### Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist

16.1 measuring tools and instruments

16.2 marking equipment

16.3 level and alignment tools

17 identify quantity of resources associated with the method/procedure to set out for secondary dimensional work control

#### Security procedures

18 site, workplace, company and operative.



Developed by: ConstructionSkills Version number: 2  
Date approved: January 2014 Indicative review date: January 2018  
Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR401

Relevant occupations: Construction Operatives

Suite: Plant Operations (Construction); Construction Operations and Civil Engineering Services; Specialist Concrete Occupations (Construction); Sub-structure Work Occupations (Construction)

Key words: Setting-out; Line; Level; Depth; Area; Height; Angle.

## COSVR368

### Lay preformed kerbs and channels

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing for laying and reinstating preformed (precast and prepared natural stone) kerbs, channels and combined drainage and kerb systems. This standard is for people working in the occupational area of road building and maintenance and construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

##### Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

##### Performance Criteria 3

##### Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported

K12 the organisational procedures to select resources, why they have been developed and how they are used  
 K13 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K4 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use, storage and handling of materials, tools and equipment
  - 2.4 specific risks to health
  - 2.5 others affected by the work

Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 materials and components
  - 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, mark out, cut, position, level, align, compact, seal and finish
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 lay kerbs and/or channels and/or combined drainage and kerb systems to given working instructions

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

#### Hazards

3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

#### Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 personal protective equipment (PPE)

4.3 respiratory protective equipment (RPE)

#### Information

5 drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations for laying preformed kerbs and channels

#### Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

#### Maintenance

7 operative care of hand tools, power tools and ancillary equipment

#### Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

8.1 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection

8.2 identify different types of kerbs, channels and combined drainage and kerb systems

8.3 conform to agreed specifications

8.4 set out the area and prepare substrate and foundation for laying kerbs, channels and combined drainage and kerb systems

8.5 lay and align kerbs, channels and combined drainage and kerb systems to the required specifications

8.6 mark and cut kerbs, channels and combined drainage and kerb systems

8.7 work around street furniture and ironwork

8.8 protect completed work for curing process

8.9 deal with others affected by the work

8.10 return infrastructure to operational status

8.11 recognise and determine when specialist skills and knowledge are required and report accordingly

8.12 use hand tools, power tools and equipment

9 team work and communication

10 needs of other occupations associated with laying preformed kerbs, channels and combined drainage and kerb systems

#### Problems

11 those arising from information, resources and methods of work

11.1 own authority to rectify

11.2 organisational reporting procedures

#### Programme

12 types of productivity targets and time scales

13 how times are estimated

14 organisational procedures for reporting circumstances which will affect the work programme

#### Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### Resources

- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
- 16.1 sand, cement, aggregates, additives, sealants and resins
  - 16.2 kerbs, channels and combined drainage and kerb systems
  - 16.3 hand tools, power tools and ancillary equipment
- 17 identify by calculation, quantity, length, area and wastage associated with the method and procedure to lay preformed kerbs, channels and combined drainage and kerb systems
- Security procedures
- 18 site, workplace, company and operative.

Developed by: ConstructionSkills Version number: 3  
 Date approved: February 2016 Indicative review date: January 2021  
 Validity: Current, Status: Original  
 Originating organisation: ConstructionSkills, Original URN: VR368  
 Relevant occupations: Road Construction Operatives; Construction Operatives  
 Suite: Road building and Maintenance  
 Key words: Kerbs; Channels; Combined drainage and kerb systems.

## COSVR370

### Install, maintain and remove temporary excavation support

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, installing, maintaining and removing temporary excavation support

This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

##### Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used

- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance
- Performance Criteria 3  
Selection of resources
- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome
- Performance Criteria 4  
Minimise the risk of damage
- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved
- You need to know and understand:
- Performance Criteria 5  
Meet the contract specification
- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out
- Performance Criteria 6  
Allocated time
- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

#### **Additional information**

##### **Scope/ range related to performance criteria**

- Performance Criteria 1
- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out
- Performance Criteria 2
- 2 avoidance of risk by complying with the given information relating to the following
    - 2.1 methods of work
    - 2.2 safe use of health and safety control equipment
    - 2.3 safe use of access equipment
    - 2.4 safe use, storage and handling of materials, tools and equipment
    - 2.5 specific risks to health
- Performance Criteria 3
- 3 selection of resources associated with own work
    - 3.1 materials, components and fixings
    - 3.2 tools and equipment
- Performance Criteria 4
- 4 protection of the work and its surrounding area from damage
  - 5 maintain a clear and tidy work space
  - 6 disposal of waste in accordance with current legislation
- Performance Criteria 5
- 7 demonstration of work skills to measure, mark out, prepare, position, fit, support, fix, secure, dismantle and remove
  - 8 use and maintain hand tools, power tools and ancillary equipment
  - 9 install, maintain and remove temporary excavation support to given working instructions relating to at least one of the following
    - 9.1 proprietary systems e.g. drag box, trench box, manhole box
    - 9.2 open and closed support systems
    - 9.3 piling systems e.g. diaphragm wall, trench sheets, sheet piles, secant support or contiguous support

<p>9.4 bespoke support systems</p> <p>Performance Criteria 6</p> <p>10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.</p>
<p><b>Additional information</b></p> <p><b>Scope/ range related to knowledge and understanding</b></p> <p>Disposal of waste</p> <p>1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance</p> <p>Emergencies</p> <p>2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with</p> <p>2.1 fires, spillages, injuries</p> <p>2.2 emergencies relating to occupational activities</p> <p>Hazards</p> <p>3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance</p> <p>Health and safety control equipment</p> <p>4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment</p> <p>4.1 collective protective measures</p> <p>4.2 local exhaust ventilation (LEV)</p> <p>4.3 personal protective equipment (PPE)</p> <p>4.4 respiratory protective equipment (RPE)</p> <p>Information</p> <p>5 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</p> <p>Legislation and official guidance</p> <p>6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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</p> <p>Maintenance</p> <p>7 operative care of hand tools, power tools and ancillary equipment</p> <p>Methods of work</p> <p>8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:</p> <p>8.1 recognise types of temporary support for excavations</p> <p>8.2 conform to agreed specifications</p> <p>8.3 plan, prepare and set out for the installation of the excavation support and edge protection</p> <p>8.4 remove surface courses, ironwork, modular components, street furniture and sub-surface structures</p> <p>8.5 recognise changes in ground conditions, ground water conditions, soil types and excavation stability</p> <p>8.6 recognise the dangers of loads and structures at the edge of excavations</p> <p>8.7 identify and locate utility services, excavate around services and protect</p> <p>8.8 recognise inspection and test criteria for excavation support systems</p> <p>8.9 provide for safe access and egress into the excavation and around the temporary excavation support</p> <p>8.10 protect and monitor adjacent structures</p> <p>8.11 excavate manually for the installation, maintenance and removal of excavation supports</p> <p>8.12 construct, erect and install temporary excavation support as excavations progress and on completion</p>



- 8.13 monitor and check accuracy at start, during progress and on completion of work
- 8.14 work with, around and in close proximity to plant and machinery including lifting equipment
- 8.15 inspect and maintain the integrity and safety of the temporary support structures
- 8.16 dismantle and remove the excavation support structure
- 8.17 recognise and determine when specialist skills and knowledge are required and report accordingly
- 8.18 use hand tools, power tools and equipment
- 8.19 work at height and in confined spaces
- 8.20 use access equipment
- 9 team work and communication
- 10 needs of other occupations associated with installing, maintaining and removing temporary excavation support

**Problems**

- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
- 11.2 organisational reporting procedures

**Programme**

- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme

**Protect work**

- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

**Resources**

- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
  - 16.1 proprietary systems
  - 16.2 open and closed support systems
  - 16.3 piling systems
  - 16.4 bespoke equipment
  - 16.5 fixing devices
  - 16.6 hand tools, power tools and ancillary equipment
- 17 how to confirm resources and materials conform with the given specification
- 18 methods of calculating quantity, length, area and wastage associated with the method and procedure to provide excavation support

**Security procedures**

- 19 site, workplace, company and operative.

**Behaviours**

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others.
- 4 Team work: work effectively and safely with others with limited supervision.
- 5 Independent working: take responsibility for safe completion of your own work.
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
- 7 Working effectively: undertake the work in a reliable, safe and productive manner.
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version number: 4  
 Date approved: February 2016 Indicative review date: January 2021





Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR370

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite: Construction and Civil Engineering Operations

Key words: Drag-box; Trench-box; Diaphragm wall; Secant support; Open and closed boarding; Sheet piles; Manhole box.

## COSVR639

### Install drainage

#### Overview

This standard is about interpreting information, adopting safe and healthy working practices, selecting materials, components and equipment and preparing for and laying pipes, installing and testing new and/or replacement drainage. This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

##### Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

##### Performance Criteria 3

##### Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

##### Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to at least four of the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use of access equipment
  - 2.4 safe use and storage and handling of materials, tools and equipment
  - 2.5 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 materials, components and fixings
  - 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to check, measure, mark out, cut, lay, position, fit, join, level, plumb, align, secure and test
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 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 one of the following to given working instructions
  - 9.1 inspection chambers (e.g. brick, concrete, metal or plastic)
  - 9.2 surface water systems (e.g. cells, culverts, high capacity, linear, balancing ponds, interceptors, recycling equipment, soak-a-ways, sustainable urban drainage systems)
  - 9.3 foul water systems (e.g. cess pools, septic tanks, reed beds, treatment plants)
  - 9.4 surround pipe with specified materials
  - 9.5 place backfill to trench using given work instructions for both compacted and free drainage materials

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

## Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

## Hazards

3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

## Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 local exhaust ventilation (LEV)

4.3 personal protective equipment (PPE)

4.4 respiratory protective equipment (RPE)

## Information

5 drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, permits, regulations and official guidance governing the installation and construction of drainage systems

## Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

## Maintenance

7 operative care of hand tools, power tools and ancillary equipment

### Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to:

8.1 excavate trenches and provide trench support

8.2 confirm ground conditions, site and excavations are suitable for the drainage installation work

8.3 recognise the dangers of loads and structures at the edge of excavations

8.4 deal with groundwater

8.5 work around other utility services

8.6 install geotextile materials

8.7 prepare different types of bedding for pipework e.g. sand, shingle and cementious

8.8 determine levels and gradients

8.9 identify the differences between surface and foul water drainage

8.10 measure, mark and cut drainage materials

8.11 lay, position, level, plumb, align, fit, join, fix and secure new and replacement drainage systems

8.12 lift and transport assembled drainage systems

8.13 construct structures of a drainage system (storm alleviation, culverts, inspection chambers, lateral drains, overflows, sumps, filter drains, sustainable urban drainage systems)

8.14 assemble pre-cast components (metal, concrete, clay and plastic) of a drainage system structure (inspection chambers, street iron work)

8.15 connect and seal new systems to existing systems

8.16 prepare for conducting smoke, water, ball, air and mandrel tests on drainage systems

8.17 work with, around and in close proximity to plant and machinery including lifting plant

8.18 store and dispose of removed drainage components

8.19 follow specified hygiene procedures particularly when dealing with foul water draining systems

8.20 recognise and determine when specialist skills and knowledge are required and report accordingly

- 8.21 determine specific requirements for structures of special interest, traditional build (pre 1919) and historical significance
- 8.22 use hand tools, power tools and equipment
- 8.23 work at height and below ground level
- 8.24 use access equipment
- 9 team work and communication
- 10 needs of other occupations associated with installing drainage  
Problems
- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
- 11.2 organisational reporting procedures
- Programme
- 12 types of progress charts, timetables, productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
  - 16.1 pipes, fittings and ancillary components
  - 16.2 pre-cast (metal, concrete, clay or plastic) components
  - 16.3 bricks, blocks and sandbags
  - 16.4 granular materials, aggregates, cement, concrete, mortars and sand
  - 16.5 sealant materials (adhesives, compounds, solvents)
  - 16.6 hand tools, power tools and ancillary equipment
- 17 how to confirm resources and materials conform with the given specification
- 18 methods of calculating quantity, length, volume, area and wastage associated with the method and procedure to install drainage
- Security procedures
- 19 site, workplace, company and operative.

**Behaviours**

- When performing to this standard you are likely to demonstrate the following behaviours:
- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
  - 2 Effective communication: oral, written, electronic, listening, body language, presentation
  - 3 Respect: apply equality, diversity and inclusion in dealing with others.
  - 4 Team work: work effectively and safely with others with limited supervision.
  - 5 Independent working: take responsibility for safe completion of your own work.
  - 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
  - 7 Working effectively: undertake the work in a reliable, safe and productive manner.
  - 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
  - 9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version number: 3  
 Date approved: February 2016 Indicative review date: January 2020  
 Validity: Current, Status: Original  
 Originating organisation: ConstructionSkills, Original URN: VR639  
 Relevant occupations: Construction Operatives



Suite: Construction and Civil Engineering Operations; Building Maintenance Multi-trade Repair and Refurbishment Operations); Trowel Occupations (Construction)

Key words: Pipes; Inspection chambers; Culverts; Soak-a-ways; Cess pools; Septic tanks; Reed beds; Overflows; Treatment plants; Interceptors; Mandrel.

## COSVR371

### Pour concrete to form structures

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, and preparing for and placing concrete to form structures. This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

P1 interpret the given information relating to the work and resources to confirm its relevance P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices P3 select the required quantity and quality of resources for the methods of work P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area P5 comply with the given contract information to carry out the work efficiently to the required specification P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented K2 the types of information, their source and how they are interpreted K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied K5 how emergencies should be responded to and who should respond K6 the organisational security procedures for tools, equipment and personal belongings K7 what the accident reporting procedures are and who is responsible for making the report K8 why, when and how health and safety control equipment should be used K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified K11 how the resources should be used and how any problems associated with the resources are reported K12 the organisational procedures to select resources, why they have been developed and how they are used K13 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection K15 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported K17 how maintenance of tools and equipment is carried out

<p>Performance Criteria 6</p> <p>Allocated time</p> <p>K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept</p>
<p><b>Additional information</b></p> <p><b>Scope/ range</b></p> <p>Performance Criteria 1</p> <p>1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out</p> <p>Performance Criteria 2</p> <p>2 avoidance of risk by complying with the given information relating to four of the following 2.1 methods of work 2.2 safe use of health and safety control equipment 2.3 safe use of access equipment 2.4 safe use, storage and handling of materials, tools and equipment 2.5 specific risks to health</p> <p>Performance Criteria 3</p> <p>3 selection of resources associated with own work 3.1 materials, components and fixings 3.2 tools and equipment</p> <p>Performance Criteria 4</p> <p>4 protection of the work and its surrounding area from damage 5 maintain a clear and tidy work space 6 disposal of waste in accordance with current legislation</p> <p>Performance Criteria 5</p> <p>7 demonstration of work skills to measure, position, place, spread, vibrate, compact, finish and protect 8 use and maintain hand tools, power tools and ancillary equipment 9 place, compact and finish concrete to given working instructions relating to at least two of the following placement methods 9.1 chute 9.2 elephant's trunk 9.3 skip 9.4 pump 9.5 mono-rail 9.6 manually 10 protect concrete, ensure and support the curing process</p> <p>Performance Criteria 6</p> <p>11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.</p>
<p><b>Additional information</b></p> <p><b>Scope/ range related to knowledge and understanding</b></p> <p>Disposal of waste</p> <p>1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance</p> <p>Emergencies</p> <p>2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 2.1 fires, spillages, injuries 2.2 emergencies relating to occupational activities</p> <p>Hazards</p> <p>3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance</p> <p>Health and safety control equipment</p> <p>4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment 4.1 collective protective measures 4.2 local exhaust ventilation (LEV) 4.3 personal protective equipment (PPE) 4.4 respiratory protective equipment (RPE)</p> <p>Information</p> <p>5 drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance associated with pouring concrete to form structures</p> <p>Legislation and official guidance</p> <p>6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools</p>

and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

#### Maintenance

7 operative care of hand tools, power tools and ancillary equipment

#### Methods of work

- 8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
- 8.1 assess and confirm suitability of concrete and area for placement
  - 8.2 confirm pre-pour inspection are completed
  - 8.3 conform to agreed specifications
  - 8.4 confirm integrity of formwork and temporary supports prior to and during the pour
  - 8.5 handle and transport concrete
  - 8.6 place concrete by chute, elephant's trunk, overhead skip, pumping and manually
  - 8.7 visually assess the quality of the concrete prior to and during pouring and placement
  - 8.8 recognise the criteria for sampling and testing concrete
  - 8.9 apply techniques to pour and compact concrete in layers
  - 8.10 place concrete to lines and levels
  - 8.11 ensure and check reinforcement coverage meets specification during the pour
  - 8.12 check position of embedments and cast-in items prior to and during the pour
- 8.13 recognise requirements for working with concrete containing additives for waterproofing, accelerants and retardants
- 8.14 work with, around and in close proximity to plant and machinery
- 8.15 vibrate, compact, finish and protect
- 8.16 apply methods that will ensure and support the curing process
- 8.17 monitor and check accuracy during progress and on completion of work
- 8.18 recognise and determine when specialist skills and knowledge are required and report accordingly
- 8.19 use hand tools, power tools and equipment
- 8.20 work at height
- 8.21 use access equipment
- 9 team work and communication
- 10 needs of other occupations associated with pouring concrete to form structures

#### Problems

- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
  - 11.2 organisational reporting procedures

#### Programme

- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme

#### Protect work

- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### Resources

- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
- 16.1 ready-mix concrete materials
  - 16.2 slump test equipment, skips, poker vibrator, tampers, floats and trowels
  - 16.3 hand tools, power tools and equipment
- 17 how to confirm resources and materials conform with the given specification
- 18 methods of calculating quantity, length, area, volume and wastage associated with the method and procedure to pour concrete to form structures

#### Security procedures

- 19 site, workplace, company and operative

#### Behaviours

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others
- 4 Team work: work effectively and safely with others with limited supervision
- 5 Independent working: take responsibility for safe completion of your own work
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions
- 7 Working effectively: undertake the work in a reliable, safe and productive manner
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe





9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version: 3

Date approved: February 2016 Indicative review date: January 2021

Validity: Current Status: Original

Originating organisation: ConstructionSkills Original URN: COSVR371

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite: Construction and Civil Engineering

Key words: Chute; Skip; Pump; Elephant's trunk; Mono-rail; Poker vibrator; Tamper; Float

## COSVR45

### Place and finish non-specialist concrete

#### Overview

This standard is about

- 1 interpreting information
- 2 adopting safe and healthy working practices
- 3 selecting materials, components and equipment
- 4 preparing, laying, compacting and finishing concrete slabs, footings or bases.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used

Performance Criteria 3

Selection of resources

- K9 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K10 how the resources should be used and how any problems associated with the resources are reported
- K11 the organisational procedures to select resources, why they have been developed and how they are used
- K12 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4



Minimise the risk of damage

K13 how to protect work from damage and the purpose of protection

K14 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K15 how methods of work, to meet the specification, are carried out and problems reported

K16 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K17 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use and storage of materials, tools and equipment
  - 2.4 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 materials, components and fixings
  - 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 minimise damage and maintain a clean work space
- 6 disposal of waste in accordance with legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, mark out, lay, compact, finish, position and secure
- 8 use and maintain hand tools and ancillary equipment
- 9 lay and finish concrete to given working instructions for at least three of the following
  - 9.1 concrete slabs/bases (footing, oversites or paths)
  - 9.2 form slab edging
  - 9.3 position reinforcement
  - 9.4 form surface finish (tamped, floated, brushed and trowelled)

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
  - 2.1 fires, spillages, injuries
  - 2.2 emergencies relating to occupational activities

#### Hazards

3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

#### Health and safety control equipment

4 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 personal protective equipment (PPE)

4.3 respiratory protective equipment (RPE)

4.4 local exhaust ventilation (LEV)

#### Information

5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations associated with placing and finishing non-specialist concrete

#### Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working 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

#### Maintenance

7 operative care of hand tools and ancillary equipment

##### Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to:

8.1 handle, transport and test concrete

8.2 transport, lay, compact, cure and protect concrete with tamped, floated, brushed and trowelled finishes

8.3 cure and protect

8.4 place fabric reinforcement

8.5 concrete mix ratios (volume and gauge boxes)

8.6 place concrete into formwork and shuttering

8.7 form slab edging

8.8 work with plant and machinery

8.9 use hand tools and ancillary equipment

9 team work and communication

10 needs of other occupations associated with placing and finishing non-specialist concrete

#### Problems

11 those arising from information, resources and methods of work

11.1 own authority to rectify

11.2 organisational reporting procedures

#### Programme

12 types of progress charts, timetables and estimated times

13 organisational procedures for reporting circumstances which will affect the work programme

#### Protect work

14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### Resources

15 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:

15.1 concrete, fabric reinforcement, timber, plywood, proprietary slab edgings and fixings

15.2 hand tools and equipment

16 methods of calculating quantity, length, area and wastage associated with the method/procedure to place and finish non-specialist concrete

#### Security procedures

17 site, workplace, company and operative.

Developed by: ConstructionSkills Version number: 3

Date approved: October 2012 Indicative review date: October 2017

Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR45

Relevant occupations: Bricklayers and Masons

Suite: Trowel Occupations (Construction); Construction Operations and Civil Engineering Services (Construction)

Key words: Compacting; Concrete-slabs; Footings; Reinforcement; Floated; Tamped; Trowelled.

## COSVR640

### Erect and strike proprietary formwork

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment and erecting and striking proprietary formwork. This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

P1 interpret the given information relating to the work and resources to confirm its relevance

P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices

P3 select the required quantity and quality of resources for the methods of work

P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

P5 comply with the given contract information to carry out the work efficiently to the required specification

P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented K2 the types of information, their source and how they are interpreted K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied K5 how emergencies should be responded to and who should respond K6 the organisational security procedures for tools, equipment and personal belongings K7 what the accident reporting procedures are and who is responsible for making the report K8 why, when and how health and safety control equipment should be used K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified K11 how the resources should be used and how any problems associated with the resources are reported K12 the organisational procedures to select resources, why they have been developed and how they are used K13 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection K15 why disposal of waste should be carried out safely and how it is achieved  
 Performance Criteria 5  
 Meet the contract specification  
 K16 how methods of work, to meet the specification, are carried out and problems reported K17 how maintenance of tools and equipment is carried out  
 Performance Criteria 6  
 Allocated time  
 K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1  
 1 interpretation of drawings, specifications, schedules, risk assessments, method statements, manufacturers' and suppliers' information related to the work to be carried out  
 Performance Criteria 2  
 2 avoidance of risk by complying with the given information relating to at least five of the following 2.1 methods of work 2.2 safe use of health and safety control equipment 2.3 working with and around utility services including ground penetration 2.4 safe use of access equipment 2.5 safe use, storage and handling of materials, tools and equipment 2.6 specific risks to health  
 Performance Criteria 3  
 3 selection of resources associated with own work 3.1 materials, components and fixings 3.2 tools and equipment  
 Performance Criteria 4  
 4 protection of the work and its surrounding area from damage 5 maintain a clear and tidy work space 6 disposal of waste in accordance with current legislation  
 Performance Criteria 5  
 7 demonstration of work skills to measure, mark out, align, position, level, plumb, secure, remove and store 8 use and maintain hand tools, power tools and ancillary equipment 9 erect and strike proprietary formwork to given working instructions  
 Performance Criteria 6  
 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste  
 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance  
 Emergencies  
 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 2.1 fires, spillages, injuries 2.2 emergencies relating to occupational activities  
 Hazards  
 3 those identified by risk assessment, methods of work, manufacturers' and suppliers' technical information, statutory regulations and official guidance  
 Health and safety control equipment  
 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment 4.1 collective protective measures 4.2 local exhaust ventilation (LEV) 4.3 protective equipment (PPE) 4.4 respiratory protective equipment (RPE)  
 Information

5 drawings, specifications, schedules, risk assessments, method statements, permits, manufacturers' and suppliers' information, verbal, written and graphical instructions, current regulations and official guidance associated with formwork

Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

Maintenance

7 operative care of hand tools, power tools and ancillary equipment

Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to: 8.1 set out, erect and strike proprietary formwork for walls, columns, beams, soffits, channels, ground slabs and bases 8.2 conform to agreed specifications 8.3 attach and remove safe lifting provision 8.4 position, secure and remove prop and tie systems 8.5 monitor and check accuracy during progress and on completion of work 8.6 apply release agents 8.7 move, clean, stack and store proprietary forms 8.8 recognise and determine when specialist skills and knowledge are required and report accordingly 8.9 work with, around and in close proximity to plant and machinery including lifting equipment 8.10 use hand tools, power tools and equipment 8.11 work at height 8.12 use access equipment 9 team work and communication 10 needs of other occupations associated with erecting and striking proprietary formwork

Problems

11 those arising from information, resources and methods of work 11.1 own authority to rectify 11.2 organisational reporting procedures

Programme

12 types of productivity targets and time scales 13 how times are estimated 14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist: 16.1 proprietary formwork and associated items 16.2 tie systems 16.3 prop systems 16.4 protective coatings 16.5 fixtures and fittings 16.6 access equipment 16.7 hand tools, power tools and equipment 17 how to confirm resources and materials conform with the given specification 18 methods of calculating quantity, length, area and wastage associated with the method and procedure to erect and strike proprietary formwork

Security procedures

18 site, workplace, company and operative

### **Behaviours**

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others
- 4 Team work: work effectively and safely with others with limited supervision
- 5 Independent working: take responsibility for safe completion of your own work
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions
- 7 Working effectively: undertake the work in a reliable, safe and productive manner
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe



9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version: 2

Date approved: February 2016 Indicative review date: January 2021

Validity: Current Status: Original

Originating organisation: ConstructionSkills Original URN: COSVR640

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite: Construction and Civil Engineering Operations

Key words: Tie systems; Prop systems; Proprietary formwork

## COSVR643

### Move, handle or store resources

#### Overview

This standard, in the context of your occupation and work environment, is about

- 1 interpreting information
- 2 adopting safe and healthy working practices
- 3 selecting aids or equipment to move, handle or store occupational resources
- 4 moving, handling and storing occupational resources to maintain useful condition.

#### Performance criteria

You must be able to:

- P1 comply with the given information to move, handle or store resources
- P2 comply with the given relevant legislation and official guidance to move, handle or store occupational resources and maintain safe work practices
- P3 select the required quantity and quality of resources for the method of moving, handling or storing occupational resources
- P4 prevent damage to the occupational resources and surrounding environment
- P5 comply with the given occupational resource information to carry out the work efficiently to the required guidance
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed
- K4 how to obtain information to use and store lifting aids and equipment

##### Performance Criteria 2

##### Safe work practices

- K5 the level of understanding operatives must have of information for relevant current legislation and official guidance and how it is applied
- K6 the types of fire extinguishers and how and when they are used
- K7 how emergencies should be responded to and who should respond
- K8 the organisational security procedures for tools, equipment and personal belongings
- K9 what the accident reporting procedures are and who is responsible for making the report
- K10 why, when and how health and safety control equipment should be used

##### Performance Criteria 3

##### Selection of resources

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

- K12 how the resources should be handled and how any problems associated with the resources are reported
- K13 the organisational procedures to select resources, why they have been developed and how they are used
- K14 the hazards associated with the resources and methods of work and how they are overcome
- Performance Criteria 4
- Prevent damage
- K15 how to protect work from damage and the purpose of protection
- K16 why disposal of waste should be carried out safely and how it is achieved
- Performance Criteria 5
- Comply with occupational resource information
- K17 how methods of work, to meet the specification, are carried out and problems reported
- Performance Criteria 6
- Allocated time
- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

**Additional information**

**Scope/ range related to performance criteria**

- Performance Criteria 1
- 1 interpret given information to move, handle or store occupational resources, and use and store lifting aids and equipment
- Performance Criteria 2
- 2 avoidance of risk by complying with the given information relating to at least two of the following
- 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use of lifting aids
  - 2.4 protection of the environment
- Performance Criteria 3
- 3 selection of resources associated with moving, handling or storing
- 3.1 lifting and handling aids
  - 3.2 container(s)
  - 3.3 fixing, holding and securing systems
- Performance Criteria 4
- 4 protect the occupational resources and their surrounding area from damage
- 5 dispose of waste and packaging in accordance with legislation
- 6 maintain a clean work space
- Performance Criteria 5
- 7 work skills to move, position, store, secure and/or use lifting aids and kinetic lifting techniques
- 8 move, handle or store occupational resources to meet product information and organisational requirements relating to at least three of the following
- 8.1 sheet material
  - 8.2 loose material
  - 8.3 bagged or wrapped material
  - 8.4 fragile material
  - 8.5 tools and equipment
  - 8.6 components
  - 8.7 liquids
- Performance Criteria 6
- 9 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or customer.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste



- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- Emergencies
- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with:
  - 2.1 fires, spillages, injuries etc
  - 2.2 emergencies relating to occupational activities
- Fire extinguishers
- 3 water, CO2, foam, powder and their uses
- Hazards
- 4 those identified by method of work, manufacturers' technical information, statutory regulations and official guidance
- Health and safety control equipment
- 5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment
  - 5.1 collective protective measures
  - 5.2 personal protective equipment (PPE)
  - 5.3 respiratory protective equipment (RPE)
  - 5.4 local exhaust ventilation (LEV)
- Information
- 6 technical, product and regulatory: oral, written, graphical presentation
- Legislation and official guidance
- 7 this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working in the workplace, in confined spaces, below ground level, at height, with tools and equipment, with materials and substances, with movements/storage of materials and by manual handling and mechanical lifting
- Methods of work
- 8 application of knowledge for safe work practices, procedures and skills, relating to the method/area of work and materials used for moving, handling and storing occupational resources
- 9 needs of other occupations associated with the resources
- Problems
- 10 those arising from information, resources and methods of work
  - 10.1 own authority to rectify
  - 10.2 organisational reporting procedures
- Programme
- 11 types of progress charts, timetables and estimated times
- 12 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 13 against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 14 types, quantity, quality, sizes and sustainability of standard and/or specialist:
  - 14.1 occupational resources
  - 14.2 lifting and handling aids
  - 14.3 containers
  - 14.4 fixing, holding and securing systems
- Security procedures
- 15 site, workplace, company and operative

Developed by: ConstructionSkills Version number: 1  
Date approved: February 2011, Indicative review date: February 2016  
Validity: Current, Status: Original  
Originating organisation: ConstructionSkills, Original URN: VR643





Relevant occupations: Construction and Building Trades nec

Suite: Wood Occupations (Construction); Accessing Operations and Rigging (Construction); Applied Waterproof Membranes (Construction); Associated Industrial Services Occupations (Construction); Building Maintenance Multi-trade Repair and Refurbishment Operations; Chimney Engineering (Construction); Cladding Occupations (Construction); Construction Operations and Civil Engineering Services; Construction Diving Operations (Construction); Controlling Lifting Operations (Construction); Decorative Finishing and Industrial Painting Occupations (Construction); Demolition; Erection of Precast Concrete (Construction); Fitted Interiors (Construction); Floorcovering Occupations (Construction); Formwork (Construction); Innovative/Modern Methods of Construction; Insulation and Building Treatments (Construction); Interior Systems (Construction); Mastic Asphaltting (Construction); Piling Operations (Construction); Plant Installations (Construction); Plant Operations (Construction); Plastering (Construction); Post Tensioning Operations (Construction); Refractory Installations (Construction); Removal of Hazardous and Non-hazardous Waste (Construction); Roofing Occupations (Construction); Site Logistics (Construction); Specialist Concrete Occupations (Construction); Specialist Installation Occupations (Construction); Steelfixing (Construction); Stonemasonry (Construction); Sub-structure Work Occupations (Construction); Super-structure Work Occupations (Construction); Thermal Insulation (Construction); Trowel Occupations (Construction); Tunnelling Operations (Construction); Wall and Floor Tiling (Construction); Wood Machining (Construction/Sawmilling Extrusion/Furniture); Wood Preserving – Industrial Pre-treatment (Construction)

Key words: Storage; Handling; Kinetic lifting, Lifting aids.

## COSVR172

### Reinstate ground condition

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment and reinstating ground surfaces after completion of work by backfilling with suitable excavated materials, backfilling with new materials, compacting and replacing: flags, blocks, black top, cultivated and grassed areas

This standard is for people reinstating ground conditions working in the occupational area of sub-structure work occupations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied

- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance
- Performance Criteria 3
- Selection of resources
- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome
- Performance Criteria 4
- Minimise the risk of damage
- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved
- Performance Criteria 5
- Meet the contract specification
- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out
- Performance Criteria 6
- Allocated time
- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range**

- Performance Criteria 1
- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out
- Performance Criteria 2
- 2 avoidance of risk by complying with the given information relating to at least four of the following 2.1 methods of work 2.2 safe use of health and safety control equipment 2.3 safe use of access equipment 2.4 safe use, storage and handling of materials, tools and equipment 2.5 specific risks to health
- Performance Criteria 3
- 3 selection of resources associated with own work 3.1 materials, components and fixings 3.2 tools and equipment
- Performance Criteria 4
- 4 protection of the work and its surrounding area from damage 5 maintain a clean work space 6 disposal of waste in accordance with current legislation
- Performance Criteria 5
- 7 demonstration of work skills to measure, mark out, lay, bed, position, secure and finish 8 use and maintain hand tools, portable power tools and ancillary equipment 9 reinstate ground conditions to given working instructions for at least three of the following 9.1 backfill with suitable excavated materials 9.2 backfill with new materials 9.3 compact 9.4 hard top surfaces (flags, blocks, concrete, blacktop) 9.5 replant cultivated and grassed areas or relay turf
- Performance Criteria 6
- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

#### Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

#### Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 2.1 fires, spillages, injuries 2.2 emergencies relating to occupational activities

#### Hazards

3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

#### Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment 4.1 collective protective measures 4.2 local exhaust ventilation (LEV) 4.3 personal protective equipment (PPE) 4.4 respiratory protective equipment (RPE)

#### Information

5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing buildings and official guidance associated with the reinstatement of ground conditions

#### Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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 and by manual handling and mechanical lifting

#### Maintenance

7 operative care of hand tools, portable power tools and ancillary equipment

#### Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to 8.1 identify installation quality requirements 8.2 conform to agreed specification 8.3 backfill with suitable excavated materials 8.4 backfill with new materials 8.5 recognise the requirement to compact in layers 8.6 place and compact sub-grade and sub-base 8.7 form levels 8.8 replace hard top surfaces (flags, blocks, concrete, blacktop, cultivated grassed areas) 8.9 replant cultivated and grassed areas and relay turf 8.10 work with, around and in close proximity to plant and machinery 8.11 direct and guide the operations and movement of plant and machinery 8.12 recognise and determine when additional specialist skills and knowledge are required and report accordingly 8.13 determine specific requirements for structures of special interest, traditional build (pre 1919) and historical significance 8.14 use hand tools, portable power tools and equipment 8.15 work at height 8.16 use access equipment 9 team work and communication 10 needs of other occupations associated with reinstatement of ground conditions.

#### Problems

11 those arising from information, resources and methods of work 11.1 own authority to rectify 11.2 organisational reporting procedures

#### Programme

12 types of progress charts, timetables and estimated times 13 organisational procedures for reporting circumstances which will affect the work programme

#### Protect work

14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### Resources

15 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist 15.1 flags, blocks, edging, aggregates, cement, black top, top soil, seeds 15.2 backfill materials 15.3 hand tools, portable power tools, plant, machinery and equipment 16 identify



quantity, length, area and wastage associated with the method and procedure to reinstate ground conditions

Security procedures

17 site, workplace, company and operative

Developed by: ConstructionSkills Version: 2

Date approved: January 2015 Indicative review date: January 2019

Validity: Current Status: Original

Originating organisation: ConstructionSkills Original URN: COSVR172

Relevant occupations: Construction Operatives

Suite: Sub-structure Work Occupations (Construction); Construction Operations and Civil Engineering Services (Construction)

Key words: Flags; Blocks; Black-top; Grassed-areas; Landscaping; Form-levels; Compactsub-base; Seed; Soil; Aggregates

## COSVR373

### Form and finish excavations manually

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment to form and finish excavations manually including excavating around services. This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome
- Performance Criteria 4
- Minimise the risk of damage
- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved
- Performance Criteria 5
- Meet the contract specification
- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out
- Performance Criteria 6
- Allocated time
- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

**Additional information**

**Scope/ range**

- Performance Criteria 1
- 1 interpretation of drawings, specifications, schedules, risk assessments and method statements related to the work to be carried out
- Performance Criteria 2
- 2 avoidance of risk by complying with the given information relating to at least four of the following 2.1 methods of work 2.2 safe use of health and safety control equipment 2.3 safe use of access equipment 2.4 safe use, storage and handling of materials, tools and equipment 2.5 specific risks to health
- Performance Criteria 3
- 3 selection of resources associated with own work 3.1 materials and components 3.2 tools and equipment
- Performance Criteria 4
- 4 protection of the work and its surrounding area from damage 5 maintain a clear and tidy work space 6 disposal of waste in accordance with current legislation
- Performance Criteria 5
- 7 demonstration of work skills to check, locate, measure, mark out, excavate and secure 8 use and maintain hand tools, power tools and ancillary equipment 9 form and finish excavations manually to given working instructions
- Performance Criteria 6
- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

**Additional information**

**Scope/ range related to knowledge and understanding**

- Disposal of waste
- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- Emergencies
- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 2.1 fires, spillages, injuries 2.2 emergencies relating to occupational activities
- Hazards
- 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

#### Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment 4.1 collective protective measures 4.2 local exhaust ventilation (LEV) 4.3 personal protective equipment (PPE) 4.4 respiratory protective equipment (RPE)

#### Information

5 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

#### Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

#### Maintenance

7 operative care of hand tools, power tools and ancillary equipment

#### Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to: 8.1 locate, position, identify and confirm the type of surface and subsurface composition including ground water 8.2 conform to agreed specifications 8.3 plan, prepare, set out and mark out excavations 8.4 remove surface courses, street furniture and sub-surface structures 8.5 protect and monitor adjacent structures 8.6 excavate, form and finish ground manually 8.7 recognise changes in ground conditions, ground water conditions, soil types and excavation stability 8.8 recognise the dangers of loads and structures at the edge of excavations 8.9 identify and locate utility services, excavate around services and protect 8.10 monitor and check accuracy during progress and on completion of work 8.11 recognise inspection and test criteria for excavations 8.12 identify and store excavated and reusable materials 8.13 confirm the disposal of unusable materials 8.14 recognise the need for positioning, securing and removing excavation supports 8.15 provide for access and egress 8.16 work with, around and in close proximity to plant and machinery 8.17 recognise and determine when specialist skills and knowledge are required and report accordingly 8.18 use hand tools, power tools and equipment 8.19 use access equipment 8.20 work at height 9 team work and communication 10 needs of other occupations associated with the formation and finishing of excavations manually

#### Problems

11 those arising from information, resources and methods of work 11.1 own authority to rectify 11.2 organisational reporting procedures

#### Programme

12 types of productivity targets, time scales 13 how times are estimated 14 organisational procedures for reporting circumstances which will affect the work programme

#### Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist: 16.1 digging equipment 16.2 hand tools, power tools and equipment 17 how to confirm resources and materials conform with the given specification 18 methods of calculating quantity, length, area, volume and wastage associated with the method and procedure to form and finish excavations manually

#### Security procedures

19 site, workplace, company and operative.

#### Behaviours

When performing to this standard you are likely to demonstrate the following behaviours:



- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others
- 4 Team work: work effectively and safely with others with limited supervision
- 5 Independent working: take responsibility for safe completion of your own work
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions
- 7 Working effectively: undertake the work in a reliable, safe and productive manner
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe
- 9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version number: 5

Date approved: May 2016 Indicative review date: January 2021

Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR373

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite: Construction and Civil Engineering Operations

Key words: Sub-surface structures; Digging equipment; Excavations; Excavation supports.

## COSVR372

### Identify and mark the location of utilities apparatus and sub-structures

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, surveying, identifying and placing surface markings for utilities apparatus and sub-structures. This standard is for people working in the occupational area of road building and maintenance and construction and civil engineering operations, and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

##### Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond
- K7 the organisational security procedures for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how health and safety control equipment should be used
- K10 how to comply with environmentally responsible work practices to meet current legislation and official guidance
- Performance Criteria 3
- Selection of resources
- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K12 how the resources should be used and how any problems associated with the resources are reported
- K13 the organisational procedures to select resources, why they have been developed and how they are used
- K14 the hazards associated with the resources and methods of work and how they are overcome
- Performance Criteria 4
- Minimise the risk of damage
- K15 how to protect work from damage and the purpose of protection
- K16 why disposal of waste should be carried out safely and how it is achieved
- Performance Criteria 5
- Meet the contract specification
- K17 how methods of work, to meet the specification, are carried out and problems reported
- K18 how maintenance of tools and equipment is carried out
- Performance Criteria 6
- Allocated time
- K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

#### **Additional information**

##### **Scope/ range related to performance criteria**

###### Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements, survey and utility company information and manufacturers' information related to the work to be carried out

###### Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use, storage and handling of materials, tools and equipment
  - 2.4 specific risks to health
  - 2.5 others affected by the work

###### Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 materials and components
  - 3.2 tools and equipment
  - 3.3 electronic location instruments

###### Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

###### Performance Criteria 5

- 7 demonstration of work skills to measure, locate, identify, mark out, position, protect and secure



- 8 use and maintain hand tools, power tools, ancillary equipment and electronic instruments
- 9 survey, identify and mark the location of utilities apparatus and sub-structures to given working instructions

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries, damage to utilities apparatus and sub structures

2.2 emergencies relating to occupational activities

Fire extinguishers

- 3 water, CO2, foam, powder and their uses

Hazards

- 4 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 personal protective equipment (PPE)

5.3 respiratory protective equipment (RPE)

Information

- 6 drawings, specifications, schedules, risk assessments, method statements, organisational and manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing utilities

Legislation and official guidance

- 7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

Maintenance

- 8 operative care of hand tools, power tools, ancillary equipment and electronic instruments

Methods of work

- 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

9.1 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection

9.2 ensure electronic equipment is calibrated

9.3 conform to agreed specification and local utility providers requirements

9.4 identify utilities apparatus and sub-structures by electronic locators and visually

9.5 confirm the type of service, including: gas, fuel, electric, communication, water, sewage

9.6 work around street furniture and ironwork

9.7 recognise identification markers for utility types

9.8 confirm structures (foundations, inspection chambers, joint and junction boxes)

9.9 confirm the impact of the natural environment (tree roots, watercourses)

- 9.10 mark the position of utilities apparatus and sub-structures
- 9.11 return infrastructure to operational status
- 9.12 recognise and determine when specialist skills and knowledge are required and report accordingly
- 9.13 use hand tools, power tools and equipment
- 9.14 work at height
- 10 team work and communication
- 11 needs of other occupations associated with identifying and marking the location of utilities apparatus and sub-structures
- Problems
- 12 those arising from information, resources and methods of work
  - 12.1 own authority to rectify
  - 12.2 organisational reporting procedures
- Programme
- 13 types of productivity targets and time scales
- 14 how times are estimated
- 15 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 16 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
  - 17.1 electronic location instruments
  - 17.2 marking materials and equipment
  - 17.3 hand tools, power tools and equipment
  - 17.4 ancillary equipment
- 18 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
- Security procedures
- 19 site, workplace, company and operative.

Developed by: ConstructionSkills Version number: 4

Date approved: February 2016 Indicative review date: January 2021

Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR372

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite: Road building and Maintenance; Accessing Operations and Rigging (Construction); Construction and Civil Engineering Operations

Key words: Identification markers; Joint and junction boxes; Inspection chambers

## COSVR760

### Control, direct and guide the operation of plant or machinery

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting materials, components, tools and ancillary equipment to 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. This standard is for people required to control, direct and guide the operation of plant or machinery; it is not for directing movement between locations or the slinging and signalling of plant or machinery for lifting and transferring loads in lifting operations. It does include people directing and guiding the operations of plant or machinery used as work platforms. It can be used by operatives, supervisors and managers.

**Performance criteria**

You must be able to:

- P1 interpret the given operating information relating to the work, resources and the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 select plant or machinery resources for the methods of work and operations to be carried out
- P5 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P6 comply with the given contract information to carry out the work efficiently to the required specification
- P7 complete the work within the allocated time, in accordance with the programme of work.

**Knowledge and understanding**

You need to know and understand:

Performance Criteria 1 Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2 Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

Performance Criteria 3 Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 how emergencies should be responded to and who should respond
- K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K10 what the accident reporting procedures are and who is responsible for making the report
- K11 why, when and how health and safety control equipment should be used
- K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 4 Selection of resources

- K13 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K14 how the resources should be used and how any problems associated with the resources are reported
- K15 the organisational procedures to select resources, why they have been developed and how they are used
- K16 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 5 Minimise the risk of damage

- K17 how to protect work from damage and the purpose of protection
- K18 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 6 Meet the contract specification

- K19 how methods of work, to meet the specification, are carried out and problems reported
- K20 how maintenance of plant and/or machinery, tools and equipment is carried out

Performance Criteria 7 Allocated time

- K21 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

1 interpretation of specifications, schedules, risk assessments and manufacturers' information related to controlling, directing and guiding the operation of plant or machinery not being used for lifting operations but including plant or machinery used as work platforms

Performance Criteria 2

2 organisation of own work

3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

Performance Criteria 3

4 avoidance of risk by complying with the given safety information relating to at least four of the following

- 4.1 methods of work
- 4.2 safe use of health and safety control equipment
- 4.3 safe use and storage of tools
- 4.4 safe use and storage of equipment
- 4.5 specific risks to health

Performance Criteria 4

5 selection of resources associated with own work 5.1 hand tools and ancillary equipment 5.2 signalling and communication equipment

Performance Criteria 5

6 protection of the work and its surrounding area from damage

7 prevent damage and maintain a clean work space

8 disposal of waste in accordance with current legislation

Performance Criteria 6

9 demonstration of work skills to measure, gauge, estimate, interpret, judge, explain, prepare, command, direct, guide, indicate, inform, instruct, sign, position, move, secure, signal and relay

10 use and maintain hand tools, ancillary equipment, signalling and communication equipment

11 control, direct and guide the 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 11.1 hand signals 11.2 hand signalling equipment 11.3 verbal and electronic communication equipment

Performance Criteria 7

12 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Communication

1 discussions, sketches, electronic data and briefings, signalling and radio communication

Disposal of waste

2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 3.1 fires, spillages, injuries 3.2 emergencies relating to occupational activities

Hazards

4 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment 5.1 collective protective measures 5.2 local exhaust ventilation (LEV) 5.3 personal protective equipment (PPE) 5.4 respiratory protective equipment (RPE)

Information

6 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

Legislation and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

#### Maintenance

8 operative care of hand tools, ancillary equipment signalling and communication equipment

Methods of work 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to 9.1 identify the differences between directing and guiding operations, directing and guiding movement and slinging and signalling 9.2 interpret work plans 9.3 assess and determine the operation of plant and machinery not being used for lifting operation but including plant or machinery used as work platforms, to include own position, visibility, ground conditions and features, proximity hazards and weight limits 9.4 identify the operational characteristics and limitations of plant and machinery, width, length, height, radius, reach, capacity 9.5 recognise blind-spots, potential crush zones and other limitations to operator visibility 9.6 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 and process, sweep, clean and clear 9.7 assess and determine the movement of extracted and excavated materials or commodities including the formation and removal of stockpiles, unloading, discharging and loading 9.8 control, direct and guide the operation of plant and machinery not being used in lifting operations on rough, uneven terrain and in areas of restricted movement 9.9 ensure the integrity of equipment, structures, materials and components close to operations while directing and guiding 9.10 recognise and utilise measurement and operation monitoring aids, pegs, tapes, strings, lines and levels, electronic guidance equipment, global positioning systems and laser marking devices Methods of work (Continued) 9.11 check measurements 9.12 signal and communicate following recognised and agreed operational procedures 9.13 recognise requirements for working on public highways 9.14 recognise and determine when specific skills and knowledge are required and report accordingly 9.15 use hand tools and ancillary equipment

10 team work and communication

11 needs of other occupations associated with controlling, directing and guiding the operation of plant and machinery not being used in lifting operations but including plant or machinery used as work platforms

#### Problems

12 those arising from information, resources and methods of work 12.1 own authority to rectify 12.2 organisational reporting procedures

#### Programme

13 types of progress charts, timetables and estimated times

14 organisational procedures for reporting circumstances which will affect the work programme

#### Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist 16.1 signalling and communication equipment 16.2 hand tools and ancillary equipment 16.3 electronic guidance equipment, global positioning systems and laser marking devices 16.4 measuring equipment (pegs, tapes, strings, lines and levels)

17 identify weight and bearing pressures, quantity, length, area and volume associated with the method/procedure for directing and guiding the operation of plant and machinery

#### Security procedures

18 site, workplace, company and operative

#### Skills

19 own occupation and occupations related to the work.



Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR760

Relevant occupations: Other Drivers and Transport Operatives NEC Suite

Suite: Plant Operations (construction)

Key words: Signalling equipment; Communication equipment; Hand signals; Laser marking devices; Electronic guidance equipment; Global positioning systems.

## COSVR782

### Locate and excavate to expose buried utility services

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, locating, exposing by excavation and protecting buried utility services. This standard is for people working in the occupational area of construction and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

##### Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond
- K7 the organisational security procedures for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how health and safety control equipment should be used
- K10 how to comply with environmentally responsible work practices to meet current legislation and official guidance

##### Performance Criteria 3

##### Selection of resources

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K12 how the resources should be used and how any problems associated with the resources are reported
- K13 the organisational procedures to select resources, why they have been developed and how they are used
- K14 the hazards associated with the resources and methods of work and how they are overcome

##### Performance Criteria 4

Minimise the risk of damage

K15 how to protect work from damage and the purpose of protection

K16 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K17 how methods of work, to meet the specification, are carried out and problems reported

K18 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements, survey and utility company information and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use, storage and handling of materials, tools and equipment
  - 2.4 specific risks to health
  - 2.5 working with and around utility services including ground penetration
  - 2.6 working in excavations
  - 2.7 others affected by the work

Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 materials and components
  - 3.2 tools and equipment
  - 3.3 electronic location instruments

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, locate, expose, mark out, position, protect and secure
- 8 use and maintain hand tools, power tools, ancillary equipment and electronic instruments
- 9 locate and excavate to expose buried utility services to given working instructions
- 10 apply protection measures to utility services

Performance Criteria 6

- 11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

- 2.1 fires, spillages, injuries, damage to utilities apparatus and sub structures



## 2.2 emergencies relating to occupational activities

### Fire extinguishers

3 water, CO<sub>2</sub>, foam, powder and their uses

### Hazards

4 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

### Health and safety control equipment

5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 personal protective equipment (PPE)

5.3 respiratory protective equipment (RPE)

### Information

6 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

### Legislation and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

### Maintenance

8 operative care of hand tools, portable power tools, ancillary equipment and electronic instruments

### Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

9.1 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection

9.2 ensure electronic equipment is calibrated

9.3 conform to agreed specification and local utility services providers requirements

9.4 identify utility services by electronic locators, trial holes and visually

9.5 recognise criteria for operating location equipment and their limitations

9.6 confirm the type of service including: gas, fuel, electric, communication, water, sewage

9.7 liaise with utility services organisations

9.8 recognise identification markers for utility types

9.9 excavate by hand and with the assistance of plant or machinery

9.10 work with, in close proximity to, and around plant and machinery

9.11 recognise the criteria for directing and guiding the operations and movement of plant and machinery

9.12 work around street furniture and ironwork

9.13 work in excavations, including the need for excavation supports, edge protection and access equipment

9.14 provide for the recognition and protection of the utility services, sub-structure and the natural environment during operational activities

9.15 install supports for exposed utility services

9.16 recognise and determine when specialist skills and knowledge are required and report accordingly

9.17 use hand tools, portable power tools and equipment including specialist equipment

9.18 use access equipment

9.19 work at height

10 team work and communication

11 needs of other occupations associated with locating and excavating to expose buried utility services



**Problems**

12 those arising from information, resources and methods of work

12.1 own authority to rectify

12.2 organisational reporting procedures

**Programme**

13 types of productivity targets and time scales

14 how times are estimated

15 organisational procedures for reporting circumstances which will affect the work programme

**Protect work**

16 protect work against damage from general workplace activities, other occupations and adverse weather conditions

**Resources**

17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:

17.1 electronic instruments

17.2 marking and protection materials

17.3 excavation plant and machinery

17.4 hand tools, power tools and equipment including specialist tools (insulated and non-sparking tools)

17.5 ancillary equipment

18 identify by calculation the quantity, length, volume and area associated with the method and procedure to locate and excavate to expose buried utility services

**Security procedures**

19 site, workplace, company and operative.

Developed by: ConstructionSkills Version number: 1

Date approved: February 2016 Indicative review date: January 2021

Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR782

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite: Road building and maintenance

Key words: Buried utility services; Insulated tools; Non-sparking tools.

**COSVR36**

**Prepare and mix concrete and mortars**

**Overview**

This standard is about 1 interpreting information 2 adopting safe and healthy working practices 3 selecting materials, components and equipment 4 preparing and mixing, by hand and mechanically, concrete and mortar.

**Performance criteria**

You must be able to:

P1 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices

P2 select the required quantity and quality of resources for the methods of work

P3 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

P4 comply with the given contract information to carry out the work efficiently to the required specification

P5 complete the work within the allocated time, in accordance with the programme of work.

**Knowledge and understanding**

You need to know and understand:

Performance Criteria 1 Safe work practices

K1 the types of information

K2 the level of understanding operatives must have of relevant, current legislation and official guidance and how it is applied

K3 how emergencies should be responded to and who should respond

K4 the organisational security procedures for tools, equipment and personal belongings

K5 what the accident reporting procedures are and who is responsible for making the report

K6 why, when and how health and safety control equipment should be used

Performance Criteria 2 Selection of resources

K7 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources

K8 how the resources should be used and how any problems associated with the resources are reported

K9 the hazards associated with the resources and methods of work

Performance Criteria 3 Minimise the risk of damage

K10 how to protect work from damage and the purpose of protection

K11 why disposal of waste should be carried out safely

Performance Criteria 4 Given contract information

K12 how methods of work are carried out and problems reported

K13 how maintenance of tools and equipment is carried out

Performance Criteria 5 Allocated time

K14 what the programme is for the work to be carried out and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

1 avoidance of risk by complying with the given information relating to the following 1.1 methods of work 1.2 safe use of health and safety control equipment 1.3 safe use and storage of materials, tools and equipment 1.4 specific risks to health

Performance Criteria 2

2 selection of resources associated with own work 2.1 materials and components 2.2 tools and equipment

Performance Criteria 3

3 protection of the work and its surrounding area from damage 4 minimise damage and maintain a clean work space 5 disposal of waste in accordance with legislation

Performance Criteria 4

6 demonstration of work skills to gauge and mix 7 use and maintain hand tools, mixing plant and equipment and ancillary equipment 8 gauge and mix mortars and/or concrete to given working instructions

Performance Criteria 5

9 completion of own work within the time allowed.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies 2 operative's response to situations in accordance with

organisational authorisation and personal skills when involved with 2.1 fires, spillages, injuries 2.2 emergencies relating to occupational activities

Hazards 3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control

equipment 4 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment 4.1 collective protective measures 4.2 personal protective equipment (PPE) 4.3 respiratory protective equipment (RPE) 4.4 local exhaust ventilation (LEV)

Information 5

manufacturers' information, oral/written

Legislation and official guidance 6 this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working 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

Maintenance

7 operative care of hand tools, mixers and ancillary equipment

Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to: 8.1 gauge and mix concrete and mortars by hand and mixer 8.2 carry out pre-use checks on mechanical mixers 8.3 use hand tools, mixing plant and equipment 8.4 work with plant and machinery 9 team work and communication 10 needs of other occupations associated with preparing and mixing concrete and mortars

Problems 11 those arising from information, resources and methods of work 11.1 own authority to rectify 11.2 organisational reporting procedures

Programme 12 agreed starting and finishing times

Protect work 13 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources 14 materials, components and equipment

relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist: 14.1 aggregate, sand, lime, cement, water, additives 14.2 hand tools, mixing plant and equipment 15 methods of calculating quantity, volume and wastage associated with the method/procedure to prepare and mix concrete and mortars

Security procedures

16 site, workplace, company and operative.

Developed by: ConstructionSkills Version: 2  
 Date approved: January 2012 Indicative review date: January 2017  
 Validity: Current Status: Original  
 Originating organisation: ConstructionSkills Original URN: VR36  
 Relevant occupations: Bricklayers and Masons  
 Suite: Trowel Occupations (Construction);  
 Key words: Mechanical-mixing; Mixing-plant; Aggregate

## COSVR250

### Erect and dismantle access/working platforms

#### Overview:

This standard is about

- 1 interpreting information
- 2 adopting safe and healthy working practices
- 3 selecting materials, components and equipment
- 4 erecting and dismantling access equipment suitable for the work operations

Key words: Erecting access-platforms; Dismantling access-platforms; Scaffolding; Access-platforms; Ladders; Working-platforms; Step-ladders; Proprietary-towers; Trestle-platforms; Mobile-towers; Protective-screens.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe work practices
- P3 select the required quantity and quality of resources for the methods of work

P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area P5 comply with the given contract information to carry out the work efficiently to the required specification P6 complete the work within the allocated time, in accordance with the programme of work.

**Knowledge and understanding**

Performance Criteria 1 Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2 Safe work practices

K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied

K5 how emergencies should be responded to and who should respond

K6 the organisational security procedures for tools, equipment and personal belongings

K7 what the accident reporting procedures are and who is responsible for making the report

K8 why, when and how personal protective equipment (PPE) should be used

Performance Criteria 3 Selection of resources

K9 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K10 how the resources should be used and how any problems associated with the resources are reported K11 the organisational procedures to select resources, why they have been developed and how they are used

K12 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4 Minimise the risk of damage

K13 how to protect work from damage and the purpose of protection

K14 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5 Meet the contract specification

K15 how methods of work, to meet the specification, are carried out and problems reported

K16 how maintenance of tools and equipment is carried out

Performance Criteria 6 Allocated time

K17 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Scope/range related to performance criteria**

Performance Criteria 1

1 interpretation of method statements, risk assessments, specifications and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work

2.2 safe use of personal protective equipment (PPE)

2.3 safe use of access equipment

2.4 safe use and storage of materials, tools and equipment

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials and components

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 minimise damage and maintain a clean work space

Performance Criteria 5

6 demonstration of work skills to move, position/erect, secure, check, dismantle and remove  
7 use and maintain hand tools and ancillary equipment  
8 erect, dismantle and store at least two of the following access equipment to given access regulations  
8.1 ladders/crawler boards  
8.2 stepladders/platform steps  
8.3 proprietary towers  
8.4 trestle platforms  
8.5 mobile scaffold towers  
8.6 proprietary staging/podiums

#### Performance Criteria 6

9 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

#### Emergencies

1 operative's response to situations in accordance with organisational authorisation and personal skills when involved with  
1.1 fires, spillages, injuries  
1.2 emergencies relating to occupational activities

#### Hazards

2 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

#### Information

3 specifications, method statements, risk assessments, current legislation and manufacturers' information

#### Legislation and official guidance

4 this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working 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

#### Maintenance

5 operative care of hand tools and ancillary equipment

#### Methods of work

6 application of knowledge for safe work practices, procedures and skills relating to the method/area of work and materials used to:

6.1 provide protection to the work area

6.2 establish a base for equipment

6.3 erect proprietary access equipment to manufacturer's instructions suitable for the work

6.4 erect non-proprietary access equipment suitable for the work

6.5 place protective screens and notices

6.6 check/monitor equipment during the period of use

6.7 dismantle and store access equipment

6.8 use tools and equipment

6.9 work at height

6.10 use access equipment

7 team work and communication

8 needs of other occupations associated with erecting and dismantling access/working platforms

#### Personal protective equipment (PPE)

9 occupational use, types, purpose of each type and work situations

#### Problems

10 those arising from information, resources and methods of work

10.1 own authority to rectify

10.2 organisational reporting procedures

#### Programme

11 types of progress charts, timetables and estimated times

12 organisational procedures for reporting circumstances which will affect the work programme

#### Protect work

13 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### Resources

- 14 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
- 14.1 ladders/crawler boards
  - 14.2 stepladders/platform steps
  - 14.3 trestles
  - 14.4 proprietary staging/podiums
  - 14.5 proprietary towers
  - 14.6 mobile scaffold towers
  - 14.7 protection equipment and notices
  - 14.8 tools and ancillary equipment
- 15 methods of calculating quantity of equipment required for the method/procedure to erect and dismantle access/working platforms
- Security procedures
- 16 site, workplace, company and operative.

**Version 2 January 2010 – Construction Skills**

## **COSVR361**

### **Cut, drill and shape construction related materials**

#### **Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment. It is also about cutting, drilling and shaping the following construction related materials: composites, plastic, masonry, vitreous clay, metal, timber and timber based, cementitious, bituminous and geotextiles as an individual or team member. This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### **Performance criteria**

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### **Knowledge and understanding**

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

##### Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report

- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance
- Performance Criteria 3
- Selection of resources
- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome
- Performance Criteria 4
- Minimise the risk of damage
- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved
- Performance Criteria 5
- Meet the contract specification
- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out
- Performance Criteria 6
- Allocated time
- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

- Performance Criteria 1
- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out
- Performance Criteria 2
- 2 avoidance of risk by complying with the given information relating to at least four of the following
    - 2.1 methods of work
    - 2.2 safe use of health and safety control equipment
    - 2.3 safe use of access equipment
    - 2.4 safe use, storage and handling of materials, tools and equipment
    - 2.5 specific risks to health
- Performance Criteria 3
- 3 selection of resources associated with own work
    - 3.1 materials, components and fixings
    - 3.2 tools and equipment
    - 3.3 consumables
- Performance Criteria 4
- 4 protection of the work and its surrounding area from damage
  - 5 maintain a clear and tidy work space
  - 6 disposal of waste in accordance with current legislation
- Performance Criteria 5
- 7 demonstration of work skills to measure, mark out, position, secure, sever cut, drill and shape
  - 8 use and maintain hand tools, power tools and ancillary equipment
  - 9 select tools to cut, drill and shape at least four of the following materials to line or mark and given work instructions
    - 9.1 composites
    - 9.2 plastic
    - 9.3 masonry



<p>9.4 vitreous clay</p> <p>9.5 metal</p> <p>9.6 timber and timber based</p> <p>9.7 cementitious</p> <p>9.8 bituminous</p> <p>9.9 geotextiles</p> <p>Performance Criteria 6</p> <p>10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.</p>
<p><b>Additional information</b></p> <p><b>Scope/ range related to knowledge and understanding</b></p> <p>Disposal of waste</p> <p>1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance</p> <p>Emergencies</p> <p>2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with</p> <p>2.1 fires, spillages, injuries</p> <p>2.2 emergencies relating to occupational activities</p> <p>Hazards</p> <p>3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance</p> <p>Health and safety control equipment</p> <p>4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment</p> <p>4.1 collective protective measures</p> <p>4.2 local exhaust ventilation (LEV)</p> <p>4.3 personal protective equipment (PPE)</p> <p>4.4 respiratory protective equipment (RPE)</p> <p>Information</p> <p>5 drawings, specifications, schedules, method statements, risk assessments, permits, manufacturers' information, verbal, written and graphical instructions, official guidance associated with cutting, drilling and shaping construction materials</p> <p>Legislation and official guidance</p> <p>6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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</p> <p>Maintenance</p> <p>7 operative care of hand tools, power tools and ancillary equipment</p> <p>Methods of work</p> <p>8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to</p> <p>8.1 plan, mark and set out for cutting, severing, drilling and shaping</p> <p>8.2 conform to agreed specifications</p> <p>8.3 cut, drill, shape and prepare, composite, plastic, masonry, vitreous clay, metal, timber and timber based materials, concrete, bituminous materials and geotextiles for use</p> <p>8.4 operate specialist cutting, drilling and shaping equipment</p> <p>8.5 change cutting, drilling and shaping blades and bits</p> <p>8.6 suppress and control dust, fumes and debris</p> <p>8.7 monitor and check accuracy during progress and on completion of work</p>

- 8.8 recognise hazards not previously identified while cutting, drilling and shaping
- 8.9 recognise and determine when specialist skills and knowledge are required and report accordingly
- 8.10 use hand tools, power tools and equipment
- 8.11 work at height
- 8.12 use access equipment
- 9 team work and communication
- 10 needs of other occupations associated with cutting, drilling and shaping construction related materials
- Problems
- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
- 11.2 organisational reporting procedures
- Programme
- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 16.1 composites, plastic, masonry, vitreous clay, metal, timber, timber based products and cementitious materials
- 16.2 bituminous materials and geotextiles
- 16.3 jigs and clamps
- 16.4 blades and bits
- 16.5 hand tools, power tools and equipment
- 17 how to confirm resources and materials conform with the given specification
- 18 methods of calculating quantity, length, area and wastage associated with the method and procedure to cut, drill and shape construction related materials
- Security procedures
- 19 site, workplace, company and operative.

### **Behaviours**

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others.
- 4 Team work: work effectively and safely with others with limited supervision.
- 5 Independent working: take responsibility for safe completion of your own work.
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
- 7 Working effectively: undertake the work in a reliable, safe and productive manner.
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version number: 3  
Date approved: February 2016 Indicative review date: January 2021  
Validity: Current, Status: Original  
Originating organisation: ConstructionSkills, Original URN: VR361  
Relevant occupations: Elementary Construction Occupations  
Suite: Construction and Civil Engineering Operations

Key words: Composites; Masonry; Vitreous clay; Cementitious materials; Metal; Bituminous materials; Timber; Geotextiles.

## COSVR362

### Lay, place or apply construction related materials

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment. It is also about laying, placing or applying the following construction related materials: top soil or sub-soil, granular fill, concrete, cementitious, bituminous and geotextiles as an individual or team member. This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

##### Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

##### Safe work practices

K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied

K5 how emergencies should be responded to and who should respond

K6 the organisational security procedures for tools, equipment and personal belongings

K7 what the accident reporting procedures are and who is responsible for making the report

K8 why, when and how health and safety control equipment should be used

K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

##### Performance Criteria 3

##### Selection of resources

K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K11 how the resources should be used and how any problems associated with the resources are reported

K12 the organisational procedures to select resources, why they have been developed and how they are used

K13 the hazards associated with the resources and methods of work and how they are overcome

##### Performance Criteria 4

##### Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection  
 K15 why disposal of waste should be carried out safely and how it is achieved  
 Performance Criteria 5  
 Meet the contract specification  
 K16 how methods of work, to meet the specification, are carried out and problems reported  
 K17 how maintenance of tools and equipment is carried out  
 Performance Criteria 6  
 Allocated time  
 K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**  
**Scope/ range related to performance criteria**  
 Performance Criteria 1  
 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out  
 Performance Criteria 2  
 2 avoidance of risk by complying with the given information relating to at least four of the following 2.1 methods of work 2.2 safe use of health and safety control equipment 2.3 safe use of access equipment 2.4 safe use, storage and handling of materials, tools and equipment 2.5 specific risks to health  
 Performance Criteria 3  
 3 selection of resources associated with own work 3.1 materials, components and fixings 3.2 tools and equipment  
 Performance Criteria 4  
 4 protection of the work and its surrounding area from damage 5 maintain a clear and tidy work space  
 6 disposal of waste in accordance with current legislation  
 Performance Criteria 5  
 7 demonstration of work skills to set out, lay, compact, level and finish 8 use and maintain hand tools, power tools and equipment 9 lay, place or apply at least three of the following construction related materials by oneself or with others to given working instructions 9.1 top soil or subsoil 9.2 granular fill 9.3 cohesive fill 9.4 concrete 9.5 cementitious 9.6 bituminous 9.7 geotextiles  
 Performance Criteria 6  
 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

**Additional information**  
**Scope/ range related to knowledge and understanding**  
 Disposal of waste  
 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance  
 Emergencies  
 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 2.1 fires, spillages, injuries 2.2 emergencies relating to occupational activities  
 Hazards  
 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance  
 Health and safety control equipment  
 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment 4.1 collective protective measures 4.2 local exhaust ventilation (LEV) 4.3 personal protective equipment (PPE) 4.4 respiratory protective equipment (RPE)  
 Information

5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written, graphical instructions, current regulations and official guidance associated with laying, placing or applying construction related materials

Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

Maintenance

7 operative care of hand tools, power tools and equipment

Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to 8.1 plan, set out, lay, place, compact and finish soil and sub-soils, granular fill materials, cohesive fill materials, concrete, cementitious materials, bituminous materials and geotextiles 8.2 conform with agreed specifications 8.3 identify and confirm the protection of services 8.4 work with, around in close proximity to plant and machinery including lifting equipment 8.5 recognise types of material 8.6 identify methods of placement, laying and compaction for different materials 8.7 identify requirements for quality control including tests 8.8 recognise and determine when specialist skills and knowledge are required and report accordingly 8.9 identify protection criteria for completed work 8.10 protect cementitious materials during the curing process 8.11 monitor and check the accuracy during progress and on completion of work 8.12 use hand tools, power tools and equipment 8.13 work at height 8.14 use access equipment 9 team work and communication 10 needs of other occupations associated with laying, placing and applying construction related materials

Problems

11 those arising from information, resources and methods of work 11.1 own authority to rectify 11.2 organisational reporting procedures

Programme

12 types of productivity targets and time scales 13 how times are estimated 14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist 16.1 concrete, screeds, sub-base, aggregate, bituminous materials 16.2 hand tools, power tools and equipment 17 how to confirm resources and materials conform with the given specification 18 methods of calculating quantity, length, area, volume and wastage associated with the method and procedure to lay, place or apply construction related materials

Security procedures

18 site, workplace, company and operative

**Behaviours**

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others
- 4 Team work: work effectively and safely with others with limited supervision
- 5 Independent working: take responsibility for safe completion of your own work
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions
- 7 Working effectively: undertake the work in a reliable, safe and productive manner

8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe

9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version: 3

Date approved: February 2016 Indicative review date: January 2021

Validity: Current Status: Original

Originating organisation: ConstructionSkills Original URN: COSVR362

Relevant occupations: Occupations

Elementary Construction Occupations

Suite: Construction and Civil Engineering Operations

Key words: Concrete; Screeds; Sub-base; Cementitious materials; Bituminous materials; Geotextiles

## COSVR363

### Prepare and mix construction related materials

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment. It is also about preparing and mixing the following construction related materials: cementitious, plasters, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts and pre-mixed compounds as an individual or team member  
This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

P1 interpret the given information relating to the work and resources to confirm its relevance

P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices

P3 select the required quantity and quality of resources for the methods of work

P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

P5 comply with the given contract information to carry out the work efficiently to the required specification

P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied

K5 how emergencies should be responded to and who should respond

K6 the organisational security procedures for tools, equipment and personal belongings

K7 what the accident reporting procedures are and who is responsible for making the report

K8 why, when and how health and safety control equipment should be used

K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K11 how the resources should be used and how any problems associated with the resources are reported

K12 the organisational procedures to select resources, why they have been developed and how they are used

K13 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

### **Additional information**

#### **Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to at least four of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use, storage and handling of materials, tools and equipment

2.5 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work

3.1 materials

3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, gauge, stir, mix, agitate and blend

8 use and maintain hand tools, power tools and equipment

9 prepare at least two of the following materials for use to given working instructions

9.1 cementitious

9.2 plasters

9.3 resins

9.4 adhesives

9.5 bonding agents

9.6 colourings

9.7 waterproof coatings

9.8 grouts

9.9 pre-mixed compounds

Performance Criteria 6



10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Hazards

3 those identified by risk assessment, Control of Substances Hazardous to Health (COSHH) assessments, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 local exhaust ventilation (LEV)

4.3 personal protective equipment (PPE)

4.4 respiratory protective equipment (RPE)

Information

5 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

Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

Maintenance

7 operative care of hand tools, power tools and ancillary equipment

Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to

8.1 plan, set out and prepare cementitious materials, plasters, resins, adhesives, bonding agents, colourings, water-proof coatings, grouts and pre-mixed compounds for use

8.2 conform to agreed specifications

8.3 set up, prepare, conduct pre-start checks, start, operate, monitor the operation of and close down specialist mixing machinery and equipment

8.4 recognise types of materials and constituents

8.5 work with, around and in close proximity to plant or machinery and lifting equipment

8.6 monitor and check accuracy during progress and on completion of work

8.7 protect constituents and mixed materials

8.8 identify requirements for quality control including tests

8.9 recognise and determine when specialist skills and knowledge are required and report accordingly

8.10 use hand tools, power tools and equipment

8.11 use access equipment

8.12 team work and communication

8.13 needs of other occupations associated with preparing and mixing construction related materials

**Problems**

9 those arising from information, resources and methods of work

9.1 own authority to rectify

9.2 organisational reporting procedures

**Programme**

10 types of productivity targets and time scales

11 how times are estimated

12 organisational procedures for reporting circumstances which will affect the work programme

**Protect work**

13 protect work against damage from general workplace activities, other occupations and adverse weather conditions

**Resources**

14 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist

14.1 cementitious materials, plasters, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts, pre-mixed compounds

14.2 hand tools, power tools and equipment

15 how to confirm resources and materials conform with the given specification

16 methods of calculating quantity, length, area, volume and wastage associated with the method and procedure to prepare and mix construction related materials

**Security procedures**

17 site, workplace, company and operative.

**Behaviours**

When performing to this standard you are likely to demonstrate the following behaviours:

1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour

2 Effective communication: oral, written, electronic, listening, body language, presentation

3 Respect: apply equality, diversity and inclusion in dealing with others.

4 Team work: work effectively and safely with others with limited supervision.

5 Independent working: take responsibility for safe completion of your own work.

6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.

7 Working effectively: undertake the work in a reliable, safe and productive manner.

8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.

9 Adaptability: be able to adjust to changes to the work instructions, put safety first.

Developed by: ConstructionSkills Version number: 3

Date approved: February 2016 Indicative review date: January 2021

Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: COSVR363

Relevant occupations: Elementary Construction Occupations

Suite: Construction and Civil Engineering Operations

Key words: Cementitious; Plasters; Resins; Colourings; Bonding agents; Waterproofers; Grouting.

**COSVR391**

**Operate plant or machinery to receive and transport loads**

**Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and equipment for plant or machinery operations, setting up, operating and shutting down plant or machinery to receive and transport bulk material loads

This standard is for people working independently to operate plant or machinery that receives and transports bulk material loads and can be used by operatives, supervisors and managers.

**Performance criteria**

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work.

**Knowledge and understanding**

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 how emergencies should be responded to and who should respond
- K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K10 what the accident reporting procedures are and who is responsible for making the report
- K11 why, when and how health and safety control equipment should be used
- K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 4

Request resources

- K13 the organisational procedures for requisitioning consumables and other resources

Performance Criteria 5

Selection of resources

- K14 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K15 how the resources should be used and how any problems associated with the resources are reported
- K16 the organisational procedures to select resources, why they have been developed and how they are used
- K17 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 6

Minimise the risk of damage

- K18 how to protect work from damage and the purpose of protection

K19 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 7

Meet the contract specification

K20 how methods of work, to meet the specification, are carried out and problems reported

K21 how maintenance of plant and/or machinery, tools and equipment is carried out

Performance Criteria 8

Allocated time

K22 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments and manufacturers' information related to the plant or machinery operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to at least four of the following
  - 4.1 methods of work
  - 4.2 safe use of health and safety control equipment
  - 4.3 safe use and storage of plant or machinery
  - 4.4 safe use and storage of tools and equipment
  - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
  - 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 prevent damage and maintain a clean work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, adjust, communicate, manoeuvre, position, receive, transport and deposit
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 operate plant or machinery to receive and transport bulk material loads to given working instructions, relating to one of the following categories
  - 12.1 concrete pumps
  - 12.2 forward tipping dumpers
  - 12.3 tractors complete with towed equipment
  - 12.4 tunnelling plant and equipment
  - 12.5 dump trucks
  - 12.6 bowsers
  - 12.7 volumetric truck
- 13 shut down and secure plant or machinery

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

## **Additional information**

### **Scope/ range related to knowledge and understanding**

#### Communication

1 discussions, sketches, electronic data and briefings

#### Disposal of waste

2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

#### Emergencies

3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

3.1 fires, spillages, injuries

3.2 emergencies relating to occupational activities

#### Hazards

4 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

#### Health and safety control equipment

5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 local exhaust ventilation (LEV)

5.3 personal protective equipment (PPE)

5.4 respiratory protective equipment (RPE)

#### Information

6 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of plant and machinery to receive and transport loads

#### Legislation, Approved Codes of Practice and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

#### Maintenance

8 operative care of plant and machinery, hand tools and ancillary equipment

##### Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to

9.1 identify the characteristics of the plant and machinery used for the receipt and transportation operations

9.2 carry out function checks to receive and transport loads

9.3 identify characteristics, type and volume of loads to receive and transport

9.4 carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area

9.5 recognise and determine when specific skills and knowledge are required and report accordingly

9.6 receive, secure and balance loads for transport

9.7 transport and deposit loads

9.8 travel on public highways

9.9 shut down and secure plant and machinery

9.10 use hand tools, ancillary equipment and accessories

10 team work and communication

11 needs of other occupations associated with operating plant and machinery for receiving and transporting bulk material loads

#### Problems

12 those arising from information, resources and methods of work

12.1	own authority to rectify
12.2	organisational reporting procedures
Programme	
13	types of progress charts, timetables and estimated times
14	organisational procedures for reporting circumstances which will affect the work programme
Protect work	
15	protect work against damage from general workplace activities, other occupations and adverse weather conditions
Resources	
16	materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
16.1	consumables, lubricants, fuels
16.2	attachments and load coverings
16.3	hand tools, ancillary equipment and accessories
17	identify weight, quantity, pressure, length and area associated with the method/procedure to operate plant and machinery for receiving and transporting bulk material loads
Security procedures	
18	site, workplace, company and operative
Skills	
19	own occupation and occupations related to the work.
<p>Developed by: ConstructionSkills Version number: 2  Date approved: January 2014, Indicative review date: January 2018  Validity: Current, Status: Original  Originating organisation: ConstructionSkills, Original URN: VR391  Relevant occupations: Mobile Machine Drivers and Operatives  Suite: Plant Operations (Construction); Construction Operations and Civil Engineering Services; Demolition; Piling Operations (Construction); Site Logistics Operations (Construction); Sub-structure Work Occupations (Construction); Tunnelling Operations (Construction); Fencing  Key words: Concrete-pumps; Forward tipping dumpers; Tractors; Towed equipment; Tunnelling plant; Dump-trucks; Bowsers; Volumetric truck</p>	

<b>COSVR394</b>
<b>Operate plant or machinery to compact</b>
<p><b>Overview</b></p> <p>This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and equipment for plant or machinery operations, setting up, operating and shutting down plant or machinery for compaction work. This standard is for people working independently or as part of a team to operate plant or machinery to compact and can be used by operatives, supervisors and managers.</p>
<p><b>Performance criteria</b></p> <p>You must be able to:</p> <p>P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance</p> <p>P2 organise with others the sequence in which the work is to be carried out</p> <p>P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices</p> <p>P4 request resources to sustain plant or machinery operations to complete the programme of work</p> <p>P5 select plant or machinery resources for the methods of work and operations to be carried out</p> <p>P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area</p> <p>P7 comply with the given contract information to carry out the work efficiently to the required specification</p>

P8 complete the work within the allocated time, in accordance with the programme of work.

**Knowledge and understanding**

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to problems with the information and why it is important they are followed

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 how emergencies should be responded to and who should respond
- K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K10 what the accident reporting procedures are and who is responsible for making the report
- K11 why, when and how health and safety control equipment should be used
- K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 4

Request resources

- K13 the organisational procedures for requisitioning consumables and other resources

Performance Criteria 5

Selection of resources

- K14 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K15 how the resources should be used and how any problems associated with the resources are reported
- K16 the organisational procedures to select resources, why they have been developed and how they are used
- K17 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 6

Minimise the risk of damage

- K18 how to protect work from damage and the purpose of protection
- K19 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 7

Meet the contract specification

- K20 how methods of work, to meet the specification, are carried out and problems reported
- K21 how maintenance of plant and/or machinery, tools and equipment is carried out

Performance Criteria 8

Allocated time

- K22 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range related to performance criteria**

Performance Criteria 1



- 1 interpretation of drawings, specifications, schedules, risk assessments and manufacturers' information related to the plant or machinery operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to at least four of the following
  - 4.1 methods of work
  - 4.2 safe use of health and safety control equipment
  - 4.3 safe use and storage of plant or machinery
  - 4.4 safe use and storage of tools and equipment
  - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
  - 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 prevent damage and maintain a clean work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills check, adjust, communicate, manoeuvre, position and compact
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 operate plant or machinery for compaction to given working instructions, relating to one of the following categories
  - 12.1 ride on rollers
  - 12.2 compactors
- 13 shut down and secure plant or machinery

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

**Additional information**

**Scope/ range related to knowledge and understanding**

Communication

- 1 discussions, sketches, electronic data and briefings

Disposal of waste

- 2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
  - 3.1 fires, spillages, injuries
  - 3.2 emergencies relating to occupational activities

Hazards

- 4 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

- 5.1 collective protective measures
- 5.2 local exhaust ventilation (LEV)
- 5.3 personal protective equipment (PPE)
- 5.4 respiratory protective equipment (RPE)
- Information
- 6 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of plant and machinery for compaction work
- Legislation, Approved Codes of Practice and official guidance
- 7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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
- Maintenance
- 8 operative care of plant and machinery, hand tools and ancillary equipment
- Methods of work
- 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to
  - 9.1 identify the characteristics of the plant and machinery used for compaction operations
  - 9.2 carry out function checks for compaction operations
  - 9.3 identify with the area for the compaction work
  - 9.4 carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area
  - 9.5 identify geological, environmental and material changes and report
  - 9.6 check to avoid damage to structures and utilities service apparatus
  - 9.7 recognise different compaction methods
  - 9.8 recognise and work compaction patterns
  - 9.9 recognise and determine when specific skills and knowledge are required and report accordingly
  - 9.10 complete compaction work
  - 9.11 travel on public highways
  - 9.12 shut down and secure plant and machinery
  - 9.13 use hand tools, ancillary equipment and accessories
- 10 team work and communication
- 11 needs of other occupations associated with operating plant and machinery for compaction work
- Problems
- 12 those arising from information, resources and methods of work
  - 12.1 own authority to rectify
  - 12.2 organisational reporting procedures
- Programme
- 13 types of progress charts, timetables and estimated times
- 14 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
  - 16.1 consumables, lubricants, fuels
  - 16.2 attachments, compaction aids
  - 16.3 hand tools, ancillary equipment and accessories
- 17 identify weight, bearing, pressure, quantity, length and area associated with the method/procedure to operate plant and machinery to carry out compaction work

Security procedures  
18 site, workplace, company and operative  
Skills

19 own occupation and occupations related to the work.

Developed by: ConstructionSkills Version number: 2  
Date approved: January 2014 Indicative review date: January 2018

Validity: Current, Status: Original

Originating organisation: ConstructionSkills, Original URN: VR394

Relevant occupations: Mobile Machine Drivers and Operatives

Suite: Plant Operations (Construction); Construction Operations and Civil Engineering Services; Sub-structure  
Work Occupations (Construction)

Key words: Ride-on rollers; Compactors

## COSVR402

### Slinging and signalling the movement of suspended loads

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices and selecting components and equipment, preparing lifting accessories for slinging, attaching and securing loads and signalling the movement of suspended loads to guide them to an agreed destination and leaving the load in a safe condition. This standard is for people working independently or in a team to prepare and sling loads and signal movement to operators of plant or machinery that lift and transfer suspended loads. This standard can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 select plant or machinery resources for the methods of work and operations to be carried out
- P5 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P6 comply with the given contract information to carry out the work efficiently to the required specification
- P7 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

##### Performance Criteria 1

Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

##### Performance Criteria 2

Organise with others

K4 communication of ideas between team members

K5 organisation of resources in conjunction with the progress of work

K6 the skills required to carry out the work

##### Performance Criteria 3

Safe work practices

K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied

K8 how emergencies should be responded to and who should respond  
K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings  
K10 what the accident reporting procedures are and who is responsible for making the report  
K11 why, when and how health and safety control equipment should be used  
K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance  
Performance Criteria 4  
Selection of resources  
K13 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified  
K14 how the resources should be used and how any problems associated with the resources are reported  
K15 the organisational procedures to select resources, why they have been developed and how they are used  
K16 the hazards associated with the resources and methods of work and how they are overcome  
Performance Criteria 5  
Minimise the risk of damage  
K17 how to protect work from damage and the purpose of protection  
K18 why disposal of waste should be carried out safely and how it is achieved  
Performance Criteria 6  
Meet the contract specification  
K19 how methods of work, to meet the specification, are carried out and problems reported  
K20 how maintenance of plant and/or machinery, tools and equipment is carried out  
Performance Criteria 7  
Allocated time  
K21 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

**Additional information**

**Scope/ range relating to performance criteria**

Performance Criteria 1  
1 interpretation of drawings, specifications, schedules, risk assessments, method statements (lift plans), and manufacturers' information related to the plant or machinery operations and the work to be carried out  
Performance Criteria 2  
2 organisation of own work  
3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out  
Performance Criteria 3  
4 avoidance of risk by complying with the given safety information relating to at least five of the following  
4.1 methods of work  
4.2 safe use of health and safety control measures  
4.3 safe use and storage of tools and equipment  
4.4 safe use, storage and handling of lifting accessories  
4.5 safe use of access equipment  
4.6 specific risks to health  
Performance Criteria 4  
5 selection of resources associated with own work  
5.1 lifting accessories, lifting aids, hand tools and ancillary equipment  
5.2 signalling and communication equipment  
Performance Criteria 5  
6 protection of the work and its surrounding area from damage  
7 prevent damage and maintain a clean work space  
8 disposal of waste in accordance with current legislation

#### Performance Criteria 6

9 demonstration of work skills to measure, gauge, estimate, calculate, fit, fix, test, balance, interpret, inspect, judge, explain, prepare, indicate, inform, instruct, sign, position, adjust, configure, move, secure, signal and relay

10 use and maintain lifting accessories, lifting aids and signalling and communication equipment

11 inspect and prepare lifting accessories prior to slinging

12 sling and signal for the lifting and movement of loads by plant or machinery operations to given working instruction, either by occupation specific slinging and signalling – at least three of the following, or by slinging and signalling as an occupation – all of the following

12.1 balance

12.2 unbalanced

12.3 loose

12.4 bundled

12.5 container

12.6 drum

12.7 a load where the machine operator cannot observe its full movement path

13 guide, move and place suspended loads to agreed destinations to given working instructions using hand signals, plus, for slinging and signalling as an occupation, the following methods

13.1 hand signalling equipment

13.2 electronic communication equipment

#### Performance Criteria 7

14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

#### **Scope/ range relating to knowledge and understanding**

##### Communication

1 discussions, sketches, electronic data and briefings, signalling and radio communication

##### Disposal of waste

2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

##### Emergencies

3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

3.1 fires, spillages, injuries

3.2 emergencies relating to occupational activities

##### Hazards

4 those identified by risk/COSHH assessments, method of work, manufacturers' technical information, statutory regulations and official guidance

##### Health and safety control equipment

1 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

1.1 collective protective measures

1.2 local exhaust ventilation (LEV)

1.3 personal protective equipment (PPE)

1.4 respiratory protective equipment (RPE)

##### Information

2 drawings, specifications, schedules, method statements, risk assessments, lift plans, work instructions, manufacturers' information, approved procedures and Codes of Practice

Legislation, Approved Codes of Practice and official guidance

3 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

Maintenance

4 operative care of lifting accessories, lifting aids and signalling and communication equipment

Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to

9.1 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

9.2 confirm the authority, duties and responsibilities allocated

9.3 identify characteristics of lifting equipment and lifting accessories

9.4 identify and interpret valid certification for maintenance, inspection and thorough examination

9.5 lift and transfer people

9.6 sling, balanced, unbalanced, loose, live, bundled, container drum loads and loads that are blind to the equipment operator

9.7 communicate using hand signals, hand signalling equipment (lights, wands, fluorescent gloves, flags) and electronic communication equipment (loud hailers, radios)

9.8 confirm methods of communication

9.9 recognise blind-spots, potential crush zones and other limitations to driver visibility

9.10 consider the load characteristics including centre of gravity and lifting points to determine the method of slinging

9.11 determine and check the route of the load before and during the lift including distances, clearances and landing position

9.12 select, handle, inspect and use (assemble, set up and adjust) lifting accessories and aids

9.13 identify rejection criteria for removing lifting accessories from service

9.14 recognise and determine when specific skills and knowledge are required and report accordingly

9.15 attach lifting accessories and sling loads securely

9.16 ensure balance and stability of loads

9.17 attach and use load guidance equipment (tag lines)

9.18 guide and place suspended loads by recognised methods of communication and agreed operational procedures

9.19 land and position loads safely and securely

9.20 remove, disassemble and store lifting accessories

9.21 use hand tools and ancillary equipment

10 team work and communication

11 needs of other occupations associated with slinging and signalling the movement of suspended loads

Problems

12 those arising from information, resources and methods of work

12.1 own authority to rectify

12.2 organisational reporting procedures

Programme

13 types of progress charts, timetables and estimated times

14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist

16.1 lifting accessories

- 16.2 signalling and communication equipment
- 16.3 hand tools and ancillary equipment
- 17 identify weight, quantity, length and area associated with the method/procedure for slinging and signalling the movement of suspended loads
- Security procedures
- 18 site, workplace, company and operative
- Skills
- 19 own occupation and occupations related to the work.

Developed by: ConstructionSkills Version: 2  
 Date approved: July 2014 Indicative review date: July 2019  
 Validity: Current Status: Original

Originating organisation: ConstructionSkills Original URN: VR402  
 Relevant occupations: Mobile Machine Drivers and Operatives

Suite: Controlling Lifting Operations; Accessing Operations and Rigging (Construction); Cladding Occupations (Construction); Construction Diving Operations; Construction Operations and Civil Engineering Services; Demolition; Drilling Operations; Erection of Precast Concrete (Construction); Formwork (Construction); Innovative/Modern Methods of Construction; Mastic Asphaltting (Construction); Piling Operations (Construction); Plant Installation (Construction); Plant Operations (Construction); Removal of Hazardous and Non-hazardous waste (Construction); Site Logistics (Construction); Specialist Concrete Operations (Construction); Specialist Installation Occupations (Construction); Steelfixing (Construction); Stonemasonry (Construction); Sub-structure Work Occupations (Construction); Super-structure Work Occupations (Construction); Temporary Traffic Management (Construction); Thermal Insulation (Construction); Tunnelling Operations (Construction); Wall and Floor Tiling (Construction); Wood Occupations (Construction)

Key words: Radio communication; Lifting equipment; Lifting aids, Signalling and communication equipment; Hand signalling equipment.

## COSVR763

### Install, construct, maintain, dismantle and remove temporary works

#### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment for installing, constructing, maintaining and dismantling temporary works

This standard is for people involved in temporary works activities working in construction and can be used by operatives, supervisors and managers.

#### Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work.

#### Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted



K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied

K5 how emergencies should be responded to and who should respond

K6 the organisational security procedures for tools, equipment and personal belongings

K7 what the accident reporting procedures are and who is responsible for making the report

K8 why, when and how health and safety control equipment should be used

K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K11 how the resources should be used and how any problems associated with the resources are reported

K12 the organisational procedures to select resources, why they have been developed and how they are used

K13 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept.

### **Additional information**

#### **Scope/ range**

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following 2.1 methods of work 2.2 safe use of health and safety control equipment 2.3 safe use of access equipment 2.4 safe use, storage and handling of materials, tools and equipment 2.5 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work 3.1 materials, components and fixings 3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage 5 maintain a clean and tidy work space 6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to measure, mark out, align, alter, assemble, build, erect, lay, level, plumb, install, check, monitor, adjust, reinforce, fit, fix, position, secure, dismantle and remove 8 use and maintain hand tools, portable power tools and ancillary equipment 9 Install, construct, maintain, dismantle and remove to given working instructions for at least four of the following as temporary works to allow or enable

permanent construction 9.1 protective screens, hoardings and covers 9.2 access and egress routes 9.3 supports 9.4 supporting structures 9.5 removal equipment 9.6 diverting equipment 9.7 site facilities 9.8 stabilisation

Performance Criteria 6

10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client.

### **Scope/ range relating to knowledge and understanding**

to knowledge and understanding

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 2.1 fires, spillages, injuries 2.2 emergencies relating to occupational activities

Hazards 3

those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment 4.1 collective protective measures 4.2 local exhaust ventilation (LEV) 4.3 personal protective equipment (PPE) 4.4 respiratory protective equipment (RPE)

Information

5 drawings, specifications, schedules, method statements, risk assessments, electronic data, written and verbal instructions, permits, manufacturers' information and current regulations governing buildings, structures and official guidance associated with installation, construction, maintenance, dismantling and removal of temporary works

Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working 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

Maintenance

7 operative care of hand tools, portable power tools and ancillary equipment

Methods of work 8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to 8.1 identify agreed quality requirements 8.2 conform to agreed specification 8.3 identify the roles of the temporary works supervisor and the temporary work co-ordinator 8.4 recognise the characteristics, critical factors of temporary works and interface with existing structures and permanent work 8.5 identify temporary works control mechanisms 8.6 check resources for type, quantity and damage and report discrepancies 8.7 install, construct, maintain, dismantle and remove protective screens, hoardings and covers in order to restrict access and maintain the integrity of the protected items 8.8 install, construct, maintain, dismantle and remove access and egress routes, new and alterations to existing routes including pedestrian routes, vehicle routes, bridges, decks, openings, stairs, ramps, passing and parking places 8.9 assemble, build, align, erect, install, construct, dismantle and remove load bearing supports 8.10 assemble, build, align, erect, install, construct, dismantle and remove supports that hold in position, including formwork, falsework and excavation support systems 8.11 identify the criteria, characteristics and differences between proprietary and bespoke support systems

8.12 check and maintain supporting structures including scaffolding, formwork, falsework, props, excavation support and dewatering systems 8.13 check condition, support and protection of utilities 8.14 recognise the checking, inspection, examination and certification criteria for temporary works 8.15 install removal equipment including gantries, hoists, skips, chutes, conveyors, vacuums, pumps and pipework 8.16 maintain

removal and diverting equipment, including alterations by reinforcement 8.17 recognise the criteria for disconnecting, protecting and reconnecting utilities 8.18 fit, fix, position, align, secure, dismantle and remove supports and carriage systems, underground and overhead, to divert utility carrying equipment including electric, communications, water (foul, surface and fresh), gas and air 8.19 work with, around and in close proximity to plant and machinery 8.20 recognise the criteria for directing and guiding the movement and operations of vehicles, plant and machinery 8.21 measure, mark out, transfer, set out and maintain lines, plumbs and levels 8.22 monitor wear and tear on temporary works and report 8.23 recognise and determine when additional specialist skills and knowledge are required and report accordingly 8.24 determine specific requirements for structures of special interest, traditional build (pre 1919) and historical significance 8.25 use hand tools, portable power tools and equipment 8.26 work at height 8.27 use access equipment 9 team work and communication 10 needs of other occupations associated with the installation, construction, maintenance, dismantling and removing of temporary works

Problems 11 those arising from information, resources and methods of work 11.1 own authority to rectify 11.2 organisational reporting procedures

Programme

12 types of progress charts, timetables and estimated times 13 organisational procedures for reporting circumstances which will affect the work programme

Protect work

14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources 1

5 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and, or specialist 15.1 protective measures 15.2 materials 15.3 supports 15.4 components, fittings and fixings 15.5 hand tools, portable power tools and equipment 16 identify quantity, length, area, volume and wastage associated with the method, procedure to install, construct, maintain, dismantle and remove temporary works

Security procedures

17 site, workplace, company and operative.

**Glossary**

Definition supplied by the British Standards Institute BS5975; 'parts of the works that allow or enable construction of, protect, support or provide access to, the permanent works and which might or might not remain in place at the completion of the works.' Note: examples of temporary works are structures, supports, back-propping, earthworks and accesses.

Examples

Protective screens and covers – hoardings, facades. Access and egress routes – new and alterations to existing routes including pedestrian routes, vehicle routes, bridges, decks, openings, stairs, ramps, passing and parking places. Supports – that bear loads, to hold in position, to divert, to retain. Supporting structures – scaffolding, formwork, falsework, props, excavation supports and dewatering systems. Removal equipment – gantries, hoists, skips chutes, conveyors, vacuums, pumps, pipework. Diverting equipment – electric, communications, water (foul, surface and fresh), gas and air. Site facilities – cabins, shelters, welfare facilities. Stabilisation – piles, grouting, soil stabilisation.

Developed by: ConstructionSkills Version: 1  
 Date approved: January 2015 Indicative review date: January 2019  
 Validity: Current Status: Original  
 Originating organisation: ConstructionSkills Original URN: COSVR763  
 Relevant occupations: Construction Operatives  
 Suite: Sub-structure Work Occupations (Construction)  
 Key words: Protective screens and covers; Access and egress routes; Supports; Supporting structures; Removal equipment; Diverting equipment; Site facilities; Stabilisation.

## APPENDIX 3 - ASSESSMENT TEMPLATE DOCUMENTS

### 3A: Sample Form Assessment plan and review

Candidate name:	
Employer/location:	Date:
Qualification:	
Unit(s):	
Elements:	
Assessor:	
Period of Review: <small>(should not normally exceed 12 weeks)</small>	Proposed Date for next review:

**Part 1 – Activities / Tasks / Learning / Training** undertaken since last review:

**Part 2a – ‘Progress to date’** specifying units/elements/modules achieved to date (the progress recorded **must** tie in with the associated ‘**Summary of Achievement Record**’):

**Part 2b** – Identified **barriers** to progress (please detail here any issues relating to the programme delivery, which have impacted negatively on progress e.g. attendance times, learning difficulties, suitability of training/learning materials, physical barriers to participation, health issues, attitude etc):

\*

**Part 2c** – Solutions proposed to address the above barriers:

<p><b>Part 3</b> – Agreed '<b>assessment planning</b>' &amp; action required for the next review (<u>proposed methods of evidence collection must be recorded &amp; proposed assessment methods must be selected</u>):</p> <p><i><b>N.B.</b> Methods of evidence collection may include: either hard copy records or electronic records such as audio recordings, scanned documents, photographs etc.</i></p>	Element:						
	Proposed Assessment Methods/Sources of Evidence:						
CrossRef	RPL	OBS	Questioning	PS	WR	D	WT

<p style="text-align: center;"><b>Key: Assessment Methods/Sources of Evidence</b></p> <p><b>CrossRef</b> = Cross Referencing    <b>RPL</b>= Recognition of Prior Learning  <b>OBS</b> = Observation                    <b>PS</b> = Personal Statement  <b>WR</b> = Work Record                    <b>D</b> = Discussion  <b>WT</b>= Witness Testimony</p>								

<p><b>Part 4</b> – Additional comments / issues (e.g. health &amp; safety issues):</p>
<p><b>Part 5</b> – Candidate comments/feedback/evaluation:</p>
<p><b>Part 6</b> – Employer comments on progression and achievement noted in <b>Part 2a</b>:</p>



**Part 7** – Assessor Feedback/Assessment Judgements/Decisions/Outcome

Candidate Signature: ..... Date: .....

Assessor Signature: ..... Date: .....

Employer Signature (where present): ..... Date: .....

Employer Name and position: .....

**3B: Sample Form  
Assessor report**

<b>Qualification:</b>	
<b>Candidate:</b>	
<b>Assessor:</b>	
<b>Date:</b>	
<b>Unit/ element:</b>	
<b>Location/ circumstance:</b>	
<b>Details of observation/ question/ answers/ discussion</b>	<b>Ref</b>
<b>Details of observation/ question/ answers/ discussion</b>	<b>Ref</b>



<b>Details of observation/ question/ answers/ discussion</b>	<b>Ref</b>
<b>Assessors comments</b> (state whether candidate is competent)	
<b>Assessor signature</b>	
<b>Candidate signature</b>	

### 3C: Sample Form Witness testimony

Qualification: .....

Unit: .....

Element(s): .....

Candidate Name: .....

Witness Name: .....

Witness Contact Details: .....

.....

Describe your construction and any assessment qualifications/ experience:

.....



Describe your relationship with the candidate:

Date of evidence: .....

**Testimony and comment on candidate’s performance**

Witness Signature & Date: .....

Candidate Signature & Date: .....

Assessor Signature & Date: .....

**3D: Sample Form  
Candidate personal statement**

**Qualification:**

**Candidate name:**

Element(s)	Date	Statement / evidence

Candidate's signature:		
Assessor's signature:		
Date:		

## APPENDIX 4 - ASSESSOR TEMPLATE DOCUMENTS

<b>4A: Sample Form</b>										
<b>Element achievement record</b>										
<b>Candidate name:</b>										
<b>Qualification:</b>										
<b>Unit title:</b>										
<b>Element(s):</b>										
<b>Assessor:</b>										
Evidence ref:	Evidence description *	Location **	Performance criteria				Knowledge and understanding			





Candidate name	Candidate signature	Date
I confirm that I have internally verified this unit and confirm that the candidate is competent (this section must be completed where the assessor is unqualified)		
IV name	IV signature	Date

## APPENDIX 5 - INTERNAL VERIFIER TEMPLATE DOCUMENTS

### 5A: Sample Internal Verification Strategy

This document indicates what may be covered as part of an internal verifier's strategy. An effective internal verification strategy ensures:

- A forum for discussion of borderline cases
- Assessor networking and sharing of good practice
- Valid, reliable and consistent training and/or assessment
- Recorded assessment decisions which are appropriate, consistent, fair, transparent and equitable
- Clarity for candidates about assessment requirements
- Effective preparation and presentation for external verification
- Reduction in level of direct external verification scrutiny

To underpin the IV/ verification process a plan of internal activity should be developed indicating



- what will happen
- when it will happen
- who will be involved

New instructors/assessors must:

- a) be supplied with assessment and materials
- b) clearly understand assessment requirements and procedures

All assessors must:

- a) know the name of the person who will manage the IV process and the name of the IV
- b) know how IV/ verification will happen, when it will happen and who will be involved
- c) be informed about issues raised through previous internal and external quality assurance

### **On Course Monitoring**

The IV should:

- a) Sample assessments to ensure that:
  - feedback to candidates is clear and constructive
  - teaching and assessment activities are standard and appropriate
  - assessment decisions are fair and consistent
  - teaching and assessment records are clear
- b) Undertake standardisation activities
- c) Ensure candidates understand assessment requirements
- d) Provide advice and support for Assessors and share good practice
- e) Identify good assessment practice
- f) Record internal verification activities and findings, list action points and report to instructors/assessors and the EV
- g) Liaise with the EV as necessary

### **End of Course Checking**

The IV should:

- a) monitor progress against previous action points
- b) ensure assessment records are complete and accurate
- c) ensure evidence of achievement is appropriate and standardised
- d) record internal verification activities and findings, list action points, and report these to assessors and the EV

### **Guidance on Sampling and Record Keeping**

#### **What do IVs/IVs sample and why?**



IVs are responsible for monitoring the quality of assessment, hence the need for them to sample assessment practices and decisions. It is not usually possible or necessary to verify every aspect of assessment at each internal verification. A properly selected representative sample should identify any issues with assessment practices and decisions.

### **Selecting a sample**

To select a representative sample, IVs must take account of factors which may impact on the quality of assessment. These factors are used to define a sampling strategy that determines the size of the sample and enables judgements to be made.

Key factors to consider are:

- Sites of delivery
- Number and experience of Assessors
- Number of courses/assessments
- Previous IV actions/recommendations
- Assessment methods
- Special arrangements
- EV recommendations
- Borderline cases
- Anything else that you think might impact on assessment decisions

The sample should include an element of random selection by the IV. It is not necessary to sample across every aspect of the programme at each event but the plan should seek to cover everything over a period of time, e.g. 3 years.

### **Which records should be kept?**

Records of internal quality assurance/ verification must be kept and made available to the EV during monitoring visits. These should demonstrate that the internal verification procedures have been carried out. IVs should record two sets of information:

1. The sample taken by the IV
2. The comments and feedback to the Assessor following the sampling exercise, showing any recommendations or action required and how this was resolved.

There is a sample form shown below that you may use or adapt to suit your own requirement.



**5B: Sample Form**  
**Internal verification - sampling assessment decisions**

**Unit/qualification:**

**Location:**

**Assessor name:**



Candidate Name	Sampling element <sup>1</sup>	Was the assessment method appropriate?	Is there sufficient evidence that outcomes have been met?	Is the evidence appropriate for the level?	Comments
<b>Comments</b>					

**Signed:** (IV) **Date:**

**Signed:** (Assessor) **Date:**

**5C: Sample Form  
Internal verification – observation of assessors**

Internal Verifier's Name: .....

Assessor's Name: .....

<sup>1</sup> Was this a learning outcome across candidates, or a whole unit or one method of assessment?

Candidate's Name: .....

Qualification Title: .....

Unit Assessed: .....

Element Assessed: .....

Date of Observation: .....

Location of Assessment: .....

<b>Prior to the assessment had the Assessor:</b>	<b>Yes</b>	<b>No</b>	<b>Comments:</b>
Developed a written Assessment Plan for the candidate			
Checked that the facilities, resources and information required for the assessment were available and ready for use			
Briefed the candidate on how the assessment would take place and what would be assessed			
<b>During the assessment did the Assessor:</b>	<b>Yes</b>	<b>No</b>	<b>Comments:</b>
Conduct the assessment unobtrusively without interfering with the candidate's performance			

Encourage the candidate to satisfy the specified Assessment Criteria			
Ask questions clearly in an encouraging tone and manner without leading the candidate			
Ensure that sufficient questions were asked and that they were justifiable and relevant to the Unit assessed			

<b>During the assessment did the Assessor (continued):</b>	<b>Yes</b>	<b>No</b>	<b>Comments:</b>
Ensure that the atmosphere created during the assessment was pleasant and conducive			
Clarify and resolve any concerns that the candidate had during the assessment			
Clearly inform the candidate of the assessment decision i.e. 'achieved' or 'requires further practice'			
<b>After the assessment did the Assessor:</b>	<b>Yes</b>	<b>No</b>	<b>Comments:</b>
Provide feedback that was clear, constructive, met the candidate's needs and was appropriate to his/her level of confidence			
Encourage the candidate to comment on the assessment			



decision and how he/she was assessed			
Complete the Unit assessment documentation and ensure it was fully signed and dated			
<b>Overall feedback to Assessor:</b>			
<b>Assessor's comments on the IV's feedback:</b>			

Assessor's Signature: .....

Date:.....

Internal Verifier's Signature: .....

Date:.....