

COSVR202 – SQA Unit Code HP7P 04

Erect complex stonemasonry structures



Overview

This standard is about

- 1 interpreting information
- 2 adopting safe and healthy working practices
- 3 selecting materials, components and equipment
- 4 preparing and erecting complex stonemasonry structures with prepared stonemasonry components

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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

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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

You need to know and understand:

- 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

You need to know and understand:

- 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

You need to know and understand:

- 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

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You need to know and understand:

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

You need to know and understand:

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

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Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules and risk assessments related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by following 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 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
- 6 disposal of waste in accordance with legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, check, plumb, level, mark out, fit, cut, drill, lift, position and secure
- 8 use and maintain hand tools and/or portable power tools and ancillary equipment
- 9 erect complex natural stone structures using prepared stonemasonry components to given working instructions for at least five of the following
 - 9.1 straight walling, returns and rakes
 - 9.2 curved, splayed and angled walls
 - 9.3 centring, props and struts
 - 9.4 openings
 - 9.5 arches
 - 9.6 tracery
 - 9.7 projecting courses
 - 9.8 pilasters and/or buttresses
 - 9.9 joint finishes

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time

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Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, technical 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, occupational injuries

Hazards

- 3 those identified by risk assessment, method of work, 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, technical information and appropriate regulations

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/or portable power tools and ancillary equipment

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Methods of work

- 8 application of knowledge for safe work practices, procedures and skills, relating to the method/area of work and materials used, to
 - 8.1 check safety and configuration of scaffolding
 - 8.2 lift, position and lay prepared basic and complex stone components
 - 8.3 carry out overhand work
 - 8.4 cut, drill and fix retention and load bearing fixings
 - 8.5 erect straight, curved, raked and angled structures
 - 8.6 form openings and arches
 - 8.7 install projecting courses
 - 8.8 install temporary centring, props and struts
 - 8.9 form pilasters and/or buttresses
 - 8.10 select and mix mortars
 - 8.11 form joint finishes
 - 8.12 install damp-proof courses, expansion and compression joints
 - 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 erecting complex stonemasonry 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 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

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Resources

- 15 materials, components and equipment relating to types, quantity, quality, sizes and sustainability of standard and/or specialist
 - 15.1 prepared complex stone components
 - 15.2 fine aggregates, cement, lime, additives
 - 15.3 damp-proof membranes, expansion and compression joints
 - 15.4 frames, lintels, insulation
 - 15.5 centres, props and struts
 - 15.6 retention and load bearing fixings
 - 15.7 hand and/or powered tools and equipment and mechanical lifting equipment (slings/lewis pins)
- 16 methods of calculating quantity, length, area, volume and wastage associated with the method/procedure to erect complex stonemasonry structures

Security procedures

- 17 site, workplace, company and operative

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