

Unit 9: Trowel Skills for Setting Out Masonry Structures

Unit code: T/503/4939

QCF Level: 2

Credit value: 10

Guided learning hours: 100

Unit aim and purpose

This unit should develop learners' understanding of the tools, equipment and working techniques used to perform trowel occupations in setting out masonry structures.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

| Learning outcomes | Assessment criteria |
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| 1 Know the processes involved with setting out masonry structures | 1.1 describe organisational procedures associated with current legislation and official industry guidance 1.2 describe how to minimise damage whilst setting out masonry structures 1.3 list methods of disposal of waste in accordance with legislation and best practice 1.4 describe how checks, appropriate to a setting out activity are carried out |
| 2 Be able to interpret and comply with information relevant to the setting out of masonry structures | 2.1 interpret information to establish requirements for masonry structures 2.2 explain how to comply with information relating to setting out activities 2.3 carry out calculations relevant to the masonry activity to ascertain resources and materials required |

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| | for a contractor specification |
| 3. Be able to set out domestic masonry structures to required specification | <p>3.1 prepare construction sites for setting out activities</p> <p>3.2 explain considerations that must be given to existing services</p> <p>3.3 select resources for setting out work</p> <p>3.4 set out masonry structures according to requirements</p> |

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THIS IS AN ACCREDITED SPECIFICATION AND CAN BE USED FOR TEACHING AND ASSESSMENT

Unit content

1 Know the processes involved with setting out masonry structures

Procedures: for implementation of organisational responsibilities under current legislation and official industry guidance; organisational procedures for reporting incidents (accidents, incorrect information, defective equipment)

Minimise damage whilst setting out masonry structures: protecting work, resources and surrounding areas from damage; ensuring a clean and tidy work area; associated health and safety issues

Methods of disposal of waste: legal considerations; best practices; minimising the creation of waste; costs of disposal

Checks: setting up of instruments; tests for accuracy eg the two peg test; calibration of instruments to correct any inaccuracies; methods for making adjustments to levels to accommodate any inaccuracies in levelling and booking processes

2 Be able to interpret and comply with information relevant to the setting out of masonry structures

Information: drawings; specifications; schedules

Types of drawings and conventions commonly used in masonry: what they are; usage; scales (1:2500, 1:1250, 1:100, 1:50, 1:20, 1:10, 1:5, 1:2); relationship to each drawing; types (location, assembly, component drawings, site plan, block plan, floor plans, elevations, sections, orthographic projection (first angle), and isometric projection); methods for using, reading and obtaining measurements from drawings; issues associated with scaling off drawings eg lack of accuracy; methods to overcome these; datum (setting out work on site, purpose, useage, location, protection)

Interpret drawings: location, shape and size of the masonry structure to be set out; drawings (block plans, site plans, general location, assembly, sectional, details, orthographic projection (first angle), isometric projection)

Specifications and schedules: conformity of the details and setting out information; compliance with relevant Building Regulations (Approved Documents), Local Authority Requirements (location of building line), British Standard specifications/codes of practice, manufacturers information (catalogues, data/information sheets), Ordnance Survey Bench Marks (OSBM), Temporary Bench Marks (TBM), datum and site datum

Discrepancies in information: reporting procedures

Calculations: quantities required of building materials and resources associated with build method; minimisation of waste; budget; length; area; volume; mixing proportions

3. Be able to set out domestic masonry structures to required specification

Preparing construction sites: site planning; positioning of profiles and datum; removal of obstacles on site; hedges and trees; flat and sloping sites; demolition; site clearance; masonry line and level

Considerations of existing services: location and locating; isolation, diversion and reinstatement; services (gas, electricity, water, telephone, electrical cable, drainage); health and safety considerations associated with each service; reclamation of materials (what materials can be reclaimed, the importance of reclamation)

Resources required to carry out setting out work: ordnance survey map; site plan; block plan; working drawing; compass; ranging lines; builders square; profiles; measuring tapes; water level; spirit level; straight edge; optical squaring equipment; optical laser level; optical level; builders square; hand tools (hammers, saws)

Position of line and datum: the site datum(s) and temporary bench mark; calculations for setting out activities (materials by volume, areas, perimeter, quantities, costs, percentage for wastage/bulking, mid-girth); measuring skills to set out and check dimensions; formulae for setting out calculations (angles, perimeters, areas, diagonals, volumes)

Setting out activities: line; level; squareness

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