



## National Unit Specification: general information

**UNIT**      Bricklaying: Openings in Walls (SCQF level 6)

**CODE**      F6MM 12

### SUMMARY

This Unit is suitable for candidates working towards a Modern Apprenticeship in Bricklaying and will develop the candidates craft skills in setting out and forming openings in walls. This Unit is designed to provide candidates with competence in the use of tools and equipment to set out and form openings in walls and the ability to apply these skills in the workplace. It is also designed to enable candidates to develop their understanding and use of bricklaying terminology, components, techniques and practices to set out and form openings in walls.

### OUTCOMES

- 1 Demonstrate knowledge and understanding of terminology, components and construction practices used in setting out and forming openings in walls.
- 2 Set out and build a cavity wall to include a door and window opening.
- 3 Set out and build a cavity wall to include an opening bridged with a semi circular arch.

### RECOMMENDED ENTRY

While entry to this Unit is at the discretion of the centre, candidates undertaking the Professional Development Award in Bricklaying at SCQF level 6 must meet the requirements of the Modern Apprentices which include being employed in the relevant craft industry.

### CREDIT VALUE

2 credits at Higher (12 SCQF credit points at SCQF level 6\*).

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

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#### Administrative Information

**Superclass:**      TG

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## **National Unit Specification: general information (cont)**

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### **CORE SKILLS**

There is no automatic certification of Core Skills or Core Skill components in this Unit. Opportunities for developing aspects of the following Core Skills are highlighted in Support Notes of this Unit.

- ◆ Problem Solving at SCQF level 4
- ◆ Working with others at SCQF level 4
- ◆ ICT at SCQF level 3
- ◆ Numeracy at SCQF level 4
- ◆ Communications at SCQF level 4

## **National Unit Specification: statement of standards**

### **UNIT      Bricklaying: Openings in Walls (SCQF level 6)**

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

#### **OUTCOME 1**

Demonstrate knowledge and understanding of terminology, components and construction practices used in setting out and forming openings in walls.

##### **Performance Criteria**

- (a) Identify and select terminology related to forming openings in walls correctly.
- (b) Identify and select setting out techniques correctly.
- (c) Identify and select components and construction practices correctly.

#### **OUTCOME 2**

Set out and build a cavity wall to include a door and window opening.

##### **Performance Criteria**

- (a) Set out wall and opening in accordance with the given specifications.
- (b) Build wall and form openings in accordance with the given specifications including horizontal reinforcement.
- (c) Comply with current Health and Safety requirements during all work methods and activities.

#### **OUTCOME 3**

Set out and build a cavity wall to include an opening bridged with a semi circular arch.

##### **Performance Criteria**

- (a) Set out opening in cavity wall in accordance with the given specifications.
- (b) Build cavity wall and form opening in accordance with the given specifications.
- (c) Bridge opening using an arch former.
- (d) Comply with current Health and Safety requirements during all work methods and activities.

## National Unit Specification: statement of standards (cont)

### UNIT      Bricklaying: Openings in Walls (SCQF level 6)

#### EVIDENCE REQUIREMENTS FOR THIS UNIT

These Evidence Requirements will be met by the completion of the Bricklaying Training and Assessment Programme (TAP).

Evidence is required to demonstrate that the candidate has achieved this Unit to the standard specified in all Outcomes and Performance Criteria.

Written and/or oral recorded evidence is required to demonstrate that the candidate has achieved Outcome 1 to the standard specified in the Performance Criteria. Candidates will be required to demonstrate their knowledge of terminology, components, techniques and practices by defining terms, describing setting out techniques and identifying required components and construction practices. This assessment will take the form of a question paper and will be conducted under controlled, closed-book supervised conditions.

Product and performance evidence is required to demonstrate that the candidate has achieved Outcomes 2 and 3 to the standards specified in the Performance Criteria. Candidates will be required to build a cavity wall to include forming a door and window opening and cavity to include the formation and bridging of an opening. Assessment of these Outcomes will be evidenced through observation of work processes and assessment of the completed workpieces. Candidates must meet the given standards and tolerances during the practical assessments. An assessor observation checklist must be used to record this evidence. Assessment should be conducted under controlled, supervised conditions.

#### Outcome 2

Summary of standards (working towards industrial tolerances)	
Item	Measurement of standard
Setting out openings	±8mm
Setting out overall length	±10mm
Gauge	±8mm
Level	±8mm
Plumb	±6mm
Cavity	Clean with no bridging
Wall ties	To building regulations
Horizontal reinforcement	Positioned as specified
Vertical DPC	Flush or +25mm
Faceplane face	±6mm
Faceplane rear	±8mm
Joint thickness	±5mm
Sills projection	±4mm
Sills horizontal DPC	Flush
Perpends	±5mm
Square key jointing	Uniform no gaps
Internal face	Flush left off the trowel
Lintels equal bearing	Equal rest
Facework	Left clean, minimal smudging, no visual defects.
Summary of standards (working towards industrial tolerances)	

Item	Measurement of standard
<b>Risk assessment</b>	
Safety boots	Worn at all times
Hard hat	Worn at all times
High visibility vest	Worn at all times
All other PPE	As risk assessed
<b>Method statement</b>	
Working area	Kept clear at all times
Materials	Stacked safely at all times
Tools (during working)	Handled correctly at all times
Tools (after work)	Cleaned and stored safely

### National Unit Specification: statement of standards (cont)

## UNIT Bricklaying: Openings in Walls (SCQF level 6)

### Outcome 3

Summary of standards (working towards industrial tolerances)	
Item	Measurement of standard
Overall length	±10mm
Gauge (brickwork)	±5mm
Level (brickwork)	±5mm
Plumb each point (brickwork)	±5mm
Opening size	±5mm
Joint thickness	±5mm
Faceplane (brickwork)	±5mm
Wall ties	Positioned to building regulations
Perpends	No deviation exceeding 5mm
(Type A) Cavity tray	Positioned to manufacturers instructions
Voussoirs	Radiate from centre ±2mm
Faceplane of arch	±5mm over arch and jambs
Brickwork cutting around arch to maintain normal joint	±5mm
Faceplane (blockwork)	±5mm
Plumb each point blockwork	±5mm
Level (blockwork)	±5mm
Gauge (blockwork)	±5mm
Pre-stressed lintel uniform bearing	±10mm
Pre-stressed lintel level in overall length	±5mm
Pre-stressed level across width	±2mm
Face of bricks	Facework clean, minimal smudging, no visual defects
Brickwork round key finish	Full and neat
Blockwork flush from trowel	No open joints
Cavity	Clean with no ties bridged
Overall cavity wall width	±8mm
Vertical DPC	Positioned flush with reveal or ±25mm
Weep vents	Positioned as specified

Summary of standards (working towards industrial tolerances)	
Item	Measurement of standard

Health and safety	Complies at all times
Risk assessment	Safety boots worn at all times Hard hat worn at all times High visibility vest worn at all times All other PPE as risk assessed
Method statement	Working area kept clean at all times Materials stacked safely at all times Tools handled correctly at all times Tools cleaned and stored safely at end of working day

## **National Unit Specification: support notes**

### **UNIT        Bricklaying: Openings in Walls (SCQF level 6)**

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

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

#### **GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT**

This Unit has been developed as a mandatory Unit in the Professional Development Award in Bricklaying at SCQF level 6.

The successful completion of this Unit will provide candidates with the required underpinning knowledge and skills relating to setting out techniques and construction practices and components associated with setting out and forming openings in walls.

This Unit should be offered to candidates from the construction and related services industries. The skills and knowledge and understanding are transferable within different working environments but the Unit is primarily aimed at candidates whose normal place of work would be a site, workshop, or similar environment.

The Unit deals with setting out and forming openings in walls. It should be delivered as part of a structured programme of training and orientated to the context of the candidate's work and area of responsibility. Aspects of this Unit could be integrated with *Bricklaying: Cavity Walling* (SCQF level 6), *Bricklaying: Arch Construction* (SCQF level 6).

Health and Safety and Sustainability are integral and key to the Construction Industry therefore throughout the Unit emphasis will be placed where appropriate on the application of Health and Safety and Sustainability. Safety working practices should be looked at in accordance with current safety codes of practice and regulations. Sustainability should include reference to criteria affecting sustainability, impact of not implementing sustainability on the environment and the legislation promoting sustainability.

#### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

The candidate is required to develop the ability to set out and form openings in walls in a safe manner at all times and, therefore, it is anticipated that the majority of learning will take place in a workshop/site environment.

Practical demonstrations underpinned by effective questioning techniques should focus on key skills, construction practices, techniques and underpinning knowledge related to the setting out and forming of openings in walls. During the learning process, practical learning is fundamental as candidates must become proficient in terminology and construction practices relevant to opening in walls.

## National Unit Specification: support notes (cont)

### UNIT      Bricklaying: Openings in Walls (SCQF level 6)

Opportunities should be taken throughout delivery of this Unit to meet the requirements of the generic Units of the Training and Assessment Programme including:

- ◆ *Conform to General Workplace Safety*
- ◆ *Confirm Work Activities and Resources for the Work*
- ◆ *Develop and Maintain Good Working Relationships*
- ◆ *Confirm the Occupational Method of Work*
- ◆ *Conform to Efficient Working Practices*
- ◆ *Move and handle Resources*

### OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Components of the Core Skill of *Problem Solving* at SCQF level 4, such as Planning and Organisation and Critical Thinking will be developed as candidates undertake this Unit. Candidates will need to take account of a range of factors in order to work efficiently and safely, such as the choice of tools, appropriate materials, safety issues, safety equipment and sustainability. Individual discussions with assessors will enhance the evaluation of efficient working practices.

There are opportunities to develop the Core Skills of *Working with Others* at SCQF level 4 particularly in Outcomes 2 and 3, as this practical assessment may be carried out working in pairs, as part of teaching and learning. Candidates can agree responsibilities and provide support and information to each other during the assessments. After assessment, they should be encouraged to consider how effectively they supported each other.

Opportunities also arise for candidates to develop the Core Skill of *Information and Communication Technology* at SCQF level 3 by researching Health and Safety legislation affecting their area of work.

*Numeracy* at SCQF level 4 could be enhanced through the interpretation of information from 3 dimensional working drawings and the practical use of calculation and measuring scales required for teaching and learning assessments for Outcomes 2 and 3.

There will be opportunities for candidates to develop the Core Skills of *Communications* at SCQF level 4. Candidates will have the opportunity to develop written and/or oral communication skills for the knowledge part of the assessment for Outcome 1. As candidates complete practical tasks, they should be expected to communicate with others using the correct terminology, tone and style suited to the workplace.

### GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Detailed assessment material for this Unit will be found in sections four and five of the Bricklaying Training and Assessment Programme (TAP) Centres may use the instruments of assessment which they consider to be most appropriate but are advised to use the Bricklaying TAP which has been developed centrally by SQA. Any other instruments of assessment used must be comparable to the TAP and have been through prior verification.

The candidates' knowledge and understanding of terminology, techniques and construction practices and components related to setting out and forming openings in walls will be assessed through a question paper.



## **National Unit Specification: support notes (cont)**

### **UNIT        Bricklaying: Openings in Walls (SCQF level 6)**

Candidates should be given as much practise as possible in setting out and forming openings in walls prior to being set the assessment. Evidence will be gathered for Outcomes 2 and 3 through observation of work processes and assessment of the completed workpieces to ensure that the candidates have met the given standards and tolerances during the practical assessment. An assessor observation checklist should be used to record this evidence.

#### **Opportunities for the use of e-assessment**

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

#### **CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS**

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

### History of changes to Unit

Version	Description of change	Date
02	Amended to incorporate horizontal reinforcement.	19/12/2016