



## Higher National Unit specification

### General information for centres

**Unit title:** Bricklaying: External Corners and Piers in Stonework

**Unit code:** F8MG 34

**Unit purpose:** This Unit is designed to enable the candidate to develop their knowledge, understanding and skills relevant to the setting out and building of external corners and piers in un-coursed stone. The candidate will also develop skills in interpreting technical information and costing of associated works.

On completion of the Unit the candidate should be able to:

- 1 Explain construction practices for stonework.
- 2 Set out and build un-coursed stonework

**Credit points and level:** 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7\*)

*\*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.*

**Recommended prior knowledge and skills:** Access to this Unit is at the discretion of centres. However it is recommended that candidates have completed the Professional Development Award in Bricklaying at SQF level 6 or have the equivalent level of industrial experience and prior learning.

**Core Skills:** There are opportunities to develop the Core Skills of *Communication*, *Numeracy*, *Working with Others* and *Problem Solving* all at SCQF level 5 and *Information and Communication Technology* at SCQF level 4 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

**Context for delivery:** If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed in the subject area of the Group Award to which it contributes. This Unit forms part of the Professional Development Award in Bricklaying at SCQF level 7 and is aimed at candidates following a career in brickwork and with current industrial experience.

## Higher National Unit specification: General information for centres (cont)

**Unit title:** Bricklaying: External Corners and Piers in Stonework

**Assessment:** The candidate will be given the opportunity to enhance their skills and knowledge in bricklaying by learning about stone walling and piers. Techniques and practices used to set out and maintain corners and piers in reconstituted stone should be integrated to the practical tasks undertaken. The skill to show understanding, use and relay information from technical information and specifications will be developed.

This learning and teaching approach should ensure the candidate acquires the underpinning knowledge required for the Unit.

This Unit is assessed on the candidates' performance of setting out and building un-coursed stonework in external corners and piers, and the ability to meet the Evidence Requirements in all Outcomes.

In order to achieve this Unit, candidates are required to present sufficient evidence that they have met all the Knowledge and/or Skills elements for each Outcome. Details of these requirements are given for each Outcome.

The assessment instruments used should follow the general guidance offered by the Scottish Qualifications Authority (SQA) assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Evidence will be gathered through the completion of an assignment for Outcome 1 and observation of work processes and assessment of completed work. Assessment should be carried out under controlled, supervised conditions. Candidates must achieve all of the Knowledge and/or Skills and Evidence Requirements specified for each Outcome to gain this Unit. Centres may use the instrument of assessment which they consider to be most appropriate but are advised to use the Bricklaying Training and Assessment Programme (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.

Accurate records should be made of the assessment instruments used showing how evidence is generated for each Outcome and giving marking schemes, checklists and recorded candidate feedback. Records of candidates' achievements should be retained. These records must be made available for external verification.

## **Higher National Unit specification: statement of standards**

**Unit title:** Bricklaying: External Corners and Piers in Stonework

**Unit code:** F8MG 34

The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

### **Outcome 1**

Explain construction practices for stonework

#### **Knowledge and/or Skills**

- ◆ Suitable types of stone
- ◆ Work processes
- ◆ Bonding arrangements
- ◆ Modern techniques associated with building corners
- ◆ Safe working practices
- ◆ Sustainability/Site Waste Management

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ select suitable stone, given details of the positioning and exposure of a given site
- ◆ outline construction practices associated with the given scenarios
- ◆ sketch bonding arrangements of external corners and stonework
- ◆ outline modern techniques used in stonework
- ◆ identify safe working practices relevant to stonework
- ◆ outline methods used to minimise waste during construction of stone walls

All the Evidence Requirements must be met and all items in the knowledge and skills covered. Evidence should be gathered through the production of an assignment outlining stone type, processes, bonding arrangements, techniques, health and safety and sustainability requirements related to setting out and constructing walls in stonework. Assessment should be conducted under open-book supervised conditions.

#### **Assessment Guidelines**

In the assessment candidates will be required to complete an assignment based on a scenario for an actual work project. This could be conducted as an in class assignment lasting up to three hours.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Bricklaying: External Corners and Piers in Stonework

### Outcome 2

Set out and build un-coursed stonework.

#### Knowledge and/or Skills

- ◆ Interpretation of drawings
- ◆ Set out stonework
- ◆ Build stonework
- ◆ Maintain square
- ◆ Maintain bond
- ◆ Maintain plumb
- ◆ Safe working practices
- ◆ Sustainability/Site Waste Management
- ◆ Working to specifications/tolerances

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ interpret given specifications to produce un-coursed stone walling for external corners and piers
- ◆ set out and build un-coursed stonework for both an external corner and an isolated hollow pier
- ◆ maintain the square of corner and pier within the given tolerances using common site methods such as the builders square and/or 3:4:5 and checking of diagonals
- ◆ maintain bond of un-coursed stone walling to related bonding rules
- ◆ follow safe working practices
- ◆ minimise the waste of materials throughout practical work
- ◆ work to specified tolerances

The following specification will assist the assessor in judging candidate performance against the Evidence Requirements;

<b>Corner</b>	
Setting out in overall length	$\pm 10$ mm
Setting out square	$\pm 5$ mm
Gauge in overall height	$\pm 3$ mm
Level in overall length	$\pm 3$ mm
Maintains bond	un-coursed to bonding rules
Plumb on arris in overall height	$\pm 4$ mm
Joint thickness	$\pm 2$ mm
Perpends plumb	$\pm 3$ mm
Facework	clean-no smudging
Jointing	acceptable finish neat and full to all arisses
Minimises waste & dispose of it appropriately	suitable level and method
Wears appropriate Personal Protective equipment (PPE)	at all times
Current Health and Safety legislation	complies at all times

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Bricklaying: External Corners and Piers in Stonework

<b>Pier</b>	
Setting out	$\pm 10$ mm
Square (diagonals)	$\pm 3$ mm
Gauge in overall height	$\pm 3$ mm
Level on all four sides	$\pm 3$ mm
Maintains bond	un-coursed to bonding rules
Plumb on each arris in overall height	$\pm 4$ mm
Joint thickness	$\pm 2$ mm
Perpends plumb	$\pm 3$ mm
Facework	clean-no smudging
Jointing	acceptable finish neat and full to all arisses
Minimises waste & dispose of it appropriately	suitable level and method
Wears appropriate Personal Protective equipment (PPE)	at all times
Current Health and Safety legislation	complies at all times

Evidence will be gathered through observation of work processes and assessment of the completed work. Assessment should be carried out under controlled supervised conditions. In order to achieve this Outcome, candidates are required to present sufficient evidence that they have met all the Knowledge and/or Skills elements. An assessor observation checklist should be completed to ensure that the candidate has met the required specification and tolerances and the observation checklist should be retained as evidence.

Candidates should work individually to complete this Outcome but may work in pairs if the given integrated assessment is symmetrical and each individual candidate can produce evidence to meet all of the Performance Criteria.

### ASSESSMENT GUIDELINES

This Outcome is assessed on the candidates' actual performance of setting out and constructing un-coursed stonework for a corner and pier to a given specification and tolerances

Candidates should be provided with drawings and specifications for the practical task. Assessment should be carried out in a suitable workshop environment. Timing for this assessment should be determined prior to commencement. An observation checklist should be completed to ensure the candidate has evidenced all the knowledge and skills included in this Outcome to the specifications and tolerances required.

## Administrative Information

**Unit code:** F8MG 34

**Unit title:** Bricklaying: External Corners and Piers in Stonework

**Superclass category:** TG

**Original date of publication:** August 2010

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### History of changes:

Version	Description of change	Date

**Source:** SQA

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## **Higher National Unit specification: support notes**

### **Unit title:** Bricklaying: External Corners and Piers in Stonework

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 40 hours.

### **Guidance on the content and context for this Unit**

This Unit has been developed as an optional Unit in the Professional Development Award in Bricklaying at SCQF level 7 and may be delivered in a sequence suitable to individual candidates and centres.

This Unit is designed to enable the candidate to develop, knowledge, understanding and skills relevant to the setting out and building of un-coursed stonework.

Candidates following a career in brickwork and with current industrial experience will benefit from undertaking this Unit.

The knowledge and skills for this Unit should be incorporated with modern methods of setting out and constructing un-coursed stonework and applied where possible. Terminology commonly associated with bricklaying and stonework should be used throughout this Unit.

It is vitally important that candidates gain an understanding and knowledge of the construction practices and sequencing of operations with regard to un-coursed stonework.

Current Health and Safety, sustainability and waste management issues should be fully emphasised throughout the delivery of this Unit.

Working to specified tolerances and methods of checking completed work should be demonstrated and undertaken by the candidate.

### **Guidance on the delivery and assessment of this Unit**

The principles and methods of setting out stonework should be demonstrated to the candidate before summative assessment takes place.

The differing techniques and constraints candidates could encounter on site with regard to setting out and establishing stonework should be fully explained.

Health & 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. Safe 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.

Working tolerances should be explained as being the minimum standard which will be accepted and candidates should be encouraged to evaluate their own work.

## Higher National Unit specification: support notes (cont)

**Unit title:** Bricklaying: External Corners and Piers in Stonework

### *Opportunities for developing Core Skills*

*Communications* skills at SCQF level 5 may be developed by the completion of the assignment for Outcome 1 and formative assessments undertaken prior to summative assessment.

*Working with others* at SCQF level 5 could be developed by the candidates working in pairs where an integrated assessment is used for the Outcome 2 corner.

*Information and communication technology* at SCQF level 4 will be enhanced by the candidates' carrying out individual research of modern and traditional stone materials and products.

*Problem solving* at SCQF level 5 will be developed as candidates determine the bonding detail for summative assessment in Outcomes 1 and 2.

*Numeracy* will be developed at SCQF level 5 when taking off dimensions from working drawings, measuring and setting out in Outcome 2.

### **Open learning**

Although this Unit could be delivered by distance learning, it would require a considerable degree of planning by the centre to ensure the sufficiency and authenticity of candidate evidence. Arrangements would have to be made to ensure that:

- ◆ the practical activity in outcome 2 is supervised by a responsible person and clearly recorded (using an assessment checklist, or on video) for the assessor
- ◆ the assessor is, at some point able to question the candidate on the performance (face to face, by telephone, online)
- ◆ the open-book assignment for outcome 1 is conducted in a supervised environment

### **Disabled candidates and/or those with additional support needs**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website

[www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)



## General information for candidates

### Unit title: Bricklaying: External Corners and Piers in Stonework

This Unit is designed to develop your practical skills and knowledge of un-coursed stonework. You will develop your understanding of modern and traditional practices and techniques and comply with sustainability issues and current Health and Safety legislation throughout this Unit.

You will have to demonstrate the required techniques in setting out and constructing un-coursed stonework and demonstrate your understanding of the traditional and modern techniques of setting out and constructing stonework.

You will learn about sustainability issues and how new materials, techniques and systems can have an impact on improving the sustainability in general and you will comply with current Health and Safety regulations and legislation throughout.

#### Outcome 1

Explain construction practices for stonework.

You will be assessed by the completion of an assignment in which you will be required to describe in detail and illustrate the methods used to set out and construct stonework. You will give detailed sequence of operations required to set out and construct stonework.

The assessment for this Outcome will be open-book and will be carried out in a supervised environment and you will have access to your own notes that you have prepared personally for your own use. You will not be permitted to bring textbooks, handouts or other materials that you have not prepared yourself.

#### Outcome 2

Set out and build un-coursed stonework.

You will be assessed in your ability to:

- ◆ set out and build an external corner in un-coursed stonework
- ◆ set out and build a hollow pier in un-coursed stonework

You will be assessed in supervised workshop conditions to specified tolerances contained in an observation checklist. These tolerances should be fully explained and available prior to you commencing the assessment. You will be required to work individually to complete these assessments. You will receive both oral and written feedback on your performance from the assessor.

There are opportunities to develop the Core Skills of *Communication*, *Numeracy*, *Working with Others* and *Problem Solving* all at SCQF level 5 and *Information and Communication Technology* at SCQF level 4 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.