QUALIFICATION HANDBOOK

Level 2 Diploma in Craft Masonry (6715-04)

September 2017 Version 1.3

City & Guilds

Qualification at a glance

Subject area	Construction
City & Guilds number	6715
Age group approved	16-18, 19+
Entry requirements	None
Assessment	Multiple choice/assignment
Support materials	Centre handbook Assessor guidance Task manual
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	GLH	TQT	City & Guilds number	Accreditation number
Level 2 Diploma in Craft Masonry	460	500	6715-04	601/3191/3

Version and date	Change detail	Section
1.1 July 2014	Centre staffing amended	Centre requirements
1.2 December 2015	Updated range for LO 1, 3 and 4 in unit 201	Units
1.3 September 2017	Added TQT and GLH details Deleted QCF	Qualification at a Glance, Structure Appendix

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1 Introduction

This document tells you what you need to do to deliver the qualification:

Area	Description
Who is the qualification for?	It is for candidates who work or want to work in the construction sector, with particular emphasis on multi-skilled operatives typically working independently or as part of a small scale construction firm.
What does the qualification cover?	It allows candidates to learn, develop and practice the skills required for employment and/or career progression in the construction sector. It covers the following skills: • Setting out masonry structures • Building solid and cavity walls • Applying internal and external finishes • Installing small-scale pitched roofs.
What opportunities for progression are there?	It allows candidates to progress into employment or to one of the following City & Guilds qualifications: • Level 3 Diploma in Bricklaying • Level 2 Diploma in Plastering • Level 2 Diploma in Roof Slating and Tiling.

Structure

To achieve the **Level 2 Diploma in Craft Masonry (6715-04)**, learners must achieve **50** credits from the following mandatory units.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value	GLH
Mandatory				
A/504/6719	Unit 201	Health, safety and welfare in construction	7	70
Y/504/6999	Unit 202	Principles of building construction, information and communication	6	55
A/504/6901	Unit 205	Interpreting working drawings to set out masonry structures	6	46
J/506/2289	Unit 246	Build solid and cavity walls to form craft masonry structures	16	150
A/506/2290	Unit 247	Internal and external finishes for craft masonry structures	9	83
F/506/2291	Unit 248	Install pitched roof systems for small-scale building projects	6	56

Total Qualification Time

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

Title and level	GLH	TQT
Level 2 Diploma in Craft Masonry	460	500

2 Centre requirements

Approval

The approval process for Construction qualifications is available at our website. Please visit **www.cityandguilds.com/construction** for further information.

Resource requirements

Physical resources and site agreements

Centres will have well equipped workshops with a comprehensive range of hand and portable power tools that meet current industry standards. All powered equipment should be well maintained and PAT certified. Centres will have special designated areas within their Construction workshops (cubicles or project areas) allowing candidates to practice the requirements of the units and carry out the Practical Assignments.

Centre staffing

All staff who assess (tutor/deliver) these qualifications must:

- have recent relevant experience in the specific area they will be teaching;
- be technically competent in the area for which they are delivering training and/or have experience of providing training;
- have a CV available demonstrating relevant experience and any qualifications held.

All staff who quality assure these qualifications must:

- have a good working knowledge and experience within the construction industry;
- have an established strategy and documentary audit trail of internal quality assurance;
- have a good working knowledge of quality assurance procedures;
- have a CV available demonstrating relevant experience and any qualifications held.

While the Assessor/Verifier (A/V) units/TAQA are valued as qualifications for centre staff, they are not currently a requirement for these qualifications. However, we encourage trainers and assessors to qualify to the current TAQA standard.

Continuing professional development (CPD)

Centres must support their staff to ensure that they have current knowledge of the occupational area, that delivery, mentoring, training, assessment and verification is in line with best practice, and that it takes account of any national or legislative developments.

Candidate entry requirements

City & Guilds does not set entry requirements for these qualifications. However, centres must ensure that candidates have the potential and opportunity to gain the qualifications successfully.

Age restrictions

City & Guilds cannot accept any registrations for candidates under 16 as these qualifications are not approved for under 16s.

3 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs,
- support and guidance they may need when working towards their qualification
- any units they have already completed, or credit they have accumulated which is relevant to the qualification
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the learner fully understands the requirements of the qualification, their responsibilities as a learner, and the responsibilities of the centre. This information can be recorded on a learning contract.

Support materials

The following resources are available for this qualification:

Description	How to access
Assessor guidance	www.cityandguilds.com
Practical Task Manual	www.cityandguilds.com
Qualification approval form	www.cityandguilds.com/construction

4 Assessment

Unit	Title	Assessment method	Where to obtain assessment materials
201	Health, safety and welfare in construction	City & Guilds e-volve multiple choice test or on demand externally marked paper. The test covers all of the knowledge in the unit.	Examinations provided on e-volve, or question papers ordered via Walled Garden.
202	Principles of building construction, information and communicatio n	City & Guilds e-volve multiple choice test or on demand externally marked paper. The test covers all of the knowledge in the unit.	Examinations provided on e-volve, or question papers ordered via Walled Garden.
205	Interpreting working drawings to set out masonry structures	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	www.cityandguilds.com

Unit	Title	Assessment method	Where to obtain assessment materials
246	Build solid and cavity walls to form craft masonry structures	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	www.cityandguilds.com
247	Internal and external finishes for craft masonry structures	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	www.cityandguilds.com

Unit	Title	Assessment method	Where to obtain assessment materials
248	Install pitched roof systems for small-scale building projects	Multiple choice question paper, covering knowledge outcomes. Practical assignment, covering performance outcomes. Both assessments are set by City & Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City & Guilds to make sure they are properly carried out.	www.cityandguilds.com

Test specifications

The way the knowledge is covered by each test is laid out in the tables below:

Test 1: Unit 201/601 Health, safety and welfare in construction
Duration: 60 minutes

Unit	Outcome	Number of questions	%
201/601	1 Know the health and safety regulations, roles and responsibilities	7	17.5
	2 Know accident and emergency reporting procedures and documentation	5	12.5
	3 Know how to identify hazards in the workplace	7	17.5
	4 Know about health and welfare in the workplace	3	7.5
	5 Know how to handle materials and equipment safely	2	5
	6 Know about access equipment and working at heights	3	7.5
	7 Know how to work with electrical equipment in the workplace	4	10
	8 Know how to use personal protective equipment (PPE)	5	12.5

	9 Know the cause of fire and fire emergency procedures	4	10
	Total	40	100

Test 2: Unit 202/602 Principles of building construction, information and communication

Duration: 80 minutes

Unit	Outcome	Number of questions	%
202	1 Understand how to select types of building information	5	12.5
	2 know about environmental considerations in relation to construction	5	12.5
	3 Understand the construction of foundations	7	17.5
	4 Understand construction of internal and external walls	9	22.5
	5 Know about construction of floors	4	10
	6 Know about construction of roofs	3	7.5
	7 Understand how to communicate in the workplace	7	17.5
	Total	40	100

Test: 3 Unit 205 Interpreting working drawings to set out masonry structures

Duration: 40 minutes

Unit	Outcome	Number of questions	%
205	1 Know how to interpret information to establish setting-out requirements	7	28
	3 Know how to prepare construction sites for setting-out activities	6	24
	5 Know how to select resources for setting-out work	4	16
	7 Know how to set out regular-shaped masonry structures on level ground	8	32
	Total	25	100

Test 4: Unit 246 Build solid and cavity walls to form craft masonry structures

Duration: 60 minutes

Unit	Outcome	Number of questions	%

246	1 know how to plan and select resources for building solid and cavity walls to form craft masonry structures	8	27
	3 Know how to build solid and cavity walls to form craft masonry structures	22	73
	Total	30	100

Test: 5 Unit 247 Internal and external finishes for craft masonry
Duration: 40 minutes

Unit	Outcome	Number of questions	%
247	1 Know how to plan and select resources for internal and external finishes for craft masonry structures	8	44
	3 Understand how to produce internal backgrounds, and internal and external finishes	10	56
	Total	18	100

Test 6: Unit 248 Install pitched roof systems for small-scale building projects

Duration: 30 minutes

Unit	Outcome	Number of questions	%
246	1 Know how to plan and select resources for installing pitched roof systems for small-scale building projects	8	57.14
	3 Know how to install background materials for pitched roof systems for small-scale building projects	3	21.43
	5 Know how to install pitched roof systems for small-scale building projects	3	21.43
	Total	14	100

5 Units

Availability of units

The following units can also be obtained from The Register of Regulated Qualifications: **http://register.ofqual.gov.uk/Unit**

Structure of units

These units each have the following:

- City & Guilds reference number
- unit accreditation number (UAN)
- title
- level
- credit value
- guided learning hours
- unit aim
- learning outcomes which are comprised of a number of assessment criteria

Range explained:

Range gives further scope on what areas within an assessment criteria must be covered. The range in a unit **must** be taught to learners and parts of the range will be assessed.

Unit 201/601 Health, safety and welfare in construction

UAN:	A/504/6719
Level:	2
Credit value:	7
GLH:	70
Endorsement by a sector or regulatory body:	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
Aim:	The aim of this unit is to provide the learner with the knowledge to carry out safe working practices in construction, in relation to sourcing relevant safety information and using the relevant safety procedures at work

Learning outcome
The learner will: 1. know the health and safety regulations, roles and responsibilities
Assessment criteria
The learner can: 1.1 identify **health and safety legislation** relevant to and used in the construction environment 1.2 state **employer and employee responsibilities** under the Health and Safety at Work Act (HASWA) 1.3 state **roles and responsibilities** of the Health and Safety Executive (HSE) 1.4 identify **organisations** providing relevant health and safety information 1.5 state the importance of holding on-site safety inductions and toolbox talks.

Range
Health and safety legislation Health and Safety at Work Act, Reporting Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), Control of Substances Hazardous to Health (COSHH), Construction, Design and Management (CDM) regulations , Provision and Use of Work Equipment Regulations (PUWER), manual handling operations Regulations, Personal Protective Equipment (PPE) at Work Regulations, Work at Height Regulations, Control of Noise at Work Regulations, Control of Vibration at Work Regulations , Electricity at

Work Regulations, Lifting operations and Lifting Equipment Regulations (LOLER)

Employer responsibilities

Safe working environment, adequate staff training, health and safety information, site inductions, toolbox talks, risk assessment, supervision, PPE, reporting hazards, accidents and near misses, sections 2 to 9 of Health and Safety at Work Act, CDM reg's, construction phase plans, welfare, display public liability Insurance and health and safety law poster.

Employee responsibilities

Working safely, working in partnership with the employer, reporting hazards, accidents and near misses, following organisational procedures as per Sections 2 to 9 of Health and Safety at Work Act.

Roles and responsibilities:

Enforcement (including fees for intervention), legislation and advice, inspection, investigation eg site investigations.

Organisations

Health and Safety Executive (HSE) website, Institute of Occupational Safety and Health, British Safety Council, 'manufacturer', ROSPA.

Learning outcome
The learner will: 2. know accident and emergency reporting procedures and documentation
Assessment criteria
The learner can: 2.1 state legislation used for reporting accidents 2.2 state major **types of emergencies** that could occur in the workplace 2.3 identify reportable injuries, diseases and dangerous occurrences as per RIDDOR 2.4 state main types of **records** used in the event of an accident, emergency and near miss and reasons for reporting them 2.5 identify **authorised personnel** involved in dealing with accident and emergency situations 2.6 state **actions** to take when discovering an accident.

Range
Types of emergencies Fires, security incidents, gas leaks. Records: Accident book, first aid records, organisational records and documentation.

Authorised personnel
First aiders, supervisors/managers, health and safety executive, emergency services, safety officer. Actions Area made safe, call for help, emergency services.

Learning outcome
The learner will: 3. know how to identify hazards in the workplace
Assessment criteria
The learner can: 3.1 state the importance of **good housekeeping** 3.2 state reasons for risk assessments and method statements 3.3 identify **types of hazards** in the workplace 3.4 state the importance of the correct storage of combustibles and chemicals on site 3.5 identify different **signs and safety notices** used in the workplace.

Range
Good housekeeping: Cleanliness, tidiness, use of skips and chutes, segregation of materials, clear access to fire escapes, clear access to fire extinguishers. Types of hazards: Fires, slips, trips and falls, hazardous substances (relating to inhalation, absorption, exposure, ingestion, cross-contamination), electrical, asbestos, manual handling, plant and vehicle movement, adverse weather. Signs and safety notices: Prohibition, mandatory, warning, safe condition, supplementary.

Learning outcome
The learner will: 4. know about health and welfare in the workplace
Assessment criteria
The learner can: 4.1 identify requirements for welfare facilities in the workplace as per Construction Design Management (CDM) 4.2 state health effects of noise and **precautions** that can be taken 4.3 state **risks** associated with drugs, alcohol and medication which could affect performance in the workplace.

Range

Precautions
Reducing noise at source, PPE, isolation, exposure time. **Risks** Reduced risk perception, loss of concentration, balance problems, absenteeism and reduced productivity.

Learning outcome
The learner will: 5. know how to handle materials and equipment safely
Assessment criteria
The learner can: 5.1 identify legislation relating to safe handling of materials and equipment 5.2 state procedures for safe lifting and manual handling activities in accordance with guidance and legislation 5.3 state the importance of using **lifting aids** when handling materials and equipment.

Range
Lifting aids Wheelbarrow, sack barrow, mechanical lifting aids, pallet truck.

Learning outcome
The learner will: 6. know about access equipment and working at heights
Assessment criteria
The learner can: 6.1 identify legislation relating to working at heights 6.2 identify types of **access equipment** 6.3 state **safe methods** of use for **access equipment** 6.4 identify **dangers** of working at height.

Range
Access equipment: Stepladders, ladders (pole, extension), trestles, hop-ups, proprietary scaffolding, podium, stilts **Safe methods** Regular inspection, check for broken, damaged or missing components, responsible use, consideration of adverse weather conditions, good housekeeping **Dangers**

Falling tools, falling equipment, falling materials, persons falling from height (injuries to themselves and others).

Learning outcome
The learner will: 7. know how to work with electrical equipment in the workplace
Assessment criteria
The learner can: 7.1 state **precautions** to take to avoid risks to self and others when working with electrical equipment 7.2 state **dangers** of using electrical equipment 7.3 identify **voltages** and voltage colour coding that are used in the workplace 7.4 state **methods** of storing electrical equipment.

Range
Precautions Check leads, check plugs, use of cable hangers, check tools and equipment, current valid PAT certificate Dangers: Burns, electrocution, fire. Voltages Battery powered, 110/115 volts, 230/240 volts and 415 volts. Methods Components present, equipment cleaned, checked for damage, stored in a clean and secure location.

Learning outcome
The learner will: 8. know how to use Personal Protective Equipment (PPE)
Assessment criteria
The learner can: 8.1 state the legislation governing use of Personal Protective Equipment (PPE) 8.2 state **types of PPE** used in the workplace 8.3 state the importance of PPE 8.4 state why it is important to store, maintain and use PPE correctly 8.5 state the importance of checking and reporting damaged PPE.

Range
PPE: Head protection, eye protection, ear protection, face/dust masks, breathing apparatus, high visibility clothing, safety footwear, gloves, sun protection, barrier cream, water proofs, knee pads, overalls/disposable clothing

Learning outcome
The learner will: 9. know the cause of fire and fire emergency procedures
Assessment criteria
The learner can: 9.1 state **elements** essential to creating a fire 9.2 identify methods of fire prevention 9.3 state actions to be taken on discovering a fire 9.4 state **types of fire extinguishers** and their uses.

Range
Elements Oxygen, fuel, heat. Types of fire extinguishers: Water, foam, CO2, dry powder.

Unit 202/602 Principles of building construction, information and communication

UAN:	Y/504/6999
Level:	2
Credit value:	6
GLH:	55
Endorsement by a sector or regulatory body:	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
Aim:	The aim of this unit is to provide the learner with the knowledge of building methods and construction technology in relation to: • understanding a range of building materials used within the construction industry and their suitability to the construction of modern buildings. • source relevant information and apply it to relevant tasks • calculating the resources from required drawings and specifications.

Learning outcome
The learner will: 10. understand how to select types of building information.
Assessment criteria
The learner can: 10.1 interpret **information sources** used in construction 10.2 interpret scale, **symbols and hatchings** on a working drawing 10.3 explain the purpose of **benchmarks** used in construction.

Range
Information sources Drawings , schedules, specifications, programme of work, organisational chart, method statements, risk assessment, manufacturers' technical information, bill of quantities, order requisitions, delivery notes, variation orders, permits to work, signs and notices. Symbols WC, sink, bath, door, window Hatchings

Brickwork, timber (wrot and unwrot), blockwork, concrete, hardcore, sub soil, insulation, damp proof course (DPC), damp proof membrane (DPM)

Benchmarks

Site datums, temporary bench marks (TBM), ordnance bench marks (OBM).

Learning outcome
The learner will: 11. know about environmental considerations in relation to construction.
Assessment criteria
The learner can: 11.1 describe thermally insulated **materials** 11.2 describe **methods** of making buildings water efficient 11.3 describe **methods** of making buildings energy efficient 11.4 state environmental-friendly **building materials** 11.5 state **procedures** for waste management.

Range
Materials Polyisocyanurate (PIR), Expanded Polystyrene (EP), fibre glass, mineral wool, double glazed units, multi-foil insulation. Methods (2.2) Efficient sanitary ware, water harvesting. Methods (2.3) Low energy lighting, automatic movement sensors, solar panels, wind turbines, heat source, biomass heating. Building materials Locally sourced, managed timber (FSC), lime, sheep wool, recycled materials, straw. Procedures: Segregation and recycling of waste, safe disposal of hazardous materials, Local Exhaust Ventilation (LEV).

Learning outcome
The learner will: 12. understand the construction of foundations.
Assessment criteria
The learner can: 12.1 describe **factors** to be considered when selecting **foundations** 12.2 describe **materials** and mix-ratios used in concrete foundations 12.3 explain how to **set out** foundations 12.4 explain **factors** to consider when excavating foundations

12.5	describe methods of transferring datums
12.6	calculate the volume of concrete used in pile foundation.

Range
Factors (3.1) Ground conditions (subsoil), strength, types of building. Foundations Strip, raft, pile, pad. Materials: Course aggregate, fine aggregate, cement, water, steel reinforcement, sulphate-resisting cement, ordinary portland cement, frost proofing, accelerators, retardants. Set out: 3:4:5 method, diagonals, profiles, builder's square. Factors (3.4) Underground services, proximity to neighbouring buildings, tree roots, ground conditions. Methods: Optical/laser level, straight edge and spirit level

Learning outcome
The learner will: 13. understand construction of internal and external walls.
Assessment criteria
The learner can: 13.1 describe **wall components** 13.2 explain the importance of a Damp Proof Course (DPC) 13.3 calculate the area of a gable 13.4 identify **additives** used in mortar 13.5 identify different types of **bonding** 13.6 describe the differences between load-bearing and non-load-bearing internal walls 13.7 calculate the volume of paint required to cover a wall area.

Range
Wall components Brick, block, insulation, Damp Proof Course (DPC), lintels, wall ties, airbrick and liner, cavity closures, stud partition, light density blocks, plasterboard, plaster. Additives: Retardant, accelerant, frost inhibitor, cement dyes, plasticiser. Bonding: Stretcher, English, Flemish.

Learning outcome
The learner will: 14. know about construction of floors.
Assessment criteria
The learner can: 14.1 describe **floor components** 14.2 calculate the linear quantity of floor boarding to cover an irregular shaped area 14.3 calculate additional quantities of wastage using percentage.

Range
Floor components: Hardcore, blinding sand, Damp Proof Membrane (DPM), insulation, oversite concrete, block and beam, pre-cast floor panels, screed (dry, self-levelling) sleeper walls, wall plates, DPC, joists, joist hangers, floor covering.

Learning outcome
The learner will: 15. know about construction of roofs.
Assessment criteria
The learner can: 15.1 describe **types** of roofs 15.2 describe **roof components**.

Range
Types Gable-ended, flat, hipped, lean-to. **Roof components** Purlins, rafters, truss rafters, ridge, batten/lathe, fascia, soffit, barges, valleys, wall plate, flashings, felt, slate/tile, insulation, joists, wall plate straps.

Learning outcome
The learner will: 16. understand how to communicate in the workplace.
Assessment criteria
The learner can: 16.1 describe **job roles** within building teams 16.2 explain **key personnel** involved in day to day communication 16.3 state **information** needed when requesting materials 16.4 identify methods of communication used to relay information to colleagues and others 16.5 describe advantages and disadvantages of **methods of communication**

16.6	state **occasions** when clear communication is vital in the workplace
16.7	explain **benefits** of positive communication with colleagues and others.

Range
Job roles Professional, technician, trade, general operative. Key personnel Site manager, supervisors, fellow operatives. Information Dimensions, quantities, type, when and where required, contact name and details. Methods of communication (7.4) Letters, emails, telephone, memos, verbal, posters, signs, meetings, radio, text messages Methods of communication (7.5) Written, verbal Occasions Changes to risk assessments, work restrictions, changes to method statement, permits to work, changes to legislation. Benefits Improved motivation, avoid conflict, complying with equality and diversity, meeting deadlines.

Unit 205 Interpreting working drawings to set out masonry structures

UAN:	A/504/6901
Level:	2
Credit value:	6
GLH:	46
Endorsement by a sector or regulatory body:	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
Aim:	The aim of this unit is to provide the learner with the knowledge of how to interpret the information required to select materials, components, tools and equipment and be able to conduct checks on equipment and carry out checks for dimensional accuracy.

Learning outcome
The learner will: 1. know how to interpret information to establish setting-out requirements.
Assessment criteria
The learner can: 1.1 describe types of **drawings** used for setting out 1.2 identify **scales** commonly applied to drawings 1.3 describe how to take off **measurements** from working drawings 1.4 describe **methods** of reporting inaccuracies 1.5 describe the purpose of using datums in setting out work 1.6 identify types of abbreviations from working drawings 1.7 identify hatchings in relation to working drawings.

Range
Drawings Block plans, site plans, general location, assembly, sectional, detailed, orthographic projection (first angle), isometric projection. **Scales** 1:2500, 1:1250, 1:100, 1:50, 1:20, 1:10, 1:5. **Measurements** Reading drawing dimensions, using a scale rule.

Methods
Verbal, written.

Learning outcome
The learner will: 2. be able to establish setting out requirements.
Assessment criteria
The learner can: 2.1 check specifications and schedules to confirm setting out information 2.2 use working **drawings** to establish the location, shape and size of masonry structures 2.3 check that **information sources** comply with current legislation 2.4 record discrepancies in information when setting out 2.5 report discrepancies to authorised personnel 2.6 produce work method statements 2.7 follow current environmental and relevant health and safety regulations.

Range
Drawings Block plans, site plans, general location, assembly, sectional, details, orthographic projection (first angle), isometric projection. Information sources Building regulations (approved documents), local authority requirements (location of building line), British standard specifications/codes of practice, health and safety legislation manufacturers' information (catalogues, data/information sheets), Ordnance Survey Bench Marks (OSBM), Temporary Bench Marks (TBM), datums, site datum.

Learning outcome
The learner will: 3. know how to prepare construction sites for setting-out activities.
Assessment criteria
The learner can: 3.1 identify **requirements** for carrying out site clearance activities 3.2 describe the importance of site clearance before setting-out activities commence 3.3 describe the importance of locating and isolating **existing services** 3.4 describe **methods** used to locate and isolate existing services 3.5 identify **welfare requirements** for a working site.

Range
Requirements

Positioning of resources, removal of obstacles on site, flat and sloping, removal of vegetation, sites, site investigation, demolition and surface strip.

Existing services

Gas, electricity, water, telecoms, drainage.

Methods

Locate: local authority records, site drawings, ground scanning, walk over, utility company records.

Isolate: method statement, permits to work, utility company authorisation and work.

Welfare requirements

Toilets, washing facilities, drinking water, changing (drying) rooms, rest/eating area, first aid facilities.

Learning outcome
The learner will: 4. be able to prepare construction sites for setting out activities.
Assessment criteria
The learner can: 4.1 produce checklists of resources required to prepare construction sites for site clearance activities 4.2 perform walk-over surveys to establish site conditions 4.3 report results of walk-over surveys to establish **site clearance requirements** 4.4 use **calculations** required for site clearance activities 4.5 follow current environmental and relevant health and safety regulations.

Range
Site clearance requirements Site planning, positioning of resources, removal of obstacles on site, hedges and tree tops, flat and sloping sites, demolition and surface strip, types of soil including property of top soil. Calculations Materials by volume, areas, perimeter, quantities, costings, mid-girth, measuring skills to set out and check dimensions, percentage for wastage/bulking.

Learning outcome
The learner will: 5. know how to select resources for setting-out work.
Assessment criteria
The learner can: 5.1 identify **resources** required for carrying out setting-out activities

5.2 identify **resources** required for transferring levels 5.3 identify **methods** of checking resources used for levelling 5.4 **calculate** setting out processes.

Range
Resources (AC5.1) Ranging lines, materials for profiles, measuring tapes, hand tools, optical level and staff, laser level and detector, optical square, spray paint/sand line, straight edge, spirit level, builder's square, setting out pins/pegs, working drawings, calculator. Resources (AC5.2) Measuring tapes, hand tools, optical level and staff, laser level and detector, straight edge, spirit level, setting out pins/pegs, working drawings, calculator. Methods Visual inspection, calibration of levels and lasers, reversing spirit level and straight edge. Calculate Linear measurement, area, diagonals/3:4:5 (Pythagoras' theorem).

Learning outcome
The learner will: 6. be able to select resources for setting out work.
Assessment criteria
The learner can: 6.1 produce checklists of **resources** required for setting out activities 6.2 use calculations required for setting out activities 6.3 locate positions of building lines from working drawings 6.4 use site datum points 6.5 follow current environmental and relevant health and safety regulations.

Range
Resources Ranging lines, builder's square, optical squaring equipment, timber for pegs and profiles, measuring tapes, spirit level, straight edge, hand tools, optical level.

Learning outcome
The learner will: 7. know how to set out regular-shaped masonry structures on level ground.
Assessment criteria
The learner can:

7.1	describe the importance of building lines
7.2	identify **methods** used for setting out right- angled corners
7.3	identify **methods** used to transfer levels
7.4	describe **methods** of handling of optical equipment
7.5	state the importance of using temporary profiles
7.6	describe the importance of working space between profiles and excavation
7.7	describe the purpose of datum heights
7.8	describe the importance of protecting setting-out work
7.9	describe how setting-out information is transferred onto foundations.

Range
Methods (AC7.2) Diagonals/3:4:5 (Pythagoras' theorem), builders square, optical square, laser. Methods (AC7.3) Site datum establishment and protection, transferring levels from datum point, transfer of height to establish datum height, straight and corner profiles, ranging lines. Methods (AC7.4) Setting up, using, storing and transporting, in accordance with manufacturer's instructions.

Learning outcome
The learner will: 8. be able to set out regular-shaped masonry structures on level ground.
Assessment criteria
The learner can: 8.1 **locate positions** of setting out 8.2 locate positions of building lines 8.3 establish corner positions along building lines 8.4 set out right-angled corners 8.5 mark walling and trench positions onto profiles 8.6 transfer levels from given datum heights 8.7 check dimensional accuracy of settings 8.8 use correct access equipment 8.9 follow current environmental and current health and safety regulations.

Range
Locate positions Locate positions from block plan, site plan, north point.

Unit 246 Build solid and cavity walls to form craft masonry structures

UAN:	J/506/2289
Level:	2
Credit value:	16
GLH:	150
Endorsement by a sector or regulatory body:	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to build solid walls with attached and isolated piers, and cavity walls to form craft masonry structures.

Learning outcome
The learner will: 1. know how to plan and select resources for building solid and cavity walls to form craft masonry structures.
Assessment criteria
The learner can: 1.1 describe the different types of **construction drawings** 1.2 identify **scales** used in construction drawings 1.3 identify different types of **information sources** 1.4 describe **resources** required for building solid and cavity walls to form craft masonry structures 1.5 calculate quantities of resources for building solid and cavity walls to form craft masonry structures.

Range
Construction drawings Site plans, general location, assembly, sectional, detailed, orthographic projection (first angle), isometric projection. Scales 1:100, 1:50, 1:20, 1:10, 1:5. Information sources Building Regulations, drawings/specification, method statement, risk assessment, bill of quantities, manufacturer's instructions, material schedule.

Resources

Tools: brick trowel, pointing trowel, lump hammer, bolster chisel, plugging chisel, scutch hammer, line and pins, corner blocks, spirit level, boat/pocket level, tape measure, builders square, tingle plate, brick hammer, jointing iron, gauge lath/rod.

Equipment: bucket, brick tongs/grabs, sack barrow, wheelbarrow, sweeping brush, hand brush, shovel, straight edge, mortar board, portable mixers, PPE, ladders, independent, putlog and system scaffolding, trestles.

Materials: bricks, blocks (clay, concrete, sand lime, common, facing and engineering brick, lightweight or dense concrete block), mortar, natural stone, reconstructed stone, local stone, copings/pier cap, Damp Proof Course (DPC), wall ties, airbrick, cavity/airbrick liner (fixed, telescopic), insulation and fixing components, cavity tray, weep holes/vents, lintels, cavity closures, profiles (for openings), movement joints, radon protection measures.

Learning outcome
The learner will: 2. be able to plan and select resources for building solid and cavity walls to form craft masonry structures.
Assessment criteria
The learner can: 2.1 interpret information sources 2.2 complete method statements 2.3 carry out risk assessments 2.4 select appropriate Personal Protective Equipment 2.5 select resources required for building solid and cavity walls to form craft masonry structures 2.6 check suitability of resources for building solid and cavity walls to form craft masonry structures 2.7 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 3. know how to build solid and cavity walls to form craft masonry structures.
Assessment criteria
The learner can: 3.1 describe the different types of **foundations** 3.2 state **methods** of transferring wall positions from profiles and transferring onto foundation concrete 3.3 state methods of checking datum heights at corner positions 3.4 describe methods of positioning insulation to meet given specifications

3.5	describe **methods** of providing damp-proof barriers to solid walls
3.6	describe **methods** of providing damp-proof barriers to cavity walls
3.7	state **methods** of establishing and maintaining bonds for solid and cavity walls
3.8	identify different **bonds** used in solid and cavity walls
3.9	identify lap requirements for solid walls incorporating local materials
3.10	describe methods of providing **decorative features** to solid walls
3.11	describe the use of **reinforcement** in solid walls
3.12	describe methods used to provide **weatherproof finishes** to solid walls
3.13	describe **methods** of forming openings in cavity walls
3.14	describe the methods of pointing and jointing
3.15	describe **methods** of protecting work and surrounding areas from damage
3.16	state the **methods** of ensuring work meets the given specification.

Range

Foundations

Strip, wide strip, trench fill, stepped, raft, pad, reinforced.

Methods (3.2)

Plumbing from profile ranging lines, marking concrete base, mortar screed.

Methods (3.5)

Use of: horizontal DPC, engineering brick, solid walling, copings and pier caps, oversailing courses, tile creasing, brick on edge.

Methods (3.6)

Horizontal & vertical DPC, cavity tray, weep holes/vents.

Methods (3.7)

Solid walls: Dry bonding, reverse bond, broken bond, coursing, random rubble, rules of bonding.

Cavity walls: Dry bonding, reverse bond, broken bond, coursing, rules of bonding.

Bonds (3.8)

Half bond, quarter bond, English bond, Flemish bond, English garden wall bond, Flemish garden wall bond, block bond.

Decorative features

Changing mortar colour, contrasting masonry, recessed/projected masonry, varying joint finishes, brick on edge, soldier course, tile creasing, oversailing, brick quoins.

Reinforcement

Horizontal, vertical, expanded metal, plastic, steel reinforcing bar.

Weatherproof finishes

Brick on edge with tile creasing, oversailing course, copings, cappings, pointed weather struck finish, half round finish, flush finish, purpose-made bricks.

Methods (3.13)

Establishing openings:

- Temporary frames
- Measurement
- Built-in frames
- Profiles

Cavity closing methods:

- Traditional blockwork returns (insulated DPC)
- Proprietary closures

Bridging openings:

- Lintels (pre-cast concrete, steel, stone)
- Arches (semi-circular, segmental, proprietary arch centres)

Positioning cills:

- Proprietary
- Traditional brick
- Specials
- Tiles
- Concrete
- Dressed stone
- Slate

Methods (3.15)

Plastic sheeting, hessian, clean working platforms, clean mortar boards, cover resources, protect decorative features/openings (stonework, plinths, cills, reveals), barriers to isolate work area, signage, sweeping/hosing down.

Methods (3.16)

Regular measurement checks: storey, cill and lintel heights, wall plate and finished floor level, opening sizes; carry out snagging process, dry bonding, check for square, alignment of piers, maintaining bond, gauge, level and plumb.

Learning outcome
The learner will: 4. be able to build solid walls with attached and isolated piers.
Assessment criteria
The learner can: 4.1 position resources to enable efficient work practices

4.2	set out solid walls to given specifications
4.3	prepare and safely cut **materials**
4.4	construct solid walls to form: • straight lengths • returns • junctions • piers (isolated and attached)
4.5	construct **decorative features** for piers and solid walls
4.6	produce **jointing and pointing finishes** to walls
4.7	protect work and surrounding areas during the construction process
4.8	follow current environmental and relevant health and safety legislation.

Range
Materials Bricks, blocks, natural stone, reconstructed stone, local stone, copings, Damp Proof Course (DPC). Decorative features Contrasting masonry (including quoins), recessed/projected masonry, brick on edge, soldier course. Jointing and pointing finishes Half round, recessed, flush, weather-struck.

Learning outcome
The learner will: 5. be able to erect cavity walls.
Assessment criteria
The learner can: 5.1 position resources to enable efficient work practices 5.2 set out cavity walls to given specifications 5.3 prepare and safely cut materials 5.4 construct cavity walls to form: • straight lengths • returns • junctions • openings 5.5 fix insulation to cavity walls 5.6 produce **jointing and pointing finishes** to cavity walls 5.7 protect work and surrounding areas during the construction process 5.8 follow current environmental and relevant health and safety legislation.

Range
Jointing and pointing finishes Half round, recessed, flush, weather-struck.

Unit 247 Internal and external finishes for craft masonry structures

UAN:	A/506/2290
Level:	2
Credit value:	9
GLH:	83
Endorsement by a sector or regulatory body:	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to apply internal and external finishes for craft masonry structures.

Learning outcome
The learner will: 1. know how to plan and select resources for internal and external finishes for craft masonry structures.
Assessment criteria
The learner can: 1.1 identify different types of **information sources** 1.2 describe **resources** required for internal and external finishes for craft masonry structures 1.3 calculate quantities of resources for internal and external finishes for craft masonry structures 1.4 state the storage requirements of **materials.**

Range
Information sources Building regulations, specification, method statement, risk assessment, bill of quantities, manufacturer's instructions, material schedule. Resources Tools: Hawk, plasterer's trowel, brushes, float, gauging trowel, small tool, featheredge rule, darby, spirit levels, scratcher, devil float, plasterer's wheel, whisk/paddle, mixers, snips, finishing blade, claw hammer, bucket trowel. Equipment: Banker and stand, bucket, wheel barrow, mixer, hop ups, trestles, system scaffold, stilts. Materials: Sand, cement, lightweight plasters, plaster finish, thin coat and floating beads, fixings, additives, bonding agents, scrim,

plasterboards (standard, high impact, acoustic, moisture resistant, fire resistant).

Materials

Sand, cement, lightweight plasters, plaster finish, thin coat and floating beads, fixings, additives, bonding agents, scrim, plasterboard.

Learning outcome
The learner will: 2. be able to plan and select resources for internal and external finishes for craft masonry structures.
Assessment criteria
The learner can: 2.1 interpret information sources to establish work requirements 2.2 complete method statements 2.3 carry out risk assessments 2.4 select appropriate Personal Protective Equipment 2.5 select resources required for internal and external finishes for craft masonry structures. 2.6 check suitability of resources for internal and external finishes for craft masonry structures. 2.7 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 3. understand how to produce internal backgrounds, and internal and external finishes.
Assessment criteria
The learner can: 3.1 state the methods used to install sheet materials 3.2 describe the process of preparing **background surfaces** 3.3 state the sequence of **operations** for mixing 3.4 describe **methods** of fixing beads and trims 3.5 explain the different uses of expanded metal lath 3.6 describe **methods** of applying internal finishes 3.7 describe **methods** of applying external finishes.

Range
Background surfaces Internal: solid, sheet materials. External: lightweight block, dense block, brick, stone, cob, metal lath. Operations Internal: designated area, protect the work and surrounding area, use of clean water, correctly mixed plasters.

External: designated area, protect the work and surrounding area, correctly mix render.

Methods (3.4)
Galvanised fixings, direct bond with dabs.

Methods (3.6)
Fixing expanded metal lath (EML), pricking/dubbing coat, scratch coat and key first coat, floating coat, broad screed method, plumb and dot, freehand method, setting coat.

Methods (3.7)
Fixing expanded metal lath (EML), pricking/dubbing coat, scratch coat and key first coat, floating coat, broad screed method, plumb and dot, freehand method.

Learning outcome
The learner will: 4. be able to produce internal backgrounds and finishes.
Assessment criteria
The learner can: 4.1 install sheet materials 4.2 form solid internal backgrounds 4.3 prepare backgrounds with high and low suction 4.4 apply beads and trims as required 4.5 mix materials to given specification 4.6 apply internal finishes to sheet materials 4.7 apply internal finishes to solid backgrounds 4.8 form internal and external angles 4.9 protect work and surrounding areas as work proceeds 4.10 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 5. be able to produce external finishes.
Assessment criteria
The learner can: 5.1 prepare backgrounds with high and low suction 5.2 apply beads and trims as required 5.3 mix materials to given specification 5.4 apply **external finishes** to solid backgrounds 5.5 form internal and external angles 5.6 protect work and surrounding areas as work proceeds 5.7 follow current environmental and relevant health and safety legislation.

Range
External finishes Plain faced render (floated finish)

Unit 248 Install pitched roof systems for small-scale building projects

UAN:	F/506/2291
Level:	2
Credit value:	6
GLH:	56
Endorsement by a sector or regulatory body:	This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to install pitched roof systems for small-scale building projects.

Learning outcome
The learner will: 1. know how to plan and select resources for installing pitched roof systems for small-scale building projects.
Assessment criteria
The learner can: 1.1 identify different types of **information sources** 1.2 describe **resources** required for installing pitched roof systems for small-scale building projects 1.3 calculate quantities of resources required for installing pitched roof systems for small-scale building projects 1.4 state the storage requirements of **materials** used.

Range
Information sources Building Regulations, drawings/specification, method statement, risk assessment, bill of quantities, manufacturer's literature, material schedule. Resources Tools: Slate cutters, claw hammer, slate ripper, disc cutter, slate pick, slate scissors, craft knife, wood saw, tape measure, chalk line, gauging trowel, lead dresser, hand brush, slater's axe, pencil, marker pen. Equipment: bucket, conveyor, ridge ladder, shovel, wheel barrow, cordless drill. Materials: Underlay (breathable, non-breathable), battens, slates, interlocking tiles, plain tiles, fixings and clips, ridge/hip tiles,

undercloak, verge finishes, eaves protection system (EPS), hip irons, dry ridge system, dry verge, eaves tiles, flashings, sand, cement, pigments/colouring.

Materials

Underlay (breathable, non-breathable), battens, slates, interlocking tiles, plain tiles, ridge/hip tiles, lead.

Learning outcome
The learner will: 2. be able to plan and select resources for installing pitched roof systems for small-scale building projects.
Assessment criteria
The learner can: 2.1 interpret information sources required for installing pitched roof systems for small-scale building projects 2.2 complete method statements 2.3 carry out risk assessments 2.4 select appropriate Personal Protective Equipment 2.5 select resources required for installing pitched roof systems for small-scale building projects. 2.6 check suitability of resources for installing pitched roof systems for small-scale building projects 2.7 follow current environmental and relevant health and safety legislation.

Learning outcome
The learner will: 3. know how to install background materials for pitched roof systems for small-scale building projects.
Assessment criteria
The learner can: 3.1 describe the method of setting out to install **background materials** 3.2 describe the method of fixing **background materials**.

Range
Background materials (3.1) Underlay, battens, fixings, undercloak, eaves protection system (EPS). Background materials (3.2) Underlay, battens, fixings, undercloak, eaves protection system (EPS), dry ridge, vents.

Learning outcome
The learner will:

4. be able to install background materials for pitched roof systems for small-scale building projects.
Assessment criteria
The learner can: 4.1 set out to install background materials 4.2 fix eaves protection system 4.3 fix underlay 4.4 fix battens 4.5 fix **verge details** 4.6 protect work and surrounding areas as work proceeds 4.7 follow current environmental and relevant health and safety legislation.

Range
Verge details Undercloak, dry verge.

Learning outcome
The learner will: 5. know how to install pitched roof systems for small-scale building projects.
Assessment criteria
The learner can: 5.1 describe the process of setting out to install roof systems 5.2 describe the **methods** of fixing **roof finishing materials.**

Range
Methods Clipped, nailed, bedded. **Roof finishing materials** Slates, interlocking tiles, plain tiles, fixings and clips, ridge/hip tiles, verge finishes, hip irons, dry ridge system, dry verge, eaves tiles, flashings, sand, cement, pigments.

Learning outcome
The learner will: 6. be able to install pitched roof systems for small-scale building projects.
Assessment criteria
The learner can: 6.1 set out to install pitched roof systems 6.2 install **pitched roof systems** 6.3 follow manufacturer's information 6.4 protect work and surrounding areas as work proceeds

6.5	follow current environmental and relevant health and safety legislation.

Range
pitched roof systems interlocking tiles, plain tiles, slates (local, natural and man-made).

Unit 248 Install pitched roof systems for small-scale building projects

Supporting information

Guidance

Fixing of ridge/hip tiles for new work should be completed using mechanical fixings (refer to NHBC Standards for further information).

Appendix 1 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on **www.cityandguilds.com**.

Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

Our Quality Assurance Requirements encompasses all of the relevant requirements of key regulatory documents such as:

- Regulatory Arrangements for the Qualifications and Credit Framework (2008)
- SQA Awarding Body Criteria (2007)
- NVQ Code of Practice (2006)

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The centre homepage section of the City & Guilds website also contains useful information on such things as:

- Walled Garden: how to register and certificate candidates on line
- Events: dates and information on the latest Centre events
- Online assessment: how to register for e-assessments.

Useful contacts

UK learners General qualification information	T: +44 (0)844 543 0033 E: learnersupport@cityandguilds.com
International learners General qualification information	T: +44 (0)844 543 0033 F: +44 (0)20 7294 2413 E: intcg@cityandguilds.com
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: centresupport@cityandguilds.com
Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) E: singlesubjects@cityandguilds.com
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: intops@cityandguilds.com
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: walledgarden@cityandguilds.com
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	T: +44 (0)121 503 8993 E: business@cityandguilds.com
Publications Logbooks, Centre documents, Forms, Free literature	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413

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