Level 2 Technical Certificate in Bricklaying (7905-20)

Version 1.1 (June 2017)

Qualification Handbook Technicals

Qualification at a glance

Industry area	Construction
City & Guilds qualification number	7905-20
Age group	16-18 (Key Stage 5), 19+
Entry requirements	Centres must ensure that any pre-requisites stated in the What is this qualification about? section are met.
Assessment	To gain this qualification, candidates must successfully achieve the following assessments: • One externally set, externally moderated assignment • One externally set, externally marked exam, sat under examination conditions
Additional requirements to gain this qualification	Employer involvement in the delivery and/or assessment of this qualification is essential for all candidates and will be externally quality assured.
Grading	This qualification is graded Pass/Merit/Distinction/Distinction* For more information on grading, please see Section 7: Grading.
Approvals	This qualification requires full centre and qualification approval
Support materials	Sample assessments Guidance for delivery Guidance on use of marking grids
Registration and certification	Registration and certification of this qualification is through the Walled Garden, and is subject to end dates.
External quality assurance	This qualification is externally quality assured by City & Guilds, and its internally marked assignments are subject to external moderation. There is no direct claim status available for this qualification.

Title and level	GLH	TQT	City & Guilds qualification number	Ofqual accreditation number
Level 2 Technical Certificate in Bricklaying	360	600	7905-20	603/0313/X

Version and Date	Change Detail	Section
June 2017 V1.1	Addition of the examination paper based module number	1. Introduction – Assessment requirements and employer involvement 5. Assessment 5. Assessment – exam Specification 7. Grading – Awarding grades and reporting results
	Removal of AO 6-8 from Synoptic Assignments	5. Assessment – Assessment Objectives
	Addition of Provisional Grade Boundaries for the Synoptic Assignment	7. Grading
	Revised Exam Specification	5. Assessment – Exam Specification
	Branding Changes	Throughout

Contents

1   Introduction

What is this qualification about?

The following purpose is for the **City & Guilds Level 2 Technical Certificate in Bricklaying**

Area	Description
OVERVIEW	
Who is the qualification for?	This Level 2 Technical Certificate in Bricklaying is aimed at you if you are looking to work in the construction industry specifically as a craftsperson in bricklaying. A bricklayer has the skills and knowledge to build or repair walls in accordance with construction plans. They may also build or refurbish arches or other structures, therefore they play an important part of any construction team. You will gain an understanding of the skills and knowledge that are important when you are working as a bricklayer or progressing to further learning and training in this area. This qualification is suitable if you are16 years old, or over. You don't need any previous experience to start this qualification. Following successful completion of this qualification you will be qualified to work in the construction industry as a bricklayer.
What does the qualification cover?	This qualification covers all the main skills and knowledge you will need to progress to further learning and training, or to enter the world of work as a bricklayer. You will study the following mandatory content: • principles of construction • building cavity walls • building solid walls and piers • constructing basic arches • setting out buildings. The units are designed so that you learn the underlying principles and practical skills involved, as well as getting an overview of the principles of construction, building technology and terminology used. Centres and providers where you do your training, work with local employers who will contribute to the knowledge and delivery of this training. The different ways in which centres could support your learning by working with local and national businesses include: • Structured work-experience or work placements within their business

Area	Description
	- Your attendance at classes or lectures given by industry experts - Employers input into projects and exercises, or their involvement with setting assessments and examinations - Employers who act as 'expert witnesses' to contribute to the assessment of your work. This practical based training is ideal preparation for gaining employment as a craftsperson in bricklaying or further specialist study.

WHAT COULD THIS QUALIFICATION LEAD TO?	
Will the qualification lead to employment, and if so, in which job role and at what level?	Achievement of this qualification demonstrates to an employer that you have the necessary technical skills and knowledge they are looking for when recruiting for a bricklayer. This may be working for a house-building company, a property development company, or working as part of a small business repairing and refurbishing buildings.
Why choose this qualification over similar qualifications?	There are no other qualifications within this suite at this level. However, City & Guilds offers different technical certificate qualifications at Level 2 covering the skills and knowledge needed to work in other areas of the construction industry such as site carpentry, architectural joinery, painting and decorating and plastering.
Will the qualification lead to further learning?	This qualification will allow you to progress into employment or onto the Level 3 Advanced Technical Diploma in Bricklaying (450).This will allow you to enhance the skills and knowledge that you have gained at level two, to progress into higher job roles such as an advanced craft bricklayer. This qualification could also lead you to an apprenticeship in construction. There are a number of new and exciting apprenticeships currently being developed in construction, including bricklaying/trowel occupations, so you could progress to be an apprentice working as a bricklayer.

WHO SUPPORTS THIS QUALIFICATION?	
Employer/Higher Education Institutions	This qualification is supported by the Federation of Master Builders (FMB). The FMB is the UK's largest trade association in the building industry and was established to protect the interests of small and medium-sized building firms. The FMB supports the above qualification as being important for employment within the industry.

Qualification structure

To achieve the **City & Guilds Level 2 Technical Certificate in Bricklaying** the teaching programme must cover the content detailed in the structure below:

Unit number	Unit title	GLH
Mandatory		
201	Principles of construction	60
202	Building cavity walls	150
203	Building solid walls and piers	90
204	Constructing basic arches	30
205	Setting out buildings	30
	Total GLH	**360**

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 Technical Certificate in Bricklaying	360	600

Assessment requirements and employer involvement

To achieve the **City & Guilds Level 2 Technical Certificate in Bricklaying** candidates must successfully complete **both** mandatory assessment components**.**

Component number	Title
Mandatory	
003 or 503	Level 2 Bricklaying - Theory exam
004	Level 2 Bricklaying - Synoptic assignment

In addition, candidates **must** achieve the mandatory employer involvement requirement for this qualification **before** they can be awarded a qualification grade. For more information, please see guidance in *Section 4: Employer involvement*.

Employer involvement	
Component number	Title
Mandatory	
820	Employer involvement

2   Centre requirements

Approval

New centres will need to gain centre approval. Existing centres who wish to offer this qualification must go through City & Guilds' **full** Qualification Approval Process. There is no fast track approval for this qualification. Please refer to the City & Guilds website for further information on the approval process: **www.cityandguilds.com**

Resource requirements

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before designing a course programme.

Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following requirements:
* be technically competent in the areas in which they are delivering
* be able to deliver across the breadth and depth of the content of the qualification being taught
* have recent relevant teaching and assessment experience in the specific area they will be teaching, or be working towards this
* demonstrate continuing CPD.

Physical resources

Centres must be able to demonstrate that they have access to the equipment and technical resources required to deliver this qualification and its assessment.

Internal Quality Assurance

Internal quality assurance is key to ensuring accuracy and consistency of tutors and markers. Internal Quality Assurers (IQAs) monitor the work of all tutors involved with a qualification to ensure they are applying standards consistently throughout assessment activities. IQAs must have, and maintain, an appropriate level of technical competence and be qualified to make both marking and quality assurance decisions through a teaching qualification or recent, relevant experience.

Learner entry requirements

Centres must ensure that all learners have the opportunity to gain the qualification through appropriate study and training, and that any prerequisites stated in the *"What is this qualification about?"* section are met when registering on this qualification.

Age restrictions

These qualifications are approved for learners aged 16-18, 19+.

3 Delivering Technical qualifications

Initial assessment and induction

An initial assessment of each candidate should be made before the start of their programme to identify:
- if the learner has any specific learning or training needs,
- support and guidance they may need when working towards their qualifications
- the appropriate type and level of qualification.

We recommend that centres provide an introduction so that learners fully understand 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.

Employer involvement

Employer involvement is essential to maximise the value of each learner's experience. Centres are required to involve employers in the delivery of Technical qualifications at Key Stage 5 and/or their assessment, for every learner. This must be in place or planned before delivery programmes begin in order to gain qualification approval. See *Section 4: Employer involvement* for more detail.

Support materials

The following resources are available for these qualifications:

Description	How to access
Sample assessments	Available on the qualification pages on the City & Guilds Website: www.cityandguilds.com
Guidance for delivery	
Guidance on use of marking grids	

4   Employer involvement

Employer involvement is a formal component of Key Stage 5 Technical qualifications. It does not contribute to the overall qualification grading, but is a mandatory requirement that all learners must meet. As such it is subject to external quality assurance by City & Guilds.

Department for Education (DfE) requirements state:

Employer involvement in the delivery and/or assessment of technical qualifications provides a clear 'line of sight' to work, enriches learning, raises the credibility of the qualification in the eyes of employers, parents and students and furthers collaboration between the learning and skills sector and industry.
[Technical qualifications] must:

- *require all students to undertake meaningful activity involving employers during their study; and*
- *be governed by quality assurance procedures run by the awarding organisation to confirm that education providers have secured employer involvement for every student.*

Extract from: ***Vocational qualifications for 16 to 19 year olds, 2017 and 2018 performance tables: technical guidance for awarding organisations, paragraphs 89-90***

City & Guilds will provide support, guidance and quality assurance of employer involvement.

Qualification approval

To be approved to offer City & Guilds Technicals, centres must provide an Employer Involvement planner and tracker showing how every learner will be able to experience meaningful employer involvement, and from where sufficient and suitable employer representatives are expected to be sourced.
Centres must include in their planner a sufficient range of activities throughout the learning programme that provide a range of employer interactions for learners. Centres must also plan contingencies for learners who may be absent for employer involvement activities, so that they are not disadvantaged.
As part of the approval process, City & Guilds will review this planner and tracker. Centres which cannot show sufficient commitment from employers and/or a credible planner and tracker will be given an action for improvement with a realistic timescale for completion. **Approval will not be given** if employer involvement cannot be assured either at the start of the qualification, or through an appropriate plan of action to address this requirement before the learner is certificated.

Monitoring and reporting learner engagement

Employer involvement is a formal component of this qualification and is subject to quality assurance monitoring. Centres must record evidence that demonstrates that each learner has been involved in meaningful employer based activities against the mandatory content before claiming the employer involvement component for learners.
Centres must record the range and type of employer involvement each learner has experienced and submit confirmation that all learners have met the requirements to City & Guilds. If a centre cannot provide evidence that learners have met the requirements to achieve the component, then the learner will not be able to achieve the overall Technical Qualification.

Types of involvement

Centres should note that to be eligible, employer involvement activities **must** relate to one or more elements of the mandatory content of this qualification.

As the aim of employer involvement is to enrich learning and to give learners a taste of the expectations of employers in the industry area they are studying, centres are encouraged to work creatively with local employers.

Employers can identify the areas of skills and knowledge in their particular industry that they would wish to see emphasised for learners who may apply to work with them in the future. Centres and employers can then establish the type of input, and which employer representative might be able to best support these aims. To be of most benefit this must add to, rather than replace the centre's programme of learning.

Some examples of meaningful employer involvement are listed below. Employer involvement not related to the mandatory element of the qualification, although valuable in other ways, does not count towards this element of the qualification.

The DfE has provided the following examples of what does and does not count as meaningful employer involvement, as follows[1]:

The following activities meet the requirement for meaningful employer involvement:

- *students undertake structured work-experience or work-placements that develop skills and knowledge relevant to the qualification;*
- *students undertake project(s), exercises(s) and/or assessments/examination(s) set with input from industry practitioner(s);*
- *students take one or more units delivered or co-delivered by an industry practitioner(s). This could take the form of master classes or guest lectures;*
- *industry practitioners operate as 'expert witnesses' that contribute to the assessment of a student's work or practice, operating within a specified assessment framework. This may be a specific project(s), exercise(s) or examination(s), or all assessments for a qualification.*

In all cases participating industry practitioners and employers must be relevant to the industry sector or occupation/occupational group to which the qualification relates.

The following activities, whilst valuable, do not meet the requirement for meaningful employer involvement:

- *employers' or industry practitioners' input to the initial design and content of a qualification;*
- *employers hosting visits, providing premises, facilities or equipment;*
- *employers or industry practitioners providing talks or contributing to delivery on employability, general careers advice, CV writing, interview training etc;*
- *student attendance at career fairs, events or other networking opportunities;*
- *simulated or provider-based working environments eg hairdressing salons, florists, restaurants, travel agents, small manufacturing units, car servicing facilities;*
- *employers providing students with job references.*

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[1] Based on Technical and applied qualifications for 14 to 19 year olds Key stage 4 and 16 to 19 performance tables from 2019: technical guidance for awarding organisations, August 2016

Types of evidence

For each employer involvement activity, centres are required to provide evidence of which learners undertook it, eg a candidate attendance register. The types of additional evidence required to support a claim for this component will vary depending on the nature of the involvement. Eg for a guest lecture it is expected that a synopsis of the lecture and register would be taken which each learner and the guest speaker will have signed; expert witnesses will be identified and will have signed the relevant assessment paperwork for each learner they have been involved in assessing; evidence of contribution from employers to the development of locally set or adapted assignments.

Quality assurance process

As the employer involvement component is a requirement for achieving the KS5 Technical qualifications, it is subject to external quality assurance by City & Guilds at the approval stage and when centres wish to claim certification for learners.
Evidence will be validated by City & Guilds before learners can achieve the employer involvement component. Where employer involvement is not judged to be sufficient, certificates cannot be claimed for learners.

Sufficiency of involvement for each learner

It is expected that the centre will plan a range of activities that provide sufficient opportunities for each learner to interact directly with a range of individuals employed in the related industry. Centres must also provide contingencies for learners who may be absent for part of their teaching, so they are not disadvantaged. Any absence that results in a learner missing arranged activities must be documented. Where learners are unable to undertake all employer involvement activities due to temporary illness, temporary injury or other indisposition, centres should contact City & Guilds for further guidance.

Live involvement

Learners will gain most benefit from direct interaction with employers and/or their staff; however the use of technology (eg the use of live webinars) is encouraged to maximise the range of interactions. Where learners are able to interact in real time with employers, including through the use of technology, this will be classed as 'live involvement'.

It is considered good practice to record learning activities, where possible, to allow learners to revisit their experience and to provide a contingency for absent learners. This is not classed as live involvement however, and any involvement of this type for a learner must be identified as contingency.

Timing

A learner who has not met the minimum requirements cannot be awarded the component, and will therefore not achieve the qualification. It is therefore important that centres give consideration to scheduling employer involvement activities, and that enough time is allotted throughout delivery and assessment of the qualification to ensure that requirements are fully met.

5 Assessment

Summary of assessment methods and conditions

Component numbers	Assessment method	Description and conditions
004	Synoptic assignment	The synoptic assignment is **externally set, internally marked and externally moderated**. The assignment requires candidates to identify and use effectively in an integrated way an appropriate selection of skills, techniques, concepts, theories, and knowledge from across the content area. Candidates will be judged against the assessment objectives. Assignments will be released to centres as per dates indicated in the Assessment and Examination timetable published on our website. Centres will be required to maintain the security of all live assessment materials. Assignments will be password protected and released to centres through a secure method. There will be one opportunity within each academic year to sit the assignment. Candidates who fail the assignment will have **one** re-sit opportunity. The re-sit opportunity will be in the next academic year, and will be the assignment set for that academic year once released to centres. If the re-sit is failed, the candidate will fail the qualification. Please note that for externally set assignments City & Guilds provides guidance and support to centres on the marking and moderation process.

Component numbers	Assessment method	Description and conditions
003/503	Externally marked exam	The exam is **externally set and externally marked** and can be taken either online through City & Guilds' computer-based testing platform, (003) or as a paper based test (503). The exam is designed to assess the candidate's depth and breadth of understanding across content in the qualification at the end of the period of learning, using a range of question types and will be sat under invigilated examination conditions. See JCQ requirements for details: **http://www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations** The exam specification shows the coverage of the exam across the qualification content. Candidates who fail the exam at the first sitting will have **one** opportunity to re-sit. If the re-sit is failed the candidate will fail the qualification. For exam dates, please refer to the Assessment and Examination timetable.

What is synoptic assessment?

Technical qualifications are based around the development of a toolkit of knowledge, understanding and skills that an individual needs in order to have the capability to work in a particular industry or occupational area. Individuals in all technical areas are expected to be able to apply their knowledge, understanding and skills in decision making to solve problems and achieve given outcomes independently and confidently.

City & Guilds Technical qualifications require candidates to draw together their learning from across the qualification to solve problems or achieve specific outcomes by explicitly assessing this through the synoptic assignment component.

In this externally set, internally marked and externally moderated assessment the focus is on bringing together, selecting and applying learning from across the qualification rather than demonstrating achievement against units or subsets of the qualification content. The candidate will be given an appropriately levelled, substantial, occupationally relevant problem to solve or outcome to achieve. For example this might be in the form of a briefing from a client, leaving the candidate with the scope to select and carry out the processes required to achieve the client's wishes, as they would in the workplace.

Candidates will be marked against assessment objectives (AOs) such as their breadth and accuracy of knowledge, understanding of concepts, and the quality of their technical skills as well as their ability to use what they have learned in an integrated way to achieve a considered and high quality outcome.

How the assignment is synoptic for this qualification

The typical assignment brief could be to build a boundary wall with an arch in relation to the brief and the client's specification. This will draw upon the candidates' ability to interpret diagrams and client specifications. The candidate will need to incorporate their knowledge of geometry, demonstrate accurate hand skills when working in workshops (ie cutting skills), setting out skills and skills for building. Candidates will demonstrate they are following Health and Safety regulations at all times, which will draw upon their knowledge of legislation and regulations.

External exam for stretch, challenge and integration

The exam draws from across the mandatory content of the qualification, using:
- **multiple choice questions** to confirm breadth of knowledge and understanding
- **multiple choice applied knowledge and understanding questions**, giving candidates the opportunity to demonstrate higher level, integrated understanding through application, analysis and evaluation.

Assessment objectives

The assessments for this qualification are set against a set of assessment objectives (AOs) which are used across all City & Guilds Technicals to promote consistency among qualifications of a similar purpose. They are designed to allow judgement of the candidate to be made across a number of different categories of performance.

Each assessment for the qualification has been allocated a set number of marks against these AOs based on weightings recommended by stakeholders of the qualification. This mark allocation remains the same for all versions of the assessments, ensuring consistency across assessment versions and over time.

The following table explains all AOs in detail, including weightings for the synoptic assignments. In some cases, due to the nature of a qualification's content, it is not appropriate to award marks for some AOs. Where this is the case these have been marked as N/A. Weightings for exams (AOs 1, 2 and 4 only) can be found with the exam specification.

Assessment objective	Typical expected evidence of knowledge, understanding and skills	Approximate weighting (Assignment)
AO1 Recalls knowledge from across the breadth of the qualification.	Setting out an angle at 90° and linear measurements, bonding materials, tools and equipment required, construction techniques, terminology, safe method of work, positioning of materials and resources.	10%
AO2 Demonstrates understanding of concepts, theories and processes from across the breadth of the qualification.	Interpreting drawings/specifications, showing an understanding of the setting out processes, methods of work, applying Health & Safety legislation to planning and carrying out activities, risk assessments, showing an understanding of the correct sequence of work, calculating quantities of materials and components.	20%
AO3 Demonstrates technical skills from across the breadth of the qualification.	Measuring skills; working safely; setting out, gauging, levelling and plumbing skills; correct use of tools, equipment and materials; positioning and fixing of components.	40%

Assessment objective	Typical expected evidence of knowledge, understanding and skills	Approximate weighting (Assignment)
AO4 Applies knowledge, understanding and skills from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.	Applying knowledge and understanding to the tasks, able to plan activities from information provided. Materials and techniques used appropriately, correct sequence of operations carried out when setting out and carrying out the work. Safe and clean working practices demonstrated.	20%
AO5 Demonstrates perseverance in achieving high standards and attention to detail while showing an understanding of wider impact of their actions.	Checking for accuracy at each stage of completed work. Using levels and gauges consistently. Checking that work is clean and defect free. Safe and systematic approach to work and cleanliness. Considerations for other trades.	10%

Exam specification

AO weightings per exam

Assessment objective	Exam 003/503 weighting (approx. %)
AO1 Recalls knowledge from across the breadth of the qualification.	42%
AO2 Demonstrates understanding of concepts, theories and processes from across the breadth of the qualification.	38%
AO4 Applies knowledge, understanding and skills from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.	20%

The way the exam covers the content of the qualification is laid out in the table below:

Assessment type: Multiple choice exam*
Assessment conditions: Invigilated examination conditions
Grading: X/P/M/D

003/503	Duration: 2 hours		
Unit	Unit title	Number of marks	%
201	Principles of construction	18	30
202	Building cavity walls	30	50
Applied knowledge and understanding		12	20
	Total	**60**	**100**

*These exams are sat under invigilated examination conditions, as defined by the JCQ:
http://www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations

Entry for exams can be made through the City & Guilds Walled Garden.

6   Moderation and standardisation of assessment

City & Guilds' externally set assignments for technical qualifications are designed to draw from across the qualifications' content, and to contribute a significant proportion towards the learner's final qualification grade. They are subject to a rigorous external quality assurance process known as external moderation. This process is outlined below. For more detailed information, please refer to 'Marking and moderation - Technicals centre guidance' available to download on the City & Guilds website.

It is vital that centres familiarise themselves with this process, and how it impacts on their delivery plan within the academic year.

Supervision and authentication of internally assessed work

The Head of Centre is responsible for ensuring that internally assessed work is conducted in accordance with City & Guilds' requirements.
City & Guilds requires both tutors and candidates to sign declarations of authenticity. If the tutor is unable to sign the authentication statement for a particular candidate, then the candidate's work cannot be accepted for assessment.

Internal standardisation

For internally marked work[2] the centre is required to conduct internal standardisation to ensure that all work at the centre has been marked to the same standard. It is the Internal Quality Assurer's (IQA's) responsibility to ensure that standardisation has taken place, and that the training includes the use of reference and archive materials such as work from previous years as appropriate.

Internal appeal

Centres cannot appeal the outcome of moderation for individual candidates, only the moderation process itself. A request for a review of the moderation process should be made to **appeals@cityandguilds.com**.

Moderation

Moderation is the process where external markers are standardised to a national standard in order to review centre marking of internally marked assessments. These markers are referred to as 'moderators'. Moderators will mark a representative sample of candidates' work from every centre. Their marks act as a benchmark to inform City & Guilds whether centre marking is in line with City & Guilds' standard.

Where moderation shows that the centre is applying the marking criteria correctly, centre marks for the whole cohort will be accepted.

Where moderation shows that the centre is either consistently too lenient or consistently too harsh in comparison to the national standard, an appropriate adjustment will be made to the marks of the whole cohort, retaining the centre's rank ordering.

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[2] For any internally assessed optional unit assignments, the same process must be followed where assessors must standardise their interpretation of the assessment and grading criteria.

Where centre application of the marking criteria is inconsistent, an appropriate adjustment for the whole cohort may not be possible on the basis of the sample of candidate work. In these instances a complete remark of the candidate work may be necessary. This may be carried out by the centre based on feedback provided by the moderator, or carried out by the moderator directly.

Moderation applies to all internally marked assignments. Following standardisation and marking, the centre submits all marks and candidate work to City & Guilds via the moderation platform. The deadline for submission of evidence will be available on Walled Garden. See the *Marking and moderation - Technicals Centre Guidance* document for full details of the requirements and process.

In most cases candidate work will be submitted directly to the moderator for moderation. This includes written work, photographic and pictorial evidence, or video and audio evidence. For some qualifications there will be a requirement for moderators to visit centres to observe practical assessments being undertaken. This will be for qualifications where the assessment of essential learner skills can only be demonstrated through live observation. The purpose of these visits is to ensure that the centre is assessing the practical skills to the required standards, and to provide the moderators with additional evidence to be used during moderation. These visits will be planned in advance with the centre for all relevant qualifications.

Post-moderation procedures

Once the moderation process has been completed, the confirmed marks for the cohort are provided to the centre along with feedback from the moderator on the standard of marking at the centre, highlighting areas of good practice, and potential areas for improvement. This will inform future marking and internal standardisation activities.
City & Guilds will then carry out awarding, the process by which grade boundaries are set with reference to the candidate evidence available on the platform.

Centres retaining evidence

Centres must retain assessment records for each candidate for a minimum of three years. To help prevent plagiarism or unfair advantage in future versions, candidate work may not be returned to candidates. Samples may however be retained by the centre as examples for future standardisation of marking.

7 Grading

Awarding individual assessments

Individual assessments will be graded, by City & Guilds, as pass/merit/distinction where relevant. The grade boundaries for pass and distinction for each assessment will be set through a process of professional judgement by technical experts. Merit will usually be set at the midpoint between pass and distinction. The grade descriptors for pass and distinction, and other relevant information (eg archived samples of candidate work and statistical evidence) will be used to determine the mark at which candidate performance in the assessment best aligns with the grade descriptor in the context of the qualification's purpose. Boundaries will be set for each version of each assessment to take into account relative difficulty.

Please note that as the Merit grade will usually be set at the arithmetical midpoint between pass and distinction, there are no descriptors for the Merit grade for the qualification overall.

Grade descriptors

To achieve a pass, a candidate will be able to

- Demonstrate the knowledge and understanding required to work in the occupational area, its principles, practices and legislation.
- Describe some of the main factors impacting on the occupation to show good understanding of how work tasks are shaped by the broader social, environmental and business environment it operates within.
- Use the technical industry specific terminology used in the industry accurately.
- Demonstrate the application of relevant theory and understanding to solve non-routine problems.
- Interpret a brief for complex work related tasks, identifying the key aspects, and showing a secure understanding of the application of concepts to specific work related tasks.
- Carry out planning which shows an ability to identify and analyse the relevant information in the brief and use knowledge and understanding from across the qualification (including complex technical information) to interpret what a fit for purpose outcome would be and develop a plausible plan to achieve it.
- Achieve an outcome which successfully meets the key requirements of the brief.
- Identify and reflect on the most obvious measures of success for the task and evaluate how successful they have been in meeting the intentions of the plan.
- Work safely throughout, independently carrying out tasks and procedures, and having some confidence in attempting the more complex tasks.

To achieve a distinction, a candidate will be able to

- Demonstrate the excellent knowledge and understanding required to work to a high level in the occupational area, its principles, practices and legislation.
- Analyse the impact of different factors on the occupation to show deep understanding of how work tasks are shaped by the broader social, environmental, and business environment it operates within.
- Demonstrate the application of relevant theory and understanding to provide efficient and effective solutions to complex and non-routine problems.
- Analyse the brief in detail, showing confident understanding of concepts and themes from across the qualification content, bringing these together to develop a clear and stretching plan, that would credibly achieve an outcome that is highly fit for purpose.

- Achieve an outcome which shows an attention to detail in its planning, development and completion, so that it completely meets or exceeds the expectations of the brief to a high standard.
- Carry out an evaluation in a systematic way, focussing on relevant quality points, identifying areas of development/ improvement as well as assessing the fitness for purpose of the outcome.

Awarding grades and reporting results

The overall qualification grade will be calculated based on aggregation of the candidate's achievement in each of the assessments for the mandatory units, taking into account the assessments' weighting. The **Level 2 Technical Certificate in Bricklaying** will be reported on a four grade scale: Pass, Merit, Distinction, Distinction*.

All assessments **must** be achieved at a minimum of Pass for the qualification to be awarded. Candidates who fail to reach the minimum standard for grade Pass for an assessment(s) will not have a qualification grade awarded and will not receive a qualification certificate.

The approximate pass grade boundary(ies) for the synoptic assignment(s) in this qualification are:

Synoptic Assignment	Pass Mark (%)
004	43

Please note that each synoptic assignment is subject to an awarding process before final grade boundaries are confirmed.

The contribution of assessments towards the overall qualification grade is as follows::

Assessment method	Grade scale	% contribution
Exam (003/503)	X/P/M/D	40%
Synoptic assignment (004)	X/P/M/D	60%

Both synoptic assignments and exams are awarded (see 'Awarding individual assessments', at the start of Section 7, above), and candidates' grades converted to points. The minimum points available for each assessment grade is listed in the table below. A range of points between the Pass, Merit and Distinction boundaries will be accessible to candidates. For example a candidate that achieves a middle to high Pass in an assessment will receive between 8 and 10 points, a candidate that achieves a low to middle Merit in an assessment will receive between 12 and 14 points. The points above the minimum for the grade for each assessment are calculated based on the candidate's score in that assessment.

	Pass	Merit	Distinction
Exam: 40%	6	12	18
Synoptic assignment: 60%	6	12	18

The candidate's points for each assessment are multiplied by the % contribution of the assessment and then aggregated. The minimum points required for each qualification grade are as follows:

Qualification Grade	Points
Distinction*	20.5
Distinction	17
Merit	11
Pass	6

Candidates achieving Distinction* will be the highest achieving of the Distinction candidates.

8   Administration

Approved centres must have effective quality assurance systems to ensure valid and reliable delivery and assessment of qualifications. Quality assurance includes initial centre registration by City & Guilds and the centre's own internal procedures for monitoring quality assurance procedures.

Consistent quality assurance requires City & Guilds and its associated centres to work together closely; our Quality Assurance Model encompasses both internal quality assurance (activities and processes undertaken within centres) and external quality assurance (activities and processes undertaken by City & Guilds).

For this qualification, standards and rigorous quality assurance are maintained by the use of:
• internal quality assurance
• City & Guilds external moderation.

In order to carry out the quality assurance role, Internal Quality Assurers (IQAs) must have and maintain an appropriate level of technical competence and have recent relevant assessment experience. For more information on the requirements, refer to Section 2: Centre requirements in this handbook.
To meet the quality assurance criteria for this qualification, the centre must ensure that the following procedures are followed:
• suitable training of staff involved in the assessment of the qualification to ensure they understand the process of marking and standardisation
• completion by the person responsible for internal standardisation of the Centre Declaration Sheet to confirm that internal standardisation has taken place
• the completion by candidates and supervisors/tutors of the record form for each candidate's work.

External quality assurance

City & Guilds will undertake external moderation activities to ensure that the quality assurance criteria for this qualification are being met. Centres must ensure that they co-operate with City & Guilds staff and representatives when undertaking these activities.

City & Guilds requires the Head of Centre to:
• facilitate any inspection of the centre which is undertaken on behalf of City & Guilds
• make arrangements to receive, check and keep assessment material secure at all times
• maintain the security of City & Guilds confidential material from receipt to the time when it is no longer confidential and
• keep completed assignment work and examination scripts secure from the time they are collected from the candidates to their dispatch to City & Guilds.

Enquiries about results

The services available for enquiries about results include a review of marking for exam results and review of moderation for internally marked assessments.

For further details on enquiries and appeals process and for copies of the application forms, please visit the **appeals** page of the City & Guilds website at **www.cityandguilds.com**.

Re-sits and shelf-life of assessment results

Candidates who have failed an assessment or wish to re-take it in an attempt to improve their grade, can re-sit assessments once only. The best result will count towards the final qualification. See guidance on individual assessment types in Section 5.

Factors affecting individual learners

If work is lost, City & Guilds should be notified immediately of the date of the loss, how it occurred, and who was responsible for the loss. Centres should use the JCQ form, JCQ/LCW, to inform City & Guilds Customer Services of the circumstances.

Learners who move from one centre to another during the course may require individual attention. Possible courses of action depend on the stage at which the move takes place. Centres should contact City & Guilds at the earliest possible stage for advice about appropriate arrangements in individual cases.

Malpractice

Please refer to the City & Guilds guidance notes *Managing cases of suspected malpractice in examinations and assessments*. This document sets out the procedures to be followed in identifying and reporting malpractice by candidates and/or centre staff and the actions which City & Guilds may subsequently take. The document includes examples of candidate and centre malpractice and explains the responsibilities of centre staff to report actual or suspected malpractice. Centres can access this document on the City & Guilds website.

Examples of candidate malpractice are (please note that this is not an exhaustive list):
- falsification of assessment evidence or results documentation
- plagiarism of any nature
- collusion with others
- copying from another candidate (including the use of ICT to aid copying), or allowing work to be copied
- deliberate destruction of another's work
- false declaration of authenticity in relation to assessments
- impersonation.

These actions constitute malpractice, for which a penalty (eg disqualification from the assessment) will be applied.

Where suspected malpractice is identified by a centre after the candidate has signed the declaration of authentication, the Head of Centre must submit full details of the case to City & Guilds at the earliest opportunity. Please refer to the form in the document *Managing cases of suspected malpractice in examinations and assessments.*

Access arrangements and special consideration

Access arrangements are adjustments that allow candidates with disabilities, special educational needs and temporary injuries to access the assessment and demonstrate their skills and knowledge without changing the demands of the assessment. These arrangements must be made before assessment takes place.

It is the responsibility of the centre to ensure at the start of a programme of learning that candidates will be able to access the requirements of the qualification.

Please refer to the JCQ access arrangements and reasonable adjustments and Access arrangements - when and how applications need to be made to City & Guilds for more information. Both are available on the City & Guilds website: **http://www.cityandguilds.com/delivering-our-**

qualifications/centre-development/centre-document-library/policies-and-procedures/access-arrangements-reasonable-adjustments

Special consideration

We can give special consideration to candidates who have had a temporary illness, injury or indisposition at the time of the examination. Where we do this, it is given after the examination.

Applications for either access arrangements or special consideration should be submitted to City & Guilds by the Examinations Officer at the centre. For more information please consult the current version of the JCQ document, A guide to the special consideration process. This document is available on the City & Guilds website: **http://www.cityandguilds.com/delivering-our-qualifications/centre-development/centre-document-library/policies-and-procedures/access-arrangements-reasonable-adjustments**

Unit 201 Principles of construction

Unit level:	Level 2
GLH:	60

What is this unit about?

The purpose of this unit is to introduce learners to the construction industry and to give a wider context to the trade area they are studying, as construction is a vital part of the economy and plays an important role in all our lives. Learners will discover that this sector can be very rewarding and that there are opportunities for career progression.

This unit provides learners with an understanding of the principles of construction, building technology and terminology used. This unit also covers various pieces of legislation, including health and safety, planning and building control.

Learners may be introduced to the unit by asking themselves questions, such as:
- How are materials and components used in construction?
- How are work areas set up and organised through to completion?
- What types of career progression opportunities are available in the construction industry?
- Who needs to communicate throughout a construction project?

Learning outcomes

In this unit, learners will be able to

1 Understand how to work in the construction industry
2 Understand construction information
3 Understand how to set up and secure work areas
4 Know building substructure
5 Know building superstructure

Learning outcome

1   Understand how to work in the construction industry

Topics

1.1   Areas of and personnel involved in construction work
1.2   Roles of team members and career progression
1.3   Communication within construction team

Depth

Topic 1.1

Range of construction work:
- new build
- renovation
- maintenance
- restoration
- domestic
- commercial
- industrial.

Organisations that contribute to the construction process:
- building contractors
- manufacturers
- suppliers
- local authorities
- legislative bodies.

Topic 1.2

Members of the building team and their roles:
- professional
- craft
- operatives.

Career opportunities that exist in the construction industry:
- progression routes
- continuing professional development (CPD)/qualifications.

Topic 1.3

Key personnel involved in day to day communication:
- site managers
- supervisors

- fellow operatives
- clients.

Additional parties involved in wider communication:

- architects
- Health and Safety Executive
- local authorities
- local residents
- registered building control
- Construction (Design and Management) (CDM) co-ordinator
- environmental bodies
- other trade areas.

Methods of communication:

- written
- verbal.

Learning outcome

2   Understand construction information

Topics

2.1   Building controls and regulations
2.2   Types and uses of construction information
2.3   Technical drawings used in the construction industry
2.4   Health and safety legislation

Depth

Topic 2.1

The controls and regulations that support the construction process:

- planning permission
- building regulations
- health and safety law
- quality and standards.

An in-depth knowledge of building regulations is **not** a requirement at this stage.

Topic 2.2

Construction information used to manage, support and organise projects:

- specifications
- drawings
- schedules

- bill of quantities
- programme of works
- Building Information Modelling (BIM).

Topic 2.3

Methods of drawing:
- hand
- Computer Aided Design (CAD).

Drawing skills are **not** essential at this stage.

Types of drawing:
- orthographic projection
- isometric projection.

Drawing information:
- scale
- symbols and hatchings.

Topic 2.4

Health and safety guidance used during the construction process:
- Health and Safety at Work Act (HASAWA)
- 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.

An in-depth knowledge of health and safety legislation is **not** a requirement at this stage.

Learning outcome

3   Understand how to set up and secure work areas

Topics

3.1   Planning a site layout
3.2   Site welfare
3.3   Site security

Depth

Topic 3.1

Importance of the following areas on planning:
- material deliveries
- material storage
- neighbouring properties
- noise considerations
- parking
- waste management/recycling
- protection to the natural environment
- access/egress
- plant.

Topic 3.2

Areas of welfare that should be considered during site set up:
- toilets
- washing facilities
- storage of personal items
- canteen
- drying room.

Knowledge of site planning (3.1) and welfare (3.2) should be connected for the learner to understand the importance they play.

Topic 3.3

Importance of protecting various work areas in relation to:
- the public
- employees
- materials
- tools and equipment.

Learning outcome

4   Know building substructure

Topics

4.1   Purposes and materials of substructure
4.2   Types of building services

Depth

Topic 4.1

Types and purposes of foundations:
- pad
- pile
- raft
- strip.

Characteristics of the following materials used in substructure:
- brick
- block
- steel
- concrete
- Damp Proof Course (DPC)/Damp Proof Membrane (DPM) and membranes
- insulation.

Topic 4.2

Types of services that are used to supply buildings:
- electricity
- gas
- water
- drainage (surface and foul)
- communication networks.

Learning outcome

5   Know building superstructure

Topics

5.1   Wall types and their associated materials
5.2   Floor types and their associated materials
5.3   Roof types and their associated materials
5.4   Types of finishes
5.5   Types of building elements

Depth

Topic 5.1

Types of walls and their components:
- solid
- cavity

- timber frame
- partitions.

Types of materials:
- brick
- block
- stone
- timber
- metal stud.

An in depth knowledge of each type of wall and their components is **not** a requirement at this stage.

Topic 5.2

Types of floors:
- solid
- suspended.

Types of materials:
- block/beam
- concrete
- timber
- steel reinforcement
- insulation
- DPM
- screed.

An in depth knowledge of each type of floor and their components is **not** a requirement at this stage.

Topic 5.3

Types of roofs and their components:
- pitched
  - o traditional hand cut
  - o trussed
- flat.

Types of materials:
- timber
- lead
- slate
- tile
- felt
- sheet
- other synthetic systems.

An in depth knowledge of each type of roof and their components is **not** a requirement at this stage.

Topic 5.4

Types of internal finishes:
- paint systems
- paper coverings
- plaster
- dry lining
- tiling.

Types of external finishes:
- paint systems
- rendering systems
- coatings
- external wall insulation (EWI)
- cladding.

An in depth knowledge of each type of finish and their components is **not** a requirement at this stage.

Topic 5.5

Building elements:
- first fix
    - o partitions
    - o external door and window frames
    - o internal door lining
    - o stairs
    - o services
- second fix
    - o finishes
    - o doors
    - o kitchen units
    - o sanitary ware.

An in depth knowledge of each type of element and their components is **not** a requirement at this stage.

Guidance for delivery

It is advised that this unit should be one of the last units delivered in this qualification because it relates to much of the content of the other units and it will give learners a holistic understanding of the construction industry. Because this unit has a broad content, tutors should consider utilising the skills and expertise of relevant trade areas to support delivery. Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

This is a knowledge only unit and although the majority of content could be delivered in a classroom environment, it is important that learners can relate this knowledge and understanding to real life working tasks and environments. Reference to this unit should be made when teaching the other practical units that make up this qualification.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self-study, City & Guilds SmartScreen materials, research opportunities, collaborative learning activities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Teaching and learning strategies must help learners to develop a clear and simple understanding of how the construction industry functions. This can be done by examining the industry from a variety of perspectives, breaking the knowledge down into bite-sized pieces and then asking the learners to work out how they fit together to form a united whole. This should be based on real-life case studies.

Sustainability and the environmental impact of the materials used should be considered during teaching delivery.

Unit 202 Building cavity walls

Unit level:	Level 2
GLH:	150

What is this unit about?

The purpose of this unit is for learners to have the knowledge, understanding and skills to set out and build cavity walls from various types of walling components. The skills acquired from this unit include building cavities to form straight lengths, returns and junctions as well as forming openings.

The unit will provide learners with skills and understanding of how to use sources of information in order to plan, select resources and build cavity walls in a safe way to the correct specification. Protection of the work environment must be considered during all stages of the building process.

Learners may be introduced to the unit by asking themselves questions, such as:
- How are openings formed in walls?
- How is dampness prevented from passing through a cavity wall?
- How is heat loss reduced through cavity walls?
- How is the inside leaf tied to the external leaf of a cavity wall?
- How does a cavity wall prevent fire from spreading?

Learning outcomes

In this unit, learners will be able to

1   Plan and prepare materials to build single leaf masonry walls
2   Build single leaf masonry walls in brick and block
3   Plan and prepare materials to build cavity walls
4   Build cavity walls to comply with building regulations

Learning outcome

1   Plan and prepare materials to build single leaf masonry walls

Topics

1.1   Information sources used during planning
1.2   Calculate quantities for building single leaf masonry walls
1.3   Prepare materials for building single leaf masonry walls

Depth

Topic 1.1

Information sources used to establish types and quantities of materials:
- scaled drawings
    - floor plans
    - elevations
    - sectional
    - detailed
- specifications.

Topic 1.2

Calculations used during planning:
- area
- allowance for waste (percentages)
- horizontal and vertical measurements
- ratios for mortar mixes.

Topic 1.3

Methods of preparing to build single leaf masonry walls:
- selecting
- mixing
- cutting
- lifting
- positioning
- protecting.

Learning outcome

2   Build single leaf masonry walls in brick and block

Topics

2.1   Bond and build single leaf masonry walls
2.2   Form openings in single leaf masonry walls
2.3   Protect work environment

Depth

Topic 2.1

Wall shapes to form:
- straight walls
- stopped ends
- right angled quoins
- tee junctions.

Topic 2.2

Forming openings using:
- temporary frames
- installation of lintels.

Topic 2.3

Methods of protecting work environment during:
- handling and storage
- construction
- after construction.

Learning outcome

3   Plan and prepare materials to build cavity walls

Topics

3.1   Information sources used during planning
3.2   Calculate quantities for building cavity walls
3.3   Prepare materials for building cavity walls

Depth

Topic 3.1

Information sources used to establish types and quantities of materials:

- scaled drawings
  - o floor plans
  - o elevations
  - o sectional
  - o detailed
- specifications
- schedules
- bill of quantities.

Topic 3.2

Calculations used during planning:
- area
- volume
- allowance for waste (percentages)
- horizontal and vertical measurements
- ratios for mixes.

Topic 3.3

Methods of preparing to build cavity walls:
- selecting
- mixing
- cutting
- lifting
- positioning
- protecting.

Learning outcome

4   Build cavity walls to comply with building regulations

Topics

4.1   Walling components
4.2   Build cavity walls
4.3   Form openings in cavity walls
4.4   Protect work environment

Depth

Topic 4.1

Types and purposes of walling components:
- bricks
- blocks

- timber framed
- mortars
- Thin Joint Masonry.

Types and purposes of insulation:
- full fill
- partial fill
- fitted as work proceeds
- blown in at a later date (retro fit).

Types and purposes of damp proof barriers:
- damp proof courses (DPC)
- damp proof membranes (DPM)
- trays
- weep holes.

Types and purposes of structural components:
- air bricks
- wall ties
- lintels
- restraint straps
- movement joints.

Topic 4.2

Build cavity to form:
- straight lengths
- returns
- junctions
- gable ends/raking cuts.

Methods of installing insulation:
- fitted according to manufacturer instructions.

Methods of installing damp proof barriers:
- correct positioning
- lap
- cavity trays positioned over:
    o air bricks
    o lintels
    o wall and roof abutments
    o parapet walls
    o where external walls become internal walls
- weep holes.

Methods of installing structural components:
- wall tie spacing

- restraint straps
- movement joints
- wall plates.

Topic 4.3

Forming openings using:
- temporary frames
- cavity closing methods
  - o   traditional returned blockwork
  - o   proprietary closers
- installation of lintels
- types of cills.

Topic 4.4

Methods of protecting work environment during:
- handling and storage
- construction
- after construction.

Guidance for delivery

Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self-study, City & Guilds SmartScreen materials, research opportunities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Naturally occurring training activities used to build cavity walls will facilitate the completion of this unit. This will support the holistic approach of delivering and assessing the qualification as well as stimulate a realistic experience for the learners.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Health, safety and welfare issues are an important factor to consider during the delivery of this unit; therefore, strict safe working methods as outlined by legislation should be demonstrated and reinforced through close supervision of all activities. Risk assessments, method statements and COSHH assessments must be completed prior to any practical activities taking place.

This unit should be delivered as knowledge/understanding supported by practical application. It is recommended that this unit be taught alongside Unit 205 Setting out buildings so that practical activities are more contextualised.

Additionally, tutors should ensure that learners can achieve the skills outlined in Learning Outcomes 1 and 2 before delivering Learning Outcomes 3 and 4, as the former serve as natural predecessors for building cavity walls.

Unit 203 Building solid walls and piers

Unit level:	Level 2
GLH:	90

What is this unit about?

The purpose of this unit is for learners to have the knowledge, understanding and skills to set out and build solid walls and piers. These include one brick thick walls in English and Flemish Bond, including Garden Wall Bonds. The unit also covers attached and isolated piers, returns, junctions, movement joints, weathering features and finishes to walls.

The unit will provide learners with skills and understanding of how to use sources of information in order to plan, select resources and build solid walls in a safe way to the correct specification. Protection of the work environment must be considered during all stages of the building process.

Learners may be introduced to the unit by asking themselves questions, such as:
- Where are solid walls most commonly used?
- What are attached piers?
- How many plumbing points are there on an isolated pier?
- What is the difference between English and Flemish Bond?
- How do you protect the top of a solid wall from weathering?

Learning outcomes

In this unit, learners will be able to

1   Plan and prepare materials to build solid walls
2   Build one brick thick walls
3   Build piers for solid walls
4   Apply weathering finishes to one brick thick walls and piers

Learning outcome

1   Plan and prepare materials to build solid walls

Topics

1.1   Information sources used during planning
1.2   Calculate quantities for building solid walls
1.3   Prepare materials for building solid walls

Depth

Topic 1.1

Information sources used to establish types and quantities of materials:
- scaled drawings
  - o elevations
  - o sectional
  - o detailed
- specifications
- schedules
- bill of quantities.

Topic 1.2

Calculations of materials and finishes for a range of shapes and sizes of walls:
- area x number of bricks per m^2
- allowance for waste (percentages)
- linear measurements
  - o number of copings
  - o bricks for brick on edge
  - o tiles for tile creasing
  - o damp proof courses (DPC)
- ratios for mortar mixes.

Topic 1.3

Methods of preparing to build solid walls:
- selecting
- mixing
- cutting
- lifting
- positioning
- protecting.

Learning outcome

2   Build one brick thick walls

Topics

2.1   Bond one brick thick walls
2.2   Build one brick thick walls
2.3   Movement joints
2.4   Protect work environment

Depth

Topic 2.1

Methods of bonding:
- rules
- dry
- English
- Flemish
- English Garden Wall
- Flemish Garden Wall
- reverse
- broken.

Topic 2.2

Wall shapes to form during building:
- straight walls
- stopped ends
- right angled quoins
- tee junctions.

Types of bricks:
- engineering
- contrasting
- common and facing
- special.

Brickwork features to include:
- bricks recessed or projecting
- soldier courses
- oversailing
- DPC.

Topic 2.3

Importance and positioning of movement joints:
- expansion/sleeve ties
- joint fill.

Topic 2.4

Methods of protecting work environment during:
- handling and storage
- construction
- after construction.

Learning outcome

3   Build piers for solid walls

Topics

3.1   Set out and build isolated piers
3.2   Set out and build attached piers

Depth

Topic 3.1

Methods of building isolated piers two brick square in English and Stretcher bond:
- dry bonding
- hollow
- solid.

Considerations when building isolated piers:
- maintain bond
- alignment of piers
- check for square
- gauge
- level
- plumb
- range.

Topic 3.2

Methods of building attached piers up to two brick square to reflect the bond of the main wall:
- dry bonding
- solid.

Learning outcome

4   Apply weathering finishes to one brick thick walls and piers

Topics

4.1   Apply features
4.2   Apply joint finishes

Guidance for delivery

Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self-study, City & Guilds SmartScreen materials, research opportunities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Naturally occurring training activities used to build solid walls will facilitate the completion of this unit. This will support the holistic approach of delivering and assessing the qualification as well as stimulate a realistic experience for the learners.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Health, safety and welfare issues are an important factor to consider during the delivery of this unit; therefore, strict safe working methods as outlined by legislation should be demonstrated and reinforced through close supervision of all activities. Risk assessments, method statements and COSHH assessments must be completed prior to any practical activities taking place.

This unit should be delivered as knowledge/understanding supported by practical application. It is recommended that this unit be taught alongside Unit 205 Setting out buildings so that practical activities are more contextualised.

For Learning Outcome 3, it is suggested that learners build isolated piers to a minimum of four courses high.

Unit 204 Constructing basic arches

Unit level:	Level 2
GLH:	30

What is this unit about?

The purpose of this unit is for learners to have the knowledge, understanding and skills to set out and construct basic arches. These types of arches should include semi-circular and segmental rough ringed arches supported on temporary and permanent (pre-formed) formwork. This unit will also provide learners with the knowledge and understanding of terminology required when constructing arches.

Learners may be introduced to the unit by asking themselves questions, such as:
- How do bricklayers set out segmental arches?
- What are the main characteristics of semi-circular and segmental arches?
- How are arches supported during construction?
- How do bricklayers ensure that arches will not move whilst taking out the temporary supports?

Learning outcomes

In this unit, learners will be able to

1   Set out arches
2   Construct arches

Learning outcome

1   Set out arches

Topics

1.1   Arch terminology
1.2   Geometrical setting out of arches

Depth

Topic 1.1

Types of arches:
- semi-circular rough ringed
- segmental rough ringed.

Terms associated with arch construction
- skewback
- voussoirs
- intrados
- extrados
- soffit
- haunches
- abutment
- crown
- key brick
- collar joint.

Terms and actions used when setting out arches:
- span
- rise
- bisect
- radius
- chord
- springing point
- striking point
- bisecting line
- springing line.

Topic 1.2

Setting out equipment:
- trammel rod
- trammel heads
- sliding bevel.

Learning outcome

2   Construct arches

Topics

2.1   Position temporary supports
2.2   Install permanent supports
2.3   Construct arches
2.4   Protect work environment

Depth

Topic 2.1

Components of temporary supports:
- arch centres
- folding wedges
- props/bracing.

Methods of removing temporary supports:
- ease
- strike.

Topic 2.2

Components of permanent supports:
- pre-formed arch centres
- lintels
- cavity trays
- weep holes.

Topic 2.3

Methods of constructing the following types of arches:
- semi-circular rough ringed
- segmental rough ringed.

Topic 2.4

Methods of protecting work environment during:
- handling and storage
- construction
- after construction.

Guidance for delivery

Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self-study, City & Guilds SmartScreen materials, research opportunities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Naturally occurring training activities used to set out and construct basic arches will facilitate the completion of this unit. This will support the holistic approach of delivering and assessing the qualification as well as stimulate a realistic experience for the learners.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Health, safety and welfare issues are an important factor to consider during the delivery of this unit; therefore, strict safe working methods as outlined by legislation should be demonstrated and reinforced through close supervision of all activities. Risk assessments, method statements and COSHH assessments must be completed prior to any practical activities taking place.

This unit should be delivered as knowledge/understanding supported by practical application, as the geometry to set out the arches is an important factor. It is recommended that this unit be taught alongside Unit 205 Setting out buildings so that practical activities are more contextualised.

Unit 205 Setting out buildings

Unit level:	Level 2
GLH:	30

What is this unit about?

The purpose of this unit is for learners to have the knowledge, understanding and skills to set out rectangular masonry structures. The unit will provide learners with skills and understanding of how to select tools and equipment as well as how to use sources of information to prepare for setting out work.

Learners may be introduced to the unit by asking themselves questions, such as:
- How do I prepare for setting out work?
- What types of drawings do I use in order to set out work?
- How do I use datums to set out work?

Learning outcomes

In this unit, learners will be able to

1   Understand how to prepare construction sites for setting out procedures
2   Select tools, equipment and drawings for setting out work
3   Set out rectangular shaped masonry structures

1   Understand how to prepare construction sites for setting out procedures

Topics

1.1   Site investigation and services
1.2   Site clearance
1.3   Calculate quantities

Depth

Topic 1.1

The importance of site investigation:
- existing services
- environmental.

Location and protection of services:
- gas
- electricity
- overhead cables
- telecoms
- water
- drainage.

Guidance for setting out procedures:
- local authority records
- utility company records
- site drawings
- ground scanning
- walk over
- desk top study.

Topic 1.2

Purpose of site clearance:
- removal of obstacles from site
- removal of vegetation, shrubs, trees
- protection of environment
- removal of top soil.

Topic 1.3

Calculations used during preparation:
- area

- volume
- add allowance for bulking (percentages).

Learning outcome

2   Select tools, equipment and drawings for setting out work

Topics

2.1   Select tools and equipment
2.2   Drawings used during setting out

Depth

Topic 2.1

Selection of the following tools and equipment:
- ranging lines
- stout pegs/pins
- materials for profiles
- measuring tapes
- optical/electronic levels
- spray paint/sand or lime
- straight edges
- spirit levels
- builders squares.

Topic 2.2

Types of drawings:
- site plan
- block plan
- general location plan
- ground floor plan.

Learning outcome

3   Set out rectangular shaped masonry structures

Topics

3.1   Set out building lines
3.2   Set out right-angled corners
3.3   Position profiles

Depth

Topic 3.1

Methods of setting out building lines:
- determined by the local authority
- pre-determined distance
- protection of setting out work.

Topic 3.2

Methods of setting out right angles for small rectangular structures:
- 3, 4, 5 method
- builders square
- check the length of diagonals.

Topic 3.3

Methods of establishing and positioning profiles using:
- corner pegs
- boards/rails
- transfer lines.

Topic 3.4

Methods of transferring levels/datums:
- levelling equipment
  - o   straight edge
  - o   optical/electronic
- check gauge from datum height/peg to the top of the foundation concrete
  - o   damp proof course (DPC)
  - o   finished floor level (FFL).

Guidance for delivery

Tutors need to be aware of prior learning that has taken place and use this information to structure individualised learning where appropriate.

Tutors should make the best use of available resources to provide learners with the opportunity to use a wide range of activities that could include lectures, discussions, self-study, City &City & Guilds SmartScreen materials, research opportunities, visits to exhibitions and practical training to stimulate, motivate and educate the learner.

Naturally occurring training activities used to set out buildings will facilitate the completion of this unit. This will support the holistic approach of delivering and assessing the qualification as well as stimulate a realistic experience for the learners.

Learners should adhere to relevant Building Regulations and select materials to minimise waste.

Health, safety and welfare issues are an important factor to consider during the delivery of this unit; therefore, strict safe working methods as outlined by legislation should be demonstrated and reinforced through close supervision of all activities. Risk assessments, method statements and COSHH assessments must be completed prior to any practical activities taking place.

This unit should be delivered as knowledge/understanding supported by practical application. Tutors delivering this unit should ensure learners have a good understanding of the setting out process and terminology prior to reinforcing learning with practical setting out exercises. For Learning Outcome 2.1, learners' knowledge of tools and equipment must support the skills used in setting out masonry structures (Learning Outcome 3). For Learning Outcome 2.2, learners must be able to make the link between the types of drawings and scales used when setting out masonry structures (Learning Outcome 3).

Team building should be encouraged, as it would be beneficial to complete the practical activities working in small groups. It is recommended that this unit be taught alongside the building and constructing units so that practical activities are more contextualised.

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:

- 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.

Centre Guide – Delivering International Qualifications 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.

Specifically, the document includes sections on:
- The centre and qualification approval process and forms
- Assessment, verification and examination roles at the centre
- Registration and certification of candidates

- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Frequently asked questions.

Appendix 2   Useful contacts

UK learners General qualification information	**E: learnersupport@cityandguilds.com**
International learners General qualification information	**E: intcg@cityandguilds.com**
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	**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	**E: singlesubjects@cityandguilds.com**
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	**E: intops@cityandguilds.com**
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	**E: walledgarden@cityandguilds.com**
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	**E: business@cityandguilds.com**
Publications Logbooks, Centre documents, Forms, Free literature	

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If you have a complaint, or any suggestions for improvement about any of the services that we provide, email: **feedbackandcomplaints@cityandguilds.com**

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As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group is a leader in global skills development. Our purpose is to help people and organisations to develop their skills for personal and economic growth. Made up of City & Guilds, City & Guilds Kineo, The Oxford Group and ILM, we work with education providers, businesses and governments in over 100 countries.

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