

6709-22 Level 2 Certificate in Construction Operations - General Construction

July 2013 Version 1.0

Contents

Candidate details	1
Unit assessment overview	2
Practical task completion record	2
Instructions to candidates	4
Unit 227 Construction site protection barriers	5
Task 1 Erect and dismantle site protection barriers	5
Unit 228 Lay domestic drainage	7
Task 1 Build a brick inspection chamber	7
Task 2 Set out, install and test a drainage system	9
Unit 229 Construct foundations, slabs and paths in concrete	11
Task 1 Set out for concreting work	11
Task 2 Construct a concrete path	13
Drawings and diagrams	15
Unit 227 Construction site protection barriers	15
Unit 228 Lay domestic drainage	16
Unit 229 Construct foundations, slabs and paths in concrete	18
Resource checklists	20
Unit 227 Task 1 Resource Checklist	20
Unit 228 Task 1 Resource Checklist	22
Unit 228 Task 2 Resource Checklist	24
Unit 229 Task 1 Resource Checklist	26
Unit 229 Task 2 Resource Checklist	28

Candidate details



This *Practical task manual* is a record of your achievement in practical assessments. You must keep it in good condition and it must be stored in a safe place by your Assessor.

Please fill in all of your details before you carry out any assessments.

Candidate Details

Surname		Forename(s)	
---------	--	-------------	--

City & Guilds enrolment number	
--------------------------------	--

Centre Details

Name		Centre No	
------	--	-----------	--

I understand the requirements of the qualification and that all the work towards the assessments must be my own.

Candidate signature (please print)	
--	--

Assessor name (please print)		Signed	
--	--	--------	--

Date	
------	--

Unit assessment overview

Practical task completion record

To be completed by Assessor:

For each task, the points for each grade are
 Pass = 1, Merit = 2, and Distinction = 3 points.

Conversion chart	
Average	Overall Grade
1 – 1.5	Pass
1.6 – 2.5	Merit
2.6 – 3	Distinction

†All tasks must be passed for the unit to be achieved.

Unit 227 Construction site protection barriers

Task	Grade for task
1 Erect and dismantle site protection barriers	P / X
End of unit knowledge test	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date: 	Candidates must pass the practical task and the end of unit knowledge test to achieve a pass grade overall. <div style="text-align: right;"> Overall grade <input style="width: 100px; height: 30px;" type="text"/> </div>
--------------------------------------	--

Unit 228 Lay domestic drainage

Task	Grade for task†	Points (graded tasks)
1 Build a brick inspection chamber	P / M / D / X	
2 Set out, install and test a drainage system	P / M / D / X	
End of unit knowledge test	P / X	
All tasks must be passed for the unit to be achieved.		Total
Assessor signature and date: 	For graded tasks, divide total points by total number of graded tasks Average = <input style="width: 100px; height: 30px;" type="text"/> Overall grade (see conversion chart)	÷ 2 <input style="width: 100px; height: 30px;" type="text"/>

Unit 229 Construct foundations, slabs and paths in concrete

Task	Grade for task [†]	Points (graded tasks)
1 Set out for concreting work	P / M / D / X	
2 Construct a concrete path	P / M / D / X	
End of unit knowledge test	P / X	
All tasks must be passed for the unit to be achieved.		Total
Assessor signature and date:	For graded tasks, divide total points by total number of graded tasks	÷ 2
	Average =	
	Overall grade (see conversion chart)	

Authenticity and IQA/QC sampling

The assessor's signature on individual tasks will be taken as assurance that the judgements recorded are made on authentic candidate work produced under appropriate conditions. Please complete the declaration below to confirm this is the case.

<p>I confirm that all tasks were conducted under conditions designed to assure the authenticity of the candidate's work, and am satisfied that, to the best of my knowledge, the work assessed was solely that of the candidate.</p> <p>I have judged all assessments against the relevant assessment and grading criteria and award the candidate the unit grades as calculated above.</p>	
Assessor signature	Date
*IQA signature and date	*QC signature and date

*IQA and QC signatures attest to the evidence available on the recorded date(s).

Instructions to candidates

About this document

This *Practical task manual* contains all of the practical assessment for 6709-22 Level 2 Certificate in Construction Operations - General Construction.

Practical tasks

These tasks let you show your practical skills and are usually graded pass, merit or distinction – a few are pass only. These tasks will be assessed by your assessor watching how you carry out the tasks and checking your final pieces of work.

Before you carry out the task you will be told how it will be assessed and you should read the observation checklist at the end of each task so you know what you need to do to get each grade.

You can ask your assessor for help in understanding the task instructions, but all of the work must be your own.

Health and safety

You must use safe working practices at all times.

You are responsible for your own safety and the safety of others. If you behave in an unsafe way, you will be stopped and given a warning. If you do not meet all of the Health and Safety requirements, the assessment will be stopped. Your assessor will not be able to let you try the task again until they are sure you can work safely.

Time considerations

Each task shows how long it is likely to take. This is for guidance and so you can plan your work. If you have a good reason for needing more time you must explain this to your assessor as soon as possible so they can decide whether you can have more time.

Security

Where an assignment is taken over more than one session, all documentation, paperwork and work products must be labelled carefully with your name and kept securely at the centre. Your assessor will give you directions about how to leave your work.

Opportunities to repeat tasks

The tasks are 'end tests' so you will only be asked to take the assessment when you have had the chance to do all of the learning and practice you need. You will be able to try the whole task again if you do not pass, but you will not be able to take the assessment again just to try to get a better grade.

Feedback

As well as telling you the result for the task your assessor will give you feedback. They will give you a feedback sheet with details of what you could do to improve, and also what you did well in. This will help you to prepare for other assessments or to retake the assessment if you need to.

Unit 227 Construction site protection barriers

Task 1 Erect and dismantle site protection barriers

Expected time	1.5 hours
Task instructions	<p>Scenario</p> <p>A construction site drainage excavation requires temporary barriers to be erected around the perimeter. Refer to the provided drawing of the site, which will indicate the dimensions involved.</p> <p>Activity</p> <ol style="list-style-type: none"> Using the materials provided by the assessor, determine (and record your answer on the <i>Unit 227 Task 1 Resource Checklist</i>): <ul style="list-style-type: none"> the appropriate tools and equipment (and their quantities) required the quantities of temporary barriers, bases and retaining clips required safe access and egress points appropriate signage. Complete a risk assessment for the erection of the construction site barriers. Using the requirements determined in part (1) above, set out and erect construction site barriers. Answer the question posed by your assessor relating to the checking of construction site barriers. When directed to do so by the assessor, dismantle, remove and store construction site barriers in an appropriate manner. <p>Note</p> <p>Ensure that you follow all relevant environmental and Health & Safety regulations relating to the erection, use and dismantling of construction site barriers.</p>
Diagrams	See page 15

Observation checklist

AC	The candidate has	Pass	Merit	Distinction
2.1	completed a risk assessment	<input type="checkbox"/>		
2.2, 2.3	completed <i>Unit 227 Task 1 Resource Checklist</i>	<input type="checkbox"/>		
2.4	set out and erected construction site barriers	<input type="checkbox"/>		
2.5	correctly answered oral question on construction site barrier maintenance	<input type="checkbox"/>		
4.1	followed risk assessment for removal of construction site barriers	<input type="checkbox"/>		
4.2	dismantled and removed construction site barriers	<input type="checkbox"/>		

AC	The candidate has	Pass	Merit	Distinction
4.3	stored construction site barriers securely ready for re-use	<input type="checkbox"/>		
2.6, 4.4	followed current environmental and relevant health and safety regulations relating to erection and removal of construction site barriers	<input type="checkbox"/>		
	used tools, equipment and materials in a safe manner	<input type="checkbox"/>		
	used and maintained PPE as appropriate	<input type="checkbox"/>		
	maintained a clean and safe working area	<input type="checkbox"/>		
	cleaned and returned all tools and equipment once the task is complete.	<input type="checkbox"/>		

Task grading rules		Task grade:
To award a pass : every activity in the checklist must be successfully achieved.		
Assessor Signature & Date		

Unit 228 Lay domestic drainage

Task 1 Build a brick inspection chamber

Expected time	7 hours
Task instructions	<ul style="list-style-type: none"> • Read the drawings and specifications. • Complete the <i>Unit 228 Task 1 Resource Checklist</i>. • Complete a risk assessment. • Install a channel. • Set out and build a brick inspection chamber. • Keep a clean work area. • Work safely at all times.
Diagrams	See page 16

Observation checklist

AC	The candidate has	Pass	Merit	Distinction
3.1, 3.2, 3.3	completed the <i>Unit 228 Task 1 Resource Checklist</i>	<input type="checkbox"/>		
5.1	completed a risk assessment	<input type="checkbox"/>		
7.2, 7.3	installed channel and rocker pipes to line and correct gradient	<input type="checkbox"/>		
7.7	set out brickwork ensuring channel remains central to inspection chamber	<input type="checkbox"/>		
	set out and maintained correct bond	<input type="checkbox"/>		
	set out correct internal linear measurements	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	set out internal brickwork to square	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	maintained overall gauge	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	ensured level on all four sides	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	ensured internal corner at area A is plumb	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	ensured internal corner at area B is plumb	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	ensured internal corner at area C is plumb	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	ensured internal corner at area D is plumb	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	maintained internal faceplane	<input type="checkbox"/> ± 7 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm

AC	The candidate has	Pass	Merit	Distinction
7.7	ensured cross joints and bed joints are completely full	<input type="checkbox"/>		
	produced weather struck jointing to inner face and flush jointing to outer face	<input type="checkbox"/>		
	installed benching material and correctly finished bedded frame and levelled cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		± 6 mm	± 4 mm	± 2 mm
7.8	protected work, resources and surrounding areas from damage	<input type="checkbox"/>		
5.4, 7.1, 7.10	followed current environmental and relevant health and safety regulations	<input type="checkbox"/>		
	used tools, equipment and materials in a safe manner	<input type="checkbox"/>		
	used and maintained PPE as appropriate	<input type="checkbox"/>		
	maintained a clean and safe working area	<input type="checkbox"/>		
	cleaned and returned all tools and equipment once the task is complete	<input type="checkbox"/>		

Task grading rules		Task grade:
To award a pass : every activity in the checklist must be successfully achieved.		
To award a merit : in addition to the above, 6 out of 10 graded activities in the checklist must be achieved to at least a merit standard.		
To award a distinction : 6 out of 10 graded activities in the checklist must be achieved to at least a distinction standard, and 4 of the remaining graded activities must be achieved to at least a merit standard.		
Assessor	Signature & Date	

Unit 228 Lay domestic drainage

Task 2 Set out, install and test a drainage system

Expected time	8 hours
Task instructions	<ul style="list-style-type: none"> • Read the drawings and specifications. • Complete the <i>Unit 228 Task 2 Resource Checklist</i>. • Complete a risk assessment. • Break into an existing brick inspection chamber. • Install a new drainage system to given specifications. • Test the drainage system. • Keep a clean work area. • Work safely at all times.
Diagrams	See page 17

Observation checklist

AC	The candidate has	Pass	Merit	Distinction
3.1, 3.2, 3.3	completed the <i>Unit 228 Task 2 Resource Checklist</i>	<input type="checkbox"/>		
5.1, 7.1	completed a risk assessment	<input type="checkbox"/>		
7.4	cut into existing brick inspection chamber and minimised damage	<input type="checkbox"/>		
7.4	connected rocker pipe and channel bend to existing brick inspection chamber	<input type="checkbox"/>		
7.4	made good existing brick inspection chamber and benching	<input type="checkbox"/>		
5.2, 5.3	prepared ground for laying domestic drainage	<input type="checkbox"/>		
7.2, 7.3, 7.6	ensured run C-B (centre of brick inspection chamber to centre of plastic inspection chamber) is set out to correct length	<input type="checkbox"/> ± 20 mm	<input type="checkbox"/> ± 15 mm	<input type="checkbox"/> ± 10 mm
	laid new drainage pipe C-B to line and invert level	<input type="checkbox"/>		
	installed plastic preformed inspection chamber to level	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	installed plastic preformed inspection chamber to correct height	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 3 mm
	sealed or capped off unneeded connections on plastic preformed inspection chamber	<input type="checkbox"/>		
	ensured run B-A (centre of plastic inspection chamber to centre of junction) is set out to correct length	<input type="checkbox"/> ± 20 mm	<input type="checkbox"/> ± 15 mm	<input type="checkbox"/> ± 10 mm
	laid new drainage pipe B-A to line and invert level	<input type="checkbox"/>		

AC	The candidate has	Pass	Merit	Distinction
7.2, 7.3, 7.6	installed Gully 1 to correct height	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 3 mm
	ensured run from Gully 1 to run A-B is set out to correct length	<input type="checkbox"/> ± 20 mm	<input type="checkbox"/> ± 15 mm	<input type="checkbox"/> ± 10 mm
	installed Gully 2 to correct height	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 3 mm
	ensured run from Gully 2 to centre of plastic inspection chamber is set out to correct length	<input type="checkbox"/> ± 20 mm	<input type="checkbox"/> ± 15 mm	<input type="checkbox"/> ± 10 mm
	installed couplers correctly	<input type="checkbox"/>		
	installed junctions correctly	<input type="checkbox"/>		
	installed rodding eye to correct height	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 3 mm
7.9	completed a suitable test to ensure no leaks	<input type="checkbox"/>		
7.5	correctly answered oral question on placing and compacting pipe surround and backfill materials	<input type="checkbox"/>		
7.8	protected work, resources and surrounding areas from damage	<input type="checkbox"/>		
5.4, 7.10	followed current environmental and relevant health and safety regulations	<input type="checkbox"/>		
	used tools, equipment and materials in a safe manner	<input type="checkbox"/>		
	used and maintained PPE as appropriate	<input type="checkbox"/>		
	maintained a clean and safe working area	<input type="checkbox"/>		
	cleaned and returned all tools and equipment once the task is complete.	<input type="checkbox"/>		

Task grading rules		Task grade:
To award a pass : every activity in the checklist must be successfully achieved.		
To award a merit : in addition to the above, 6 out of 9 graded activities in the checklist must be achieved to at least a merit standard.		
To award a distinction : 6 out of 9 graded activities in the checklist must be achieved to at least a distinction standard, and 3 of the remaining graded activities must be achieved to at least a merit standard.		
Assessor	Signature & Date	

Unit 229 Construct foundations, slabs and paths in concrete

Task 1 Set out for concreting work

Expected time	4 hours
Task instructions	<ul style="list-style-type: none"> • Read the drawings and specifications. • Complete the <i>Unit 229 Task 1 Resource Checklist</i>. • Accurately set out for a hard standing or slab. • Transfer datums. • Keep a clean work area. • Work safely at all times.
Diagrams	See page 18

Observation checklist

AC	The candidate has	Pass	Merit	Distinction
2.2	read drawing and specifications, and confirmed understanding of the task	<input type="checkbox"/>		
2.1	completed the <i>Unit 229 Task 1 Resource Checklist</i>	<input type="checkbox"/>		
2.3, 2.4	set out line A-B to the correct length	<input type="checkbox"/> ± 12 mm	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 4 mm
	set out line B-C to the correct length	<input type="checkbox"/> ± 12 mm	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 4 mm
	set out line C-D to the correct length	<input type="checkbox"/> ± 12 mm	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 4 mm
	set out line D-A to the correct length	<input type="checkbox"/> ± 12 mm	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 4 mm
	ensured the accuracy of diagonal A-C in relation to the correct measurement	<input type="checkbox"/> ± 24 mm	<input type="checkbox"/> ± 16 mm	<input type="checkbox"/> ± 8 mm
	ensured the accuracy of diagonal B-D in relation to the correct measurement	<input type="checkbox"/> ± 24 mm	<input type="checkbox"/> ± 16 mm	<input type="checkbox"/> ± 8 mm
	set up profile boards and transferred ranging lines onto profiles	<input type="checkbox"/>		
	marked profiles for hard standing or slab	<input type="checkbox"/>		
2.5	transferred the ranging lines onto the ground and marked ground ready for excavation	<input type="checkbox"/>		
2.6	transferred datum height to corner A	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	transferred datum height to corner B	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm
	transferred datum height to corner C	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm

AC	The candidate has	Pass	Merit	Distinction
2.6	transferred datum height to corner D	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 3 mm

Task grading rules		Task grade:
To award a pass : every activity in the checklist must be successfully achieved.		
To award a merit : in addition to the above, 6 out of 10 graded activities in the checklist must be achieved to at least a merit standard.		
To award a distinction : 6 out of 10 graded activities in the checklist must be achieved to at least a distinction standard, and 4 of the remaining graded activities must be achieved to at least a merit standard.		
Assessor	Signature & Date	

Unit 229 Construct foundations, slabs and paths in concrete

Task 2 Construct a concrete path

Expected time	6 hours
Task instructions	<ul style="list-style-type: none"> • Read the drawings and specifications. • Calculate the volume of concrete required. • Calculate the quantities of materials required for concrete. • Complete the <i>Unit 229 Task 2 Resource Checklist</i>. • Complete a risk assessment. • Construct and secure formwork. • Place and finish concrete. • Keep a clean work area. • Work safely at all times.
Diagrams	See page 19

Observation checklist

AC	The candidate has	Pass	Merit	Distinction
6.4	calculated the amount (in kg) of materials required for concrete and noted on the drawing provided	<input type="checkbox"/>		
4.2, 6.2, 6.3, 6.4	completed the <i>Unit 229 Task 2 Resource Checklist</i>	<input type="checkbox"/>		
4.1, 6.1	completed a risk assessment	<input type="checkbox"/>		
4.3	prepared area to take formwork	<input type="checkbox"/>		
	prepared materials for formwork	<input type="checkbox"/>		
	set out formwork to correct internal length from A-E	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm
	set out formwork to correct internal length from B-F	<input type="checkbox"/> ± 8 mm	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm
	set out formwork to correct internal width from A-B	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm
	set out formwork to correct internal width from C-D	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm
	set out formwork to correct internal width from E-F	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm
	ensured the accuracy of internal diagonal A-F in relation to the correct measurement	<input type="checkbox"/> ± 16 mm	<input type="checkbox"/> ± 12 mm	<input type="checkbox"/> ± 8 mm
	ensured the accuracy of internal diagonal B-E in relation to the correct measurement	<input type="checkbox"/> ± 16 mm	<input type="checkbox"/> ± 12 mm	<input type="checkbox"/> ± 8 mm

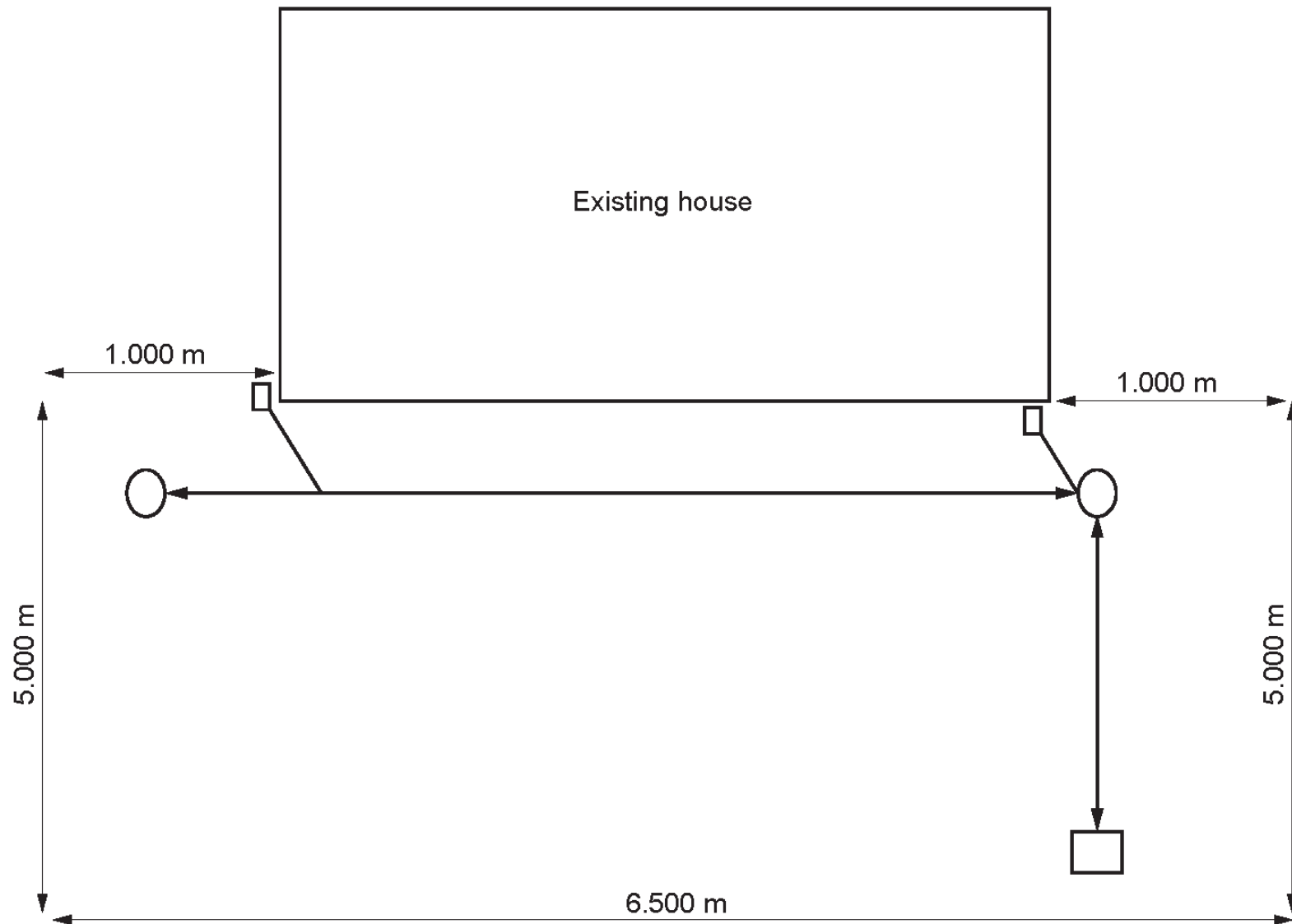
AC	The candidate has	Pass	Merit	Distinction
4.3, 6.5	maintained a 1:2:4 mix of concrete by volume batching	<input type="checkbox"/>		
	maintained correct workability of concrete mix	<input type="checkbox"/>		
	placed and compacted the concrete	<input type="checkbox"/>		
	levelled the concrete to minimise deviations	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm
	ensured formwork is secure with sufficient support	<input type="checkbox"/>		
6.6	produced a brushed finish with a trowelled edge	<input type="checkbox"/>		
6.7	protected the concrete during curing or correctly answered the oral question on curing concrete	<input type="checkbox"/>		
4.4, 6.8	followed current environmental and relevant health and safety regulations	<input type="checkbox"/>		
	used tools, equipment and materials in a safe manner	<input type="checkbox"/>		
	used and maintained PPE as appropriate	<input type="checkbox"/>		
	maintained a clean and safe working area	<input type="checkbox"/>		
	cleaned and returned all tools and equipment once the task is complete.	<input type="checkbox"/>		

Task grading rules	Task grade:
To award a pass : every activity in the checklist must be successfully achieved.	
To award a merit : in addition to the above, 5 out of 8 graded activities in the checklist must be achieved to at least a merit standard.	
To award a distinction : 5 out of 8 graded activities in the checklist must be achieved to at least a distinction standard, and 3 of the remaining graded activities must be achieved to at least a merit standard.	
Assessor	Signature & Date

Drawings and diagrams

Unit 227 Construction site protection barriers

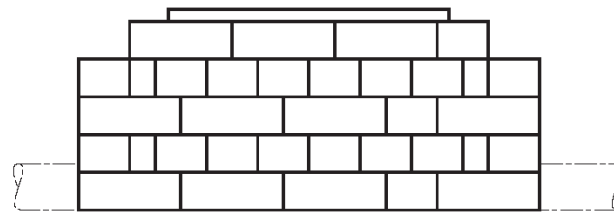
Task 1 Erect and dismantle site protection barriers



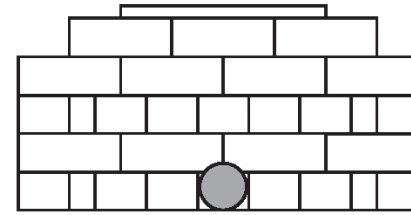
Drawings and diagrams

Unit 228 Lay domestic drainage

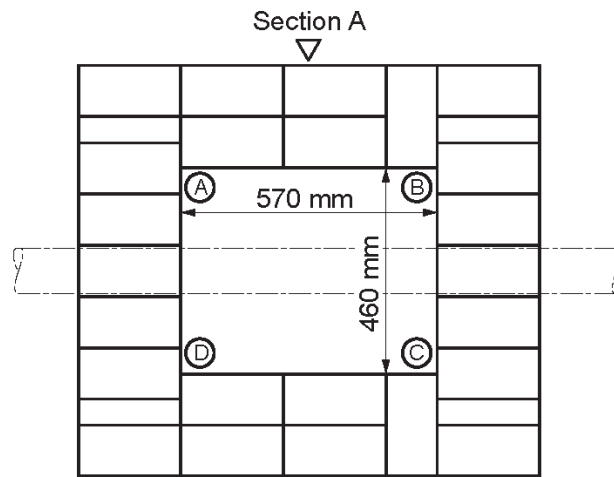
Task 1 Build a brick inspection chamber



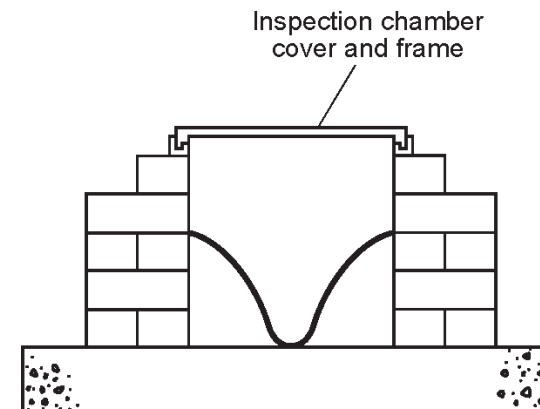
Front elevation



Side elevation



Plan of course 1



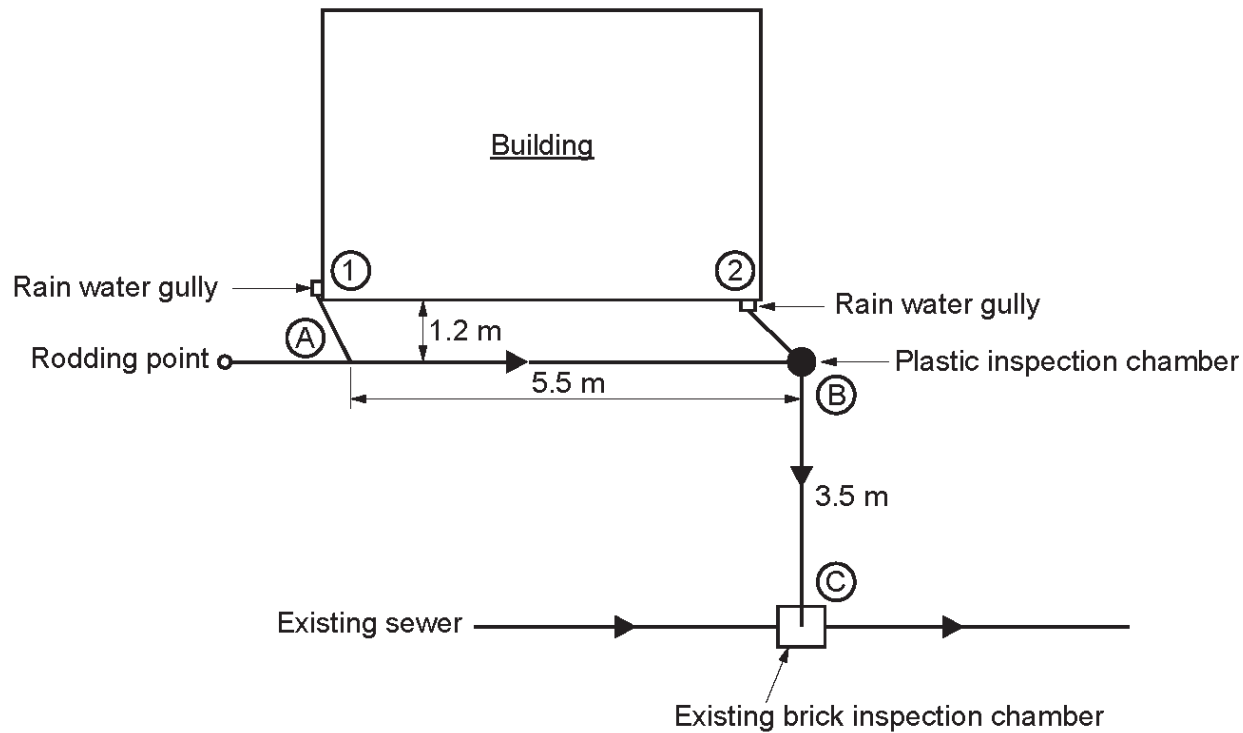
Section A - A

Specification
1 Brick wall in English bond Weather struck jointing to inner face and flush with trowel to outer face

Drawings and diagrams

Unit 228 Lay domestic drainage

Task 2 Set out, install and test a drainage system

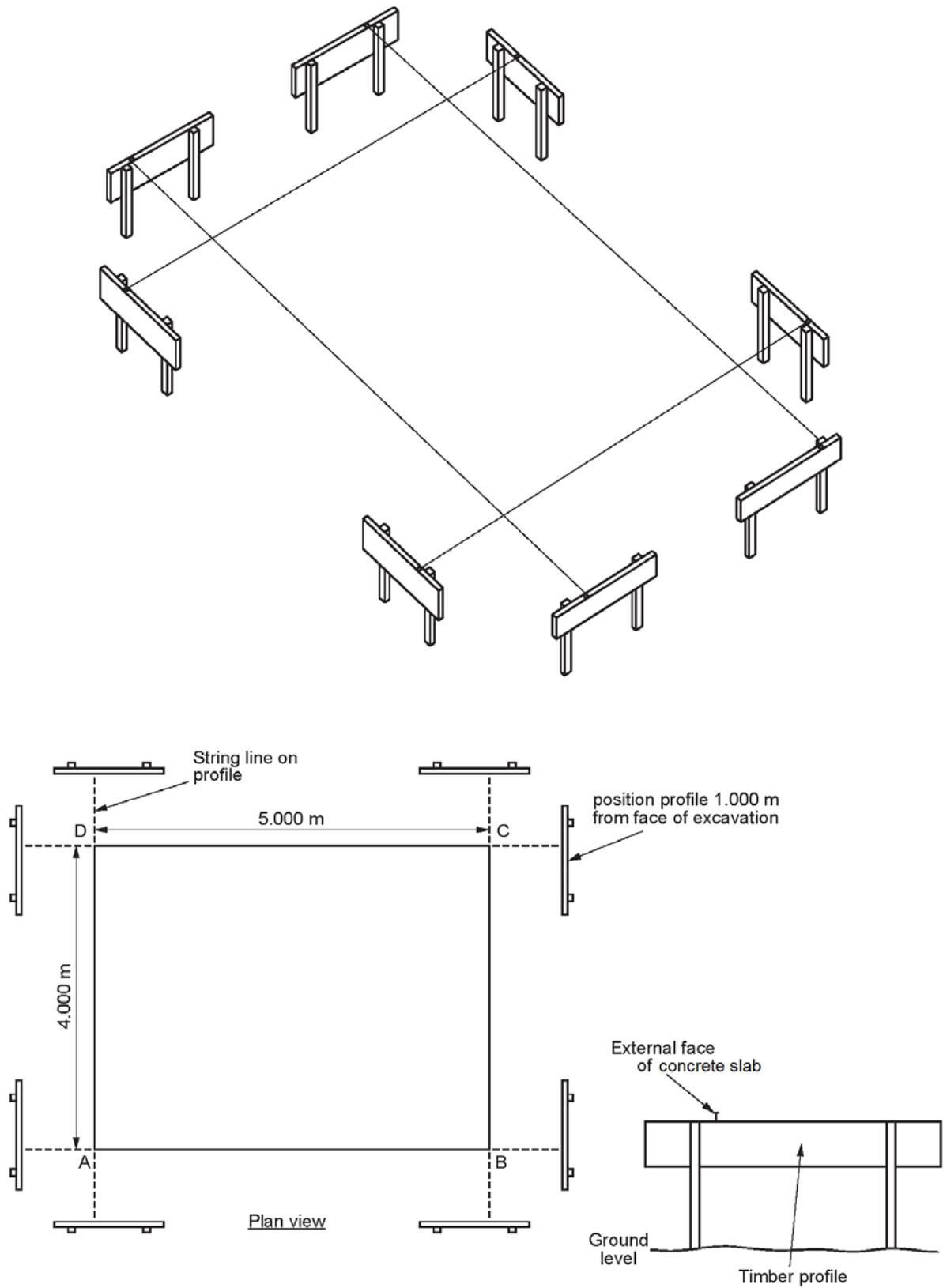


Specification	
Plastic or clay drainage to be used	
Gradient of new drain to be 1-40	
100 mm diameter drainage pipes	
Point	Invert level
A	10.000 m
B	10.088 m
C	10.226 m

Drawings and diagrams

Unit 229 Construct foundations, slabs and paths in concrete

Task 1 Set out for concreting work

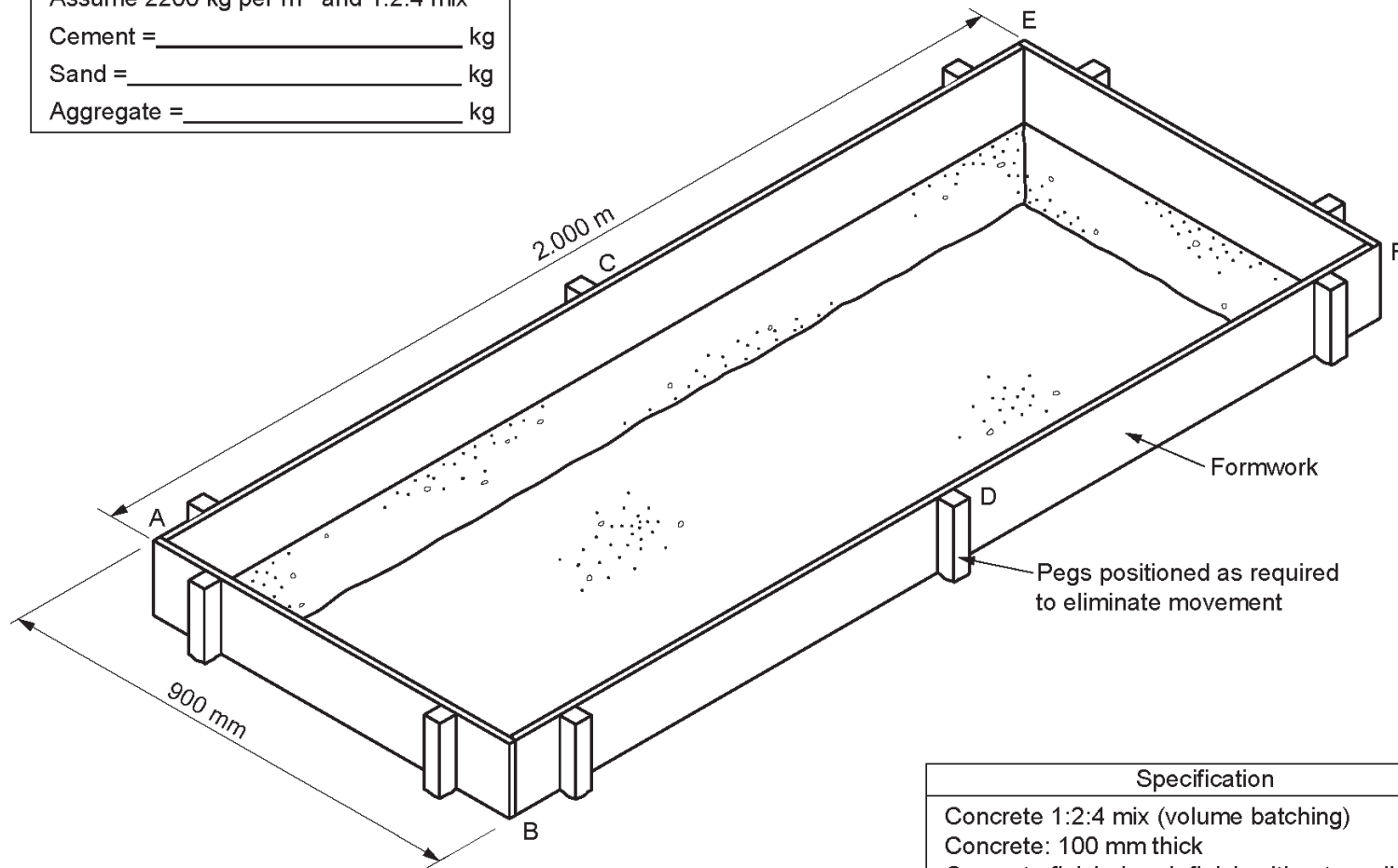


Drawings and diagrams

Unit 229 Construct foundations, slabs and paths in concrete

Task 2 Construct a concrete path

Calculate volume of concrete	
Length x width x depth = _____	m ³
Assume 2200 kg per m ³ and 1:2:4 mix	
Cement = _____	kg
Sand = _____	kg
Aggregate = _____	kg



Specification
Concrete 1:2:4 mix (volume batching)
Concrete: 100 mm thick
Concrete finish: brush finish with a trowelled edge

Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)844 543 0000
F +44 (0)20 7294 2413
www.cityandguilds.com

**City & Guilds is a registered charity
established to promote education
and training**

About City & Guilds

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 operates from three major hubs: London (servicing Europe, the Caribbean and Americas), Johannesburg (servicing Africa), and Singapore (servicing Asia, Australia and New Zealand). The Group also includes the Institute of Leadership & Management (management and leadership qualifications), City & Guilds Land Based Services (land-based qualifications), the Centre for Skills Development (CSD works to improve the policy and practice of vocational education and training worldwide) and Learning Assistant (an online e-portfolio).

Copyright

The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute and may not be copied, reproduced or distributed without prior written consent. However, approved City & Guilds centres and candidates studying for City & Guilds qualifications may photocopy this document free of charge and/or include a PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching candidates working towards a City & Guilds qualification, or for internal administration purposes
- candidates may copy the material only for their own use when working towards a City & Guilds qualification

The *Standard Copying Conditions* (see the City & Guilds website) also apply.

Published by City & Guilds, a registered charity established to promote education and training

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.