

6073-31 Level 3 Implementation of Building Information Modelling (BIM)

V 1.0 September 2016

Sample Assessments



About City & Guilds

City & Guilds is the UK's leading provider of vocational qualifications, offering over 500 awards across a wide range of industries, and progressing from entry level to the highest levels of professional achievement. With over 8500 centres in 100 countries, City & Guilds is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done.

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.

Equal opportunities

City & Guilds fully supports the principle of equal opportunities and we are committed to satisfying this principle in all our activities and published material. A copy of our equal opportunities policy statement is available on our website.

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 (which can be found on our website) also apply.

Please note: National Occupational Standards are not © The City and Guilds of London Institute. Please check the conditions upon which they may be copied with the relevant Sector Skills Council.

Publications

City & Guilds publications are available from our website or from our Publications Sales department, using the contact details shown below.

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.

City & Guilds
1 Giltspur Street
London EC1A 9DD
www.cityandguilds.com
centresupport@cityandguilds.com

Contents

Introduction and	general information	4
Assessor guidanc	e	5
Assessment 301	Fundamentals of BIM	6
Short answer q	uestion paper - Sample	6
Marking Schem	ne - Sample	12
Assessment 302	Planning BIM implementation	16
Candidate Guid	lance	16
Declaration of A	Authenticity	17
Assignment Sco	enario A	18
Assessor Guida	ance Scenario A	19
Assessment 303	BIM project implementation	21
Short answer q	uestion paper – Version A	21
Marking Schem	ne - Version A	26
Useful contacts		28

Introduction and general information

General



This document contains the assessments for the 3 mandatory units which candidates must successfully achieve to meet the rules of combination for the qualification 6073-31 Implementation of BIM.

This assessment packs consists of the following;

Unit	Title	Assessment method	Versions Available
301	Fundamentals of BIM	Short Answer Paper	B, C, D
302	Planning BIM implementation	Assignment	
303	BIM project implementation	Short Answer Paper	B, C, D

Sample assessments are available in a separate document.

Mark schemes can be found later within this document.

Internal quality assurance requirements

Approved centres **must** have effective quality assurance systems to ensure optimum delivery and assessment of qualifications.

Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance, and City & Guilds is responsible for external quality assurance.

Full details and guidance on the internal and external quality assurance requirements and procedures, are provided in Providing City & Guilds Qualifications and in the Centre toolkit.

This document also explains the tasks, activities and responsibilities of quality assurance staff.

Entry for assessment and certification

Candidates should be registered via the Walled Garden.

Results of the test should be submitted via the Walled Garden. Only those units which have been achieved should be included in the submission.

Assessor guidance



Underpinning knowledge tests

These underpinning knowledge tests are set by City & Guilds and are administered by the centre when the candidate is ready. They are then internally marked by the centre, using the answer guide provided and the results submitted via the walled garden.

Internally marked assessments are subject to internal and external verification.

Tests should be taken under supervised exam conditions as closed-book tests.

It is envisaged that most candidates will take the tests in their normal learning environment with their own tutor present.

A suitable invigilator must be present throughout to guarantee the integrity of the assessment, hand out papers, monitor the time taken and ensure that all tests/completed answers are collected. Suitable people include trainers, tutors, assessors and internal verifiers who are part of the centre's quality assurance systems. It is the centre's responsibility to ensure that each candidate's responses are their own and their own only.

The tests are graded **Pass/Merit/Distinction/Fail**. Where candidates do not achieve the necessary pass mark as indicated in the mark scheme, candidates can be given a chance to re-sit the assessment at a later date.

The question papers should be photocopied and be handed out to candidates immediately before they take the test. Centres can photocopy the test and hold a stock securely within the centre.

The mark scheme for these short answer assessments are contained later in this document. The answers **must** be held securely by centres and **not** made available to candidates.

Centre quality assurance co-ordinators are responsible for ensuring that all assessment materials and answer guides are held securely before and after the date of the assessment.

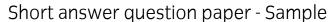
Scheduling assessments

The underpinning knowledge tests can be completed in any order. Centres will be expected to organise the tests in a logical order according to the requirements of the course, as well as candidate readiness.

Preparation of candidates

Tutors should teach to the learning outcomes of the unit and **not** the assessments. Candidates should **not** be entered for assessment before they are ready.

Assessment 301 Fundamentals of BIM





This is a closed book test

Candidate's Name: (Block letters please)

Date

Question paper Time allowed: 1 hour Marks Available: 40

Materials Required: A black or blue ink pen

General instructions

Questions carry different amount of marks. Answer all questions.

Read each question carefully. Short answers only are required.

Your answers should be written or drawn in the space provided. If additional separate sheets of paper are used, make sure each page is clearly labelled with your name and question number.

1	Give the definition of the following key terms:	
a)	Common Data Environment (CDE)	(1 mark
b)	Soft landings	 (1 mark
2	A project to refurbish a property is currently at the design stage. Explain how each of the following BIM principles would apply at this stage.	
a)	Collaborative working	(4 marks)
b)	Security minded approach	 (4 marks)

Giv	e three characteristics of BIM Maturity Level 2.	(3 ma
		_
		_
		_
		_
		_
Wh	at is the focus of BS 8536-1?	(1 ma
		_
		_
Fxr	plain how technology has improved the analysis of information for a BIM project.	(4 ma
-//	main now teering logy has improved the analysis of information for a Bim project.	,
		_
		_
		_
		_
		_
Exp	plain the role of the government as an initiator of change.	(3 ma
		_
		_
		_

Describe three examples of inefficiency in traditional working practices.	
	_
	_
Explain the importance of passionate people to the success of BIM implementation in the UK.	
Explain the importance of passionate people to the success of BIM implementation in the UK.	
Explain the importance of passionate people to the success of BIM implementation in the UK.	
	_
	_
	_
	— —

9	A local authority has commissioned a construction company to build a swimming pool.	
a)	Explain how the local authority benefits from BIM implementation of this project.	(4 marks)
b)	Describe two other stakeholders of this project.	(2 marks)

Organisational culture can be a ba	rrier to successful BIM implementation	on.
Explain how this can be overcome		(4 ma
		
Describe two other barriers to suc	cessful BIM implementation.	(2 m
	'	,
Total Marks	Grado	
Total Marks Marker Name	Grade Date	

Assessment 301 Fundamentals of BIM

Marking Scheme - Sample

Grading Criteria:

Pass: 24/40 (60%)
Merit: 29/40 (73%)
Distinction: 34/40 (85%)

	Mark Scheme	Specification
	Mark Scheme	Reference
1	Give the definition of the following key terms:	301.1.1
	a) Common Data Environment (CDE) (1mark)	
	b) Soft landings (1 mark)	
	Award 1 mark for each correct definition	
	Indicative content	
	a) CDE The single source of information for any given project	
	The single source of information for any given project.	
	b) Soft Landings	
	The smooth transition between the design and construction project into	
	operation and use of the asset.	
2	A project to refurbish a property is currently at the design stage. Explain	301.1.2
	how each the following BIM principles would apply at this stage.	
	a) Collaborative working (4 marks)b) Security minded approach (4 marks)	
	b) Security minded approach (4 marks)	
	Award 1 mark for each relevant point made, to a maximum of 4 marks. For	
	maximum marks, the response must be clearly related to the stage and	
	type of project.	
	a) Collaborative working	
	a) Collaborative working Indicative content	
	Clear identification and involvement of stakeholders	
	 Defined roles and responsibilities 	
	Collaborative tools	
	 Commercial and/or legal drivers and incentives to encourage 	
	collaboration	
	Design review process	
	Team working and interpersonal behaviours	
	 Any other appropriate response 	
	b) Security minded approach	
	Indicative content	
	Security issues	
	Risk assessment/triage	
	 Information, people, physical 	
	Roles and responsibilities	

	Deliverables (plans, strategies) Bittel Charles (4100.5)	
	British Standard (1192-5) And the standard	
	 Need for consideration prior to this stage, at the earliest possible 	
	stageAny other appropriate response	
	Any other appropriate response	
3	Give three characteristics of BIM Maturity Level 2. (3 marks)	301.1.3
	A	
	Award 1 mark for each correct characteristic to a maximum of 3 marks.	
	Indicative content	
	File based electronic information	
	Federated model	
	Common Data Environment	
	BS/PAS 1192 in full	
	Discipline specific models	
	 Any other appropriate response 	
4	What is the focus of BS 8536-1? (1 mark)	301.1.4
	Award 1 mark for a correct answer	
	Indicative content	
	 Facilities management briefing for design and construction 	
	Soft landings	
	• GSL	
5	Explain how technology has improved the analysis of information for a BIM project. (4 marks)	301.1.5
	Award 1 mark for each relevant point made up to a maximum 4 marks. Indicative content	
	Complex information Change	
	Speed Aggregation and assimilation of diverse information	
	Aggregation and assimilation of diverse information Quality assurance	
	Quality assuranceCoordination and clash detection	
	Time and cost analysis	
	 Building performance 	
	 Any other appropriate response 	
6	Explain the role of the government as an initiator of change. (3 marks)	301.2.1
	Award 1 mark for each relevant point made up to a maximum 3 marks.	
	Indicative content	
	Largest client to construction industry Strategy	
	StrategyMandate	
	MaridateTask Group creation	
	 Any other appropriate response 	
	This office appropriate response	
7	Describe three examples of inefficiency in traditional working practices. (3	301.2.1
'	marks)	

	Award 1 mark for each appropriate example. Examples must make reference to inefficiency in terms of time, cost and/or resource Indicative content Poor specification Design variation Repetition Rework Duplication Construction clashes Late changes in design Silo thinking	
	Any other appropriate response	301.2.2
8	Explain the importance of passionate people to the success of BIM implementation in the UK. (4 marks)	301.2.2
	Award 1 mark for each relevant point made to a maximum 4 marks. Positives Mobilise and bring together like minded people eg through online forums Advocates for approach Early adoption of approach Help and support Impartiality Negatives No governance of oversight so inconsistent messages Difficult to sustain through lack of funding Incomplete or out of date information May have a hidden agenda	
9	A local authority has commissioned a construction company to build a swimming pool. a) Explain how the local authority benefits from BIM implementation of this project. (4 marks) b) Describe two other stakeholders of this project. (2 marks) a) Award 1 mark for each relevant point to a maximum of 4 marks. Indicative content • Training • Leadership • Advocacy • Goals and objectives • Performance measurement • Any other appropriate response b) Award 1 mark for each appropriate barrier to a maximum 2 marks. Indicative content • Initial costs • Lack of awareness • Resistance to change • Attitude to risk • Short term thinking • Commercial arrangements • Organisational structures	301.2.3

	Lack of investment in education and training	
10	Organisational culture can be a barrier to successful BIM implementation. a) Explain how this can be overcome. (4 marks) b) Describe two other barriers to successful BIM implementation. (2 marks)	301.2.4
	 a) Award 1 mark for each relevant point to a maximum of 4 marks. Indicative content Training Leadership Advocacy Goals and objectives Performance measurement Any other appropriate response b) Award 1 mark for each appropriate barrier to a maximum 2 marks. Indicative content Initial costs Lack of awareness Resistance to change Attitude to risk Short term thinking Commercial arrangements Organisational structures Lack of investment in education and training Lack of investment in research and development 	

Assessment 302 Planning BIM implementation

Candidate Guidance



General guidance

This is a formal assessment that will be marked by your assessor. You will be marked on the quality of any evidence you produce. It is therefore important that you complete the assignment to the highest standard possible.

Plagiarism

Plagiarism is the failure to acknowledge sources properly and/or the submission of another person's work as if it were the candidate's own. Plagiarism is not allowed in this assignment.

This is an assessment of your abilities, so the work must be all your own work and carried out under the conditions stated. You will be asked to sign a declaration that you have not had any outside help with the assessment.

Your assessor is allowed to give you some help understanding the assignment instructions if necessary, but they will record any other guidance you need and this will be taken into account during marking.

You will not be allowed access to the Internet during the assessment. You will be allowed access to your course materials. Your assessor will explain the other controls that will be in place.

Timings and planning

You should take care when planning to make sure you have divided the time available between tasks appropriately.

Health and Safety

You must always follow any relevant Health and Safety regulations and codes of practice.

Presentation of work

You should make sure that each piece of work is clearly labelled. All electronic files must be given a clear file name that allows your assessor to identify it as your work. You will not be assessed directly on the presentation of your work, however, poor spelling, grammar, structure and formatting can impact on readability. This may then affect your mark.

Declaration of Authenticity



Candidate name	Candidate number
Centre name	Centre number
Candidate:	
I confirm that all work submitted for this a acknowledged all sources I have used.	ssignment is my own, and that I have
Candidate signature	Date
Assessor:	
I confirm that all work was conducted und authenticity of the candidate's work, and a the work produced is solely that of the can	am satisfied that, to the best of my knowledge,
	Date

Assignment Scenario A



Company

An architectural practice was founded 20 years ago by three partners. It now employs 15 people: 10 design staff and 5 support staff. The partners are no longer involved in the day to day operation of the business, but make strategic decisions. The company has not been making as much profit as anticipated on the last 5 major projects.

The design team are based in an open plan office. Each designer vocally explains his/her design process openly to the office. They each have high specification PCs. These were upgraded last year and have the latest office applications and 2D CAD installed. All of the business' drawings are completed in 2D CAD. Currently any 3D work is outsourced.

In the design team is an outspoken Designer with 25 years of experience using 2D CAD, and is 2 years away from retirement. There is also a graduate Designer who has been promoting the use of 3D CAD into the business since they were hired.

The business has recently lost its Senior Designer to another company. They were regularly attending BIM conferences and often looking up #UKBIMCrew on twitter on their lunch break to keep up to date with the latest information. It was clear from their exit interview that this career move was to a company adopting BIM methodology and actively investing in the development of their staff to support it.

The practice has a forward thinking and data driven Finance Manager who is keen to get more project data to be used in analytics. New systems have been introduced to classify and label all aspects of projects from a finance perspective. A review of recent projects has highlighted a general overspend, leading to lower profit than anticipated and in one instance, a loss.

The Sales Manager thinks that there would be merit in applying BIM to the business to attract potential and maintain existing customers. One potential client is keen to move their business following the leak of a confidential file when working with another architectural practice.

The Context

A large contractor, who you have worked with in the past, works on a lot of public sector projects. They have asked for clarification of your BIM capability to support future bids. A key competitor has also been asked to provide this clarification. They currently work on from small residential projects.

The Task

The partners need to give a response to the contractor and want to find out more information.

- 1. Prepare a presentation to the partners assessing the current capability for BIM implementation against desired capability
- 2. Produce a plan for the achievement of desired BIM capability within this company. Provide a rationale for each element of your plan

Assessor Guidance Scenario A



This assignment must be completed in the specified conditions. This is to ensure authenticity and prevent malpractice. Any aspect that may be undertaken in unsupervised conditions is specified.

Time

It is recommended that learners are allocated up to four hours to complete this assignment. It is recommended that time is allocated equally to each part of the task. It is recommended that this is organised into two sessions.

Resources

Learners should be provided with access to ICT software to produce their plan and presentation materials. Learners can have access to their course materials. Internet access must be restricted to access of course materials only.

Authenticity

Candidates and assessors are required to sign declarations of authenticity, using the attached form. Where evidence is produced over a number of sessions, the assessor must ensure candidates and others cannot access the evidence without supervision. This might include collecting memory sticks of evidence produced electronically at the end of each session.

Guidance and feedback

Candidates must be supervised throughout the completion of the assignment. Once the evidence has been submitted for assessment, no further amendments to evidence can be made. Assessors should not provide feedback or guidance throughout the process. They can provide clarification to any candidate on the requirements of any aspect of this assignment. Guidance must only support access to the assignment and must not provide feedback for improvement.

Access

Where the candidate has special requirements, assessors should refer to the separate guidance document.

Permitted changes to the assignment

Scenario – changes can be made to the scenario. Candidates can use a 'live' scenario related to the organisation where they work or are on work experience. Alternatively, learners can be presented with an alternative scenario. This could be provided by a real organisation, department or team or developed by the assessor. The scenario should be of an equivalent size and scale ie a team, department or organisation of between 10 and 15 people. Any new scenario developed needs to take account of all aspects of the content of learning outcome 1.

Time – no changes permitted

Resources – no changes permitted

Authenticity – no changes permitted

Task – Task 1 can be amended. Candidates could be asked to give a presentation or prepare a report. Task 2 no changes permitted.

Marking

In order to be awarded a Pass grade for the unit:

Candidates select from available information key attributes of current capability and desired capability. Key drivers, benefits, costs and barriers are considered. Reasoning should be clear and explicit but there may be some omissions. There is a holistic overview with some relationships between attributes shown.

Content of plan indicates each stage in the process accurately. Each of key considerations that contribute to decision making are addressed accurately and with relevance to the scenario. Key attributes of current and desired capability are identified. The plan incorporates basic solutions for how to achieve desired capability. These are feasible but not always the most effective. There is a rationale provided for the plan. The rationale has some omissions but is clearly reasoned.

Indicative Content

- "The company has not been making as much profit as anticipated on the last 5 major projects" – Candidate suggests that BIM will help the practice reign in costs and become more profitable
- "Each designer vocally explains his/her design process openly to the office" Candidate suggests that the practice don't have formal processes which will hinder their BIM readiness
- "They each have high specification PCs. These were upgraded last year" Candidate suggest they have the hardware enabling them to be BIM ready
- "All of the business' drawings are completed in 2D CAD. Currently any 3D work is outsourced." Candidate suggests they bring 3D back in house and/or install 3D software
- "outspoken Designer with 25 years of experience using 2D CAD, and is 2 years away from retirement." Candidate suggests this person will be a blocker to BIM
- "graduate Designer who has been promoting the use of 3D CAD into the business since they were hired." Candidate suggests this person will be an advocate of BIM implementation
- "The business has recently lost its Senior Designer to another company. They were regularly attending BIM conference and often looking up #UKBIMCrew on twitter on their lunch break to keep up to date with the latest information. It was clear from their exit interview that this career move was to a company adopting BIM methodology and actively investing in the development of their staff to support it." Candidate suggest another benefit of BIM implementation would be staff retention
- "The practice has a forward thinking and data driven Finance Manager who is keen to get more project data to be used in analytics." Candidate suggests that BIM will give them a better ability for data capture and suggests Finance Manager will be an advocate of BIM implementation
- "The Sales Manager thinks that there would be merit in applying BIM to the business to attract potential and maintain existing customers." Candidate suggests Sales Manager will be an advocate of BIM implementation

"One potential client is keen to move their business following the leak of a confidential file when working with another architectural practice." – Candidate suggests that applying BIM to the business will give better security.

Assessment 303 BIM project implementation

Short answer question paper – Version A

This is a closed book test

Candidate's Name: (Block letters please)

Date

Question paper Time allowed: 1 hour Marks Available: 30

Materials Required: A black or blue ink pen

General instructions

Questions carry different amount of marks. Answer all questions.

Read each question carefully. Short answers only are required.

Your answers should be written or drawn in the space provided. If additional separate sheets of paper are used, make sure each page is clearly labelled with your name and question number.

1	a)	Explain why an Employer would use a pre-qualification questionnaire.	
2	a)	Explain one implication of 'template provision' missing from the management section of an EIR?	(3 marks)
2	b)	Explain three other elements that should be included in the management section of an EIR.	(6 marks)

3	a)	What is the purpose of a pre-contract BEP?	(1 mark)
3	b)	Explain two additions that would be made to the BEP post contract.	(4 marks)
3	D)	Explain two additions that would be made to the BEF post contract.	(4 1110185)
4		Describe each of the following stages of the CDE.	(4 marks)
		Work in progressPublished.	
			_

5		Describe two responsibilities of a BIM author.	
			_
			-
			_
			_
			_
			_
6		What is included in a Task Information Delivery Plan?.	(4 marks)
			-
			_
			-
			_
			-
			_
			_
			_
7	a)	Give two purposes of the Model Production Delivery Table.	(2 marks)
			-
			-
			_
			-
			_
			_
			_

7	b)	Give two information requirements included in a BIM protocol.	(2 marks)
			

Total Marks	Grade	
Marker Name	Date	
Marker Signature		

Assessment 303 BIM project implementation

Marking Scheme - Version A



Grading Criteria:

Pass

	Mark Scheme	Specification Reference
1	Explain why an Employer would use a pre-qualification questionnaire.	303.1.1
	Award 1 mark for each relevant point to a maximum 2 marks.	
	To help with shortlisting submitted tenders (1) by identifying those with proven BIM experience/expertise (1).	
2a	Explain one implication of 'template provision' missing from the management section of an EIR?	303.1.2
	Award 1 mark for each relevant point to a maximum 3 marks. For maximum marks there must be a clear explanation.	
	Information submitted in different formats (1) will take longer to review information (1) which could mean project delivery is compromised (1).	
2b	Explain three other elements that should be included in the management section of an EIR.	303.1.2
	Award 1 mark for identifying an element to a maximum 3 marks and 1 mark for each explanation of an element to a maximum 3 marks. If more than three elements are provided in the response, the best three should be marked.	
	 Standards (1) to ensure consistency and conformance with the agreed conventions (1) Roles and responsibilities (1) to ensure key roles are appointed (1) Collaboration process (1) to ensure suppliers provide sufficient detail on their proposal and their continued communication (1) Planning the work (1) to ensure effective management of the modelling process (1) Security (1) to ensure information identified as sensitive will be secured (1) 	
3a	What is the purpose of a pre-contract BEP?	303.1.3
	Award 1 mark for correct answer.	
L	To provide a direct response to the EIR (1).	
3b	Explain two additions that would be made to the BEP post contract.	303.2.1
	Award 1 mark for identifying an addition and 1 mark for explanation to a maximum 2 marks for each of two additions explained. Where more than two additions are given in the response, the best two should be marked.	

 Agreed approach (1) as it forms part of the contracted agreement 	
Management (1) aspects of management such as timelines cannot	
 Planning and documentation (1) this confirms the supply chain/information delivery plans as this would take significant time 	
 Standard method and procedure (1) the level of detail required it would not be feasible to include in a tender and would be 	
negotiated later (1) IT solutions (1) to ensure most current versions are in place (1)	
Describe each of the following stages of the CDE.	303.2.2
Work in progressPublished	
Award 1 mark for a basic response and 2 marks for a detailed description for each stage.	
Work in progress – this is non verified design data (1) used in-house only (1) Published – coordinated and validated design output (1) for use by the whole project team (1)	
Describe two responsibilities of a BIM author.	303.2.2
Award 1 mark for each valid responsibility to a maximum 2 marks.	
 Develop parts of the model in connection with specific tasks (1) Review existing BIM content (1) 	
What is included in a Task Information Delivery Plan?	303.2.2
Award 1 mark for each valid content of a TIDP described to a maximum 4 marks.	
Who is responsible for producing information	
When will it be produced	
Give two purposes of the Model Production Delivery Table.	303.2.3
Award 1 mark for each purpose to a maximum 2 marks.	
To allocate responsibility for the preparation of the model (1)	
To identify the level of detail to be met at different stages (1)	202.0.0
Give two information requirements included in a BIM protocol.	303.2.3
Award 1 mark for each correct answer to a maximum 2 marks.	
The standards to be used (1)	
Who will perform the Information Manager role (1) The software to be used (1) The software to be used (1)	
•	
 Coordinates and zones (1) 	
	 (1) Management (1) aspects of management such as timelines cannot be confirmed until the contract is agreed (1) Planning and documentation (1) this confirms the supply chain/information delivery plans as this would take significant time and would not be undertaken until tender is won (1) Standard method and procedure (1) the level of detail required it would not be feasible to include in a tender and would be negotiated later (1) IT solutions (1) to ensure most current versions are in place (1) Describe each of the following stages of the CDE. Work in progress Published Award 1 mark for a basic response and 2 marks for a detailed description for each stage. Work in progress – this is non verified design data (1) used in-house only (1) Published – coordinated and validated design output (1) for use by the whole project team (1) Describe two responsibilities of a BIM author. Award 1 mark for each valid responsibility to a maximum 2 marks. Develop parts of the model in connection with specific tasks (1) Review existing BIM content (1) What is included in a Task Information Delivery Plan? Award 1 mark for each valid content of a TIDP described to a maximum 4 marks. Who is responsible for producing information When will it be produced What level of detail/definition Provided at task level Give two purposes of the Model Production Delivery Table. Award 1 mark for each purpose to a maximum 2 marks. To allocate responsibility for the preparation of the model (1) To identify the level of detail to be met at different stages (1) Give two information requirements included in a BIM protocol. Award 1 mark for each correct answer to a maximum 2 marks. The standards to be used (1)

Assessment 303 BIM project implementation Useful contacts



UK learners General qualification information	E: learnersupport@cityandguilds.com
International learners General qualification information	E: intcg@cityandguilds.com
Centres Exam entries, Registrations/enrolment, Certificates, 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, GOLA, Navigation, User/menu option, Problems	E: walledgarden@cityandguilds.com
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	E: business_unit@cityandguilds.com

If you have a complaint, or any suggestions for improvement about any of the services that City & Guilds provides, email: feedbackandcomplaints@cityandguilds.com

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