

# **Pearson Edexcel Level 7 Diploma in Construction Senior Management**

## **Specification**

NVQs/Competence-based qualifications

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Issue 2

## Edexcel, BTEC and LCCI qualifications

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## About Pearson

Pearson is the world's leading learning company, with 35,000 employees in more than 70 countries working to help people of all ages to make measurable progress in their lives through learning. We put the learner at the centre of everything we do, because wherever learning flourishes, so do people. Find out more about how we can help you and your learners at [qualifications.pearson.com](http://qualifications.pearson.com)

This qualification is offered as part of a Joint Awarding Body Partnership with construction industry professional bodies; the Chartered Institute of Building (CIOB), and the Institution of Civil Engineers (ICE), for whom the NVQs are steps to professional recognition.

[www.ciob.org.uk](http://www.ciob.org.uk)

[www.ice.org.uk](http://www.ice.org.uk)



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# Contents

<b>1</b>	<b>Introducing Edexcel NVQs/ Competence-based qualifications</b>	<b>1</b>
	What are NVQs/Competence-based qualifications?	1
	Sizes of NVQs/Competence-based qualifications	1
<b>2</b>	<b>Qualification summary and key information</b>	<b>3</b>
<b>3</b>	<b>Qualification purpose</b>	<b>5</b>
	Qualification objectives	5
	Relationship with previous qualifications	5
	Progression opportunities	5
	Industry support and recognition	6
	Relationship with occupational standards	6
<b>4</b>	<b>Qualification structure</b>	<b>7</b>
	Pearson Edexcel Level 7 NVQ Diploma in Construction Senior Management	7
<b>5</b>	<b>Programme delivery</b>	<b>10</b>
	Elements of good practice	10
	Training and assessment delivery	11
	Employer engagement	11
<b>6</b>	<b>Centre resource requirements</b>	<b>12</b>
<b>7</b>	<b>Access and recruitment</b>	<b>14</b>
	Prior knowledge, skills and understanding	14
	Access to qualifications for learners with disabilities or specific needs	14
<b>8</b>	<b>Assessment</b>	<b>15</b>
	Language of assessment	15
	Internal assessment	15
	Assessment requirements	16
	Types of evidence	17
	Assessment of knowledge and understanding	18
	Appeals	18
	Dealing with malpractice	19
	Reasonable adjustments to assessment	21
	Special consideration	21

<b>9</b>	<b>Centre recognition and approval</b>	<b>23</b>
	Centre recognition	23
	Approvals agreement	23
<b>10</b>	<b>Quality assurance of centres</b>	<b>24</b>
<b>11</b>	<b>Units</b>	<b>25</b>
	Unit format	25
	Unit 1: Manage Project Processes in Construction Management	27
	Unit 2: Manage Teams in Construction Management	44
	Unit 3: Provide Advice, Judgement and Services Ethically in Construction Management	51
	Unit 4: Develop Self and Others in Construction Management	59
	Unit 5: Control Projects in Construction Management	68
	Unit 6: Plan a Construction Organisation's Workforce	83
	Unit 7: Prepare and Agree a Project Brief and Outline Programme in Construction Management	91
	Unit 8: Direct the Management of Design Development and Processes in Construction Management	102
	Unit 9: Sustainability and Environmental Impact of Developments in Construction Management	113
	Unit 10: Evaluate Sustainable Resources and Requirements for the Whole Lifecycle of a Construction Project	125
	Unit 11: Establish Project Procurement Arrangements in Construction Management	133
	Unit 12: Implement, Monitor and Control Strategic Procurement Systems in Construction Management	143
	Unit 13: Manage Tendering Processes in Construction Management	150
	Unit 14: Manage the Preparation and Submission of Estimates, Bids and Tenders in Construction Management	161
	Unit 15: Ensure that Contracts are Prepared, Negotiated and Agreed in Construction Management	172
	Unit 16: Control Budgets and Contract Payment Entitlement in Construction Management	179
	Unit 17: Evaluate and Progress the Resolution of Contractual Disputes in Construction Management	187
	Unit 18: Manage Marketing and Customer Service in Construction Management	195
	Unit 19: Manage the Handover of a Construction Project	204

<b>12</b>	<b>Further information and useful publications</b>	<b>214</b>
<b>13</b>	<b>Professional development and training</b>	<b>215</b>
<b>14</b>	<b>Contact us</b>	<b>216</b>
	<b>Annexe A: Assessment strategy</b>	<b>217</b>

## Summary of specification Issue 2 changes for:

### Pearson Edexcel Level 7 NVQ Diploma in Construction Senior Management

Summary of changes made between previous Issue 1 and this current Issue 2	Page number
Information in <i>Section 5: Programme delivery</i> clarified to read: So that they can develop and demonstrate the occupational competence required, learners must be in employment in an appropriate role.	10
Information in <i>Section 6: Centre resource requirements</i> clarified to refer to IV rather than EV in the following text: <ul style="list-style-type: none"><li>• for Level 6 Construction NVQs, the assessor must hold either chartered membership of a built environment professional body, to include ICE, RICS, CIAT, CIOB and others, or a construction qualification at Level 6 or higher, such as a construction NVQ or a university degree</li><li>• for Level 7 Construction Senior Management and Built Environment Design and Consultancy Practice, we would expect the assessor to hold a chartered membership of a built environment professional body, to include ICE, RICS, CIAT, CIOB and others, or a construction qualification at Level 7 or higher, such as a construction NVQ or postgraduate degree.</li></ul>	12

If you need further information on these changes or what they mean, contact us via our website at: [qualifications.pearson.com/en/support/contact-us.html](http://qualifications.pearson.com/en/support/contact-us.html).







# 1 Introducing Edexcel NVQs/ Competence-based qualifications

## What are NVQs/Competence-based qualifications?

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National Vocational Qualifications (NVQs)/Competence-based qualifications are work-based qualifications that give learners the opportunity to develop and demonstrate their competence in the area of work or job role to which the qualification relates.

NVQs/Competence-based qualifications are based on recognised occupational standards for the appropriate sector. Occupational Standards define what employees, or potential employees, must be able to do and know, and how well they should undertake work tasks and work roles. These standards are written in broad terms to enable employers and providers to apply them to a wide range of related occupational areas.

NVQs/Competence-based qualifications are outcomes-based with no fixed learning programme, therefore allowing flexible delivery to meet the individual learner's needs. At Level 2 and above, these qualifications are recognised as approved training and development for employees who have been in the workplace for some time. The qualifications are also a way of inducting, training and developing new entrants into the workplace. Qualifications at Level 1 can be used in Traineeships, which enables progression to entry level employment or to Apprenticeship programmes.

Learners will work towards their qualification in the workplace or in settings that replicate the working environment as specified in the assessment requirements. Colleges, training centres and/or employers can offer these qualifications as long as they have access to appropriate physical and human resources and have the necessary quality assurance systems in place.

## Sizes of NVQs/Competence-based qualifications

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For all regulated qualifications, Pearson specifies a total estimated number of hours that learners will require to complete and show achievement for the qualification – this is the Total Qualification Time (TQT). The TQT value indicates the size of a qualification.

Within the TQT, Pearson identifies the number of Guided Learning Hours (GLH) that we estimate a centre delivering the qualification might provide. Guided learning means activities, such as lessons, tutorials, online instruction, supervised study and giving feedback on performance, that directly involve tutors and assessors in teaching, supervising and invigilating learners. Guided learning includes the time required for learners to complete external assessment under examination or supervised conditions.

In addition to guided learning, other required learning directed by tutors or assessors includes private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

As well as TQT and GLH, qualifications can also have a credit value – equal to one tenth of the TQT, rounded to the nearest whole number.

TQT and credit values are assigned after consultation with users of the qualifications.

NVQs/Competence-based qualifications are generally available in the following sizes:

- Award – a qualification with a TQT value of 120 or less (equivalent to a range of 1–12 credits)
- Certificate – a qualification with a TQT value in the range of 121–369 (equivalent to a range of 13–36 credits)
- Diploma – a qualification with a TQT value of 370 or more (equivalent to 37 credits and above).

## 2 Qualification summary and key information

Qualification title	Pearson Edexcel Level 7 NVQ Diploma in Construction Senior Management
Qualification Number (QN)	603/3930/5
Regulation start date	19/12/2018
Operational start date	01/01/2019
Approved age ranges	18+ 19+ Please note that sector-specific requirements or regulations may prevent learners of a particular age from embarking on this qualification. Please refer to the assessment requirements in <i>Section 8 Assessment</i> .
Total Qualification Time (TQT)	1690
Guided Learning Hours (GLH)	485
Credit value	169
Assessment	Portfolio of evidence (internal assessment).
Grading information	The qualification and units are graded pass/fail.

Qualification title	Pearson Edexcel Level 7 NVQ Diploma in Construction Senior Management
Entry requirements	No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. However, centres must follow the <i>Pearson Guide for Centres to Enrolling onto Qualifications</i> (see <i>Section 7 Access and recruitment</i> ).
Funding	Qualifications eligibility for 16–19, apprenticeship and 19+ advanced learner loan funding can be found on the funding Hub. The Education and Skills Funding Agency (ESFA) also publishes a list of the qualifications eligible for the 19–23 Level 2 and Level 3 legal entitlement, and a list of the qualifications eligible for 19+ advanced learner loans.

Centres will need to use the Qualification Number (QN) when they seek public funding for their learners. The qualification title, unit titles and QN will appear on each learner’s final certificate. Centres should tell learners this when recruiting them and registering them with Pearson. There is more information about certification in our *UK Information Manual*, available on our website, [qualifications.pearson.com](http://qualifications.pearson.com)

## 3 Qualification purpose

### Qualification objectives

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The Pearson Edexcel Level 7 NVQ Diploma in Construction Senior Management is for learners who work in, or who want to work in, a senior management role in the construction sector.

The qualification gives learners the opportunity to:

- develop the technical skills, role-related knowledge and understanding, and behaviours required to work in a wide range of construction senior management roles, including construction manager, construction supervisor, production manager, commercial manager, operations director of a small company, property and facilities manager and specialist construction manager. These skills and knowledge are also applicable to construction project manager roles
- demonstrate competence in the relevant job roles
- have existing skills recognised
- achieve a nationally-recognised Level 7 qualification.

### Relationship with previous qualifications

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This qualification is a direct replacement for the Pearson Edexcel Level 7 NVQ Diploma in Construction Senior Management (QCF), which has expired.

### Progression opportunities

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Learners who achieve the Pearson Edexcel Level 7 NVQ Diploma in Construction Senior Management can progress to senior management job roles within construction, with responsibility for project operational management and oversight and/or financial control of the whole project. There are no specific qualifications that offer direct progression above this level, though learners could embark on postgraduate degrees in disciplines such as construction management, design or civil engineering, if they have work experience in these areas. Additionally, learners may use the qualification to achieve professional membership of the Chartered Institute of Building (MCIOB).

## **Industry support and recognition**

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The Construction Industry Training Board (CITB), the training board for the UK construction industry, supports this qualification.

## **Relationship with occupational standards**

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The units comprising this qualification are based on the National Occupational Standards for construction senior management, which were set and designed by ConstructionSkills, the Sector Skills Council (SSC) for the construction industry.

## 4 Qualification structure

### Pearson Edexcel Level 7 NVQ Diploma in Construction Senior Management

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The learner will need to meet the requirements outlined in the table below before the qualification can be awarded.

Minimum number of credits that must be achieved	169
Number of mandatory credits that must be achieved	107
Minimum number of optional credits that must be achieved	62

Unit number	Mandatory units	Level	Credit	Guided Learning Hours
1	Manage Project Processes in Construction Management	7	29	90
2	Manage Teams in Construction Management	7	16	50
3	Provide Advice, Judgement and Services Ethically in Construction Management	7	19	50
4	Develop Self and Others in Construction Management	6	11	20
5	Control Projects in Construction Management	7	23	90
6	Plan a Construction Organisation's Workforce	7	9	35

Unit number	Optional units	Level	Credit	Guided Learning Hours
7	Prepare and Agree a Project Brief and Outline Programme in Construction Management	7	24	90
8	Direct the Management of Design Development and Processes in Construction Management	7	22	110
9	Sustainability and Environmental Impact of Developments in Construction Management	7	20	80
10	Evaluate Sustainable Resources and Requirements for the Whole Lifecycle of a Construction Project	6	17	80
11	Establish Project Procurement Arrangements in Construction Management	7	18	60
12	Implement, Monitor and Control Strategic Procurement Systems in Construction Management	7	12	20
13	Manage Tendering Processes in Construction Management	6	19	50
14	Manage the Preparation and Submission of Estimates, Bids and Tenders in Construction Management	7	16	40
15	Ensure that Contracts are Prepared, Negotiated and Agreed in Construction Management	7	18	60
16	Control Budgets and Contract Payment Entitlement in Construction Management	7	11	30



Unit number	Optional units	Level	Credit	Guided Learning Hours
17	Evaluate and Progress the Resolution of Contractual Disputes in Construction Management	7	18	60
18	Manage Marketing and Customer Service in Construction Management	7	13	30
19	Manage the Handover of a Construction Project	6	10	50

## 5 Programme delivery

Centres are free to offer these qualifications using any mode of delivery (for example full-time, part-time, evening only, distance learning) that meets learners' needs. So that they can develop and demonstrate the occupational competence required, learners must be in employment in an appropriate role.

Whichever mode of delivery is used, centres must make sure that learners have access to specified resources and to the sector specialists delivering and assessing the units. Centres must adhere to the Pearson policies that apply to the different modes of delivery. Our *Collaborative and Consortium Arrangements for the Delivery of Vocational Qualifications Policy* document is available on our website.

There are various approaches to delivering a successful competence-based qualification. The section below outlines elements of good practice that centres can adopt in relation to learner recruitment, preparation and support, training and assessment delivery, and employer engagement.

### Elements of good practice

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#### Learner recruitment, preparation and support

Good practice in relation to learner recruitment, preparation and support includes:

- giving potential learners initial advice and guidance, including work tasters, to give them an insight into the relevant industry and the learning programme
- using a range of appropriate and rigorous selection methods to ensure that learners are matched to the programme best suited to their needs
- carrying out a thorough induction for learners to ensure that they completely understand the programme and what is expected of them. The induction should include, for example, the requirements of the programme, an initial assessment of current competency levels, assessment of individual learning styles, identification of training needs, an individual learning plan, details of training delivery and the assessment process. It is good practice to involve employers in the induction process. This helps them to understand what will be taking place during the programme and enables them to start building a relationship with the centre to support the effective delivery of the programme
- keeping in regular contact with the learner to keep them engaged and motivated, and ensuring that there are open lines of communication between the learner, the assessor, the employer and teaching staff.

## Training and assessment delivery

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Good practice in relation to training and assessment delivery includes:

- offering flexible delivery and assessment to meet the needs of the employer and learner through the use of a range of approaches, for example virtual learning environments (VLEs), online lectures, video, printable online resources, virtual visits, webcams for distance training, e-portfolios
- planning opportunities for the development and practising of skills on the job. On-the-job training presents an excellent opportunity to develop the learner's routine expertise, resourcefulness, craft skills and business-like attitude. It is therefore important that there is intentional structuring of practice and guidance to supplement the learning and development provided through engagement in everyday work activities. Learners need to have structured time to learn and practise their skills separate from their everyday work activities. Teaching and learning methods, such as coaching, mentoring, shadowing, reflective practice, collaboration and consultation, could be used in this structured on-the-job learning
- developing an holistic approach to assessment by matching evidence to different assessment criteria, learning outcomes and units as appropriate, thereby reducing the assessment burden on learners and assessors. It is good practice to draw up an assessment plan that aligns the units with the learning process and the acquisition of knowledge and skills, and which indicates how and when the units will be assessed
- discussing and agreeing with learners and employers suitable times, dates and work areas where assessment will take place. Learners and employers should be given regular and relevant feedback on performance and progress.

## Employer engagement

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Good practice in relation to employer engagement includes:

- communicating with employers at the start of the programme to understand their business contexts and requirements so that the programme can be tailored to meet their needs
- working with employers to ensure that learners are allocated a mentor in the workplace to assist them in the day-to-day working environment and who can act as a contact for the assessor/tutor
- helping employers to better understand their role in the delivery of the programme. It is important that employers understand that learners must be given sufficient and relevant work in order to provide a culture of learning and to ensure that they are given every opportunity to participate in aspects of continuous professional development (CPD).

## 6 Centre resource requirements

As part of the approval process, centres must make sure that the resource requirements given below are in place before offering the qualification.

- Centres must have the appropriate physical resources to support delivery and assessment of the qualification. For example, a workplace in line with industry standards or a Realistic Working Environment (RWE) (where permitted, as specified in the assessment strategy for the sector), equipment, IT, learning materials, teaching rooms.
- Where RWE is permitted, it must offer the same conditions as the normal, day-to-day working environment, with a similar range of demands, pressures and requirements for cost-effective working.
- Centres must meet any specific human and physical resource requirements outlined in the assessment strategy in *Annexe A*. Staff assessing learners must meet the occupational competence requirements within the overarching assessment strategy for the sector.
- Centre assessors must be qualified at or above the level of qualification they are assessing. The qualification required is either an NVQ/SVQ or corporate membership of a professional institution, or an interview which must be recorded and available for audit.

Specifically:

- for Level 6 Construction NVQs, the assessor must hold either chartered membership of a built environment professional body, to include ICE, RICS, CIAT, CIOB and others, or a construction qualification at Level 6 or higher, such as a construction NVQ or a university degree
- for Level 7 Construction Senior Management and Built Environment Design and Consultancy Practice, we would expect the assessor to hold a chartered membership of a built environment professional body, to include ICE, RICS, CIAT, CIOB and others, or a construction qualification at Level 7 or higher, such as a construction NVQ or postgraduate degree.
- There must be systems in place to ensure continuing professional development for staff delivering the qualification.
- Centres must have appropriate health and safety policies, procedures and practices in place for the delivery and assessment of the qualification.

- Centres must have in place robust internal verification systems and procedures to ensure the quality and authenticity of learners' work as well as the accuracy and consistency of assessment decisions between assessors operating at the centre. For information on the requirements for implementing assessment processes in centres, please refer to the document *Pearson Delivery Guidance & Quality Assurance Requirements for NVQs/SVQs and Competence-based qualifications*. Centres offering the qualification within BTEC Apprenticeship frameworks should refer to the document *Quality Assurance Handbook, BTEC Apprenticeship*. All three documents are available on our website, [qualifications.pearson.com](http://qualifications.pearson.com)
- Centres must deliver the qualification in accordance with current equality legislation. For further details on Pearson's commitment to the Equality Act 2010, please see *Section 7 Access and recruitment*. For full details on the Equality Act 2010, visit [www.legislation.gov.uk](http://www.legislation.gov.uk)

## 7 Access and recruitment

Our policy on access to our qualifications is that:

- they should be available to everyone who is capable of reaching the required standards
- they should be free from barriers that restrict access and progression
- there should be equal opportunities for all wishing to access the qualifications.

Centres must ensure that their learner recruitment process is conducted with integrity. This includes ensuring that applicants have appropriate information and advice about the qualification so that they can be sure that it meets their needs.

Centres should review applicants' prior qualifications and/or experience, considering whether this profile shows that they have the potential to achieve the qualification.

### **Prior knowledge, skills and understanding**

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No prior knowledge, understanding, skills or qualifications are required for learners to register for this qualification.

### **Access to qualifications for learners with disabilities or specific needs**

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Equality and fairness are central to our work. Pearson's *Equality, Diversity and Inclusion Policy* document requires all learners to have equal opportunity to access our qualifications and assessments and that our qualifications are awarded in a way that is fair to every learner.

We are committed to making sure that:

- learners with a protected characteristic (as defined by the Equality Act 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to learners who do not share that characteristic
- all learners achieve the recognition they deserve from undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

For learners with disabilities and specific needs, the assessment of their potential to achieve the qualification must identify, where appropriate, the support that will be made available to them during delivery and assessment of the qualification. Please see the information regarding reasonable adjustments and special consideration in *Section 8 Assessment*.

## 8 Assessment

To achieve a pass for this qualification, the learner must achieve all the units required in the stated qualification structure.

### Language of assessment

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Assessments for the units in this qualification are in English only.

A learner taking the qualification may be assessed in British or Irish Sign Language where it is permitted for the purpose of reasonable adjustment.

Further information on the use of language in qualifications is available in our *Use of Languages in Qualifications Policy* document, available on our website at: [qualifications.pearson.com](http://qualifications.pearson.com)

Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) *Access Arrangements and Reasonable Adjustments*. The document is available on our website, [qualifications.pearson.com](http://qualifications.pearson.com)

### Internal assessment

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The units in this qualification are assessed through an internally- and externally quality-assured Portfolio of Evidence, made up of evidence gathered during the course of the learner's work.

Each unit has specified learning outcomes and assessment criteria. To pass each unit the learner must:

- achieve **all** the specified learning outcomes
- satisfy **all** the assessment criteria by providing sufficient and valid evidence for each criterion
- prove that the evidence is their own.

The learner must have an assessment record that identifies the assessment criteria that have been met. The assessment record should be cross-referenced to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment. Suitable centre documentation should be used to form an assessment record.

It is important that the evidence provided to meet the assessment criteria for the unit and learning outcomes:

- Valid** is relevant to the standards for which competence is claimed
- Authentic** is produced by the learner
- Current** is sufficiently recent to create confidence that the same skill, understanding or knowledge persists at the time of the claim
- Reliable** indicates that the learner can consistently perform at this level
- Sufficient** fully meets the requirements of the standards

Learners can provide evidence of occupational competence from:

- **current practice** – where evidence is generated from a current job role
- a **programme of development** – where evidence comes from assessment opportunities built into a learning programme. The evidence provided must meet the assessment requirements for the qualification
- the **Recognition of Prior Learning (RPL)** – where a learner can demonstrate that they can meet a unit's assessment criteria through knowledge, understanding or skills they already possess without undertaking a course of development. They must submit sufficient, reliable, authentic and valid evidence for assessment. Evidence submitted that is based on RPL should give the centre confidence that the same level of skill, understanding and knowledge exists at the time of the claim as existed at the time the evidence was produced. RPL is acceptable for accrediting a unit, several units, or a whole qualification

Further guidance is available in our *Recognition of Prior Learning Policy and Process* document, available on our website, [qualifications.pearson.com](http://qualifications.pearson.com)

- a combination of the above.

## Assessment requirements

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The assessment strategy for the qualification is included in *Annexe A*. It sets out the overarching assessment principles and the framework for assessing the units to ensure that the qualification remain valid and reliable. It has been developed by ConstructionSkills in partnership with employers, training providers, awarding organisations and the regulatory authorities.



## Types of evidence

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To achieve a unit, the learner must gather evidence that shows that they have met the required standard specified in the assessment criteria, Pearson's quality assurance arrangements (please see *Section 10 Quality assurance*) and the requirements of the assessment strategy given in *Annexe A*.

In line with the assessment strategy, evidence for internally-assessed units can take a variety of forms as indicated below:

- direct observation of the learner's performance by their assessor (O)
- outcomes from oral or written questioning (Q&A)
- products of the learner's work (P)
- personal statements and/or reflective accounts (RA)
- outcomes from simulation (S) – where stated in the unit; please refer to guidance for use in the assessment strategy in *Annexe A*
- professional discussion (PD)
- authentic statements/witness testimony (WT)
- expert witness testimony (EWT)
- evidence of Recognition of Prior Learning (RPL).

Learners can use the abbreviations in their portfolios for cross-referencing purposes.

Learners can also use one piece of evidence to prove their knowledge, skills and understanding across different assessment criteria and/or across different units. It is not necessary for learners to have each assessment criterion assessed separately. They should be encouraged to reference evidence to the relevant assessment criteria. However, the evidence provided for each unit must clearly reference the unit assessed. Evidence must be available to the Assessor, the Internal Verifier and the Pearson Standards Verifier.

Any specific evidence requirements for a unit are given in the *Unit assessment requirements* section of the unit.

Further guidance on the requirements for centre quality assurance and internal verification processes is available on our website. Please see *Section 12 Further information and useful publications* for details.

## Assessment of knowledge and understanding

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Where the workplace evidence does not cover the whole scope/range, knowledge evidence must be provided to cover the remaining items of scope/range for each relevant learning outcome and assessment criterion. For the units in this qualification, this knowledge evidence must be provided through a professional discussion. A professional discussion is a planned two-way conversation between the assessor and the learner. The discussion should make effective use of questioning methods, e.g. open, prompt and specific questions. The professional discussion should be based on and be supported by suitable product evidence. Examples are provided in each unit of possible 'project artefacts' that may form part of the evidence, and serve as a basis to plan for questioning or discussion, in order to confirm the learners' understanding, knowledge, and full competence. Project artefacts are produced during the management of a construction project, and may include, among other things, documents, reports, drawings, method statements, programmes or specifications. By example, a key project artefact to manage health and safety would be a risk register, while project resource requirements and timescales might be controlled and monitored using a programme, another project artefact.

The professional discussion should be recorded using handwritten notes, audio recording or video and must be referenced to the unit and assessment criteria. If handwritten notes are taken by the assessor, it is good practice for the learner to authenticate them and confirm them as a true record of the conversation. If audio, it is important that the learning outcomes/assessment criteria are mapped to the recording – ideally with the time when the criteria was addressed via the professional discussion. Specific assessment requirements are stated in the *Unit assessment requirements* section of each unit in *Section 11 Units*, they include guidance on possible project artefacts.

## Appeals

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Centres must have a policy for dealing with appeals from learners. Appeals may relate to incorrect assessment decisions or unfairly conducted assessment. The first step in such a policy is a consideration of the evidence by a Lead Internal Verifier or other member of the programme team. The assessment plan should allow time for potential appeals after learners have been given assessment decisions.

Centres must document all learners' appeals and their resolutions. Further information on the appeals process can be found in our *Enquiries and appeals about Pearson vocational qualifications and end point assessment* document, available on our website.

## Dealing with malpractice

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Malpractice means acts that undermine the integrity and validity of assessment, the certification of qualifications and/or may damage the authority of those responsible for delivering the assessment and certification.

Pearson does not tolerate actions (or attempted actions) of malpractice by learners, centre staff or centres in connection with Pearson qualifications. Pearson may impose penalties and/or sanctions on learners, centre staff or centres where incidents (or attempted incidents) of malpractice have been proven.

Malpractice may arise or be suspected in relation to any unit or type of assessment within the qualification. For further details on malpractice and advice on preventing malpractice by learners please see Pearson's *Centre Guidance: Dealing with Malpractice*, available on our website.

### Internal assessment

Centres are required to take steps to prevent malpractice and to investigate instances of suspected malpractice. Learners must be given information that explains what malpractice is for internal assessment and how suspected incidents will be dealt with by the centre. The *Centre Guidance: Dealing with Malpractice* document gives full information on the actions we expect you to take.

Pearson may conduct investigations if we believe that a centre is failing to conduct internal assessment according to our policies. The above document gives more information and examples, and details the penalties and sanctions that may be imposed.

In the interests of learners and centre staff, centres need to respond effectively and openly to all requests relating to an investigation into an incident of suspected malpractice.

### Learner malpractice

The head of centre is required to report incidents of suspected learner malpractice that occur during Pearson examinations. We ask centres to complete JCQ Form M1 ([www.jcq.org.uk/exams-office/malpractice](http://www.jcq.org.uk/exams-office/malpractice)) and email it with any accompanying documents (signed statements from the learner, invigilator, copies of evidence, etc.) to the Investigations Team at [pqsmalpractice@pearson.com](mailto:pqsmalpractice@pearson.com). The responsibility for determining appropriate sanctions or penalties to be imposed on learners lies with Pearson.

Learners must be informed at the earliest opportunity of the specific allegation and the centre's malpractice policy, including the right of appeal. Learners found guilty of malpractice may be disqualified from the qualification for which they have been entered with Pearson.

## Teacher/centre malpractice

The head of centre is required to inform Pearson's Investigations Team of any incident of suspected malpractice by centre staff, before any investigation is undertaken. The head of centre is requested to inform the Investigations Team by submitting a JCQ M2(a) form (downloadable from [www.jcq.org.uk/exams-office/malpractice](http://www.jcq.org.uk/exams-office/malpractice)) with supporting documentation to [pqsmalpractice@pearson.com](mailto:pqsmalpractice@pearson.com). Where Pearson receives allegations of malpractice from other sources (for example Pearson staff, anonymous informants), the Investigations Team will conduct the investigation directly or may ask the head of centre to assist.

Incidents of maladministration (accidental errors in the delivery of Pearson qualifications that may affect the assessment of learners) should also be reported to the Investigations Team using the same method.

Heads of centres/principals/chief executive officers or their nominees are required to inform learners and centre staff suspected of malpractice of their responsibilities and rights, please see 6.15 of the Joint Council for Qualifications (JCQ) document *Suspected Malpractice in Examinations and Assessments Policies and Procedures*.

Pearson reserves the right in cases of suspected malpractice to withhold the issuing of results/certificates while an investigation is in progress. Depending on the outcome of the investigation, results and/or certificates may not be released or they may be withheld.

We reserve the right to withhold certification when undertaking investigations, audits and quality assurances processes. You will be notified within a reasonable period of time if this occurs.

## Sanctions and appeals

Where malpractice is proven, we may impose sanctions or penalties.

Where learner malpractice is evidenced, penalties may be imposed such as:

- mark reduction for affected external assessments
- disqualification from the qualification
- debarment from registration for Pearson qualifications for a period of time.

If we are concerned about your centre's quality procedures, we may impose sanctions such as:

- working with you to create an improvement action plan
- requiring staff members to receive further training
- placing temporary blocks on your certificates
- placing temporary blocks on registration of learners

- debarring staff members or the centre from delivering Pearson qualifications
- suspending or withdrawing centre approval status.

The centre will be notified if any of these apply.

Pearson has established procedures for centres that are considering appeals against penalties and sanctions arising from malpractice. Appeals against a decision made by Pearson will normally be accepted only from the head of centre (on behalf of learners and/or members or staff) and from individual members (in respect of a decision taken against them personally). Further information on appeals can be found in our *Enquiries and Appeals about Pearson Vocational Qualifications Policy* document, available on our website, [qualifications.pearson.com](http://qualifications.pearson.com). In the initial stage of any aspect of malpractice, please notify the Investigations Team (via [pqsmalpractice@pearson.com](mailto:pqsmalpractice@pearson.com)) who will inform you of the next steps.

## Reasonable adjustments to assessment

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Centres are able to make adjustments to assessments to take account of the needs of individual learners in line with the guidance given in the document *Pearson Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units*. In most instances, adjustments can be achieved by following the guidance; for example allowing the use of assistive technology or adjusting the format of the evidence. We can advise you if you are uncertain as to whether an adjustment is fair and reasonable. Any reasonable adjustment must reflect the normal learning or working practice of a learner in a centre or working within the occupational area.

Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements and Reasonable Adjustments*.

Both documents are on our website, [qualifications.pearson.com](http://qualifications.pearson.com)

## Special consideration

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Centres must operate special consideration in line with the guidance given in the Pearson document *Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units*. Special consideration may not be applicable in instances where:

- assessment requires the demonstration of practical competence
- criteria have to be met fully
- units/qualifications confer licence to practice.

Centres cannot apply their own special consideration; applications for special consideration must be made to Pearson and can be made only on a case-by-case basis. A separate application must be made for each learner and certification claims must not be made until the outcome of the application has been received.

Further information on special consideration can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements and Reasonable Adjustments*.

Both of the documents mentioned above are on our website.

## 9 Centre recognition and approval

### Centre recognition

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Centres that have not previously offered Pearson competence-based qualifications need to apply for and be granted centre recognition and approval as part of the process for approval to offer individual qualifications.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by a new qualification and the conditions for automatic approval are met.

Guidance on seeking approval to deliver Pearson vocational qualifications is available on our website, [qualifications.pearson.com](http://qualifications.pearson.com)

### Approvals agreement

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All centres are required to enter into an approval agreement, which is a formal commitment by the head or principal of a centre, to meet all the requirements of the specification and any associated codes, conditions or regulations. Pearson will act to protect the integrity of the awarding of qualifications. If centres do not comply with the agreement, this could result in the suspension of certification or withdrawal of approval.

## 10 Quality assurance of centres

Quality assurance is at the heart of vocational qualifications. Centres are required to declare their commitment to ensuring quality and to giving learners appropriate opportunities that lead to valid and accurate assessment outcomes.

Centres must follow quality assurance requirements for standardisation of assessors and internal verifiers and the monitoring and recording of assessment processes. Pearson uses external quality assurance procedures to check that all centres are working to national standards. It gives us the opportunity to identify and provide support to safeguard certification and quality standards. It also allows us to recognise and support good practice.

Centres offering competence-based qualifications will receive at least one visit from our Standards Verifier, followed by ongoing support and development. This may result in more visits or remote support, as required to complete standards verification. The exact frequency and duration of Standards Verifier visits will reflect the centre's performance, taking account of the:

- number of assessment sites
- number and throughput of learners
- number and turnover of assessors
- number and turnover of internal verifiers.

In order for certification to be released, confirmation is required that the Occupational Standards for assessment and verification, and for the specific occupational sector are being met consistently.

For further details, please go to the document *General Guidance for Centres and Learners Pearson NVQ/SVQ and Competence-based Qualifications*.

Additionally, centres offering the qualification as stand-alone should refer to the document *Centre Guide to Quality Assurance Pearson NVQ/SVQ and Competence-based Qualifications*. Centres offering the qualification within BTEC Apprenticeship frameworks should refer to the document *Quality Assurance Handbook BTEC Apprenticeship*.

All three documents mentioned above are available on our website, [qualifications.pearson.com](http://qualifications.pearson.com)



# 11 Units

## Unit format

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Each unit has the following sections.

### Unit number

The number is in a sequence in the specification. Where a specification has more than one qualification, numbers may not be sequential for an individual qualification.

### Unit title

This is the formal title of the unit and it will appear on the learner's certificate.

### Level

All units and qualifications have a level assigned to them. The level assigned is informed by the level descriptors defined by Ofqual, the qualifications regulator.

### Unit type

This says if the unit is mandatory or optional for the qualification. See information in *Section 4 Qualification structure* for full details.

### Credit value

All units in this qualification have a credit value. The minimum credit value is 1 and credits can be awarded in whole numbers only.

### Guided Learning Hours (GLH)

Guided Learning Hours (GLH) is the number of hours that a centre delivering the qualification needs to provide. Guided learning means activities, for example lectures, tutorials, online instruction, supervised study, that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners.

Pearson has consulted with users of the qualification and has assigned a number of hours to this activity for each unit.

### Unit summary

This summarises the purpose of the unit and the learning the unit offers.

## **Unit assessment requirements**

This outlines the requirements for the assessment of the unit. Learners must provide evidence according to each of the requirements stated in this section.

## **Learning outcomes**

The learning outcomes set out what a learner will know, understand or be able to do as the result of a process of learning.

## **Assessment criteria**

The assessment criteria specify the standard the learner is required to meet to achieve a learning outcome.

# Unit 1: Manage Project Processes in Construction Management

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Credit value:</b>	<b>29</b>
<b>Guided learning hours:</b>	<b>90</b>

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## Unit summary

This unit is about preparing a strategy for the project using the most appropriate team. You will identify the needs of stakeholders, along with the requirements of the brief and schedule.

You will need to review the project risks and opportunities and their potential effects on the available resources. You will demonstrate effective project development, evaluation and monitoring skills. You will need to encourage a culture of health, safety and welfare on the project, developing, implementing and maintaining systems for health, safety and welfare that meet statutory requirements.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Project information:
  - environmental
  - statutory and legal requirements
  - client, user and community requirements
  - construction and technical requirements
  - site constraints
  - finance, procurement and contract
  - quality
  - cost
  - programme.
- Risks:
  - health, safety and welfare
  - site environment
  - management and workforce experience
  - information management and project-stage decision making
  - complexity and scope
  - consents
  - team composition
  - project costs
  - impact on business
  - technical considerations
  - programme
  - contract form
  - availability of resources
  - innovation
  - poor quality
  - impact on natural and built environment
  - impact of users, public and third parties

- impact on community
- impact of political risk
- resource scarcity.
- Opportunities:
  - impact on the natural and built environment
  - impact on users, public and third parties
  - improved quality
  - improved procurement
  - programme reduction
  - specification change
  - business benefit
  - profitability
  - scope reduction
  - sustainable development.
- Risk management methods and procedures:
  - risk identification
  - risk assessment
  - prevention, reduction and protection
  - risk register.
- Resources:
  - people
  - materials, plant and equipment
  - finance
  - time
  - specialist services
  - utility services
  - information.

## Learning outcome 2

- Culture of health, safety and welfare:
  - personal values, attitudes and behaviours
  - communicating and passing on information
  - accident and incident reporting
  - giving and receiving feedback
  - situational awareness
  - recognising and responding to potential changes
  - materials, plant and equipment and their constraints and failure points.
- Organisation and statutory requirements:
  - construction specific health, safety and welfare regulations
  - general health, safety and welfare legislation
  - recognised industry codes of practice
  - organisational procedures
  - safety audit
  - health and safety plans.
- Equipment and resources:
  - protective clothing
  - protective equipment
  - first-aid facilities
  - welfare facilities
  - storage and security of materials and equipment
  - waste management
  - firefighting equipment
  - provision of health, safety and welfare training
  - hazard warnings
  - plant safe working practices.
- Specific project requirements:
  - contract
  - organisational policy
  - site, construction, induction and installation operations

- risk assessments
- demolition
- control of nuisance (e.g. noise, dust, transport and waste management)
- language
- first-aid arrangements
- statutory notices
- accident and incident reporting.

### **Learning outcome 3**

- Project team:
  - client
  - design and development consultants
  - potential contractors
  - potential sub-contractors and suppliers
  - partners in the development programme
  - facilities/asset managers.
- Stakeholders:
  - the client
  - prospective occupiers/owners
  - local community
  - regulatory authorities
  - government agencies
  - facilities/asset managers.
- Requirements of the development brief and schedule:
  - key decision stages
  - objectives and targets
  - scheduling and timetabling
  - statutory deadlines
  - team meetings
  - procurement
  - concurrent design and construction
  - levels of design refinement at key decision stages
  - level of risk/confidence.

- Communication:
  - orally
  - written
  - electronically.
- Methods for project development, evaluation, modification, monitoring and updating:
  - responsibilities
  - format
  - content
  - indexing
  - distribution
  - reviewing
  - resolving conflicts
  - revising
  - quality control/assurance
  - storage
  - security
  - retrieval
  - statutory approval
  - integration of data
  - building information modelling.
- Investigation:
  - documentary search
  - investigative research
  - site investigation
  - consultation with stakeholders
  - physical/virtual models
  - insurance risk/opportunities associated with new technology
  - adaptation and mitigation.



## Learning outcome 4

- Organisational and communication needs:
  - site management
  - site/head office interface
  - contract administration
  - health, safety, and welfare
  - environmental strategy
  - Common Data Environment (CDE)
  - team working
  - design information management
  - building information modelling.
- Information about people's roles and responsibilities:
  - individual job descriptions, responsibilities and competence
  - organisation charts
  - contractual arrangements
  - team
  - skills, training and development.
- Stakeholders:
  - clients
  - consultants
  - contractors
  - sub-contractors
  - third parties, including public
  - utility providers
  - emergency services
  - people working on site
  - site visitors
  - statutory authorities
  - off-site manufacturing/suppliers
  - facility/asset managers.

- Methods of communicating, reporting, recording and retrieving:
  - oral
  - written
  - graphic
  - electronic.
- Resources:
  - people
  - plant and equipment
  - materials and components
  - sub-contractors
  - information (digital models, drawings, graphical and non-graphical electronic data files)
  - work area and facilities.

## Learning outcome 5

- Improvements from feedback:
  - management procedures
  - client, design and construction team performance
  - working arrangements
  - formal and informal communications
  - quality assurance and control
  - design and technical appraisal
  - operational appraisal
  - performance in use
  - energy use
  - benchmarking
  - sustainability
  - post-project review.
- Stakeholders:
  - the design team
  - CDM co-ordinator (or recognised body under the CDM Regulations)
  - specialist consultants
  - the client
  - contractors
  - site inspectorate
  - users
  - managing agents
  - stakeholders
  - facility/asset managers.
- Feedback information:
  - contract documentation
  - project documentation
  - organisational documentation
  - standard communication details
  - user feedback

- specification amendments
- product information
- government and statutory publications
- research and advisory data
- periodicals and abstracts.
- Methods and sources:
  - project records and documentation
  - building information modelling
  - application and methodology
  - open-book accounting
  - site inspections
  - scientific research and data
  - studies of performance in use
  - meetings
  - questionnaires
  - reports
  - warranty claims
  - Post Construction Evaluation (PCE)
  - Post Occupancy Evaluation (POE).
- Databases:
  - manual files
  - Building Information Model object library
  - model templates
  - standard drawings
  - specifications
  - pro forma
  - online
  - quality management system.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: a project statement defining project objectives and goals; a project risk register or log conveying commercial, technical, statutory and financial risks; or a project review report summarising key project stage feedback from stakeholders. As a minimum for this unit, a health and safety policy document will form one of the project artefacts for the professional discussion.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to manage project risks and opportunities	1.1	Evaluate project information to determine project risks and opportunities			
		1.2	Critically evaluate the significance and ownership of the project risks and opportunities			
		1.3	Ensure compliance with all relevant regulations and guidelines, the selection of risk management methods and procedures to manage the project risks			
		1.4	Plan the activities and resources required to implement the risk management methods and procedures			
		1.5	Develop a system for implementing the risk management methods and procedures in line with the plan			
		1.6	Implement, in line with the system developed, the risk management methods to manage project risk			
		1.7	Monitor the implemented system in line with organisational procedures, justifying modifications to manage changed project circumstances			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to develop systems for managing health, safety and welfare	2.1	Examine the work environment to propose health, safety and welfare improvements and determine strategies to encourage a project culture embracing health, safety and welfare			
		2.2	Design health, safety and welfare policies and systems to meet organisational and statutory requirements and to reduce hazards, report accidents and emergencies			
		2.3	Plan the allocation of health, safety and welfare responsibilities, equipment and resources to meet the designed organisational systems, statutory and project-specific requirements			
		2.4	Implement the systems, in line with the plan			
		2.5	Monitor the implemented systems regularly in line with organisational procedures and evaluate site compliance with the system requirements			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to manage project team activities	3.1	Examine a project brief to critically evaluate and clarify stakeholder requirements			
		3.2	Set up arrangements to achieve communication and trust between stakeholders			
		3.3	Formulate project goals to meet the requirements of the project brief			
		3.4	Interpret project goals identifying matters needing further investigation and formulate realistic timescale and costs for the matters with the project team			
		3.5	Prepare a strategy for project delivery, in line with the project brief, determined goals and identified matters, that incorporates cost and timelines and makes the best use of the capabilities of all project team members			
		3.6	Determine with the project team appropriate and realistic methods for project development, evaluation, modification, monitoring and updating in line with the strategy			
		3.7	Develop methods to motivate, coach and engage project team members to maximise and integrate their contributions to project development			



Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.8	Monitor the progress of the project team, in line with the timelines and cost in the strategy, and provide members with feedback on timing, task completion and team processes			
		3.9	Implement project team feedback sessions ensuring contributions of views from each team member			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Be able to implement project systems	4.1	Critically evaluate the project organisational and communication needs			
		4.2	Produce information for stakeholders covering the project team members' roles and responsibilities, the project organisational and communication structure, in line with the evaluation			
		4.3	Implement systems to enable communicating, reporting, recording and retrieving information between stakeholders, in line with the evaluation			
		4.4	Implement systems to audit health, safety and welfare regularly, in accordance with organisational and statutory requirements			
		4.5	Implement systems for recording and providing feedback on the ways in which project resources are allocated and used			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Be able to utilise project feedback information	5.1	Formulate a strategy which promotes the value of making improvements from feedback throughout the project and encourages collaboration and feedback contributions from stakeholders			
		5.2	Produce a plan for obtaining feedback information on projects in line with the strategy			
		5.3	Gather feedback information, in line with the plan, and evaluate the information			
		5.4	Identify the areas on which to focus for making project improvements from feedback, justifying decisions to the stakeholders			
		5.5	Develop a plan to incorporate these areas into updated procedures and databases			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

## **Unit 2: Manage Teams in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Credit value:</b>	<b>16</b>
<b>Guided learning hours:</b>	<b>50</b>

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### **Unit summary**

This unit is about identifying the team resources that are needed to deliver a particular project and how the significant factors will affect your team selection.

You will select the project team following contractual and statutory rules, and recognised industry processes. You will also identify stakeholders and establish working relationships with both them and your colleagues. You will consult with them in relation to key decisions, fulfil agreements made with them, promptly advise them of any difficulties encountered, and resolve any conflicts with them.

You will need to produce evidence to show that you have monitored and reviewed the effectiveness of working relationships.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Team resources:
  - management
  - technical staff
  - specialist sub-contractors
  - specialist services
  - workforce.
- Significant factors:
  - location
  - cost
  - time
  - skills, experience and knowledge required and availability
  - training and development requirements
  - impact of new technology processes and materials on skills
  - diversity
  - language
  - accreditation requirements.
- Rules and formalities:
  - contractual
  - statutory
  - recognised industry processes
  - organisational processes
  - certification of competence.

### Learning outcome 2

- Working relationships:
  - formal (contractual and statutory)
  - informal.

- People:
  - clients and customers
  - employers
  - employees
  - statutory and regulatory bodies
  - users and community groups
  - contractors
  - consultants
  - partners
  - near neighbours
  - occupiers
  - general public
  - people with specific access and communication needs
  - suppliers of products and services
  - government agencies
  - non-English speakers.
- Promote goodwill, trust and respect:
  - demonstrating a duty of care
  - ethical relationships
  - professional independence
  - honouring promises and undertakings
  - honest relationships
  - constructive relationships
  - equal opportunities
  - acknowledge diversity.
- Inform, offer advice, present and clarify:
  - orally
  - in writing
  - using graphics
  - electronically.

- Work activities:
  - proposals and their impact
  - progress
  - results
  - achievements
  - potential problems
  - risks
  - opportunities.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit should include, as a minimum, a project plan detailing the required project team resources, timescales and costs. Other project artefacts might include: a professional appointment contract to obtain team resources; a project hierarchy detailing different team roles or a partnering statement to promote positive working relationships supporting goodwill, trust and respect.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to formulate a project team	1.1	Determine project requirements and characterise the necessary type, availability and number of essential team resources			
		1.2	Prepare a plan, in line with project requirements, for sourcing and allocating project team resources, incorporating timescales and cost			
		1.3	Evaluate the plan determining any significant factors that will affect the type, availability and number of team resources			
		1.4	Implement contractual arrangements for the plan in accordance with statutory rules and organisational formalities to obtain team resources			
		1.5	Monitor the quality and reliability of team resources, in line with organisational procedures, and circulate the results to decision makers			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to manage working relationships	2.1	Design systems, in line with a project brief, to inform people about work activities for a project			
		2.2	Plan arrangements, in line with the systems, to manage working relationships with people that promote goodwill, trust and respect			
		2.3	Implement the arrangements, in line with the plan			
		2.4	Monitor the arrangements, in line with organisational procedures, offering advice and help to people about work activities and encouraging questions, requests for clarification and comments			
		2.5	Evaluate with people their objections arising from work activities and suggest alternative proposals to meet the project brief for the degree of change, expenditure and risk involved			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:  
(if sampled)

Date:

## **Unit 3: Provide Advice, Judgement and Services Ethically in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Credit value:</b>	<b>19</b>
<b>Guided learning hours:</b>	<b>50</b>

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### **Unit summary**

This unit is about obtaining and evaluating construction information and presenting it in different formats. You will learn to evaluate and present technical recommendations, judgements and complete construction services ethically.

Following recognised industry and professional good practice, you will need to make ethical judgements and offer advice that balances the needs of the organisation, its clients and society. Such judgements and advice will meet the needs of the client, while having due regard for the environment and the sustained management of natural resources, the public interest (particularly in terms of health and safety) and the wellbeing of future generations and communities.

Prior to accepting an undertaking to provide advice, judgement or services, you will evaluate your own and your organisation's competence to complete the work, considering any conflicts of interest and determining where complex, multifaceted construction issues exist. You will evaluate the available construction information and formulate justifiable conclusions.

You will need to reflect on your conclusions and interpret them into detailed construction project options that will enable known opportunities and solutions to be maximised and utilised.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Purpose:
  - sharing experience
  - issuing instructions
  - making judgements
  - increasing understanding
  - implementing a solution
  - dealing with confrontation
  - negotiation.
- Present:
  - orally
  - in writing
  - graphically
  - electronically.
- Technical recommendations and judgements include:
  - realistic estimates of the implications of other options which have been considered
  - clear descriptions of the information sources consulted
  - the analysis techniques applied
  - the criteria used for making evaluations and reaching justifiable conclusions.
- Project stakeholders receiving information and advice:
  - peers and other related occupations
  - clients and customers
  - technical and non-technical team members
  - craftspeople and operatives
  - senior and junior colleagues
  - members of the public
  - people with individual needs.

## **Learning outcome 2**

- Information:
  - project information
  - own experience and practice
  - manual and electronic information systems (e.g. libraries, technical journals, databases)
  - published research
  - other colleagues and specialists
  - continuing professional development.
- Reflect:
  - comparison between previous cases and the current situation
  - the outcomes required
  - known and anticipated limitations and opportunities.

## **Learning outcome 3**

- Conflicts of interest:
  - actions which may mislead other individuals
  - offers which involve the financial interest of the practitioner
  - giving unfair advantage to the practitioner's family or friends
  - as defined by legislation.
- Ethical standards and recognised good practice:
  - occupational and professional competence
  - personal beliefs
  - ethical codes of practice and conduct within the occupation, profession, discipline or organisation
  - national and international statute law
  - national and international voluntary codes of practice and guidance.
- Systems:
  - organisational policies
  - indemnity insurance
  - guarantees
  - contract conditions
  - bonds.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: a feasibility study; scope of works for the appointment of professional consultancy services, professional code of conduct or anti-bribery and anti-corruption policy. As a minimum, the project artefacts will include a project appraisal evaluating the project viability or the case for proceeding with the project, and identifying and comparing various project options using economic appraisal or other decision analysis techniques. A professional development action plan and personal development record, documenting and planning learners' professional knowledge, skills and competences will also be required.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to provide advice on technical construction issues	1.1	Analyse technical project information to determine construction issues			
		1.2	Critically evaluate the construction issues to justify technical project recommendations			
		1.3	Develop communication methods in line with organisational procedures to disseminate the technical project recommendations to different project stakeholders			
		1.4	Implement arrangements to circulate technical instructions and guidance to project stakeholders based upon the prepared communication methods			
		1.5	Monitor the arrangements, in line with organisational procedures adapting and modifying where appropriate to meet project stakeholders' needs			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to resolve complex multifaceted construction problems	2.1	Prepare a construction appraisal evaluating the validity and completeness of project information, determining any significant gaps			
		2.2	In line with the construction appraisal, formulate specifications for technical work packages to obtain any required additional project information			
		2.3	Analyse the complete project information to determine complex multifaceted construction problems and their potential project consequences			
		2.4	Critically evaluate the potential project consequences in line with industry technical standards determining and justifying project options			
		2.5	Design a technique to appraise the reliability of the project options in line with organisational procedures			
		2.6	Implement the selected options to prioritise final opportunities and solutions to the multifaceted construction problems			



Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to provide construction services within an ethical framework	3.1	Evaluate in line with professional codes of conduct and organisational procedure the limits of own professional expertise			
		3.2	Ensure that offers and contracts are in line with limits of own expertise, professional codes of conduct, organisation policy, statute and regulations; determine and reject those that are illegal, beyond own capabilities, or that may generate conflicts of interest			
		3.3	Plan a system of communication in line with organisation policy, professional code of conduct, statutes and regulations to report instances of unethical behaviour at all organisational levels and to ensure confidentiality of client information			
		3.4	Implement the planned system in line with organisational procedures to encourage ethical behaviour and to empower reporting of unethical behaviour			
		3.5	Critically evaluate project information in line with the system and organisational policy to formulate ethical judgements and advice that balances the needs of the client, has due regard for the environment and sustained management of natural resources, the public interest particularly in terms of health and safety and the wellbeing of communities and future generations			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.6	Monitor the system in line with organisational policy, professional codes of conduct, statutes and regulations to ensure personal decisions and decision of others are made ethically			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:  
(if sampled)

Date:

## **Unit 4: Develop Self and Others in Construction Management**

<b>Level:</b>	<b>6</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Credit value:</b>	<b>11</b>
<b>Guided learning hours:</b>	<b>20</b>

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### **Unit summary**

This unit is about promoting personal development and providing opportunities for others to learn from your experiences.

You will need to support individuals to carry out their own continuing personal development so that they keep abreast of changes in technology, legislation, materials and practices. You will offer assistance to others with their development needs, while having a clear view of your own needs. You will undertake learning activities over a sustained timescale to address any weaknesses or exploit any strengths.

You will need to assist others in planning their personal development, taking into consideration available opportunities and resources. You will also need to give others feedback in relation to objectives that have been set.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Development plan includes:
  - priorities
  - target dates
  - development activities.
- Development activities:
  - formal courses
  - research
  - work experience
  - personal study
  - work shadowing/secondment
  - mentoring including professional discussions
  - developing personal networks
  - publications.
- Aims and objectives:
  - preparation for career development
  - intellectual challenge
  - need to provide evidence of vocational competence
  - compliance with employer and professional requirements
  - awareness of development needs
  - developing personal networks.
- Personal development:
  - development of new competence
  - maintenance of existing competence
  - improvements of existing competence
  - commitment to vocational excellence.

- Sources of support and guidance:
  - national/industry bodies
  - professional institutions
  - education and training providers
  - in house
  - National Occupational Standards
  - current publications
  - benchmarks
  - mentoring.
- Standards of competence:
  - job descriptions and personal specification
  - professional institution requirements
  - National Occupational Standards.

## **Learning outcome 2**

- People:
  - colleagues
  - junior colleagues
  - trainees and students
  - potential entrants to the industry.
- Opportunities and resources:
  - paid time
  - personal time
  - office
  - site
  - collaboration with others.
- Knowledge and practice:
  - lessons from own experience
  - lessons from others experience
  - published sources.

- Learning techniques and methods:
  - attending training and educational programmes
  - coaching
  - mentoring
  - instructing
  - agreeing work-based learning opportunities
  - performance appraisal
  - work shadowing/secondments.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: a performance appraisal or training and development strategy for a project team. The project artefacts for this unit might be assessed in part with Unit 3. As a minimum, the project artefacts will include a professional development action plan and personal development record, documenting and planning learners' professional knowledge, skills and competences.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to undertake continuing personal development	1.1	Critically evaluate industry and professional development guidance to determine target standards of competence for own construction occupation			
		1.2	Analyse, with those you report to, own current personal level of performance against the identified target standards of competence for own construction occupation, and record a profile of present competence			
		1.3	Review the profile of present competence to formulate personal development aims and objectives in line with the target standards of competence for own construction occupation and organisation policy			
		1.4	Design a personal development action plan to achieve personal development aims and objectives			
		1.5	Evaluate the resources, training and mentoring required to implement the development action plan in line with organisation policy			



Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		1.6 Implement the development action plan, in accordance with organisation policy			
		1.7 Monitor the development action plan recording progress and measuring achievement against personal development aims and objectives			
		1.8 Evaluate personal competence yearly with those you report to, in line with organisation policy, changing working circumstances and target standards of competence for own construction occupation; update personal development aims, objectives and personal development action plan			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to manage the continued personal development of others	2.1	Evaluate with team members their personal development needs and objectives in line with latest industry and professional competency standards, organisation policy and procedures			
		2.2	Analyse industry standards and organisation policy to justify a training strategy of learning techniques and methods to meet all team members personal development needs and objectives			
		2.3	Plan the allocation of resources and learning opportunities in line with the training strategy, and sources of knowledge and practice available to the organisation			
		2.4	Implement the training strategy, in line with the plan			
		2.5	Monitor the progress of the training strategy, reviewing individual team member's progress towards the fulfilment of personal development needs and objectives in line with organisation procedures			
		2.6	Implement feedback and coaching sessions for individual team members, encouraging team members ongoing engagement to personal development			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:  
*(if sampled)*

Date:

## **Unit 5: Control Projects in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Credit value:</b>	<b>23</b>
<b>Guided learning hours:</b>	<b>90</b>

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### **Unit summary**

This unit is about controlling projects. You will identify quality standards and pass them to the project team, setting up systems for recording the quality of work against these standards and requiring any unacceptable quality standards to be corrected. You will provide evidence of how the project team are kept informed on quality issues and identify how improvements are implemented.

You will evaluate the current legal and contractual project requirements and communicate these in briefing materials to the project team. You will need to ensure that consents are obtained and take responsibility for rectifying any situations of non-compliance. You will identify any changes in requirements and take charge of how these changes are briefed to the project team.

You will need to demonstrate the production of a project programme, with particular reference to the resources available, deviations from the agreed programme, and how deviations are identified and quantified. You will need to demonstrate a knowledge of the corrective actions required to restore progress in accordance with agreed programmes.

You will develop appropriate project value and cost control systems, ensuring that the required value and cost data is collected and recorded. You will also ensure that any variations are investigated thoroughly, corrective action is taken and final accounts are agreed. You will identify any realistic opportunities for cost savings, calculating them correctly before recommending them to the project team.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Quality standards:
  - statutory requirements
  - project specifications
  - British Standards
  - International Standards
  - codes of practice
  - organisation standards
  - trade advisory guidance and best practice
  - setting out information
  - benchmarks
  - dimensional control checks
  - certification and accreditation of products, systems and personnel.
- Project team:
  - client
  - workforce
  - contractors
  - consultants
  - sub-contractors and suppliers
  - partners in the programme.
- Systems:
  - inspection and test plans
  - implementing corrective action
  - records
  - project quality plan
  - comparison with standard documentation
  - comparison with manufacturer's documentation
  - meetings
  - contractors' reports

- site inspection reports
- dimension checks
- supply chain management
- audits.

## **Learning outcome 2**

- Legal, contractual and industry standards requirements and responsibilities for:
  - planning approvals and conditions
  - building regulation
  - environmental health
  - health, safety and welfare
  - environment (e.g. noise, dust, transport, emissions, waste management)
  - compliance for new products and technologies
  - certificates and accreditation on products, systems and personnel
  - fire
  - utilities
  - highways
  - heritage and conservation
  - ecology
  - development licenses and building permits
  - employment practice
  - community benefits
  - by-laws
  - non-statutory guidelines
  - energy use
  - insurance
  - warranties
  - project activities
  - security.

- Project team:
  - client
  - workforce
  - consultants
  - contractors
  - sub-contractors and suppliers
  - partners in the programme.
- Monitoring systems:
  - inspection and test plans
  - implementing corrective action
  - records
  - audits
  - comparison with design requirements
  - comparison with standard documentation
  - checking manufacturers' documentation
  - checking delivery notes
  - sampling
  - testing
  - site inspection reports
  - contractors' reports
  - meetings
  - dimension checks
  - supply chain management.
- Corrective action:
  - instigate contingency action
  - restore compliance
  - agree waiver.

### Learning outcome 3

- Information:
  - inspection and testing
  - resource records
  - site inspection reports
  - contractors' reports
  - certified payments
  - written, graphical and electronic records of actual work against programmed work
  - photographs
  - meetings
  - organisational procedures
  - management reports
  - benchmarks
  - comparison with project requirements
  - programmes
  - schedule of deliverables
  - supply chain management.
- Programmes:
  - digital timeline model
  - bar charts
  - flow charts
  - network analysis
  - critical path
  - line of balance
  - time chainage
  - action lists
  - method statements
  - check costs
  - control systems
  - as-built programme
  - project expenditure forecasts.



- Resources:
  - people
  - plant and equipment
  - materials and components
  - finance
  - time
  - specialist services
  - public utility services
  - information.
- Project team:
  - client
  - workforce
  - consultants
  - contractors
  - sub-contractors and suppliers
  - partners in the programme
  - facilities/asset manager.
- Deviations:
  - resource shortages
  - design problems and constraints
  - industrial disputes
  - lack of essential construction information
  - construction errors and rework
  - weather conditions
  - physical constraints
  - legal
  - environmental
  - poor scope definition
  - contract variation
  - force majeure.

- Quantify:
  - method study
  - work study
  - production analysis
  - cost implication.
- Corrective action:
  - restore progress in accordance with agreed programme
  - agree new completion dates
  - secure additional resources
  - alter planned work.
- Stakeholders:
  - the client
  - prospective occupiers/owners
  - prospective users
  - regulatory authorities
  - government agencies
  - public interest organisations
  - public utilities.

#### **Learning outcome 4**

- Project cost control systems:
  - contractual procedures and meetings
  - operational procedures and meetings
  - open-book accounting
  - electronic recording
  - project work packages
  - early warnings.
- Value and cost data:
  - materials and quantities
  - plant and equipment
  - people
  - sub-contractors

- dayworks
- periodic valuations
- work in progress
- final accounts
- methods of measurement
- retention sums
- forecasts of expenditure
- project budget
- performance information
- indirect costs
- variations
- contract programme and progress.
- Corrective action:
  - contract programme and progress
  - control expenditure to conform with budgets
  - agree additional costs
  - make a contract claim
  - mitigation strategy.
- Project team:
  - client
  - consultants
  - contractors
  - sub-contractors and suppliers
  - partners in the programme
  - stakeholders.
- Opportunities for cost saving:
  - increase productivity
  - waste reduction and management
  - modify project management systems
  - resource management and logistics
  - applications of new technologies and materials

- energy management
- water
- recycling/materials
- alternative sources and types of materials
- reduce plant and labour resource
- variations in quality
- standardisation
- value engineering
- apply lean construction principles
- design out waste
- lean manufacturing principles
- offsite construction.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: a project regulatory codes and industry standards form, inspection and test plan, change control request register, issue register, project organisation chart, project quality audit plan or a project risk register. As a minimum, the project artefacts will include:

- a project quality plan/strategy, a written plan setting out how quality will be managed on a specific construction project
- a project programme detailing resource and timescale requirements for project activities.
- a value engineering report evaluating project requirements and desired functionality against cost
- a cost management plan describing how project costs will be planned, recorded, tracked and controlled on the project.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to control project quality	1.1	Evaluate best practice guidance, statutory and organisational quality standards to prepare a project quality plan			
		1.2	Develop in line with the project quality plan, a system for the project team to inspect, control and record project quality			
		1.3	Implement the planned system in line with organisational procedures			
		1.4	Monitor the planned system in line with the project quality plan and organisational procedures, ensuring any non-compliance is addressed, and encourage feedback and recommendations for improvements from the project team			
		1.5	Critically evaluate in conjunction with best practice guidance, statutory and organisational quality standards, any improvements and recommendations from the project teams' feedback; capture these improvements by updating the project quality plan and system			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to control legal and contractual project compliance	2.1	Analyse legal, contractual and industry standards to determine project compliance issues			
		2.2	Critically evaluate the project compliance issues with the project information to formulate a plan for corrective action			
		2.3	Design a system, in line with the plan, for corrective action, to ensure that any required legal, contractual and industry standards consents are obtained			
		2.4	Implement the system in line with organisational policy, ensuring the project team are briefed on project compliance issues and the corrective actions required, before project commencement			
		2.5	Monitor the systems, in line with legal, contractual and industry standards, as well as organisational procedures and project information, to determine any changes that may impact on project compliance issues and update the corrective action plan			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to control project progress	3.1	Critically evaluate project information, resources and timescales to prepare a project programme			
		3.2	Plan procedures in line with organisation policy to monitor progress against the project programme and to communicate change to both stakeholders and the project team			
		3.3	Implement the procedures in line with organisation policy			
		3.4	Monitor the project programme in accordance with organisation policy and the procedures, evaluating any progress deviations to determine variations in time and resource			
		3.5	Analyse with the project team the circumstances of any variation, in line with the project information and project programme to determine corrective actions, ensuring such actions minimise as far as is practical, increases in time and resource			
		3.6	Implement correct actions in line with organisational procedures, obtaining agreement from stakeholders and revising the project programme			



Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Be able to control project value and costs	4.1	Critically evaluate project information, contractual procedures, and the project budget to value engineer project work packages to achieve cost savings without compromising project quality			
		4.2	Analyse project information, work packages and contractual procedures to design a project cost control system to measure, record and disseminate cost and value data to the project team and stakeholders			
		4.3	Implement the project cost control system in line with organisational procedures			
		4.4	Monitor the project cost control system, critically evaluating cost and value data in line with project information, contractual procedures and the project budget to determine any early warnings for cost overruns or opportunities for cost savings			
		4.5	Analyse both the early warnings and opportunities for cost savings with the project team, measuring the work in line with contractual procedures to cost variations, and communicate and agree these with stakeholders			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:  
*(if sampled)*

Date:

## **Unit 6: Plan a Construction Organisation's Workforce**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Mandatory</b>
<b>Credit value:</b>	<b>9</b>
<b>Guided learning hours:</b>	<b>35</b>

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### **Unit summary**

This unit is about planning and managing workforce requirements in the construction sector to support an organisation's business goals and outcomes. You will use human resource planning tools to evaluate a construction organisation's strategic and future plans, and to determine workforce requirements. You will assess the workforce requirements to establish gaps in workforce capabilities and skills.

You will examine important factors influencing employee retention, such as benchmarking and effects on staff turnover. You will formulate workforce plans to deal with issues such as recruitment, retention and succession planning to meet construction project and organisational demands. You will also consider factors such as an organisation's structure, culture, values and commitments.

You will formulate systems to manage and monitor workforce plans, justifying improvements to human resource policies and practices following staff feedback.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Human resource strategic planning tools:
  - environmental scanning
  - labour turnover
  - exit forecasting
  - succession planning
  - talent management
  - 360-degree assessments
  - HR competitive analysis
  - individual and corporate learning plans
  - labour supply forecasting
  - retention forecasting
  - strengths, weaknesses, opportunities, threats (SWOT).
- The organisation's strategic objectives and plans:
  - maintain profitability
  - increase revenue
  - manage costs
  - increase share of market
  - improve reputation
  - broaden product offering
  - improve customer satisfaction
  - innovate
  - reduce waste
  - reduce energy usage
  - quality
  - ensure compliance
  - increase productivity
  - retain the best people and teams
  - corporate values

- environmental impact
- efficiency of systems (including information technology)
- understand client's needs.
- Workforce issues:
  - succession planning
  - flexible working
  - labour demand and supply forecasting
  - recruitment and retention planning
  - skills audit gap analysis
  - talent management
  - multi-skilling
  - key performance indicators (KPI)
  - Human Capital Management (HCM).
- Forecasted future projects:
  - financial plan
  - work quantity
  - change documents
  - contractual commitments
  - competition.
- Workforce capacity and skills:
  - communication
  - problem solving
  - team working
  - creativity and innovation
  - technical skills
  - advanced IT
  - customer service
  - professional competence
  - staffing levels
  - seasonal demand
  - project demand

- team capabilities
- work roles.
- Workforce plan:
  - recruitment plans
  - learning and development plans
  - retention plans
  - succession plans
  - project demand
  - appraisal and review plans
  - skill and competences
  - critical job roles and gaps
  - leadership
  - sustainability
  - timescales – short-term, medium-term and long-term.

## **Learning outcome 2**

- Human resource policy and practice:
  - law and regulations
  - employment policies
  - organisation charts
  - job descriptions
  - performance evaluation
  - competency framework.
- Employment issues:
  - job sharing
  - retirement
  - working from home
  - flexible working hours
  - maternity and paternity
  - equality and diversity
  - dismissal

- secondment
- whistleblowing
- disability.
- Historic and industry sector performance:
  - sector salary review data
  - sector equality and diversity data
  - company employee retention data
  - company sickness and absentee records
  - company recruitment data.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: a performance-potential matrix, exit interview, scenario plan, or analysis from a HR dashboard. Another project artefact might be a strategic workforce planning map to show how workforce planning activities align with organisational strategy. As a minimum, the project artefacts will include a workforce plan addressing the gap between an organisations existing workforce and future human capital requirements.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to plan workforce requirements	1.1	Examine human resource strategic planning tools to determine specialist expertise for workforce planning			
		1.2	Analyse the organisation's strategic objectives, plans and forecasted future projects, in line with the specialist expertise, to determine issues impacting on workforce requirements			
		1.3	Evaluate the issues to establish workforce requirements			
		1.4	Assess the workforce requirements against current workforce capacity and skill sets to determine any gaps in capability			
		1.5	Evaluate the gaps in capability to formulate a workforce plan			
		1.6	Justify the workforce plan to key decision makers			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to manage workforce plans	2.1	Formulate a system, in line with the workforce plan, to meet an organisation's long-term, medium-term and short-term workforce requirements			
		2.2	Implement the system, in line with organisational and human resource policy			
		2.3	Monitor the system, in line with organisational and human resource policy, to determine employee retention rates and turnover			
		2.4	Evaluate employee retention rates and turnover against historic performance and relevant industry sectors, to determine any employment issues			
		2.5	Evaluate the employment issues, justifying to decision makers improvements to human resource policies and practice			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

## **Unit 7: Prepare and Agree a Project Brief and Outline Programme in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>24</b>
<b>Guided learning hours:</b>	<b>90</b>

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### **Unit summary**

This unit is about managing the commencement of a project. You will ascertain stakeholders' requirements, exploring constraints and risks, and agreeing deliverables. You will capture the various demands and needs of the project and stakeholder requirements within a project brief. To achieve this, you must have a detailed knowledge of the stakeholders' areas of operation and future aspirations.

You will analyse the project brief and develop an outline programme, presenting the outline programme to the stakeholders and agreeing it with them. You will need to clarify the project stakeholders' understanding of project processes and people's roles and responsibilities. You will also advise the project stakeholders about new technological requirements and innovations to enable them to make informed decisions.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Stakeholders:
  - consultants
  - the client
  - the client's financial advisers
  - statutory authorities
  - principal designer (or responsible body under CDM regulations)
  - project managers
  - potential contractors
  - potential sub-contractors and suppliers
  - potential investors
  - funding agencies
  - independent client adviser
  - user groups
  - community groups
  - facilities/asset managers.
- Project brief will consider:
  - the client's requirements
  - project stage information requirements
  - user requirements
  - design quality requirements
  - ergonomic requirements
  - community requirements
  - procurement requirements
  - physical requirements
  - resource requirements
  - construction requirements
  - legal requirements
  - cost requirements

- business opportunities and objectives
- risk factors
- health, safety and welfare requirements
- current and future needs
- energy, water and natural resource management
- compliance with local, regional national development strategies
- building information modelling
- insurance risks/opportunities associated with new technologies
- adaptation and mitigation.
- Review:
  - cost-benefit analysis
  - whole life costing
  - value management
  - feasibility studies
  - elemental cost planning and preliminary project budget.
- Present:
  - orally
  - in writing
  - graphically
  - electronically.

## **Learning outcome 2**

- Programme:
  - timetable
  - phasing
  - integration of data
  - interaction between design consultants
  - critical path
  - key project stages/gate management plan
  - interface between design, procurement, construction, operation and end use
  - interaction with design approval stages
  - interaction with construction programme
  - concurrent design and construction.

- Stakeholders:
  - consultants
  - the client
  - the client's financial advisers
  - statutory authorities
  - principal designer (or responsible body under CDM regulations)
  - project managers
  - potential contractors
  - potential sub-contractors and suppliers
  - potential investors
  - funding agencies
  - independent client adviser
  - user groups
  - community groups
  - facilities/asset managers.
- Project stages:
  - Stage 0 (Strategy)
  - Stage 1 (Brief)
  - Stage 2 (Concept)
  - Stage 3 (Definition)
  - Stage 4 (Design)
  - Stage 5 (Build and Commission)
  - Stage 6 (Handover and Closeout).
- Constraints:
  - work content
  - time duration/sequencing
  - resources available
  - contingencies
  - budget
  - site
  - risk and valuation
  - regulations.

- Expectations:
  - design quality
  - consultation
  - timetable
  - phasing of design development
  - best value.

### **Learning outcome 3**

- Clarify the project stakeholders' circumstances and requirements by:
  - reference to standard documentation
  - checklists
  - client consultation
  - questionnaires
  - comparative field research
  - market research
  - identifying options and alternatives
  - use of benchmarking tool(s)
  - digital exchange.
- Processes and procedures:
  - Project Information Plan
  - Model Delivery Plan
  - information management accountabilities
  - implementation plans
  - capability assessments
  - delivery plans
  - execution plans
  - levels of graphical and non-graphical detail/development.

- Agree:
  - direct with a client
  - by negotiation and agreement with partnering team
  - facilitation.
- Project stakeholders:
  - consultants
  - the client
  - the client's financial advisers
  - statutory authorities
  - Principal Designer (or responsible body under CDM regulations)
  - project managers
  - potential contractors
  - potential sub-contractors and suppliers
  - potential investors
  - funding agencies
  - independent client adviser
  - user groups
  - community groups
  - facilities/asset managers.
- Goals and priorities:
  - quantity
  - design quality
  - time
  - use/adaptability/maintenance
  - whole life costs
  - health, safety and welfare
  - sustainability
  - economic benefits
  - community benefits
  - security
  - market demands
  - changing circumstances.



- Constraints and risks:
  - cost
  - time
  - quality
  - health and safety
  - the environment
  - the client's requirements
  - system compatibility
  - system interoperability
  - project risk register.
- Present:
  - orally
  - in writing
  - graphically
  - electronically.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: a preliminary construction project budget; cost benefit analysis; risk register conveying commercial, technical, statutory and financial risks and constraints; or an outline construction programme describing the sequence of tasks to be undertaken as part of the project. As a minimum, the project artefacts will include a project brief defining all project requirements, as well as a project execution plan that establishes methods to execute, monitor and control the project. The evidence for this unit might be assessed in part with Unit 1.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to formulate a draft project brief	1.1	Examine the project information with the project team and stakeholders to formulate stakeholder requirements and project aspirations			
		1.2	Critically evaluate project information, stakeholder requirements and project aspirations, to determine project requirements, risks, significant constraints and opportunities			
		1.3	Formulate project requirements, risks, significant constraints and opportunities to prepare a project brief and in line with organisation procedure agree this with stakeholders			
		1.4	Evaluate the project brief to prepare a preliminary budget and a cost benefit analysis for the project			
		1.5	Examine the cost benefit analysis and budget to determine the cost implications of adopting alternative designs, construction, services and financing arrangements, and in line with organisation procedure communicate to stakeholders			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to develop a project outline programme	2.1	Evaluate the project brief in line with construction industry project stages to prepare an outline project programme			
		2.2	Examine the outline project programme with stakeholders, in line with organisation procedure, agreeing any necessary modifications			
3	Be able to determine project stakeholder requirements	3.1	Critically evaluate with project stakeholders their goals and priorities, to determine project stakeholder requirements in line with the project information			
		3.2	Analyse the project stakeholder requirements formulating a project risk register to record project constraints and risks			
		3.3	Evaluate the project risk register in line with stakeholder requirements and new regulatory or technological innovations to recommend valid project options			
		3.4	Examine the project options with stakeholders' in line with organisation procedures, to determine project processes and procedures to formulate a project execution plan			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

## **Unit 8: Direct the Management of Design Development and Processes in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>22</b>
<b>Guided learning hours:</b>	<b>110</b>

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### **Unit summary**

This unit is about managing projects and the teams that deliver design solutions to meet the project brief. It is about ensuring that coherence and consistency are maintained between all aspects of the production and installation of design solutions and development concepts.

In this unit, you will learn to recognise that health, safety and welfare requirements are of paramount importance. You will need to take responsibility for ensuring that risk reduction measures comply with relevant health, safety and welfare legislation, regulations and guidelines.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Clients:
  - customers
  - owners
  - users
  - occupiers.
- Relevant health, safety and welfare regulations and legal framework:
  - current health, safety and welfare regulations
  - construction and building regulations
  - international law, standards and practice
  - contract and procurement.
- Stakeholders:
  - principal designer (or recognised body under the CDM Regulations)
  - other designers
  - advisors
  - clients
  - construction managers
  - contractors and specialist contractors.
- Hazards:
  - working at height
  - slips, trips and falls (same height)
  - debris
  - falling or moving objects
  - incorrect manual handling
  - health issues
  - power sources
  - hazardous substances
  - trapped by something collapsing or overturning
  - confined spaces

- fire
- obstructions
- moving vehicles
- water
- lack of security/breaches
- sector or context specific.
- Consequences:
  - injuring people
  - causing ill health
  - damaging property
  - adversely affecting the natural and built environment
  - contravening legislative requirements
  - litigation and prosecution
  - causing adverse publicity/perception
  - working conditions and circumstances, buildability
  - alienating workforce/team members
  - economic and business factors (positive or negative)
  - language barriers.
- Operations and individual activities during:
  - site establishment
  - constructing (infrastructure, structure, building fabric, prefabrication, finishes, services and equipment, landscape, temporary works)
  - using and operating plant and machinery
  - cleaning
  - maintaining
  - altering
  - demolition
  - commissioning and decommissioning
  - refurbishing
  - proximity to existing services and obstructions.



- Assess:
  - likelihood of occurrence
  - severity of harm incurred.
- Significance of risks:
  - common
  - generic
  - not obvious to a competent contractor or designer
  - likely to be difficult to manage effectively.

## **Learning outcome 2**

- Hazards:
  - working at height
  - slips, trips and falls (same height)
  - debris
  - falling or moving objects
  - incorrect manual handling
  - health issues
  - power sources
  - hazardous substances
  - trapped by something collapsing or overturning
  - confined spaces
  - fire
  - obstructions
  - moving vehicles
  - water
  - lack of security/breaches
  - sector- or context-specific.
- Developing and modifying design:
  - identifying project requirements
  - planning
  - investigation
  - verifying competence and resources

- analysis
- identifying interactions
- calculation
- testing
- selecting materials, components and systems
- assessing costs and benefits (including life cycle)
- detailing and specifying
- assessing buildability.
- Measures:
  - control at sources
  - cumulative protection
  - manage residual risks.
- Risks:
  - common
  - generic
  - not obvious to a competent contractor or designer
  - likely to be difficult to manage effectively.
- Relevant health and safety regulations and guidelines:
  - current health, safety and welfare regulations
  - construction and building regulations
  - international law, standards and practice
  - codes of practice
  - industry guides.
- Other people involved:
  - contractors
  - cleaners
  - maintainers
  - owners
  - users.

- Design documentation:
  - drawings
  - specifications
  - models
  - calculations
  - health and safety plans and files.

### **Learning outcome 3**

- Stakeholders:
  - the client
  - principal designer (or recognised body under the CDM Regulations)
  - consultants
  - potential contractors
  - potential sub-contractors and suppliers
  - regulatory authorities
  - facilities/asset maintenance managers
  - users
  - general public
  - site visitors.
- Project stages:
  - Stage 4 (Design)
  - Stage 5 (Build and Commission).
- Format:
  - in writing
  - graphically
  - electronically.
- Parts of the overall project design:
  - location and size
  - assembly and construction/installation
  - components and systems
  - specification
  - environmental assessment objectives.

- Maintain coherence and consistency:
  - visual and spatial
  - functional performance
  - technical performance
  - quality
  - requirements of relevant legislation and codes
  - obsolescence/design life
  - cost
  - health and safety
  - environmental factors
  - sustainability
  - buildability/disassembly
  - maintenance/operation and use
  - value management
  - concurrent design and construction
  - minimise emissions and waste
  - energy use (U-value calculations, Building Energy Assessment, carbon rating)
  - protect archaeological and historically valuable resources
  - carbon footprint
  - grey water usage
  - risk/confidence in information.
- Techniques:
  - data research
  - comparison with regulations
  - specialist guidance and best practice
  - relevant previous solutions and feedback
  - computer modelling
  - building information modelling
  - calculation
  - lifetime impact modelling
  - maintain risk register
  - performance dynamic modelling
  - comparison of costs of new and renewable energy.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: risk assessments, risk register, health and safety file, pre-construction information, or construction phase plan. As a minimum, the project artefacts will include a risk management plan detailing how risks will be owned, evaluated, controlled, reviewed and reported upon for a project. A design management plan is also required; this typically encompasses a design responsibility matrix, schedule of necessary drawings and design programme of key dates for information exchange.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to determine hazards and risks in the design development process	1.1	Formulate and implement arrangements, in line with organisational policy to ensure that clients are made aware of their obligations under health, safety and welfare legislation, regulations and guidelines with regard to design development			
		1.2	Formulate and implement systems in collaboration with stakeholders, in line with organisational policy to ensure design compliance with health, safety and welfare legislation, regulations and guidelines			
		1.3	Plan systems to ensure that hazards and risks arising from design, construction and final facility operation are determined			
		1.4	Implement systems in line with the plan, legislation, regulations, guidelines and organisational policy			
		1.5	Monitor systems in line with organisational policy to evaluate hazards and the significance of risks on an iterative basis throughout the design development process			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to reduce risks in design solutions	2.1	Plan systems to evaluate project design solutions, in line with health, safety and welfare legislation, regulations and guidelines, to determine, eliminate and/or reduce risks			
		2.2	Implement systems in line with organisational policy during design development, in collaboration with the project team and stakeholders, encouraging a responsible culture of health, safety and welfare, to reduce risk during the design stage			
		2.3	Monitor the systems in line with organisation policy and health, safety and welfare legislation, regulations and guidelines to ensure that design risks are reduced and any residual risks are documented			
		2.4	Plan and implement systems in line with organisational policy to communicate residual design risk documentation to stakeholders, so that they can comply with their duties under health, safety and welfare legislation, regulations and guidelines			
		2.5	Evaluate the systems, implementing reviews and improvement to design solutions in line with organisational policy, where community safety measures have not been given equal priority over project safety measures when reducing risks			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to manage the design process	3.1	Evaluate, with stakeholders, project information in line with organisational policy and procurement systems, to determine project design information requirements			
		3.2	Design systems to prepare project design information for key project stages, that maintain coherence and consistency of all aspects of the project design with overall design concepts			
		3.3	Implement the systems in line with organisational policy			
		3.4	Monitor the systems in line with organisational policy, to ensure that design techniques for investigating, calculating, testing, developing and specifying the design information comply with best practice, codes, standards and regulations			
		3.5	Formulate and present design information to the project team and stakeholders in line with organisational policy			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:  
(if sampled)

Date:



## **Unit 9: Sustainability and Environmental Impact of Developments in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>20</b>
<b>Guided learning hours:</b>	<b>80</b>

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### **Unit summary**

This unit is about managing the impact of the built environment on the natural environment. You will need to investigate requirements for assessing the environmental impact of proposals. You will also need to select the factors and the criteria used to assess the impact and assess their significance.

You will investigate and evaluate the best balance between the potential asset value and sustainability, and project design, function, performance and return on investment. You will then present your development strategies to decision makers.

Finally, you will investigate the factors that have an impact on the utilisation and sustainability of resources, and you will identify potential alternatives. You will carry out investigations and assessments of alternative resources to identify technical and environmental advantages. You will also need to present to decision makers your recommendations for suitable strategies for using alternative resources.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Requirements:
  - social and community obligations
  - legal obligations
  - current codes of practice
  - feasibility
  - conditions to be applied to the proposal
  - significant environmental issues and effects
  - examining alternatives
  - proposing appropriate mitigation measures
  - environmental organisations and consultees policy documentation.
- Proposals:
  - individual projects
  - strategic policies, plans and proposals.
- Factors:
  - environmental impact and sustainability
  - quantity
  - quality (including design)
  - cost (including whole life costs/return on investment)
  - time
  - social (community use and adaptability)
  - programme
  - transport impact minimisation.
- Criteria:
  - primary and secondary effects
  - positive and negative
  - risk and opportunity
  - construction, operation and decommissioning stages
  - temporary, cumulative and permanent
  - short- and long-term.

- Relevant data:
  - project baseline information
  - survey information
  - relevant standards
  - relevant legal, regulatory and policy requirements
  - historical
  - project.
- Alternative solutions:
  - different locations
  - different sites
  - brownfield development
  - different layouts
  - extending the use of existing resources
  - renewable energy technology
  - use of alternative resources
  - changes to implementation and phasing
  - not carrying out the proposal.

## **Learning outcome 2**

- Goals and priorities:
  - quantity
  - cost (including whole life costs)
  - time
  - development
  - improvement
  - use
  - maintenance
  - low carbon design
  - environmental impact and sustainability
  - security
  - health and safety
  - logistics.

- Investigate:
  - use of benchmarking tools
  - insurance risk
  - research
  - consultancy advice
  - regulatory advice.
- Economic factors and resources:
  - finance
  - fiscal policy (including carbon tax/incentives)
  - water demand/supply/use minimisation
  - payback/return on investment
  - carbon trading schemes/carbon reduction credits
  - climate change levy agreements
  - workforce (skills)
  - raw materials
  - manufactured systems and component/modular systems
  - energy use/demand minimisation
  - water demand/supply/use minimisation
  - brownfield development
  - land use
  - resource efficient low carbon urban design
  - market demands and social factors.
- Environmental and ecological factors:
  - natural resources
  - emissions (air, land, water)
  - waste and recycling
  - effluent
  - access to environmentally sensitive areas
  - effects of climate change
  - land use contamination
  - carbon use minimisation

- water use
- biodiversity
- renewable energy technology
- protect archaeological and historically valuable resources
- transport impact minimisation.
- Social views:
  - client
  - funders/investors
  - workforce
  - suppliers
  - users
  - community (including public and private space).
- Asset value and sustainability:
  - provide capital growth
  - location in relation to a stable economy and community
  - saleable revenue
  - minimising running costs (environmental and economic)
  - minimising maintenance
  - location in relation to flooding/ground conditions
  - energy use/demand minimisation.
  - district heating.

### **Learning outcome 3**

- Information sources:
  - desk research of published literature
  - commissioned research
  - consultation with appropriate authorities
  - consultation with colleagues.
- Factors:
  - nature
  - location
  - continued availability

- energy use/demand/storage capacity
- climate change impact
- carbon use
- waste
- water use
- biodiversity.
- Utilisation:
  - historic use
  - current use
  - anticipated future use.
- Resources:
  - alternative power generation schemes and implications on design and master planning
  - solar, wind, biomass, CHP, photovoltaic, ground source heat pump, air source heat pump, hydrogen, fuel cell
  - hydro, wave and tidal power.
- Environmental implications:
  - social
  - cultural
  - technical
  - economic (including funding/tax incentives)
  - visual
  - political
  - legal.
- Present:
  - oral
  - written
  - graphically
  - electronically.

- Stakeholders:
  - immediate superiors and managers
  - elected representatives
  - public servants
  - shareholders.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: environmental impact assessment, heritage survey, ecology report, noise survey, air quality report, water quality report, landscape assessment and embodied energy life cycle assessment. As a minimum, the project artefacts will include an environment management plan, identifying the key environmental issues across the project and provide strategies and plans to manage them effectively.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to appraise the environmental impact of development proposals	1.1	Examine with stakeholders and experts, codes of practice, legislation and policy documentation to determine the requirements for assessing the environmental impact of development proposals			
		1.2	Evaluate the requirements in line with project information, to determine the criteria and factors to be included within the environmental impact assessment			
		1.3	Plan systems to formulate the relevant environmental data required to examine the development proposal			
		1.4	Implement the systems in line with organisational policy			
		1.5	Analyse the collated environmental data to assess the environmental impact of the selected criteria and factors both individually and in combination			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		1.6	Evaluate the environmental impact assessment in line with project information, to determine potential alternative development and design solution, in order reduce environmental impact, improved environmental quality and increased sustainability			
		1.7	Plan and implement a system to report on the significance of the environmental impact assessment to stakeholders			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to establish sustainability requirements	2.1	Examine project information, codes of practice, legislation and policy documentation to determine development goals and priorities			
		2.2	Evaluate the development goals and priorities to establish the design, function and performance requirements of the potential project			
		2.3	Evaluate the design, function and performance requirements in line with project information, to appraise the economic factors and resources, environmental and ecological factors, and social views that affect the future asset value and sustainability of the potential development			
		2.4	Formulate the economic factors and resources, environmental and ecological factors and social views into a development strategy that presents the best balance between the potential asset value and sustainability, and the required project design, function, performance, and return on investment			
		2.5	Plan and implement a system to justify development strategies to decision makers			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to establish sustainable resources	3.1	Examine published literature and consult with authorities to determine the factors that impact on the utilisation and sustainability of renewable resources			
		3.2	Critically evaluate in line with the factors and project information, the technical performance and environmental implications of alternative resources, against the performance of existing finite resources fulfilling a similar function			
		3.3	Evaluate the technical performance and environmental implications to recommend strategies for developing alternative resources that provide positive technical and environmental advantages			
		3.4	Analyse the costs implications of the recommended strategies			
		3.5	Plan and implement a system to justify strategies for developing alternative resources to stakeholders			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:  
(if sampled)

Date:

# **Unit 10: Evaluate Sustainable Resources and Requirements for the Whole Lifecycle of a Construction Project**

<b>Level:</b>	<b>6</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>17</b>
<b>Guided learning hours:</b>	<b>80</b>

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## **Unit summary**

This unit is about assessing and quantifying the whole life cost and carbon footprint for a construction project. You will need to review them against the project criteria and the energy use goals and priorities, and select the most viable options.

You will need to ensure that solutions that meet the energy use and control criteria are specified. You will prescribe commissioning procedures and certification for the project and identify any improvements required. You will also give operations and maintenance instructions to end users.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Energy goals and priorities:
  - energy sources and infrastructure
  - energy consumption
  - low carbon targets
  - use of renewable resources
  - use of non-renewable resources
  - energy reduction programmes
  - heat recovery and re-use energy efficient technologies
  - energy efficient practices.
- Project stage:
  - Stage 0 (Strategy)
  - Stage 1 (Brief)
  - Stage 2 (Concept)
  - Stage 3 (Definition).
- Stakeholders:
  - the client
  - financial advisers
  - consultants
  - potential contractors
  - potential sub-contractors and suppliers
  - potential investors
  - partners in the development programme
  - facilities/asset managers.
- Whole life costs and carbon footprint:
  - energy sources and infrastructure
  - design stage
  - materials and components (including embodied energy)
  - construction and installation

- energy use
- embodied energy and carbon
- grey water usage
- operations/maintenance
- adaptation/demolition/decommissioning.
- Assess and quantify:
  - cost-benefit analysis
  - whole life
  - life cycle costing
  - lifetime impact modelling
  - in-use asset performance
  - carbon accounting
  - value management feasibility studies
  - elemental cost planning
  - risk management
  - cost-effective outperformance of statutory requirements
  - decision tools for passive/active systems
  - model costs of alternative designs.
- Present:
  - orally
  - in writing
  - graphically
  - electronically
  - simulation.

## **Learning outcome 2**

- Criteria:
  - carbon dioxide emissions
  - efficiency of construction
  - efficiency of building services and installation
  - U-values
  - continuity of insulation
  - air leakage.

- Property and systems:
  - new development
  - existing development
- Information:
  - building type
  - building size and capacity
  - current energy usage
  - building fabric
  - building heating, lighting and ventilation.
- Gathered and recorded:
  - design proposals
  - measured survey
  - condition survey
  - energy measurement and assessment tools.



This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: embodied energy life cycle assessment, energy performance appraisal, whole life cost calculations, carbon footprint assessment, energy performance and commissioning certification. The evidence for this unit might be assessed in part with Unit 9.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to evaluate project whole life costs and carbon footprint	1.1	Examine project information, statutory legislation and codes of practice to determine energy goals and cost priorities for the whole life of the construction project			
		1.2	Critically evaluate, with experts and stakeholders, project design and development information to determine whole life costs and the carbon footprint implications for the project			
		1.3	Appraise the whole life costs and carbon footprint implications against energy goals and cost priorities, determining any alternative design options required to achieve the desired energy goals and cost priorities			
		1.4	Justify and present the calculated whole life costs and carbon footprint to stakeholders and agree any required alternative design options			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to formulate solutions for the conservation of energy	2.1	Critically evaluate legislative requirements to determine energy use and control criteria for the project			
		2.2	Formulate systems to record the information necessary to assess project energy use			
		2.3	Implement the systems in line with organisational policy and project procurement arrangements			
		2.4	Examine the information to design energy conservation solutions, to meet the project energy use and control criteria			
		2.5	Design the commissioning procedures and certification necessary to implement the energy conservation solutions			
		2.6	Implement the commissioning procedures and evaluate the final completed project facilities in line with project energy use and control criteria, to determine any consequent required facility improvements			
		2.7	Design operating and maintenance instructions for end users, to enable the facilities constructed to be operated in an energy efficient manner			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:  
*(if sampled)*

Date:

# **Unit 11: Establish Project Procurement Arrangements in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>18</b>
<b>Guided learning hours:</b>	<b>60</b>

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## **Unit summary**

This unit is about the establishment of project procurement strategies. In order to do this, you will need to evaluate the interests and involvement of project stakeholders.

You will establish project procurement objectives and criteria, formulating them into a procurement strategy. You will pre-approve suppliers and services for the project to comply with project objectives. You will justify the selection and agreement of forms of contract to satisfy the interests of the project.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Procurement objectives and criteria:
  - type and form of contract
  - definition and coverage of required project services
  - alignment of interests and benefits
  - early participation of key suppliers
  - risk allocation
  - integrated project insurance
  - building information modelling protocols
  - economic, political and social context
  - funding sources
  - degree of commercial and financial risk
  - agreed payment procedures
  - whole life principles
  - best overall value
  - timescales/sequencing
  - environmental benefits and sustainability
  - community benefits.
- Procurement methods:
  - managed forms of construction
  - design and build
  - traditional
  - Public Private Partnership
  - prime contracting
  - partnering
  - advisory
  - sole source/single negotiations
  - competitive tendering

- early contractor involvement
- service level agreement.
- Legal and industry requirements:
  - common law
  - contract law
  - EU directives on procurement
  - codes of practice and procedures.
- Implementation procedures:
  - tendering process
  - tender evaluation
  - award recommendation
  - contract award.

## **Learning outcome 2**

- Stakeholders:
  - the client
  - the client's financial advisers
  - principal designer (or recognised body under the CDM Regulations)
  - design consultants
  - potential contractors
  - potential sub-contractors and suppliers
  - facilities/asset managers
  - potential investors
  - funding agencies
  - independent client adviser
  - user groups.
- Type of project work:
  - design
  - construction
  - services
  - supply
  - operate and maintain

- management
- decommissioning.
- Objectives:
  - business case for integration
  - commitment to multi-discipline partnering (whole supply chain)
  - minimum on-site construction period
  - certainty of completion
  - minimum whole life cost
  - sustainable solution
  - agreed maximum cost
  - zero defects
  - respect for people (including health, safety, welfare and the environment)
  - agree quality
  - working to budget
  - effective work scheduling
  - building information modelling
  - adoption of industry guidance and benchmarking
  - sharing knowledge and information.
- Selection criteria:
  - cost
  - quality
  - time
  - organisational experience
  - performance measurement
  - health, safety and welfare record
  - environmental record
  - staff competence and development
  - commitment to integration/partnering
  - commitment to building information modelling
  - social inclusivity record.



- Information:
  - administration details
  - scope of work
  - budget
  - information required from partners
  - selection criteria and weightings.
- Capability:
  - information modelling
  - organisational experience
  - performance measurement
  - health, safety and welfare record
  - environmental record
  - staff competence and development
  - commitment to integration/partnering
  - commitment to BIM capability
  - availability of appropriate resources.

### **Learning outcome 3**

- Stakeholders:
  - the client
  - the client's financial advisers
  - principal designer (or recognised body under CDM Regulations)
  - design consultants
  - potential contractors
  - potential sub-contractors and suppliers
  - facilities/asset managers
  - potential investors
  - funding agencies
  - independent client adviser
  - user groups.

- Criteria for selecting:
  - client's needs and requirements
  - form of procurement
  - degree of risk
  - technical complexity
  - project partnering
  - sector practice.
- Form of contract:
  - standard
  - non-standard
- Type of project work:
  - design
  - construction
  - services
  - management
  - operate and maintenance
  - decommissioning.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: business case, contract review report, statement of capability, supplier assessment, approved supplier/qualified bidders list or forms of contract. As a minimum, the project artefacts will include a construction procurement strategy to evaluate the client's objectives against intended payment routes, and how design and construction specific risks are to be allocated such as time, cost and quality. The evidence for this unit might be assessed in part with Unit 12.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to formulate procurement strategies	1.1	Evaluate with stakeholders in line with organisational policy, project information, to determine procurement objectives and criteria			
		1.2	Analyse stakeholders' constraints and legal and industry requirements, in line with the project procurement objectives and criteria, to establish a procurement method			
		1.3	Justify to stakeholders the procurement method for the project, in line with organisational policy			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to approve project suppliers	2.1	Examine with stakeholders the project information and procurement method, to determine selection criteria for suppliers and services			
		2.2	Design a selection procedure, in line with the selection criteria, to assess with stakeholders potential suppliers and services			
		2.3	Implement the selection procedure, in line with organisational policy, inviting potential suppliers and services to submit a statement of capabilities			
		2.4	Critically evaluate the statements of capabilities against the selection criteria to determine a short-list of suppliers and services			
		2.5	Plan and implement interviews with the short-listed potential suppliers and services to critically evaluate their capability to undertake the project against the selection criteria			
		2.6	Appraise the evaluation to select and justify to stakeholders a final list of project suppliers and services			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to justify a form of contract	3.1	Examine project information to determine the project stakeholders			
		3.2	Analyse with the project stakeholders the project information to determine the contract purpose and selection criteria			
		3.3	Critically evaluate the contract purpose and selection criteria, in line with legal and industry requirements, to determine a form of contract for the project			
		3.4	Justify the form of contract to project stakeholders			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:  
(if sampled)

Date:

## **Unit 12: Implement, Monitor and Control Strategic Procurement Systems in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>12</b>
<b>Guided learning hours:</b>	<b>20</b>

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### **Unit summary**

This unit is about agreeing and implementing with stakeholders the most effective procurement systems for managing the project. The systems identified will need to be prioritised and formalised through the contract.

Once systems are instigated, you will need to identify a method for monitoring the systems and taking corrective action or improvements should the need arise. You will need to communicate the system and methods in order that all parties are familiar with what is expected of them.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Systems:
  - manual
  - electronic
  - building information modelling (BIM)
  - TQM systems
  - design
  - commercial
  - health and safety
  - environmental
  - time management
  - open-book forms linked to outcomes
  - agreed payment procedure.
- Stakeholders:
  - the client
  - the client's financial advisers
  - design consultants
  - potential contractors
  - potential sub-contractors and suppliers
  - facilities/asset managers
  - potential investors
  - funding agencies
  - independent client adviser
  - user groups.

### Learning outcome 2

- Monitoring - methods:
  - in-house reporting
  - consultant.



- Those who are affected:
  - suppliers
  - users.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: statement of capability, supplier assessment, approved supplier/qualified bidders list, request for information (RFI), request for quotation (RFQ), or request for proposal (RFP). As a minimum, the project artefacts will include a supplier evaluation report to consider the initial and the staged ongoing performance of suppliers and services. The evidence for this unit might be assessed in part with Unit 11.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to formulate and implement procurement systems	1.1	Plan procurement systems in line with project information, organisational policy and the requirements of data protection legislation			
		1.2	Formulate strategies to negotiate and agree formal contractual arrangements for procurement systems with suppliers and services, in order to establish strategic sourcing partnerships			
		1.3	Implement the strategies, to agree strategic sourcing partnerships in line with organisation policy			
		1.4	Implement procurement systems, in line with the agreed strategic sourcing partnerships and organisational policy			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to monitor and control arrangements for strategic sourcing	2.1	Monitor the performance of suppliers and services, in line with procurement systems and organisational policy			
		2.2	Evaluate supplier and services performance against the agreed strategic sourcing partnership contract documents, quantifying any variation in performance in line with organisational policy			
		2.3	Analyse variations in performance in line with project information and procurement systems, to determine causation and corrective measures			
		2.4	Design systems to inform suppliers and services about variations in performance and the corrective measures required			
		2.5	Implement the systems in line with organisational policy			
		2.6	Design and implement systems to evaluate existing strategic sourcing partnership and procurement systems against alternative supply options, to determine the benefits and advantages of engaging alternative suppliers and services			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

## **Unit 13: Manage Tendering Processes in Construction Management**

<b>Level:</b>	<b>6</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>19</b>
<b>Guided learning hours:</b>	<b>50</b>

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### **Unit summary**

This unit is about managing a tendering process to shortlist and select appropriate tenderers. It also involves the review and amendment of tender documents, ensuring that addendums are issued.

You will need to develop a potential list of tenderers who meet the contract criteria. You will send tender enquiries to potential tenderers and evaluate those that respond in order to shortlist them against chosen selection criteria. You will select an appropriate tender and ensure that tender documents are issued. You will also respond to any queries from tenderers and pass on any amendments to procurement information and documents.

You will need to acknowledge and evaluate tenders against the criteria and, if necessary, modify and repeat tendering processes in consultation with the client. You will choose the best tenderers and appoint them formally, notifying unsuccessful tenderers. You will also negotiate and agree any variations, adjustments and corrections with tenderer(s) subject to contract.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Tendering strategy:
  - estimate
  - open competitive tender
  - two-stage tender
  - 'two envelope' tender
  - selected list tender
  - negotiated
  - bid
  - design and build
  - design, build, finance and operate
  - early contractor involvement.
- Tenderers:
  - contractors
  - sub/works/trade contractors
  - suppliers
  - consultants.
- Regulatory requirements:
  - compulsory competitive tendering
  - international
  - in-house
  - national
  - local.
- Evidence:
  - documentary
  - references
  - interview.

- Selection criteria:
  - quality of delivery record
  - added value (including past performance)
  - acceptability of known sub-contracting arrangements and supply chain organisation
  - acceptability to client
  - financial resources
  - credit rating
  - references from previous clients and bankers
  - health, safety and welfare record
  - competence of people
  - building information modelling capability
  - systems compatibility
  - resources (human, materials, facilities)
  - insurance
  - environmental record
  - design quality and costing
  - innovation record
  - local economic benefit.

## **Learning outcome 2**

- Tender information and documents:
  - invitation to tender
  - form of tender
  - returns procedure
  - surveys
  - models
  - graphical and non-graphical electronic data files
  - drawings, schedules and programmes
  - bills of quantities
  - health, safety and welfare record
  - environmental record



- scope of services
- terms and conditions
- schedules of rates
- evaluation criteria and procedures.
- Tenderers:
  - contractors
  - sub/works/trade contractors
  - suppliers
  - consultants.
- Queries:
  - errors
  - omissions
  - ambiguities.
- Amendments:
  - extension to tender period
  - changes resulting from queries.

### **Learning outcome 3**

- Regulatory requirements:
  - statutes
  - regulations
  - codes of practice and procedure.
- Criteria:
  - quality and delivery record
  - technical viability
  - financial viability
  - timescale
  - resources
  - cost (budgets, rates)
  - loading and cash flow
  - policies that offer added value
  - comparative criteria (benchmarking)

- weighting
- organisational policies
- regulatory requirements
- competence of people
- building information modelling capability
- information delivery
- design quality and costing
- community benefits
- best whole life value
- open-book accounting.
- Tenderers:
  - contractors
  - sub/works/trade contractors
  - suppliers
  - consultants.
- Variations, adjustments and corrections:
  - price
  - quantity
  - quality
  - standards
  - logistics
  - completion
  - maintenance
  - after-sales service
  - method of payment
  - contract conditions
  - scope of service
  - terms and conditions
  - client amendment.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: an invitation to tender letter, preliminaries (such as pre-construction information), form of contract, contract conditions, tender pricing document, specification, design drawings, requests for information (RFI), response to tender questions and tender submission documents. As a minimum, the project artefacts will include a tender evaluation document providing a brief history of the tender process and an analysis of each tender submission, including any subsequent post tender negotiations.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to evaluate pre-qualification of tenderers	1.1	Examine project information, in line with legal, statutory and regulatory requirements, to determine a tendering strategy			
		1.2	Appraise the tendering strategy, in line with the value and size of the contract, to establish how many potential tenderers to invite			
		1.3	Evaluate potential tenderers, in line with the tendering strategy, to determine which could meet the contract specification and conditions			
		1.4	Plan and implement enquiries to potential tenderers, in accordance with regulatory requirements, to obtain evidence about their experience and capability			
		1.5	Evaluate project information, in line with legal, statutory and regulatory requirements, to determine selection criteria to weight and rate performance for the type of work described in the tender			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		1.6 Appraise and rank potential tenderers who respond to the enquires against the selection criteria, in line with the tendering strategy			
		1.7 Justify and agree with decision makers the final list of tenderers, in line with organisational policy			
		1.8 Plan and implement systems to confirm that the selected tenderers are willing to tender, in line with the tendering strategy			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to obtain bids and tenders	2.1	Evaluate project information, statutory regulations and codes of practice, in line with the tendering strategy, to formulate tender information and documents			
		2.2	Plan and implement systems to ensure that tender information and documents are issued to all tenderers, in line with the tendering strategy			
		2.3	Monitor the system, responding to queries from tenderers in line with the tendering strategy			
		2.4	Plan and implement systems to ensure records are kept of the tendering process, in line with the tendering strategy and organisational procedure			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to analyse successful bids and tenders	3.1	Plan and implement systems to ensure that the tenders are received and opened, in line with the organisation's procedures and regulatory requirements			
		3.2	Monitor the system, in line with the tender strategy, to ensure sufficient tenders are received to demonstrate adequate competition			
		3.3	Plan and implement systems, in line with the tender strategy and regulatory requirements, to check tenders for any discrepancies, omissions and errors, and to agree amendments with tenderers			
		3.4	Evaluate the tenders against the selection criteria, in line with the tendering strategy, to determine a preferred tender			
		3.5	Plan and implement systems to check that the preferred tenderer can meet the obligations of the contract, in line with the tendering strategy			
		3.6	Justify the preferred tender to the client, in line with organisational policy and the tendering strategy			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.7	Plan and implement arrangements, in line with the tendering strategy, to negotiate and agree, subject to contract, any variations, adjustments and corrections with the preferred tenderer			
		3.8	Plan and implement arrangements to accept the preferred tender formally and to notify unsuccessful tenderers			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*



# **Unit 14: Manage the Preparation and Submission of Estimates, Bids and Tenders in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>16</b>
<b>Guided learning hours:</b>	<b>40</b>

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## **Unit summary**

This unit is about managing the preparation of estimates, bids and tender offers, following receipt of a tender enquiry. You will manage the preparation of the technical content of the estimate, bid or tender submission, considering the required resources and time constraints. You will need to ensure that resource cost requirements are estimated, producing the overall costings, and conclude the process by proposing payment profiles.

You will need to consider the risks and opportunities in a tender, and specify qualifications to the tender based on the enquiry. You will manage the completion of the tender and present it to the organisation. You will conclude the process by storing all of the tender information securely.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Tender:
  - contractor
  - sub/works/trade contractor
  - supply
  - consultants.
- Tender requirements:
  - construction
  - installation and maintenance work
  - supply of goods and materials
  - consultancy services.
- Decision makers:
  - clients and their agents
  - colleagues
  - line managers and directors
  - specialists – internal or external to organisation.
- Points of concern:
  - inconsistent with the policy of the organisation
  - discrepancies within enquiry information
  - tender procedure requirements
  - quantitative requirements
  - qualitative requirements
  - contractual requirements.
- Tender documents:
  - invitation to tender
  - form of tender
  - returns procedure
  - survey reports
  - specifications

- graphical and non-graphical electronic data files
- drawing schedule and programme
- bills of quantities
- health, safety and welfare requirements
- scope of services
- terms and conditions
- schedule of rates
- environmental requirements
- procedures for submitting tenders
- evaluation criteria and procedures.
- Agreed criteria:
  - change to organisational capability
  - financial
  - viability of tendering information
  - current workload
  - type of work
  - competence of people
  - timescale (tender and contract)
  - social and political policies
  - environmental impact
  - location
  - potential completion.
- Legal issues:
  - planning
  - health and safety
  - environmental
  - ownership
  - common law rights
  - EU requirements.

## Learning outcome 2

- Tender requirements:
  - construction
  - installation and maintenance work
  - supply of goods and materials
  - consultancy services
  - purchasing
  - low carbon and resource efficient procurement
  - invitation to tender
  - form of tender
  - technology required
  - procedures for submitting tenders.
- Resources:
  - people (in-house and external)
  - plant and equipment
  - materials
  - finance
  - time
  - supply options.
- Available sources:
  - client brief
  - tender enquiry documentation
  - site measurements/visits
  - survey reports
  - scaled drawings
  - schedules
  - method statements
  - programmes
  - specialist contractors and suppliers.

- Estimate:
  - cost based on a quotation
  - elemental cost data
  - unit cost built up from basic data
  - internal and historical cost data
  - published cost data.
- Calculate cost:
  - manual
  - electronic.
- External factors:
  - variations over time
  - location
  - statutory and contractual requirements
  - special working conditions and methods
  - resourcing conditions
  - competition.

### **Learning outcome 3**

- Risks and opportunities:
  - environmental and sustainability
  - social
  - financial and market fluctuations
  - political
  - technical
  - health and safety
  - reputation
  - competence of people.
- Tender offer:
  - contractor
  - sub/works/trade contractor
  - supply
  - consultancy
  - purchase.

- Alternatives and qualifications:
  - specifications and materials
  - methods of construction
  - services
  - timescales
  - supply options
  - price offer options
  - whole life value.
- Tender requirements:
  - construction
  - installation and maintenance work
  - supply of goods and materials
  - consultancy services
  - delivery.
- Present:
  - orally
  - in writing
  - graphically
  - using computer models
  - electronically.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: tender questions, tender bid preparation programme, sub-contract estimates, methods of measurement, overall cost estimates, tender risk assessment and tender offer/bid documentation. As a minimum, the project artefacts will include a tender review to assess the relevance and compliance of the proposed bid documentation to the original tender.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to evaluate estimate, bid and tender enquiry documentation	1.1	Examine organisational policy, statutory and regulatory requirements with decision makers, to agree criteria for tender enquiry assessment			
		1.2	Plan confidential systems to evaluate tender documents, in line with organisational policy, budgets and tender time limits			
		1.3	Implement systems evaluating the tender documents, against the agreed criteria to appraise whether the organisation is capable of meeting the tender requirements			
		1.4	Appraise the tender documents against the agreed criteria, to establish any points of concern and contractual or legal issues that might affect the project			
		1.5	Plan and implement systems to clarify and agree points of concern, contractual and legal issues with decision makers			
		1.6	Justify to decision makers, in line with the agreed criteria and tender documents, whether to make a bid			



Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to evaluate the resource requirements and costs within an estimate, bid and tender	2.1	Examine tender requirements and available sources, in line with organisational policy and estimate approach, to formulate a proposed method statement and draft programme			
		2.2	Evaluate that method statement and programme, in line with organisation policy and estimate approach, to determine the resources required to undertake the works			
		2.3	Formulate an overall cost estimate for the enquiry, in line with resources, tender requirements and external factors, ensuring that resource costs are estimated for each item			
		2.4	Justify the overall cost estimate to decision makers in line with organisational policy			
		2.5	Formulate and agree with decision makers payment schedules, in line with the overall cost estimate, that will meet the organisation's cash flow requirements			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to formulate an estimate, bid and tender offer	3.1	Examine the tender documentation and requirements, in line with organisational and regulatory requirements, to determine the risks and opportunities involved in a tender offer			
		3.2	Evaluate the risks and opportunities, in line with organisational and regulatory requirements, to formulate alternatives and qualifications to the original tender requirements			
		3.3	Appraise risks and opportunities to determine a profit margin and formulate a payment schedule, in line with the strategy of the organisation and overall cost estimate			
		3.4	Formulate the tender offer information, in accordance with procurement requirements and organisational procedure			
		3.5	Plan and implement systems to confidentially collate and communicate tender offer information to the client and other stakeholders, in line with organisational procedure and regulatory requirements			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

# **Unit 15: Ensure that Contracts are Prepared, Negotiated and Agreed in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>18</b>
<b>Guided learning hours:</b>	<b>60</b>

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## **Unit summary**

This unit is about ensuring that contracts for a project are prepared, negotiated and agreed. You will need to select appropriate forms of contract to suit the project and ensure that standard forms of contract are amended to suit the form of procurement. You will also ensure that any necessary preliminaries to the form of contract are drafted.

You will demonstrate that you have verified that the proposed contract satisfies the interests of all parties and that you have negotiated agreements and any amendments with the concerned parties. You will ensure that the contract meets legal requirements to the point of signature.

## Unit assessment requirements

The following ranges apply:

### Learning outcomes 1 and 2

- Forms of contract:
  - standard
  - non-standard.
- Forms of procurement:
  - competitive tender
  - non-competitive.
- Drafted:
  - allocation of risks and responsibilities
  - structure of contract
  - key instructions
  - legal factors
  - business standing orders
  - fair and prompt payment arrangements
  - intention to create legal relations
  - consideration.
- Obligations:
  - insurances
  - bonds
  - warranties
  - statutory
  - financial guarantees
  - competence of people
  - deliverables
  - sub-contractors
  - guarantees.

- Amendments:
  - allocation of risks and responsibilities
  - structure of contract
  - key instructions
  - legal factors.
- Contract documents:
  - invitation to tender
  - forms of tender
  - returns procedures
  - specifications
  - survey reports
  - drawings and schedules
  - bills of quantities/schedules of rates
  - health and safety plans
  - scope of services
  - building information modelling (BIM)
  - terms and conditions.
- Legal requirements:
  - statutes
  - regulations
  - codes of practice and procedure
  - common law
  - tort
  - civil law
  - contract law.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: standard forms of contract, contract conditions, preliminaries, performance criteria or warranties. As a minimum, the project artefacts will include a contract review document to evaluate whether all the key areas of the project information have been fully addressed within the contract.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to formulate forms of contract	1.1	Examine project and procurement information to justify the selection of contract documents and a standard form of contract			
		1.2	Appraise the standard form of contract, to determine any amendments to the clauses and contract documents, required in line with project procurement information			
		1.3	Evaluate, after legal advice, the amendments in line with project information, to determine the project implications of adopting non-standard clauses and contract documents			
		1.4	Communicate and justify to stakeholders the project implications and adoption of any non-standard form of contract and clauses, in line with organisational policy			



Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		1.5 Produce contract particulars and preliminaries to meet stakeholders' requirements in line with the adopted form of contract			
		1.6 Design and implement systems to check that all contract documents, meet statutory requirements, and are approved in line with organisational policy			
		1.7 Evaluate contract documents to determine the obligations of the parties to the contract			
		1.8 Design and implement systems to obtain written proof that parties are able to meet contract obligations, in line with legal requirements and organisational policy			
		1.9 Monitor contract documents to ensure the final contract documents are prepared, checked and executed in line with legal requirements and organisational policy			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to negotiate and agree contracts	2.1	Formulate strategies to negotiate contracts while also maintaining good long-term relationships with all the stakeholders			
		2.2	Implement strategies to negotiate and agree optimum contract terms, conditions and amendments, in line with organisational policy			
		2.3	Formulate the results of negotiations into contract documents and share with stakeholders, in line with legal requirements and organisational policy			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

# **Unit 16: Control Budgets and Contract Payment Entitlement in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>11</b>
<b>Guided learning hours:</b>	<b>30</b>

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## **Unit summary**

This unit is about controlling budgets and expenditure and obtaining payment. You will evaluate financial plans to determine budget allocations and cash flows. You will formulate and manage systems to control budgets in line with cash flows, analysing and reporting any variances or contingencies to decision makers. You will also design and implement systems to authorise and monitor expenditure.

You will evaluate and counter, when required, entitlement for reimbursement against your organisation. You will formulate documentation to make claims for additional monies, and for payment against agreed contract terms. You will devise auditable systems to record and document payment and cost decisions.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Budget headings:
  - income
  - employment costs
  - capital plant and equipment
  - materials
  - liabilities
  - subcontract costs
  - consumables.
- Financial plans:
  - forecasts
  - budgets
  - cash flow.
- Cash flow calculations:
  - income receivable
  - expenditure.
- Contingencies:
  - delays in receivables
  - project and contract delays
  - interruptions
  - risk.
- Variances:
  - overspend
  - underspend.

## Learning outcome 2

- Entitlement – resulting from:
  - measurement
  - valuation of variations
  - liability for costs
  - loss and expense arising from breaches of contract
  - extensions of time
  - damages arising from extra-contractual consideration.
- Expert opinion:
  - legal
  - technical
  - financial.
- Information sources:
  - contract provisions
  - contract claims for payment
  - dimensions and approximations from latest revisions of contract drawings
  - records of executed work
  - inspections of work in progress
  - contract documents
  - day work
  - agreed contract quantities
  - agreed contract rates of payment
  - agreed methods of calculation
  - variations issued
  - contract records
  - site records, including photographs
  - company accounts.
- Costs:
  - rework
  - additional work
  - programme implications

- increased complexity
- logistical implications.
- Analyse:
  - claimant's analysis
  - respondent's analysis.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: a construction project budget, cash flow, valuation document, retention calculation, variation order, purchase orders, invoices, provisional sums, contingency cost matrix or claim.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to manage budgets	1.1	Evaluate financial plans in line with organisational policy to formulate cash flows and allocate budgets			
		1.2	Design systems, in line with cash flows, to control budgets and authorise expenditure			
		1.3	Implement the systems in line with organisational procedures			
		1.4	Monitor the systems, in line with organisation procedures and procurement processes, to determine any variances and contingencies			
		1.5	Evaluate the value of variances and contingencies, in line with procurement process and organisational procedures, to justify to decision makers changes to budgets and cash flows			



Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to evaluate entitlement for payment	2.1	Evaluate contract documents and information sources, in line with procurement processes and organisation procedures, to determine entitlement for payment and to claim additional costs			
		2.2	Design systems to quantify the value of entitlements for payment and additional costs			
		2.3	Implement the systems in line with organisation policy and procurement processes			
		2.4	Evaluate additional costs, in line with contract documentation and procurement processes, to determine liability			
		2.5	Justify to the liable parties and stakeholders the additional cost, negotiating in line with procurement processes any amendments to payment entitlement			
		2.6	Formulate and implement in line with organisational procedures auditable systems to record payments made and received			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

# **Unit 17: Evaluate and Progress the Resolution of Contractual Disputes in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>18</b>
<b>Guided learning hours:</b>	<b>60</b>

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## **Unit summary**

This unit is about evaluating the background and basis of a contractual dispute. You will consider the strengths and weaknesses of the case being made, evaluating the documentation and supporting evidence. You will formulate systems to obtain support and guidance from legal, technical and financial advisors. You will determine the potential outcomes of a case and the risks that might arise in both the long and short term.

You will justify the correct course of action, taking all contingencies into account. You will implement processes to formulate submission documentation, appraising the robustness of the arguments being tabled to check if they will stand up to scrutiny. You will produce contractually binding correspondence and keep all relevant parties advised of the progress and outcome of the dispute.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Dispute - types:
  - land
  - property
  - construction
  - contracts
  - agreements
  - third-party claims.
- Information that is relevant to the dispute:
  - contract documents
  - correspondence
  - instructions
  - contract records
  - technical reports
  - witness testimony
  - other evidential material
  - expert opinion.
- Expertise and support in:
  - legal
  - technical
  - financial.
- Options and processes for settling the dispute:
  - renegotiation
  - negotiations at higher levels of authority
  - mediation, adjudication and arbitration
  - formal dispute resolution
  - legal action.

## Learning outcome 2

- Dispute – types:
  - land
  - property
  - construction
  - contracts
  - agreements
  - third party claims.
- Options and processes for settling the dispute:
  - renegotiation
  - negotiations at higher levels of authority
  - mediation, adjudication and arbitration
  - formal dispute resolution
  - legal action.
- Reactions and proposals:
  - positive
  - negative.
- Responses:
  - accepting
  - rejecting
  - clarifying
  - providing additional information.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: an expert witness consultancy contract, dispute cost documentation, claim documents, arbitration forms, mediation procedures, settlement agreement or correspondence between the disputing parties. As a minimum, the project artefacts should include a dispute settlement proposal presenting both the options and associated residual risks for resolving the dispute.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to evaluate implications for the resolution of disputes	1.1	Examine information relating to the dispute to determine evidence that will support the case			
		1.2	Evaluate the evidence to ascertain the strengths and weaknesses of the case, formulating in line with organisational policy and legal requirements, a judgement on the likely outcome			
		1.3	Design systems to obtain legal, technical and financial expertise at each stage of the dispute			
		1.4	Implement the systems in line with organisational procedures			
		1.5	Appraise the experts' arguments and the advice, to justify conclusions and recommendations for further action to the parties involved in the dispute			
		1.6	Evaluate the conclusion and recommendations, in line with legal requirements, financial plans and organisational procedures, to determine the implications of proceeding with the case			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		1.7 Appraise the implications, to determine the potential options and risks associated with settling the dispute			
		1.8 Justify an option for settling the dispute that mitigates risk, meets legal requirements, and is likely to be acceptable to all the parties			
		1.9 Implement the option for settling the dispute, in line with legal and organisational procedure, preparing written terms and conditions			



Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to negotiate the resolution of disputes	2.1	Design and implement a system to share documents and supporting information concerning the dispute, in line with organisational and legal procedures			
		2.2	Evaluate reactions and proposals from opposite parties, to the documents and supporting information, and recommend responses			
		2.3	Formulate and communicate, in line with organisational and legal procedure, questions based on the recommended responses to test the opposite parties' position and to probe for possible movement			
		2.4	Monitor and evaluate responses to questions, summarising and recording points of agreement and disagreement			
		2.5	Appraise the points of agreement and disagreement to justify to decision makers the acceptance of the best offer			
		2.6	Design and implement a system to draft formal acceptance letters and send them promptly to all parties			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

# **Unit 18: Manage Marketing and Customer Service in Construction Management**

<b>Level:</b>	<b>7</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>13</b>
<b>Guided learning hours:</b>	<b>30</b>

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## **Unit summary**

This unit is about establishing and managing the marketing and customer service process to meet organisational and business objectives. You will need to develop and implement a marketing process that helps promote new business and creates opportunities to improve branding, corporate image and market share.

You will also need to demonstrate how you have selected new products or services and explain how these have been established to meet market needs and business objectives. Managing the customer service strategy is a key role at this level; you will need to demonstrate how you have developed a client customer service policy to meet customer expectations and improve customer satisfaction.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- The organisation's operations:
  - new and innovative services, products and processes (benefits and features)
  - information management systems
  - customer requirements
  - communications with potential customers and partners
  - legal requirements and statutory legislation
  - past and future negotiations
  - specifications
  - pricing strategy
  - recording systems
  - time schedules
  - quality
  - identification of competitors
  - target markets
  - training.
- Strengths and weaknesses:
  - market share
  - scope of products and services
  - availability of resources
  - working practices
  - productivity
  - profitability and cost factors
  - corporate values
  - environmental impact
  - energy performance
  - socio-economic factors
  - ability to innovate
  - efficiency of systems (including information technology)

- product life cycle
- understanding of client's needs
- standardisation
- competence of staff.
- Analysis – methods:
  - feasibility studies
  - SWOT (strengths, weaknesses, opportunities and threats) analyses
  - feedback.
- Products and services:
  - design
  - finance
  - build
  - operate
  - research, development and innovation
  - technological
  - consultation
  - advisory
  - project management.
- Resources:
  - people (knowledge, training, competence)
  - plant and equipment
  - materials
  - sub-contractors and suppliers
  - partners
  - external services
  - financial resources
  - accommodation.

## Learning outcome 2

- Present image and reputation of the organisation:
  - market share
  - scope of products and services
  - availability of resources
  - working practices
  - productivity
  - profitability and cost factors
  - corporate values
  - environmental impact
  - socio-economic factors.
- Information gathering system:
  - organisation sources
  - external sources
  - customer feedback
  - specialists
  - market research.
- Marketing and promotion:
  - branding
  - corporate image
  - professional networks
  - sponsorship
  - publications
  - samples
  - relation with press and media
  - advertising policies
  - direct and indirect client and customer relations
  - presentations
  - e-commerce
  - delivery.

- Potential new business opportunities:
  - products and services
  - developments and projects
  - customers and markets.
- Monitoring:
  - market share
  - levels of resource allocation
  - profitability
  - reputation
  - image.

### **Learning outcome 3**

- Clients and customers:
  - individuals
  - external organisations
  - departments or teams.
- Client and customer service:
  - quality
  - timescales
  - cost
  - communication and involvement in decision making
  - conduct
  - pre-contract
  - post-contract
  - aftercare.
- Policy:
  - relationships with clients
  - statutory rights and the organisational response
  - operational expectations and performance
  - policy regarding adherence to current norms of business ethics and practice
  - environmental concerns.

This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: a SWOT analysis, market appraisal, project completion survey, client satisfaction survey, demand analysis, market forecast, company reputation and image analysis or service agreement. As a minimum, the project artefacts should include a marketing strategy identifying and justifying the allocation of company resource towards the development of new products and services.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to develop new products and services	1.1	Examine an organisation's operations, determining its strengths and weaknesses to compete in construction markets			
		1.2	Evaluate the strengths and weaknesses, in line with potential target markets, to determine the organisation's opportunities and threats			
		1.3	Analyse opportunities, in line with potential target markets, to determine the demand for new products and services			
		1.4	Justify to stakeholders, in line with business policy, new innovative products and services for development			
		1.5	Plan systems to resource the development of new products and services			
		1.6	Implement systems, in line with plan, using marketing technologies, materials and techniques to develop new products and services			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to formulate and implement a marketing strategy	2.1	Examine customer feedback, the construction market press and news to evaluate the present image and reputation of the organisation			
		2.2	Appraise the organisation's image and reputation to define a client base			
		2.3	Plan and implement an information-gathering system, in line with the client base, to determine potential new business opportunities			
		2.4	Appraise the potential new business opportunities to determine a marketing and promotion strategy to increase market share			
		2.5	Plan, in line with the strategy, marketing and promotion techniques for the organisation			
		2.6	Implement, in line with the plan, the techniques to deliver the marketing and promotion strategy			
		2.7	Monitor the impact of the marketing and promotion strategy, determining improvements to increase market presence and penetration			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to manage client and customer satisfaction	3.1	Evaluate market research to determine the type and quality of services required by clients and customers			
		3.2	Formulate, in line with the type and quality of required services, a client and customer service policy for the organisation			
		3.3	Justify the client and customer service policy to decision makers and the workforce			
		3.4	Plan and implement, in line with the policy, a client and customer service system			
		3.5	Monitor the system, in line with organisational procedures, to obtain positive and negative client and customer feedback			
		3.6	Evaluate the feedback, justifying to decision makers and the workforce further actions and recommendations to improve client and customer satisfaction			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

## **Unit 19: Manage the Handover of a Construction Project**

<b>Level:</b>	<b>6</b>
<b>Unit type:</b>	<b>Optional</b>
<b>Credit value:</b>	<b>10</b>
<b>Guided learning hours:</b>	<b>50</b>

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### **Unit summary**

This unit is about managing the handover of construction projects upon completion. You will formulate a programme to manage the handover activities required as a construction project comes to an end.

You will develop systems to undertake snagging activities in order to determine outstanding and defective work. You will manage the necessary commissioning, testing and handover inspection of facilities, systems, services and equipment. Finally, you will assemble the documentation required to be passed to the client and stakeholders on project completion.

## Unit assessment requirements

The following ranges apply:

### Learning outcome 1

- Project information:
  - environmental
  - statutory and legal requirements
  - client, user and community requirements
  - construction and technical requirements
  - site constraints
  - finance, procurement and contract
  - quality
  - cost
  - programme.
- Stakeholders:
  - client, customer or their representative
  - user
  - consultant
  - contractor
  - regulatory authorities.
- Project requirements:
  - time
  - quality
  - cost
  - health and safety
  - current legislation
  - sustainability
  - defect liability period
  - warranties.

- Programme:
  - key decision stages
  - objectives and targets
  - scheduling and timetables
  - statutory deadlines
  - resources
  - procurement
  - time
  - people
  - risk.
- Handover requirements:
  - completion certification
  - documentation
  - drawings
  - reports
  - provision of people trained on operating the product or facility
  - training
  - project audit
  - updated risk and work register
  - warranties and guarantees
  - final invoice.

## **Learning outcome 2**

- Outstanding work:
  - snagging
  - work-to-complete list
  - retention
  - programme
  - certificate of practical completion.

- Remedial actions:
  - defect
  - design deficiencies
  - material deficiencies
  - specification problems
  - workmanship problems
  - defect liability period
  - opening up works for testing and inspection
  - schedule of defects.

### **Learning outcome 3**

- Commissioning, handover inspection and testing:
  - commissioning notice
  - calibration
  - set-to-work
  - recording of system and equipment settings
  - commissioning witnesses
  - training
  - manufacture work testing
  - component testing
  - pre-commissioning tests.
- Legislation:
  - legislation and regulations
  - insurance approvals
  - statutory approvals
  - performance specification.

## Learning outcome 4

- Project responsibilities:
  - insurance
  - security
  - operations
  - health and safety
  - utility supplies
  - environmental
  - sustainability.
- Documentation:
  - CDM Regulations documentation
  - manuals and guidance materials
  - plans
  - health and safety file
  - operating equipment
  - security information and equipment
  - certificates
  - services
  - systems
  - warranties and guarantees.



This unit must be assessed in a work environment, in accordance with the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment, which can be found in *Annexe A*.

The knowledge and understanding to cover the full range and scope of the learning outcomes and assessment criteria must be assessed through a professional discussion. Project artefacts that could be used to plan or prompt the professional discussion for this unit might include: CDM Regulation documentation, warranties and guarantees, operating manuals and guidance material, as built drawings, BIM model, commissioning certificates, practical completion certificates, remedial actions, snagging lists and inspection reports. As a minimum, the project artefacts should include a project handover programme to ensure that the works and all relevant systems, equipment and assemblies have been installed.

Awarding organisations must ensure that assessors have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging learners' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview.

(The verification process must be recorded and available for audit.)

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to formulate a project handover programme	1.1	Examine the project information and brief, in line with procurement procedures, to determine project handover requirements			
		1.2	Plan and implement systems to agree project handover requirements with stakeholders			
		1.3	Formulate a handover programme for the agreed handover requirements, that incorporates cost and timelines, and makes the best use of the capabilities of all team members			
		1.4	Implement the handover programme, in line with organisational policy and project procurement procedures			
		1.5	Monitor the progress of the project team, in line with the handover programme, and provide feedback on the progress of the completion of the handover to stakeholders			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to manage the completion of outstanding work	2.1	Examine project information and the project brief, in line with the project programme, to determine outstanding and completed work			
		2.2	Evaluate completed work, against project requirements and quality standards, to determine defects and remedial actions			
		2.3	Plan a system to manage construction work activities to complete the outstanding work and remedial actions			
		2.4	Implement the system in line with the plan and procurement procedures			
		2.5	Monitor the system to ensure the outstanding work and remedial actions are completed in line with quality standards, the project brief and project information			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to manage handover inspections and tests	3.1	Examine the project handover programme to determine handover inspection, testing and commissioning activities			
		3.2	Formulate a plan with stakeholders to complete handover inspection, testing and commissioning activities			
		3.3	Implement the plan, in line with project procurement procedures, legislation and organisational policy			
		3.4	Monitor the plan, resolving stakeholder concerns during handover inspection, testing and commissioning			
		3.5	Develop and implement a system to complete handover inspection, test and commissioning certification			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Be able to manage the handover of project responsibilities and documentation	4.1	Examine project information, the project brief and legislation to determine handover documentation requirements for facilities, systems, services and equipment			
		4.2	Plan and implement systems, in line with organisational procedure, to assemble the handover documentation			
		4.3	Justify, and agree with stakeholders, the handover of project responsibilities and documentation			

Learner name:

Date:

Learner signature:

Date:

Assessor signature:

Date:

Internal verifier signature:

Date:

*(if sampled)*

## 12 Further information and useful publications

### Key publications

- *Access Arrangements and Reasonable Adjustments* (Joint Council for Qualifications (JCQ))
- *Centre Guidance: Dealing with malpractice and maladministration in vocational qualifications* (Pearson)
- *Centre Guide to Quality Assurance Pearson NVQ/SVQ and Competence-based Qualifications* (Pearson)
- *Collaborative and consortium arrangements for the delivery of vocational qualifications policy* (Pearson)
- *Enquiries and appeals about Pearson vocational qualifications and end point assessment policy* (Pearson)
- *Equality, diversity and inclusion policy* (Pearson)
- *General Guidance for Centres and Learners Pearson NVQ/SVQ and Competence-based Qualifications* (Pearson)
- *A guide to recruiting with integrity and enrolling learners onto qualifications* (Pearson)
- *Quality Assurance Handbook BTEC Apprenticeship* (Pearson)
- *Recognition of prior learning policy and process* (Pearson)
- *Suspected Malpractice in Examinations and Assessments Policies and Procedures* (Joint Council for Qualifications (JCQ))
- *Supplementary guidance for reasonable adjustments and special consideration in vocational internally assessed units* (Pearson)
- *UK Information Manual* (Pearson)
- *Use of languages in qualifications policy* (Pearson).

All of these publications are available on our website: [qualifications.pearson.com](http://qualifications.pearson.com)

Further information and publications on the delivery and quality assurance of SVQ/competence-based qualifications are available on our website.

To order publications, please go to the resources page of our website.

For books, software and online resources for UK schools and colleges, please go to: [www.pearsonschoolsandfecolleges.co.uk](http://www.pearsonschoolsandfecolleges.co.uk)

# 13 Professional development and training

## Professional development and training

Pearson supports customers with training related to our qualifications. This support is available through a choice of training options offered on our website.

The support we offer focuses on a range of issues, such as:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing learner-centred learning and teaching approaches
- building in effective and efficient quality assurance systems.

The national programme of training we offer is on our website. You can request centre-based training through the website or you can contact one of our advisers in the Training from Pearson UK team via Customer Services to discuss your training needs.

## Training and support for the lifetime of the qualifications

**Training and networks:** our training programme ranges from free introductory events through sector-specific opportunities to detailed training on all aspects of delivery, assignments and assessment. We also host some regional network events to allow you to share your experiences, ideas and best practice with colleagues in your region.

**Regional support:** our team of Regional Quality Managers, based around the country, are responsible for providing quality assurance support and guidance to anyone managing and delivering NVQs/Competence-based qualifications. The Regional Quality Managers can support you at all stages of the standard verification process as well as in finding resolutions of actions and recommendations as required.

To get in touch with our dedicated support teams please visit our website at: [qualifications.pearson.com/en/support/contact-us.html](https://qualifications.pearson.com/en/support/contact-us.html).

**Online support:** find the answers to your questions in *Knowledge Base*, a searchable database of FAQs and useful videos that we have put together with the help of our subject advisors to support you in your role. Whether you are a teacher, administrator, Assessment Associate (AA) or training provider, you will find answers to your questions. If you are unable to find the information you need please send us your query and our qualification or administrative experts will get back to you.

## 14 Contact us

To get in touch with us, please visit our 'Contact us' pages for Pearson Work Based Learning customers:

<http://qualifications.pearson.com/en/support/support-for-you/work-based-learning/contact-us.html>



## Annexe A: Assessment strategy

### **Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs)**

#### **Introduction**

This assessment strategy<sup>1</sup> provides principles and guidance to awarding organisations so the assessment of units within qualifications denoted as NVQs in the<sup>2</sup>Regulated Qualification Framework (RQF) and SVQs in the Scottish Credit and Qualification Framework (SCQF) is valid, effective and consistent, and has credibility across the Construction and Built Environment sector. This is a consolidated ConstructionSkills Assessment Strategy covering construction and the built environment – craft, operative, supervisory, technical, managerial and professional NVQs and SVQs.

These principles are in addition to the requirements that awarding organisations must meet for the delivery of qualifications as required by the qualification regulators' documentation.

This consolidated assessment strategy provides the overarching principles as systems may vary from one awarding organisation to another. Awarding organisations must consistently put these principles into practice.

Appendix A provides guidance to help awarding organisations incorporate relevant parts of these principle requirements in their documentation.

Appendix B provides additional information on assessment guidance for awarding organisations relevant to specific NVQ or SVQ qualifications and units.

Appendix C provides guidance on the use of simulation; it is a SSC's responsibility to define the acceptability of evidence from simulation in the context of National Occupational Standards (NOS) and NVQs/SVQs. Simulation will only usually apply as a result of one or more of the listed constraints.

Appendix D provides guidance on Scottish Vocational Qualifications at SCQF Level 6 and related Industry Skills Tests.

Awarding organisations must make this Strategy and the appendices available to assessors, verifiers, candidates and assessment centres.

Please note that there is now a separate Assessment Strategy for Construction and the Built Environment – Plant and Lifting Operations. This assessment strategy will also apply where plant or lifting units, sourced from the Plant Operations or Controlling Lifting Operations' suite of units, are used in other NVQs and SVQs

<sup>1</sup> Please note that the Consolidated Assessment Strategy will also apply to existing learners currently registered to the Qualifications and Credit Framework (QCF) until they achieve their qualification.

## Principles

### 1 External quality control of assessment

- 1.1 Awarding organisations must use risk management for external quality control of assessment. They must evaluate all external verification reports and other data relating to assessment centres. Awarding organisations must address any risks relating to quality control, considering the sector assessment strategy requirements for:
  - workplace evidence
  - the use of simulation
  - the occupational competence of assessors and verifiers.
- 1.2 The monitoring and standardisation of assessment decisions must be achieved by robust and strong internal and external verification systems that meet the requirements of the qualification regulators' documentation.
- 1.3 Awarding organisations must be members of the sector's Built Environment Awarding Body Forum. Members will be expected to provide feedback on National Occupational Standards (NOS), NVQs or SVQs, including aspects informing incremental change.
- 1.4 The Forum will, in respect of this strategy:
  - build on the good relationships with awarding organisations
  - provide opportunities to identify and address particular issues of external quality control
  - contribute to improving quality and consistency
  - support awarding organisations to monitor assessment centres' performance to identify areas and levels of risk
  - provide information and statistics about take-up and completion, as well as trends and developments that can be used by ConstructionSkills and awarding organisations to identify any problem areas and agree remedial action
  - discuss matters concerning quality assurance, as well as providing the opportunity to identify issues arising from implementation of NOS and related vocational qualifications
  - inform the continuous improvement of NOS, and awards derived from them
  - identify and share best practices to build a whole industry approach to pursue excellence in education and work-based learning and assessment process to achieve competence.

- 1.5 Awarding organisations and their partners, assessment centres, verifiers and assessors must maintain robust and transparent operational arrangements. They must preserve independence in assessment, certification and quality assurance processes. Awarding organisations must ensure clear separation of their NVQ/SVQ assessment responsibilities from their industry, training, membership, certification, accreditation and commercial interests and resolve any conflicts of interest.
- 1.6 Where e-assessment is used, it must meet the requirements of the qualification regulators' documentation.

## 2 Aspects to be assessed through performance in the workplace

- 2.1 Direct evidence produced through normal performance in the workplace is the primary source for meeting the requirements. This includes naturally occurring documentary evidence (hard copy and electronic), direct observation of activities and witness testimony as relevant. ConstructionSkills' National Working Groups will specify any exceptions to this position (*see section 3*).
- 2.2 Workplace evidence must be supported by the required evidence of knowledge and understanding. This evidence may be identified by:
- questioning the candidate
  - recognised industry education and training programme assessment or professional interview assessment that has been matched to NOS requirements
  - performance evidence.
- 2.3 A holistic approach towards the collection of evidence should be encouraged. The focus should be on assessing activities generated by the whole work experience rather than focusing on specific tasks. This would show how evidence requirements could be met across the qualification to make the most efficient use of evidence. Appendix A suggests standard evidence notes for awarding organisations.

## 3 How simulated working conditions may be used to assess competence

- 3.1 Simulations (designed situations for producing artificially generated evidence) may only be used where candidates are prevented from gathering direct evidence from the workplace in the normal way because:
- there are hazards
  - it is difficult to distinguish individual performance in team situations
  - circumstances occur infrequently or long term results are involved
  - confidentiality is important
  - there are organisational constraints.
- 3.2 Any instances where simulation is considered to be acceptable as an alternative (to direct workplace evidence) means of generating evidence, will be determined by the relevant ConstructionSkills National Working Group and stated in the unit. Appendix A suggests standard evidence notes for awarding organisations.

3.3 The ConstructionSkills National Working Group will determine and specify on the required realistic working environment and context to be adopted. This could include appropriate:

- tools, equipment and instruments
- materials
- types of contingencies
- standards and quality specifications
- real timescales
- quantities of work
- physical conditions
- relationships with people
- types of interaction
- communication methods and media
- information and data.

3.4 Where simulated evidence is stated as acceptable in the unit, the circumstances and requirements for the simulation needs to be confirmed by discussions between the candidate and the assessor, and which are then agreed by the internal and external verifiers.

3.5 Where other Standard Setting Bodies' units are imported into a ConstructionSkills suite, the evidence requirements of the originating body will be adopted and specified.

#### **4 Occupational expertise requirements for assessors and verifiers**

4.1 Awarding organisations must ensure that assessors:

4.1.1 have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging candidates' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview

(The verification process must be recorded and available for audit)

- 4.1.2 have sufficient occupational expertise so they have up to date experience, knowledge and understanding of the particular aspects of work they are assessing. This could be verified by records of continuing professional development achievements
- 4.1.3 only assess in their acknowledged area of occupational competence
- 4.1.4 have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and the Assessment Strategy (this document)
- 4.1.5 are prepared to participate in activities for their continued professional development
- 4.1.6 hold, or are working towards, a qualification as listed within 'Assessing and Assuring Quality of Assessment':
  - RQF/QCF Level 3 Award in Assessing Competence in the Work Environment
  - RQF/QCF Level 3 Award in Assessing Vocationally Related Achievement
  - RQF/QCF Level 3 Certificate in Assessing Vocationally Related Achievement
  - RQF/QCF Level 3 Certificate in Assessing Vocational Achievement
  - an appropriate Assessor qualification in the SCQF as identified by SQA Accreditation

or hold one of the following

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

Holders of A1 and D32/33 must assess to the current National Occupational Standards (NOS) for Learning and Development.

In Scotland, approval for exemptions must be obtained from SQA Accreditation.

4.2 Awarding organisations must ensure that **internal verifiers:**

4.2.1 have sufficient, verifiable, relevant up to date experience, knowledge and understanding of the occupational working area at, or above, the level being verified. This must be of sufficient depth to be effective and reliable when verifying judgements about assessors' assessment processes and decisions. Internal verifiers' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement or references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview

(The verification process must be recorded and available for audit)

4.2.2 have expertise so they have up to date experience, knowledge and understanding of the particular aspects of work they are verifying. This could be verified by records of continuing professional development achievements

4.2.3 have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and the Assessment Strategy (this document)

4.2.4 are prepared to participate in activities for their continued professional development

4.2.5 hold, or are working towards, a qualification as listed in 'Assessing and Assuring Quality of Assessment:

- RQF/QCF Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- RQF/QCF Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- an appropriate Internal Verifier qualification in the SCQF as identified by SQA Accreditation

or hold one of the following

- V1 Conduct internal quality assurance of the assessment process
- D34 Internal verify the assessment process

Holders of V1/D34 must quality assure to the current National Occupational Standards (NOS) for Learning and Development.

It is strongly recommended that within the role of Internal Quality Assurance one of the following qualifications is held.

- RQF/QCF Level 3 Award in Assessing Competence in the Work Environment
- RQF/QCF Level 3 Certificate in Assessing Vocational Achievement
- an appropriate Assessor qualification in the SCQF as identified by SQA Accreditation or one of the following
- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence.



### 4.3 Awarding organisations must ensure that **external verifiers:**

- 4.3.1 have sufficient, verifiable, relevant experience, knowledge and a broad understanding of the occupational working area at, or above, the level being verified. This must be of sufficient depth to be effective and reliable when verifying judgements about internal verification and assessment processes and decisions. External verifiers' experience, knowledge and understanding could be verified by a combination of:
- curriculum vitae and employer endorsement or references
  - possession of a relevant NVQ/SVQ, or vocationally related qualification
  - corporate membership of a relevant professional institution
  - interview

(The verification process must be recorded and available for audit)

- 4.3.2 have sufficient expertise so they have an up to date experience, knowledge and understanding of the particular aspects of work they are verifying. This could be verified by records of continuing professional development achievements
- 4.3.3 have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and the Assessment Strategy (this document)
- 4.3.4 are prepared to participate in activities for their continued professional development
- 4.3.5 hold, or are working towards, a qualification as listed in 'Assessing and Assuring Quality of Assessment':
- RQF/QCF Level 4 Award in the External Quality Assurance of the Assessment Process and Practice
  - RQF/QCF Level 4 Certificate in Leading the External Quality Assurance of Assessment
  - an appropriate External Verifier qualification in the SCQF as identified by SQA Accreditation

or hold one of the following

- V2 Conduct external quality assurance of the assessment process
- D35 Externally verify the assessment process

Holders of V2/D35 must quality assure to the current National Occupational Standards (NOS) for Learning and Development.

It is strongly recommended that within the role of External Quality Assurance one of the following qualifications is held at Level 3 and Level 4.

Level 3:

- RQF/QCF Level 3 Award in Assessing Competence in the Work Environment
- RQF/QCF Level 3 Certificate in Assessing Vocational Achievement
- an appropriate Assessor qualification in the SCQF as identified by SQA Accreditation or one of the following
- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

Level 4:

- RQF/QCF Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- RQF/QCF Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- an appropriate Internal Verifier qualification in the SCQF as identified by SQA Accreditation
- V1 Conduct internal quality assurance of the assessment process
- D34 Internal verify the assessment process

#### 4.4 Selection and appointment of **assessors and verifiers**

All applicants should be advised that they may be interviewed. Applicants' CVs should be profiled against the activities and range of the NVQ/SVQ(s) they will assess/verify to check that the applicant has the relevant current experience, knowledge and understanding of the occupational working area:

- at, or above, the level they will be assessing
- of sufficient depth to credibly verify judgements and assessments
- to uphold the integrity of the NOS and this Consolidated Assessment Strategy. All assessors should have experience as well as, not in lieu of, qualifications.

Where there seem to be gaps in a potentially suitable applicant's experience and knowledge, the applicant should be interviewed. Successful applicants' CVs, profiling, reasons for not needing to interview and interview records should be available for audit.

## **APPENDIX A**

## Appendix A

### ConstructionSkills' standard evidence notes for awarding organisations

These guidance notes have been produced to ensure consistency in interpreting the principles set out in sections 2 and 3 of the ConstructionSkills' Assessment Strategy. The notes should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for construction and built environment – craft, supervisory, technical, managerial and professional NVQs/SVQs. The following general standard notes are strongly recommended for adoption by awarding organisations in their assessment specification:

Standard note 1:

*"Taken as a whole, the evidence must show that the candidate consistently meets all the following performance criteria/learning outcomes and assessment criteria across the scope/range."*

Standard note 2:

*"There must be workplace evidence against each performance criterion/learning outcome and assessment criterion. Where the workplace evidence does not cover the whole scope/range, knowledge evidence must be provided to cover the remaining items of scope/range for each relevant performance criterion/learning outcome and assessment criterion."*

Standard note 3:

*"Knowledge evidence may be established from questioning the candidate, or from industry recognised industry education and training programme assessment, or professional interview assessment, that has been matched to the requirements of the National Occupational Standards. Such assessments should also have their own independent external assessment, moderation or verification. A candidate's knowledge and understanding can also be demonstrated through presented performance evidence."*

Standard note 4: Either:

*"Simulations are not considered to be acceptable for producing this evidence."*

OR

*"Simulations are considered to be an acceptable alternative for producing evidence for the following item(s) which is/are considered to be rare/infrequent, but key/critical to demonstrating competence. The following realistic working environment and context must be adopted for the simulation, with appropriate: tools, equipment and instruments; materials; types of contingencies; standards and quality specifications; real timescales; quantities of work; physical conditions; relationship with people; type of interaction; communication methods and media; information and data\*." [\*include as appropriate]*

See also *Annex C: 'Guidance on the use of simulation'* which also includes guidance on the acceptable use and characteristics of simulation within N/SVQs during the current economic climate.

## **APPENDIX B**

## Appendix B

### **ADDITIONAL INFORMATION ON ASSESSMENT GUIDANCE FOR AWARDING ORGANISATIONS RELEVANT TO SPECIFIC NVQ OR SVQ QUALIFICATIONS AND UNITS**

The information below should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for construction and built environment NVQs and SVQs. The following guidance is strongly recommended for adoption by awarding organisations in their assessment methodology.

#### **Additional Information on the Assessment of CITB NVQ Units only**

- CITB NVQ Unit Ref: 641 – Assessment Criteria 2.3 and 2.4
  - 2.3 – 'List the current Health and Safety Executive top ten safety risks' should be assessed as 'List the current common safety risks'.
  - 2.4 - 'List the current Health and Safety Executive top five health risks' should be
- All CITB NVQ units – Assessment Criteria 1.4
  - 1.4 – 'State why and when health and safety control equipment, identified by the principles of protection' should be assessed as 'State why and when health and safety control equipment, identified by the principles of prevention'.

#### **Thermal Insulation NVQ and SVQ units and qualifications**

- Training Providers offering Thermal Insulation NVQ and SVQ units and qualifications:
  - must ensure that their Thermal Insulation assessors are registered with the Thermal Insulation Contractor Association (TICA) and are Thermal Installation installers with at least 5 years verifiable, relevant, current industry experience, knowledge and understanding of the occupational area at, or above the level being assessed. This must be of sufficient depth to be effective and reliable when judging candidates' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:
    - curriculum vitae and employer endorsement
    - references
    - possession of a relevant NVQ/SVQ, or vocationally related qualification
    - interview

(The verification process must be recorded and available for audit)

- will provide opportunities to identify and address particular issues of external control, including the assessment of Thermal Insulation NVQ/SVQ qualifications and Apprenticeship Standards.



## **APPENDIX C**

## Appendix C

### Guidance on the use of simulation

#### Introduction

National Occupational Standards (NOS) are developed by Sector Skills Councils (SSCs) and describe the level of occupational competence required of a particular job role. NOS are then used to build National and Scottish Vocational Qualifications (NVQs/SVQs) that are competence based qualifications and demand assessment in a workplace environment.

Assessment of NVQs/SVQs through simulation is indicated where the achievement of valid and reliable assessment calls for evidence of performance under workplace conditions, but where it will be difficult to assess through normal working practice. This will usually apply as a result of one or more of the following constraints:

- activities which are inherently hazardous and where mistakes made in carrying them out would pose unacceptable risks to the candidate, other people, animals or property (e.g. electricity and gas sectors, fire service etc.)
- the costs incurred would be unacceptably high if mistakes were made during an activity and a candidate would therefore be required to 'prove' competence before progressing onto the actual work (e.g. handling rare or precious objects)
- situations where the qualities and outcomes of the candidate's behaviour are almost impossible to distinguish from those of their peers or colleagues, making authenticity uncertain (e.g. in some teamwork contexts)
- activities or situations which are sufficiently rare (e.g. where processes, such as a 'shut-down', may only occur on an annual basis)
- when the collection and/or review of evidence of workplace performance would intrude unacceptably on personal privacy or confidentiality, or would significantly alter the nature of an interaction or relationship (e.g. in some health care settings)
- a requirement to work with new techniques and/or work practices which may not be available in all workplaces.

Where permitted, simulation can take one or a combination of the two following forms:

- the candidate is presented with an activity to perform using equipment and/or in a location which replicates that found in the workplace
- the candidate is presented with a situation to which they must respond; taking and playing the role they would expect to play in the workplace.

It is a SSC's responsibility to define the acceptability of evidence from simulation in the context of National Occupational Standards (NOS) and National and Scottish Vocational Qualifications (NVQs/SVQs). The ConstructionSkills Consolidated Assessment Strategy provides this guidance.

## Guidance on the acceptable use and characteristics of simulation within NVQs/SVQs during the current economic climate

Due to the UK's economic recession over the past few years, ConstructionSkills had implemented flexibilities relating to simulation of NVQs/SVQs for displaced Apprentices and although there were small signs of a recovery in 2014 ConstructionSkills' agreed to extend these flexibilities for a further twelve months.

Now that the construction industry has shown definite signs of growth, these flexibilities were withdrawn on 31st March 2015. However in regard to Apprentices registered before the 1st January 2015 the flexibilities will remain in place until their completion date.

Therefore **only** for Apprentices who registered before the 1st January 2015 the following can apply:

In situations where a displaced or employed apprentice (this does not apply to full-time learners) will not be able to demonstrate evidence in the workplace within an acceptable time span, Awarding Bodies can arrange with their centres to apply the following principles.

- 1 Units cannot be assessed using simulation alone – there must be some supporting work-based evidence.
- 2 A centre's strategy for simulation must be examined and approved by the external verifier.
- 3 The location and environment of simulation must be agreed with the internal verifier prior to taking place, and must be checked by the internal verifier.
- 4 The **nature of the contingency** and the **physical environment must be realistic** and candidates should not be given any indication as to exactly what contingencies they may come across.
- 5 All simulations must be planned, developed and documented by the centre in a way that ensures the simulation correctly reflects what the unit seeks to assess, and all simulations must follow these documented plans.
- 6 There should be a range of simulation to cover the same aspect of the unit so that the risk of candidates successfully colluding is reduced.
- 7 All simulation must reflect the urgency with which the activity would normally be carried out and the normal time needed to complete it, including the usual complexity of factors affecting the activity.
- 8 All simulation should involve the same personnel as would normally be included (e.g. bricklayer, supervisor, labourer etc.) and also similar realistic facilities.
- 9 Any instances of insufficient work-based evidence must be supported by adequate supplementary evidence which might include questioning; interviews with professional discussion; work projects; case studies; special assignments; self-testimony.

ConstructionSkills would strongly recommend that centres explore strategies with the candidate's employers for obtaining work-based evidence before considering the use of simulation. Examples might include using Group Training Associations, thereby carrying out real jobs within the college/training centre and/or involvement with community projects.

Group Training Association (GTA) is the government term for a training group which also shares Apprentices. The GTA model is where a number of like-minded employers come together to create a separate business entity, which sources appropriate training and delivers Apprenticeships by providing work experience across the range of engaged businesses.

## APPENDIX D

## Appendix D

### Guidance on Scottish Vocational Qualifications at SCQF Level 6 and related Industry Skills Tests

#### 1 Introduction

This Appendix refers only to the SVQs in the following craft areas at SCQF Level 6

- Bricklaying
- Carpentry and Joinery
- Floorcovering
- Painting and Decorating
- Plastering
- Roofing Occupations
- Stonemasonry
- Wall and Floor Tiling
- Woodmachining

An Industry Skills Test Unit is included in the SVQ structures and involves the candidate attending a competence assessment in the final six months of the delivery of the SVQ. Successful achievement of this Skills Test/SVQ demonstrates that the learner has sufficient technical expertise, knowledge and skill to meet the expectations of employers in terms of Occupational Competence.

The Occupational Competence of learners must be assessed in accordance with industry requirements as prescribed in National Occupational Standards and Skills Testing Criteria available from CITB.

Learners should not be put forward for their Skills Test until they are deemed ready to be assessed as competent.

Simulation must take place for the Industry Skills Test Units. The activities that will be undertaken should demonstrate competence in these craft areas, as contained within each Skills Test Criteria.

#### 2 Industry Skills Test

The Industry Skills Test is the final part of the assessment process for the SVQ. Each craft occupation will have its own arrangements developed by the Awarding Organisation which will be compliant with the Skills Test Criteria.

Details of these assessments will be based on Industry recommendations and will be developed by the Awarding Organisation. Each Awarding Organisation shall ensure a nationally consistent approach to Skills Testing for the industry/occupation concerned.

### **3 Arrangements to be made between Skills Test Providers and Awarding Organisations**

- 3.1 The Skills Test is part of the assessment process/requirements for the qualification structures identified in this appendix. It is to be conducted at the end of the assessment process to confirm occupational competence.
- 3.2
- 3.3 Each industry will have its own requirements which are compatible to and reflect their particular necessities in terms of assessing occupational competence within the Skills Test Criteria. The arrangements will be agreed by Awarding Organisations and delivering centres accordingly.
- 3.4 The purpose of these arrangements is to define the roles and responsibilities of the Awarding Organisations and centres involved with facilitating, managing and administering the Skills Tests for each industry.
- 3.5 These arrangements only relate to the SVQs listed in this appendix of the assessment strategy or their revisions/replacements as determined by CITB.

### **4 Roles and Responsibilities**

- 4.1 The Skills Test Criteria will be determined by CITB in partnership with industry employers and the Skills Test Specifications/Assessments will be determined by the Awarding Organisations.
- 4.2 The Skills Test venues and facilities will be provided by Awarding Organisations' approved centres and comply with the requirements identified in the Skills Test Criteria and Specifications developed by Awarding Organisations.
- 4.3 Awarding Organisation External Verifiers (EVs) will be responsible for quality assuring the Assessment Materials and Marking Guidance in accordance with the Awarding Organisation's compliance requirements. CITB will provide Awarding Organisations with a summary of the principles of the Skills Test marking regime and criteria as examples of best practice in terms of its integrity, robustness and consistency.
- 4.4 CITB will be responsible for the maintenance of the Skills Test Criteria.

### **5 Currency of these Arrangements**

It is expected that the currency of these arrangements will match with the accreditation period of the qualifications, or units therein as relevant. CITB, in partnership with the Awarding Organisations will review the arrangements bi-annually or as appropriate, subject to any revisions to the qualifications.



## **6 Occupational expertise requirements for Industry Skills Test Assessors and Industry Expert Witnesses**

6.1 Awarding organisations must ensure that assessors meet the occupational expertise requirements as detailed in section 4.1 of the Assessment Strategy.

The Assessors role is to uphold the integrity and standards during the test and to make judgement and final assessment decisions after the test. Final assessment decisions should be accurately recorded for evidence (including photographic

6.2 Skills Test Industry Expert Witnesses:

- must not employ any of the candidates involved in the Skills Test to ensure an independent observation
- must have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area being assessed. This must be of sufficient depth to be effective and reliable when observing the marking of the Skills Test. Expert Witnesses' experience, knowledge and understanding could be verified by either of the following -
  - curriculum vitae
  - references
  - possession of a relevant vocationally related qualification
  - corporate membership of a relevant professional institution
  - interview
- must only observe in their acknowledged area of occupational competence
- have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and this appendix
- are prepared to participate in training activities for their continued professional development

6.4 Selection and appointment of Skills Test Industry Expert Witnesses

All applicants should be advised that they may be interviewed. Applicants' CVs should be profiled against the activities and range of the occupational area they will observe, to check that the applicant has the relevant current experience, knowledge and understanding of the occupational working area. This should be of sufficient depth to credibly verify judgements and assessments to uphold the integrity of the NOS and this Consolidated Assessment Strategy.

Whilst Expert Witnesses cannot accredit the final award of the Skills Test, if they disagree with the assessment decision made by the Assessor, they can appeal directly to the Awarding Organisation.

**March 2019**

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