

Unit 17: Building Regulations and Control in Construction

Unit code:	D/600/0441
QCF Level 3:	BTEC Nationals
Credit value:	10
Guided learning hours:	60

● Aim and purpose

This unit gives learners an opportunity to develop a knowledge and understanding of Building Regulations for controlling the safe construction and use of a completed building. Learners will also gain skills in preparing a submission for building regulation approval.

● Unit introduction

The Building Regulations set out the minimum standards required for the construction of most new buildings, and many building alterations in England and Wales, to ensure that buildings are safe, hygienic, energy efficient and do not waste water.

The ongoing development and updating of building standards and regulations has taken place over many years. Many changes result from concerns related to other issues, such as public health and sustainable buildings for the future, so the provisions for building standards are scattered amongst numerous Acts of Parliament and local authority by-laws.

The Building Regulations are enforced by building control officers or approved inspectors, and enforcement initially involves approval of the proposed design and construction of a building, followed by regular inspections as the work proceeds on site.

The unit aims to develop learner knowledge and understanding of the Building Regulations and how they influence building design, construction and use. It will enable learners to gain an understanding of the specific requirements of the regulations and how they are enforced.

Learners will acquire knowledge and understanding of the Building Regulations for various aspects of low-rise domestic and commercial building design, and will learn how to apply this to typical construction situations. They will also be able to assemble the necessary documentation needed to make a submission for Building Regulations approval.

● Learning outcomes

On completion of this unit a learner should:

- 1 Understand the origins and purpose of building control
- 2 Know how to apply and enforce Building Regulations
- 3 Understand the procedures and documentation involved with Building Regulation approval
- 4 Be able to prepare a submission for Building Regulation approval.

Unit content

1 Understand the origins and purpose of building control

Factors: development of building standards relating to hygiene and public health eg the Industrial Revolution; events and changes affecting the construction and use of buildings eg the Great Fire of London, Ronan Point; changes in policy on energy and other environmental issues; local building by-laws; establishment of national standards

Purpose: to ensure standards of new build construction and refurbishment; to make buildings safe and hygienic, to improve energy efficiency; to reduce water wastage

Legislation and documentation: the Building Acts 1984 and 1991; current Building Regulations; Approved Documents; current developments eg sustainable construction, brownfield sites, uses of contaminated land, energy conservation; reduction of impact of the built environment on the natural environment; application eg new buildings; alterations

2 Know how to apply and enforce Building Regulations

Approved Documents: extent and detailed requirements of each part

Application of Building Regulations: application of Approved Documents to design and construction of dwellings and commercial buildings in terms of eg stairways, fire precautions, fire spread, insulation, drainage; amendments to Building Regulations; legal obligations of developer and/or contractor to comply with the Building Regulations and Approved Documents

Enforcement of Building Regulations: by building control officers or approved inspectors; enforcement by approval of proposed design and construction of a building; regular inspections as the work proceeds on site

3 Understand the procedures and documentation involved with Building Regulation approval

Approval procedures: submission of building notices, plans, specification; notice of commencement and completion of sections of work; stages of notification; the role of the building control officer or approved inspector

Documentation: standard submissions for Building Regulation approval and subsequent stages including enforcement

Local authority or private building control: eg building control officers employed by local authorities, approved inspectors employed by private organisations such as NHBC, certification of inspectors; enforcement procedures

4 Be able to prepare a submission for Building Regulation approval

Application: building notice, full plans submission

Documentation: eg application forms, drawings, location plan, any other required information

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
<p>P1 examine the factors that have influenced the historical development of building control [IE1, IE2, IE4]</p>	<p>M1 explain the particular implications of the Building Regulations for low-rise domestic and commercial construction</p>	
<p>P2 discuss the legislation and documentation associated with building control, and their application [IE1, IE2, IE4, IE6, CT1, CT2, RL6]</p>		
<p>P3 identify the various Approved Documents that comprise the Building Regulations [IE1, IE2, IE4]</p>	<p>M2 propose answers to two queries related to interpretation of the Building Regulations</p>	
<p>P4 describe the application and enforcement of the Building Regulations [IE1, IE2, IE4, IE6, CT1, CT2, RL6]</p>		
<p>P5 explain the approval procedures used in building control [IE1, IE2, IE4, IE6, CT1, CT2, RL6]</p>		
<p>P6 evaluate the documentation used to support building control [IE1, IE2, IE4, IE6, CT1, CT2, CT6, RL6]</p>		

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P7 discuss the powers of local authority building control officers and approved inspectors [IE1, IE2, IE4, IE6, CT1, CT2, RL6]	M3 explain the procedures used to enforce the Building Regulations.	D2 evaluate the specimen building regulation application, with all necessary documentation.
P8 produce a specimen Building Regulations application, with all necessary documentation. [IE1, IE2, IE4, IE6, CT1, CT2, RL6, SM2, SM3]		

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

Tutors can use a wide range of techniques to deliver this unit. Lectures, discussions, seminar presentations, site visits, research using the internet and/or library resources and use of personal and/or industrial experience are all suitable. Delivery should stimulate, motivate, educate and enthuse learners. Visiting building control speakers could add to the relevance of the subject.

The historical development of building control and the purpose, content and scope of current Building Regulations should be investigated at the beginning of the unit, followed by a contextualised study of their application to the construction and alteration of dwellings. The continuous updating and revision of regulations to reflect changes, such as the increasing need to conserve energy, should be considered. Procedures for gaining Building Regulation approval, and subsequent enforcement, should be addressed including the organisations and professionals responsible for enforcement.

Learner knowledge and understanding should be applied to a submission for Building Regulation approval based on a real or hypothetical case study.

Wherever possible, links should be made with industry, in particular house builders, as this will provide an opportunity for learners to contextualise their learning and use this to inform their study of the various aspects of building control. Similarly, visits to local authority building control departments should be considered to view applications made for Building Regulation approval. Specialised input from current practitioners could enhance the learning process further.

Overall delivery of the unit should be supported by the use of case studies and visual media, where appropriate, including photographs, videos, DVDs and drawings to demonstrate application of Building Regulations.

Group activities are permissible, but tutors will need to ensure that individual learners have equal experiential and assessment opportunities.

Health, safety and welfare issues are paramount and should be reinforced through close supervision of all workshops and activity areas, and risk assessments must be undertaken before practical activities are taken. Centres are advised to read the *Delivery approach* section in the specification, and *Annexe H: Provision and Use of Work Equipment Regulations 1998 (PUWER)*.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Unit introduction to the Building Regulations – tutor presentation
Historical aspect of regulations
Individual and group preparation for presentation
The Building Acts – identification and content of building legislation
Individual research with tutor summation and discussion
Assignment 1: The Development of Building Control

Topic and suggested assignments/activities and/assessment

Building control documentation – submission and formal forms

Tutor presentation and class discussion

Individual research on the local authority building control website

Content of the Building Regulations

Tutor presentation and class discussion

Individual research on community website for content of Building Regulations

Assignment 2: Building Control

How to apply for Building Regulation approval – procedures, timescales, appeals

Individual research on Building Regulation procedures

Tutor summation and discussion

Assignment 3: The Building Regulations

Drawings for Building Regulations application – assessment on a small extension by learners completion of graphical requirements for building regulations full plans application assessment: The Building Regulation Application

Completion of building control specification – assessment No 4 completion of the specification or annotation to drawn information

Assignment 4: The Building Regulation Application

Learners complete drawing, specification and forms for Assignment 4

Review of unit and assignment feedback

Assessment

Evidence for this unit may be gathered from a variety of sources, including well-planned investigative assignments, case studies or reports of practical assignments.

There are many suitable forms of assessment that could be used. Some example assessment approaches are suggested below. However, these are not intended to be prescriptive or restrictive, and are provided as an illustration of the alternative forms of assessment evidence that would be acceptable.

Some criteria could be assessed directly by the tutor during practical activities. If this approach is used, suitable evidence would be observation records or witness statements. Guidance on the use of these is provided on the Edexcel website.

The structure of the unit suggests that the grading criteria could be addressed fully by using four assignments. The first of these would cover P1, P2 and M1, the second P3, P4, M2 and D1, the third P5, P6 and the fourth P7, P8, M3 and D2.

To achieve a pass grade learners must meet the eight pass criteria listed in the grading grid.

For P1, learners must be able to examine the factors that have influenced the historical development of building control, explaining their significance. Evidence could be in the form of a written report.

For P2, learners must discuss the legislation and documentation associated with building control. An overview of the legislation followed by an in-depth investigation of the relevant documentation, including the Approved Documents, will be required.

For P3, learners must identify the various Approved Documents that comprise the Building Regulations. At this stage it is sufficient to know that Approved Document A is Structure, B is Fire Safety, C is Site Preparation and Resistance to Moisture and so on. Greater detail is not required at this stage.

For P4, learners must describe the application and enforcement of the Building Regulations for different scenarios. For example, the replacement of traditional timber windows with upvc, the erection of a small extension or the demolition of a building. This will require learners to interpret the application of the Building Regulations to a number of elements of low-rise domestic and commercial construction. In doing so, learners will identify the particular, part or parts, of the regulations that apply.

For P5, learners must be able to explain the procedures involved when applying for Building Regulations approval. This should encompass the completion of relevant application forms, drawings and specifications. Reference should also be made to the fees payable when an application is made.

For P6, learners must be able to evaluate the documentation used when applying for Building Regulations approval. This should encompass the relevant application forms, drawings and specifications.

For P7, learners must discuss the powers of local authority building control officers and approved inspectors. Evidence, which could be in the form of a report, should include details of what each does and when each first appeared in the construction and built environment sector. Any differences between how the two work must also be included. Evidence could be in the form of a written report.

For P8, learners must produce a specimen Building Regulations application for a low-rise domestic or commercial property, complete with associated documentation including drawings. This lends itself to the use of a case study to provide a realistic context for the task and add value to the learning process. The appropriate forms must be completed and accompanied by relevant drawings, specifications, etc.

To achieve a merit grade learners must meet all of the pass grade criteria and the three merit grade criteria.

For M1, learners must explain the implications of the Building Regulations for low-rise domestic and commercial construction. They will need to demonstrate understanding of how the regulations affect the design and construction of domestic buildings, including alteration work.

For M2, learners must prepare feasible solutions to two Building Regulation issues. One of the issues should be based around the problem of sound insulation/natural light and the other can be technology related. This can be in the form of a tutor briefing or a local project. Evidence should be in the form of a well referenced report supported with well annotated sketches.

For M3, learners must explain the procedures used to enforce the Building Regulations. Evidence must include procedures for notifying the enforcement authority at certain stages of the building work and the role of the inspector in verifying compliance with the regulations.

To achieve a distinction grade learners must meet all of the pass and merit grade criteria **and** the two distinction grade criteria.

For D1, learners are required to justify their proposed solutions to two Building Regulations issues. Evidence must show the consideration of alternative solutions, with supporting arguments to justify the choices made.

For D2, learners must evaluate the specimen Building Regulations application together with all necessary documentation. Learners should suggest how the application and documentation could be improved.

Programme of suggested assignments

The following table shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, P2, M1	The Development of Building Control	As a building control officer, you have been asked to give a presentation on the factors that influenced the historical development of building control to a local history society.	Presentation on the factors that influenced the historical development of building controls.
P3, P4, M2, D1	Building Control	Your first graduate employment is with a Building Control Office. You have been asked to produce a leaflet that outlines, for the public, the legislation, documentation and information that they will require.	Production of a pamphlet that outlines building control legislation, the application process and procedures.
P5, P6	The Building Regulations	The Chief Control Officer requires an outline presentation for an employer focus group that explains the application of Building Regulations to various scenarios, for example UPVC window replacements, loft conversion, small extension.	Production of outline presentation.
P7, P8, M3, D2	The Building Regulation Application	You have been asked by a client to produce a Building Regulation full plans application for a small extension such that approval can be obtained.	Production of a full plans application for a small extension to a semi-detached house.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Construction and the Built Environment sector suite. This unit has particular links with the following unit titles in the Construction and the Built Environment suite:

Level 1	Level 2	Level 3
	Construction Processes and Operations for Low-rise Domestic Buildings	Construction, Technology and Design in Construction and Civil Engineering
	Construction Methods and Techniques for Low-rise Domestic Buildings	Building Technology in Construction

This unit links to the Edexcel Level 3 NVQ in Technical Design (Construction Environment).

This unit links to the following Level 3 National Occupational Standards:

- BE Design
- BE Development and Control.
- Surveying Property and Maintenance.

Essential resources

Access to Building Regulations documents is essential for delivery of this unit.

Copies of the Building Act 1984, and amendments, and current Approved Documents are readily available via the internet and can be downloaded as printable documents without charge. Examples of completed application proforma and related documentation would also facilitate the learning process.

Employer engagement and vocational contexts

Support to enable centres to initiate and establish links to industry, and to networks arranging visits to industry and from property practitioners is given below:

- Learning and Skills Network – www.vocationallearning.org.uk
- National Education and Business Partnership Network – www.nebpn.org
- The Royal Institution of Chartered Surveyors – www.rics.org
- Work Experience/Workplace learning frameworks – Centre for Education and Industry (CEI University of Warwick) – www.warwick.ac.uk/wie/cei/

Inviting a building control officer as a guest speaker is a valuable link to the real world. They should be briefed to bring photographs and drawings with them. Similarly an independent inspector or the NHBC could be invited.

Indicative reading for learners

Textbooks

Billington M J, Simons M W and Waters J R – *The Building Regulations: Explained and Illustrate, 12th Edition* (Blackwell, 2003) ISBN 0632058374

Billington M – *Using the Building Regulations: Administrative Procedures* (Butterworth-Heinemann, 2005) ISBN 0750662573

Chudley R and Greeno R – *Building Construction Handbook: Incorporating Current Building and Construction Regulations, 6th Edition* (Butterworth-Heinemann, 2006) ISBN 0750668229

Chudley R and Greeno R – *Construction Technology, 4th Edition* (Pearson, 2005) ISBN 0131286420

Emmitt S and Gorse C – *Barry's Introduction to Construction of Buildings* (Blackwell, 2004) ISBN 1405110554

Polley S – *Understanding the Building Regulations, 3rd Edition* (Spon Press, 2005) ISBN 0415349176

Tricker R – *Building Regulations in Brief, 3rd Edition* (Butterworth-Heinemann, 2005) ISBN 0750667036

Journals

Building Control Journal – RICS

Websites

www.communities.gov.uk/planningandbuilding/buildingregulations Communities and Local Government
www.thenbs.com National Building Specification

Delivery of personal, learning and thinking skills (PLTS)

The following table below identifies the personal, learning and thinking skills (PLTS) opportunities that have been included within the assessment criteria of this unit.

Skill	When learners are ...
Independent enquirers	identifying the factors that have helped to influence building control, and outlining the problems that have occurred in the development of building legislation
Creative thinkers	asking questions regarding the application of Building Regulations to a building
Self-managers	organising their time to produce a building regulation specification, and planning for the final completion of all documents
Reflective learners	self-assessing their building application and then discussing this with a peer identifying where it can be developed further to improve the quality.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Team workers	providing peer support and feedback to others when discussing the building regulations application documentation
Effective participators	discussing building documentation issues with their tutor agreeing resolutions where required

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	using ICT to access the internet, specifically the local authority environment website, to establish the requirements for building control applications
Use ICT to effectively plan work and evaluate the effectiveness of the ICT system they have used	
Manage information storage to enable efficient retrieval	
Follow and understand the need for safety and security practices	
Troubleshoot	
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	accessing building control websites for information
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	
Bring together information to suit content and purpose	
Present information in ways that are fit for purpose and audience	producing a word-processed building control application
Evaluate the selection and use of ICT tools and facilities used to present information	
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	

Skill	When learners are ...
Mathematics	
Understand routine and non-routine problems in a wide range of familiar and unfamiliar contexts and situations	
Identify the situation or problem and the mathematical methods needed to tackle it	
Select and apply a range of skills to find solutions	
Use appropriate checking procedures and evaluate their effectiveness at each stage	
Interpret and communicate solutions to practical problems in familiar and unfamiliar routine contexts and situations	
Draw conclusions and provide mathematical justifications	
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	discussing the application of the Building Regulations to a range of scenarios
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	reading and understanding the various parts of the Building Regulations to gather information to apply to drawings and specifications
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	writing a building specification.