GQA Level 4 Diploma in Retrofit Assessor

Qualification Reference Number

Ofqual: 610/4729/6

Qualifications Wales: C00/5165/2

Personal Competence Summary

Name	Company/Centre
Job Title	GQA Registration Number

Mandatory Units

Unit Number	Unit Title	Level	Credit Value	Assessor Signature	Date
Y/651/3209	Understanding of current BS (British Standard) and PAS standards , their scope, and their application in retrofit projects	4	1		
F/651/3210	Evaluating, Recording and Reporting on Residential Properties, including Building Physics, Ventilation, and Retrofit Principles	4	1		
H/651/3211	Mastering the Retrofit Assessment Techniques and PAS Compliance to produce assessment reports	4	2		
J/651/3212	Retrofit Planning, Implementation, and Advice in line with PAS guidance	4	1		
K/651/3213	Retrofit in Historic and Traditional Buildings	4	2		
L/651/3214	Advanced Energy and Ventilation Modelling of Existing Dwellings	4	1		
M/651/3215	Knowledge of Sustainable Materials and Technologies used in retrofit activities	4	1		

RELIABLE EVIDENCE: The forms of evidence available include (mark as appropriate)

Observation in the workplace	☐	Assessment of knowledge	☐
Records of prior experience	☐	Witness statement(s)	☐
Testimonial(s)	☐	Photographic evidence	☐
Work records	☐	External testing	☐

Passport Style Candidate Photo (Mandatory)

COMPETENCE COMPLETION SIGNATURES

By signing here, the Candidate and Assessor confirm that evidence presented is authentic and that the assessments took place in accordance with the relevant assessment strategy. Details of the assessments and evidence must be recorded in the assessment decision record/summaries at the end of each unit.

	Name	Signature	Date
Candidate			
Lead Assessor			
Internal Verifier			
EQA			

Introduction to the Qualification

Who is this Qualification for?

This qualification is designed for professionals tasked with assessing existing dwellings for retrofit suitability. It provides comprehensive training to meet the standards set out in the current version of BS Assessment of Dwellings for Retrofit, PAS Retrofit Standards Framework, and current best practices in energy performance and ventilation.

This qualification is only available to those currently holding a Level 3 Certificate in Domestic Energy Assessment (DEA)

The main aims of this qualification include ensuring individuals have a full understanding of the relevant topics, including, but not limited to:

- Understand the principles, requirements, and application in the current version of the BS Assessment of dwellings for retrofit and PAS Retrofit Standards Framework
- Evaluating and Reporting on Residential Properties, including Building Physics, Ventilation, and Retrofit Principles.
- Mastering the Retrofit Assessment Techniques and current version of the PAS Retrofit Standards Framework Compliance responsibilities
- Identify and manage risks associated with retrofit projects, ensuring compliance with relevant standards
- Create effective retrofit plans that meet both regulatory and performance requirements.

The qualification is at Level 4 but has been developed in a way to allow employees from companies of all sizes and specialisms equal opportunity to complete.

Unit Number	Unit Title	Level	Credit Value
Y/651/3209	Understanding of current BS and PAS standards , their scope, and their application in retrofit projects	4	1
F/651/3210	Evaluating, Recording and Reporting on Residential Properties, including Building Physics, Ventilation, and Retrofit Principles	4	1
H/651/3211	Mastering the Retrofit Assessment Techniques and PAS Compliance to produce assessment reports	4	2
J/651/3212	Retrofit Planning, Implementation, and Advice in line with PAS guidance	4	1
K/651/3213	Retrofit in Historic and Traditional Buildings	4	2
L/651/3214	Advanced Energy and Ventilation Modelling of Existing Dwellings	4	1
M/651/3215	Knowledge of Sustainable Materials and Technologies in retrofit activities	4	1

Assessment Guidance

Evidence should show that the candidate can cover the scope of performance outlined for each relevant unit consistently over an appropriate period.

Types of evidence:

Evidence of performance and knowledge is required. Evidence of performance should be demonstrated by activities and outcomes, and should be generated in the workplace only, unless indicated under potential sources of evidence (see below). Evidence of knowledge can be demonstrated through performance or by responding to questions.

Potential sources of evidence:

The main source of evidence for each unit will be observation of performance. This can be supplemented by the following types of physical or documentary evidence:

- Audio/photographic/video
- Safety records
- Witness testimony
- Organisational reporting systems
- Notes and memos
- Equipment used
- Inspection reports

Please Note that photocopied or downloaded documents such as manufacturers or industry guidance, H&S policies, Risk Assessments etc., are not normally acceptable evidence for GQA qualifications unless accompanied by a record of a professional discussion or assessor statement confirming candidate knowledge of the subject. If you are in any doubt about the validity of evidence, please contact your GQA EQA.

GQA Qualification Implementation Requirements covering Centre Approval, Candidate Assessment and ongoing Quality Assurance

This document indicates the requirements of approved centres delivering GQA qualifications and/or units of credit. This document complements the appropriate SSC Assessment Strategy linked to this qualification.

1. Equality of Opportunity

Equality of access to fair and valid assessment is necessary for all candidates undergoing assessment. This may mean making reasonable adjustments to normal assessment methods for candidates with particular or special assessment requirements. Candidates work patterns should not become a barrier to assessment, the organisation of which may have to be flexible. In the same way, reasonable adjustment arrangements may be necessary for candidates with a disability. For example, a candidate who is unable, through disability, to produce oral or written evidence, may be allowed to use the method they normally use as a substitute for the required form of communication. Reasonable adjustments need to be approved by GQA.

2. Recognised/Approved Assessment Centres

2.1 Individual centres must be approved by GQA to offer specific qualifications and / or units of credit. A centre may be a single organisation or a partnership of two or more organisations. It may operate at a single location or have satellites. For further details see the GQA booklet "Guide to Centre Approval." The Centre Approval process is carried out by a GQA approved EQA. Each Centre must maintain a centre file. It is important to be clear what the steps in the assessment process are:

- plan evidence collection and opportunities for assessment
- collect evidence
- judge evidence
- determine whether sufficient evidence has been presented
- make an assessment decision and give feedback to the candidate

NB Any deviation from the norm must be approved by a GQA EQA

2.2 Assessors and Verifiers

All Assessors of candidate performance must be competent, to make qualitative judgements, both in the skills they are assessing and in the assessment of candidates and hold the appropriate Assessor national award. Assessor occupational knowledge related to the qualifications being assessed is essential and must be illustrated to GQA prior to approval.

Internal Verifiers are responsible for the quality assurance of the assessment process within a centre. They should have a relevant occupational background, be competent in internal verification and hold the Internal Verifier national award. It is recommended that Internal Verifiers work towards national recognition of assessor competence.

EQAs are responsible for ensuring accurate and consistent standards of assessment across centres, qualifications, units of credit and over time. They should have a relevant occupational background, be competent in External Quality Assurance and hold the EQA national award
GQA will approve and licence all individuals involved in the assessment and verification of its approved qualifications and / or units of credit. Individuals who are working towards the Assessor or Internal Verifier national awards can only be provisionally licensed. The judgement of provisional licence holders will need to be agreed/authorised by a fully qualified and GQA licensed individual who cannot carry out a dual role in relation to a specific candidate.

All GQA Assessors and Verifiers must undertake a minimum of two significant CPD activities in both occupational areas and assessment and verification. Reflective CPD records must be maintained and made available to GQA EQAs for review.

2.3 Centre Approval, Monitoring Reviews and Quality Assurance

The centre recognition/approval process is the start of a significant part of the awarding body's quality assurance system. The Approval process will begin with an EQA review of centre procedures to ascertain the potential centre's ability to deliver GQA qualifications and / or units of credit. Centres will be expected to meet the relevant regulatory authority criteria for delivery of qualifications prior to initial approval; continued compliance with the criteria will be monitored through regular EQA visits. It is recommended that centre reviews are conducted at minimum every six months by a GQA EQA.
New or multi-site centres may be required to undertake quarterly or more frequent EV reviews to ensure that different locations can be seen to satisfy the national requirements.

GQA will ensure that unacceptable barriers relating to the assessment and internal verification of candidates in small companies do not deny recognition of competence to competent young workers. In such circumstances, GQA will demonstrate that its quality assurance procedures remain sufficient and rigorous to ensure that the competence outcomes have standing and credibility in the occupational area.

Enhanced quality procedures to ensure consistency of assessment and verification will be necessary and will include:

- a high level of sampling of assessment decisions N.B. In some instances, the EQA may visit each assessment location and qualification / unit of credit candidate (e.g., single candidates dispersed throughout different small companies on government funded programmes)
- an in-depth scrutiny of assessment plans, materials and records
- specific centre guidance aimed at the successful implementation of qualifications and / or units of credit in SMEs via approved centre partnerships. This can include guidance on the quantity and quality of valid, authentic, and transferable evidence expected to be attributed to individual candidates
- ensuring centres are following the requirements prescribed in any appropriate assessment strategies and applicable codes of practice
- the identification and publication of good practice in centres

As part of the Quality Assurance process Proskills require an Enhanced External Quality Assurance process. This will be in the form of one significant underpinning knowledge question answered by the candidate for each unit of the qualification. The questions will be decided by GQA, and guideline answers must be submitted for approval and once approved kept in the Centre File to allow independent assessment

3. Qualification/Unit of Credit Candidates

All candidates must register with a GQA recognised/approved centre. The centre must maintain appropriate candidate personal details for external audit purposes etc.

The centre will provide candidates with advice and guidance on how to prepare for assessment and allocate an Assessor who will assess candidate ability to meet the requirements of the relevant qualifications / unit of credit.

It is the candidate's responsibility to demonstrate competence and to do this they must:

- prove they can consistently meet all the qualification and / or unit of credit criteria
- provide evidence from work, that they can perform competently in all the contexts specified in the qualification / unit of credit requirements
- prove that they have the knowledge and understanding required to perform competently, even where they have not provided evidence from the workplace

It is therefore critical that quality evidence is provided in a format to allow the Assessor to decide and for the Internal Verifier to audit/verify his/her decision.

4. Evidence

A qualification and / or credit is awarded when a person has achieved the necessary outcomes of the qualification and / or unit of credit.

The specific combination of units necessary to achieve a qualification is detailed in the qualification structure. Certificates of Unit Credit can be awarded when candidates achieve anyone, or more, units from the qualification. The evidence the candidate brings forward is primarily evidence of performance of what he/she can do, not just what he/she knows. The assessment criteria / qualification requirements are described within the qualification and / or unit of credit itself and can incorporate practical skills and knowledge.

The assessor's role is to judge each relevant item of evidence. Each must be judged against the qualification and / or unit of credit requirements. It is not sensible to collect evidence against individual criteria. Nor is it effective. If items of evidence were collected for each of the criteria, the candidate may have to produce many items of evidence, well above the number required. GQA recommend holistic assessment.

When judging each item of evidence, the assessor is deciding whether the evidence:

- is authentic – i.e., produced by the candidate
- meets the criteria
- relates as appropriate to a context defined within the qualification and / or unit of credit
- confirms that the candidate has the required underpinning knowledge

When the assessor decides about the candidate's competence, he or she examines all the evidence available to determine:

- if the evidence covers all the evidence of achievement
- whether the evidence indicates consistency in competent performance
- whether there is enough evidence on which to base an inference of competence

The answer can only be:

- yes (the candidate is competent)
- no (the candidate is not yet competent)
- there is insufficient evidence to decide

Consistency means that the individual is likely to achieve the standard in their work role, in the different activities defined

5. Performance Evidence

Performance evidence can be what the individual produces, or the way the individual achieves the standard.

One is called product evidence and the other process evidence.

Product evidence is tangible – you can look at it and feel it. Products can be inspected, and the candidate can be asked questions about them.

To make a fair and objective assessment, the assessor must be able to answer the question: Is there sufficient evidence that the candidate can consistently meet the requirements of the qualification and / or unit of credit? Process evidence describes the way the candidate has achieved an outcome – how they went about it. This may be,

for example, the way the quality of products is checked, or the way customer complaints are handled. This usually means observing the candidate in action.

Performance evidence may cover several outcomes. It makes sense to plan evidence collection so that what the candidate does, in the normal course of their job, can be related to different outcomes and units. The activities that clearly link to the qualification and / or unit of credit requirements are the things to concentrate on when planning evidence collection and assessment and when monitoring the candidate's progress. Look for opportunities in the candidate's job when evidence can be collected against several units at the same time.

Performance evidence can be:

- Naturally occurring – evidence produced in the normal course of work. Evidence of this sort is usually of high quality and reliable. It is also cost effective to collect naturally occurring evidence
- Taken from previous achievements – the candidate may be able to bring forward evidence from previous work experience to show that they are still competent to the standard
- Evidence of prior achievement can be used when it can be shown to support a judgment that the candidate can still achieve the standard. So, the assessor must be satisfied that the evidence of prior achievement is sufficiently reliable to justify saying that the candidate is currently competent
- Simulated – from circumstances specially designed to enable the candidate's performance to be assessed. Simulation is not acceptable

The exceptions this are:

- Dealing with emergencies
- Dealing with accidents
- Certain pre-approved real time simulators
- Limited other procedures that cannot be practically performed in the workplace, and for which sufficient evidence can be collected through other means

NB: It is not always possible or feasible to collect naturally occurring evidence. It is likely that some simulation may be needed, when it may take too long to wait for the evidence to arise e.g., it may be an aspect of performance which occurs infrequently. An example of this may be evidence of how to deal with emergencies i.e., it makes sense to look for evidence from sources other than naturally occurring ones, rather than for, say, waiting for the building to burn down. Centres must obtain GQA EV approval prior to the use of simulation.

Knowledge evidence

Being able to achieve a standard requires the ability to put knowledge to work. The qualification and / or unit of credit indicates the knowledge each person should use if they are to perform competently.
It should not be necessary to test all of the candidate's knowledge separately; however, any exception to this would be detailed in the relevant Assessment Strategy. Performance evidence could show that the candidate knows what he or she is doing. When this is not the case, or if the assessor is not convinced from the performance evidence, it may be necessary to check the individual's knowledge separately.
Oral or written assessments must clearly provide a suitable means of checking the breadth and depth of an individual's knowledge. Assessors will need to judge the best mix of knowledge evidence according to individual circumstances. Knowledge evidence is useful when deciding the quality of performance evidence but must not be used in isolation to judge competence or as an alternative to performance evidence. Care must be taken that candidate evidence is auditable and verifiable.

NB: These Qualification implementation guidelines are generic across the full range of GQA qualifications. Further guidance on acceptable evidence on each qualification will be found in the Introduction to the Qualification section of the candidate booklet.

Candidate Declaration

Candidate Name.....

Centre/Company Name.....

Assessor(s) Name(s).....

I acknowledge receipt of this copy of GQA qualification booklet. The unit structure provides information on which units must be achieved to be awarded the qualification. The individual units detail the necessary requirements etc. that I must achieve.

I understand that I will have an important role in preparing for and planning assessments and with guidance from the Assessor.

I will collect and record relevant evidence.

I have been informed of the appeals system, should I want to appeal against any part of the assessment process.

I understand the assessments will be carried out regarding the company's/centre's Equal Opportunities Policy.

Candidate signature.....

Date.....

Understanding of current version of the BS Assessment of dwellings for retrofit and PAS Retrofit Standards Framework, their scope, and their application in retrofit projects							
GQA Ref	L4DRAU1	**Regulatory Ref**	Y/651/3209	**Level**	4	**Credit Value**	1

Aims

The aim of this unit is to provide a comprehensive understanding of the most current version of the BS (British Standard) Assessment of dwellings for retrofit and PAS (Publicly available specification) Retrofit Standards Framework, their scope, and their application in retrofit projects

Assessment Guidance

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

All criteria must be assessed, and evidence must be auditable

Learning outcome; The learner will:	Assessment criteria: The learner can:	Evidence Ref No.		
		1	2	3
1. Understand the current version of the BS Assessment of Dwellings for Retrofit and PAS Retrofit Standards Framework	1.1 Give a brief overview of the current version of the BS Assessment of Dwellings for Retrofit and PAS Retrofit Standards Framework			
	1.2 Explain the scope, objectives, and key principles of both standards			
	1.3 Explain the role the Retrofit Assessor under the current version of the PAS Retrofit Standards Framework			
	1.4 Explain compliance, legal, and regulatory considerations in line with the requirements under the current version of the BS Assessment of Dwellings for Retrofit and PAS Retrofit Standards Framework			
	1.5 State their application in different types of retrofit projects			
	1.6 Explain why the current version of the BS has been introduced into retrofit			

Assessor Comments/Feedback

Evaluating, Recording and Reporting on Residential Properties, including Building Physics, Ventilation, and Retrofit Principles							
GQA Ref	L4DRAU2	**Regulatory Ref**	F/651/3210	**Level**	4	**Credit Value**	1

Aims

The aim of this unit is to equip learners with the knowledge of building physics, focusing on energy performance and ventilation as they relate to retrofit measures

Assessment Guidance

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

All criteria must be assessed, and evidence must be auditable

Learning outcome; The learner will:	Assessment criteria: The learner can:	Evidence Ref No.		
		1	2	3
1. Understand the process of collecting physical information about a dwelling	1.1 Outline the prerequisites necessary for conducting a retrofit assessment, including: • Contractual agreements and insurance coverage • Identifying and managing conflicts of interest • Essential tools and equipment • Personal Protection Equipment (PPE) use			
	1.2 Explain how to determine the information needed for planning a retrofit of a dwelling, covering aspects such as: • Size and Type of the dwelling • Construction age • Architectural features • Structural composition • Building services and energy supply sources			
	1.3 Define the concept of "Traditional Construction"			
2. Explain the fundamental principles and mechanisms of heat transfer	2.1 Explain the fundamental principles and mechanisms of heat transfer			
	2.2 Explain the mechanisms through which heat gains occur in residential dwellings			
	2.3 Describe the principles of heat loss in dwellings and assess the suitability of a dwelling for improvement, considering factors such as: • Surface resistance • Thermal resistance • Thermal conductivity • U-values • Thermal bridging • Heat loss through ventilation			
3. Understand moisture management, condensation	3.1 Explain the current version of the guidance for BS Management of moisture in buildings, how this will			

risks, and dampness prevention	guide the identification and management of moisture risks during the retrofit process, and how this is integrated into the PAS Retrofit Standards Framework			
	3.2 Explain the procedures for diagnosing and preventing interstitial condensation and dampness issues in retrofit projects, as required by the current version of the BS Management of moisture in buildings and how this is incorporated into the current version of the PAS Retrofit Standards Framework			
	3.3 Explain the importance of proper ventilation and insulation in moisture management to comply with the current version of the BS Management of moisture in buildings, and how these elements are addressed in the current version of the PAS Retrofit Standards Framework to prevent dampness and condensation			
	3.4 Describe the process for identifying the risks of surface condensation and mould growth			
	3.5 Explain how the current version of the BS Management of moisture in buildings recommends managing moisture in traditional vs. modern construction types to minimize the risk of dampness and how this will help ensure long-term building integrity			
	3.6 Explain the principles of appraising a dwelling's construction, to establish moisture properties of the main building elements including: • Vapour Permeable • Vapour non-permeable • Moisture movement in traditional construction (Pre 1919)			
4. Understand indoor air quality (IAQ) and its importance in energy-efficient homes	4.1 Describe the key indoor air quality (IAQ) factors that must be monitored and maintained to comply with the most current version of the BS Assessment of Dwellings for Retrofit and PAS Retrofit Standards Framework, when retrofitting homes for energy efficiency			
	4.2 Explain how poor indoor air quality can impact the health and well-being of occupants in energy-efficient homes, and the measures that can be taken during retrofitting to mitigate these risks			
	4.3 Explain how the design and implementation of ventilation systems in energy-efficient homes are guided by the most current version of the PAS Retrofit Standards Framework to ensure adequate indoor air quality.			
	4.4 Explain what role continuous IAQ monitoring plays in maintaining compliance with the current version of BS Assessment of Dwellings for Retrofit in			

	energy-efficient homes, and how it can contribute to the long-term success of retrofit projects			
	4.5 Explain the potential challenges of maintaining optimal indoor air quality in airtight, energy-efficient homes and how the current version of the PAS Retrofit Standards Framework addresses these challenges through best practices in retrofit design and execution			
5. Know how to appraise a residential dwelling for suitability and verification on its structure and integrity ahead of the measures to be installed	5.1 Describe the specific structural elements of the residential dwelling that need to be assessed for integrity and suitability according to the current version of BS Assessment of Dwellings for Retrofit, and how these elements impact the overall effectiveness of the proposed measures			
	5.2 Explain what methods or tools should be employed during the appraisal to accurately evaluate the structural soundness and potential weaknesses of the dwelling, and how these methods align with the requirements set out in the current version of BS Assessment of Dwellings for Retrofit			
	5.3 Explain how the findings from the appraisal should be documented and communicated to ensure that all stakeholders understand the condition of the dwelling and the implications for the installation of energy efficiency measures as specified in the current version of the PAS Retrofit Standards Framework			
	5.4 Explain the concept of "significance" in the context of appraising a residential dwelling for suitability and the key responsibilities of a retrofit assessor in accordance with the current version of BS Assessment of Dwellings for Retrofit and PAS Retrofit Standards Framework			

Assessor Comments/Feedback

Mastering the Retrofit Assessment Techniques and PAS Compliance to produce assessment reports							
GQA Ref	L4DRAU3	**Regulatory Ref**	H/651/3211	**Level**	4	**Credit Value**	2

Aims

The aim of this unit is to develop the skills necessary to perform comprehensive retrofit assessments, ensuring compliance with the most current version of the PAS Retrofit Standards Framework, focusing on energy performance and ventilation

Assessment Guidance

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

All criteria must be assessed, and evidence must be auditable

Learning outcome; The learner will:	Assessment criteria: The learner can:	Evidence Ref No.		
		1	2	3
1. Understand the Surveying techniques for existing dwellings in line with the requirements of the current version of the PAS Retrofit Standards Framework and BS Assessment of Dwellings for Retrofit	1.1 Explain how the surveying techniques outlined in the current version of the PAS Retrofit Standards Framework ensure that the existing dwelling's thermal performance and structural integrity are accurately assessed, and the implications of these techniques on the planning of retrofit measures			
	1.2 Explain how the current version of the BS Assessment of Dwellings for Retrofit guides the use of advanced surveying tools and methods to evaluate the condition of critical structural elements in existing dwellings, and how these methods should be integrated into a comprehensive assessment protocol			
	1.3 Explain how survey findings should be interpreted in accordance with the current version of the PAS Retrofit Standards Framework to determine the suitability of existing dwelling conditions for specific retrofit interventions, and describe the best practices for addressing any identified discrepancies			
	1.4 Explain the role data accuracy plays in the surveying process for existing dwellings to comply with the current version of BS Assessment of Dwellings for Retrofit, and how discrepancies in survey results should be managed to ensure they do not compromise the integrity of the retrofit recommendations			
2. Understand energy performance assessment methods including SAP (Standard Assessment process) and RdSAP (Reduced data standard assessment process)	2.1 Explain how the SAP and RdSAP methodologies integrate with the requirements of the current version of the PAS Retrofit Standards Framework to ensure accurate energy performance assessments			
	2.2 Describe the key differences in their application for various types of residential dwellings			
	2.3 Explain how the current version of the BS Assessment of Dwellings for Retrofit, influence the			

	interpretation and application of SAP and RdSAP results during an energy performance assessment			
	2.4 Describe how these results should be aligned with the standards to guide effective retrofit planning			
	2.5 Describe the responsibilities of an energy assessor in ensuring that SAP and RdSAP assessments meet the standards set by the current version BS Assessment of Dwellings for Retrofit			
	2.6 Explain how these assessments can be used to inform the selection and implementation of energy efficiency measures			
	2.7 Explain how the results from SAP and RdSAP assessments should be documented and communicated to stakeholders in a manner that complies with the current version of the PAS Retrofit Standards Framework			
	2.8 Explain what best practices should be followed to ensure that the assessment outcomes are effectively utilised for planning retrofits			
3. Understand how to identify and address ventilation deficiencies	3.1 Evaluate the significance of proper ventilation assessment in retrofitting projects according to the current version of the PAS Retrofit Standards Framework			
	3.2 Describe how overlooking ventilation deficiencies can impact both the energy efficiency and indoor air quality of a dwelling			
	3.3 Explain the critical steps involved in assessing ventilation systems to comply with the current version of the PAS Retrofit Standards Framework guidelines			
	3.4 Explain how the current version of the BS Assessment of Dwellings for Retrofit emphasizes the importance of identifying ventilation deficiencies during building assessments			
	3.5 Analyse the key methodologies recommended by this current version of the BS Assessment of Dwellings for Retrofit for detecting ventilation issues			
	3.6 Describe how these methodologies integrate with the requirements of the current version of the PAS Retrofit Standards Framework, and the potential consequences of non-compliance			
	3.7 Describe the challenges and limitations faced by retrofit coordinators in ensuring adherence to the current version of the PAS Retrofit Standards Framework requirements concerning ventilation			

	3.8 Explain how the current version of the BS Assessment of Dwellings for Retrofit provides support in overcoming these challenges, particularly in identifying and rectifying less obvious ventilation deficiencies			
	3.9 Provide examples of best practices			
	3.10 Critically assess the role of continuous monitoring and post-retrofit evaluation of ventilation systems as outlined in the current version of the PAS Retrofit Standards Framework			
	3.11 Explain how the provisions of the current version of the BS Assessment of Dwellings for Retrofit complement the ongoing assessment process, and describe what strategies can be employed to mitigate risks associated with poor ventilation post-retrofit			
4. Understand risk assessment and mitigation in retrofit contexts, to comply with the current version of the PAS Retrofit Standards Framework	4.1 Explain how a retrofit assessor can prioritize potential risks associated with specific building characteristics			
	4.2 Describe what strategies should be employed to mitigate high-priority risks while ensuring compliance with the standard			
	4.3 Explain how the assessor can balance the trade-offs between improving energy efficiency and maintaining the structural integrity and indoor air quality of a building Provide examples to illustrate your approach			
	4.4 Explain how the current version of the PAS Retrofit Standards Framework guide retrofit assessors in identifying and mitigating the cumulative risks that may arise from interactions between various retrofit measures			
	4.5 Explain the challenges a retrofit assessor may face when conducting risk assessments in older or heritage buildings.			
	4.6 Describe what specific risks should be given priority, and how can these be mitigated without compromising the historical or architectural value of the building			
5. Understand data collection and reporting requirements under the current version of the PAS Retrofit Standards Framework	5.1 Describe what specific types of data are essential for accurately assessing the current condition of a dwelling, and how this data can be systematically gathered to ensure compliance with the standard			
	5.2 Explain how a retrofit assessor can ensure that the data collected reflects the true condition of the property, and the implications of incomplete or inaccurate data on the overall retrofit process			

	5.3 Critically assess the challenges associated with collecting data from older or non-standard buildings to comply with the current version of the PAS Retrofit Standards Framework			
	5.4 Describe what methodologies a retrofit assessor can use to overcome these challenges, and how the data should be documented and reported to reflect any limitations or uncertainties in the assessment			
6. Understand the tools and software required for effective retrofit assessment	6.1 In the context of the current version of the PAS Retrofit Standards Framework, explain the importance of integrating digital tools and technologies in the data collection and reporting process for retrofit assessors			
	6.2 Explain how these tools can enhance the accuracy, efficiency, and reliability of data			
	6.3 Describe the potential risks or limitations associated with their use			
	6.4 Describe what criteria a retrofit assessor should consider when choosing appropriate tools, and explain how these tools contribute to compliance with the standards			
	6.5 Critically assess the importance of training and competency in using retrofit assessment software to comply with the current version of the PAS Retrofit Standards Framework			
	6.6 Describe the steps a retrofit assessor should take to stay current with software advancements			
	6.7 Explain how relevant and effective training can contribute to the overall success of retrofit projects			
	6.8 List the challenges related to data security and privacy when using digital tools and software in retrofit assessments to ensure compliance with GDPR.			

Assessor Comments/Feedback

Retrofit Planning, Implementation, and Advice in line with PAS guidance							
GQA Ref	L4DRAU4	**Regulatory Ref**	J/651/3212	**Level**	4	**Credit Value**	1

Aims

The aim of this unit is to provide the skills needed to develop effective retrofit plans and oversee their implementation, ensuring compliance with both energy performance and ventilation requirements under the most current version of the PAS Retrofit Standards Framework

Assessment Guidance

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

All criteria must be assessed, and evidence must be auditable

Learning outcome; The learner will:	Assessment criteria: The learner can:	Evidence Ref No.		
		1	2	3
1. Understand planning and prioritising retrofit measures with a focus on the current version of the PAS Retrofit Standards Framework compliance	1.1 Describe the key considerations a retrofit assessor must consider when planning and prioritising retrofit measures according to the current version of the PAS Retrofit Standards Framework			
	1.2 Explain how a retrofit assessor can ensure that the chosen measures are both effective and feasible, considering the specific characteristics of the dwelling and the available budget/funding			
	1.3 Explain how a retrofit assessor can effectively communicate the rationale for prioritising certain measures to homeowners, and how their feedback should be incorporated into the final plan			
	1.4 List the strategies a retrofit assessor should employ to identify and prioritise interventions that address critical health and safety risks in the dwelling			
	1.5 Describe what advice the retrofit assessor should provide to the homeowner following the assessment			
2. Understand monitoring, quality assurance, and ensuring compliance with ventilation and energy standards to comply with the current version of the PAS Retrofit Standards Framework	2.1 Describe the specific quality assurance steps a retrofit assessor should take to verify that the ventilation measures meet the required standards			
	2.2 State what documentation and evidence should be collected to demonstrate compliance			
	2.3 Explain how and why a retrofit assessor must stay updated on best practices and emerging technologies to ensure ongoing compliance			

Assessor Comments/Feedback

Retrofit in Historic and Traditional Buildings							
GQA Ref	L4DRAU5	**Regulatory Ref**	K/651/3213	**Level**	4	**Credit Value**	2

Aims

The aim of this unit is to provide specialized knowledge for retrofitting historic and traditional buildings while preserving their character, with a focus on energy performance, ventilation challenges, and compliance with the most current version of the PAS Retrofit Standards Framework

Assessment Guidance

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

All criteria must be assessed, and evidence must be auditable

Learning outcome; The learner will:	Assessment criteria: The learner can:	Evidence Ref No.		
		1	2	3
1. Understand the challenges of retrofitting historic and traditional buildings	1.1 Explain how the assessor can balance the need for energy efficiency improvements with the preservation of the building's architectural and cultural significance			
	1.2 Explain how a retrofit assessor should address potential moisture risks to ensure that retrofits do not compromise the building's structural integrity			
	1.3 Evaluate the limitations of modern assessment tools and techniques when applied to historic and traditional buildings			
	1.4 Examine the role of heritage conservation principles in the retrofit assessment of historic and traditional buildings			
	1.5 Describe the importance of stakeholder engagement when planning retrofits for historic and traditional buildings			
2. Understand conservation principles and practices in retrofits	2.1 Describe the key conservation principles that must be considered when planning retrofits for historic or traditionally constructed buildings			
	2.2 Explain how retrofit assessors can navigate the legal requirements to achieve a balance between energy efficiency improvements and the conservation of historical features			
	2.3 Evaluate the role of heritage impact assessments in the retrofit process			
	2.4 Explain how current guidelines and conservation practices influence the development of these assessments			
	2.5 Describe the challenges of integrating modern energy efficiency measures, such as insulation and ventilation, into heritage buildings			

3. Understand balancing energy efficiency with heritage preservation, particularly ventilation requirements	3.1 Describe the challenges of implementing energy-efficient ventilation systems in heritage buildings			
	3.2 Analyse the trade-offs between maintaining adequate ventilation and preserving original building features in heritage properties			
	3.3 Explain how these strategies can be effectively integrated into retrofit projects while adhering to both conservation principles and energy standards			
	3.4 Explain the potential impacts of modern mechanical ventilation systems on the fabric and appearance of heritage buildings			
	3.5 Critically assess the importance of stakeholder collaboration when deciding on ventilation upgrades in heritage buildings			
4. Understand legal and regulatory considerations for heritage buildings, focusing on energy performance and the current version of the PAS Retrofit Standards Framework compliance	4.1 State the key legal frameworks that govern energy performance upgrades in heritage buildings			
	4.2 Explain the implications of the Planning (Listed Buildings and Conservation Areas) Act 1990 on energy efficiency retrofits in listed buildings			
	4.3 Evaluate the challenges of achieving compliance with the Minimum Energy Efficiency Standards (MEES) in heritage buildings			
	4.4 Examine the role of building regulations in ensuring the energy performance of heritage buildings and with balancing the need to comply with Part L (Conservation of Fuel and Power) of the Building Regulations			
	4.5 Explain the impact of the National Planning Policy Framework (NPPF) on the energy performance of heritage buildings			

Assessor Comments/Feedback

Advanced Energy and Ventilation Modelling of Existing Dwellings							
GQA Ref	L4DRAU6	**Regulatory Ref**	L/651/3214	**Level**	4	**Credit Value**	1

Aims

The aim of this unit is to develop advanced skills in energy and ventilation modelling for retrofit projects, enabling accurate prediction and optimization, as required by the most current version of the PAS Retrofit Standards Framework

Assessment Guidance

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

All criteria must be assessed, and evidence must be auditable

Learning outcome; The learner will:	Assessment criteria: The learner can:	Evidence Ref No.		
		1	2	3
1. Understand energy and ventilation modelling software	1.1 Explain how energy and ventilation modelling software tools assist in evaluating the potential energy savings of a building retrofit, and what key metrics are typically assessed			
	1.2 Describe the primary differences between dynamic and static energy modelling approaches in retrofit assessments, and how these differences impact the accuracy of predictions			
	1.3 Explain how, in the context of retrofitting existing buildings, ventilation modelling software can help in ensuring compliance with indoor air quality standards while optimizing energy efficiency			
2. Understand simulating energy use and ventilation performance in existing dwellings	2.1 Describe the key challenges in accurately simulating energy use in existing dwellings, and how these challenges can affect the outcomes of retrofit assessments			
	2.2 Explain how the simulation of ventilation performance in existing dwellings contributes to identifying potential health and comfort issues in retrofit projects			
3. Understand how to predict the impact of retrofit measures on both energy and ventilation performance	3.1 Explain the limitations of current predictive tools in accurately forecasting the long-term impacts of retrofit measures on both energy efficiency and indoor air quality			
	3.2 Explain how different retrofit strategies, such as insulation upgrades or window replacements, can affect both the energy performance and the natural ventilation dynamics of a building			
	3.3 Describe ways predictive simulations can be validated to ensure that the projected energy savings and ventilation outcomes of retrofit measures align with real-world performance			
4. Understand the use of simulation in planning, decision-making, and ensuring	4.1 Explain how simulation tools can be effectively integrated into the planning process to ensure that retrofit projects meet the ventilation and energy			

compliance with ventilation and energy standards to comply with the current version of the PAS Retrofit Standards Framework	efficiency requirements outlined in the most current version of the PAS Retrofit Standards Framework			
	4.2 Explain the role model simulations play in balancing energy efficiency improvements with maintaining adequate indoor air quality			
	4.3 State the key considerations when interpreting the results when verifying compliance with the ventilation standards specified in the current version of the PAS Retrofit Standards Framework			

Assessor Comments/Feedback

Sustainable Materials and Technologies							
GQA Ref	L4DRAU7	**Regulatory Ref**	M/651/3215	**Level**	4	**Credit Value**	1

Aims

The aim of this unit is to develop advanced knowledge in sustainable building materials and their influence on energy efficiency

Assessment Guidance

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

All criteria must be assessed, and evidence must be auditable

Learning outcome; The learner will:	Assessment criteria: The learner can:	Evidence Ref No.		
		1	2	3
1. Understand sustainable building materials and their influence on energy efficiency	1.1 Explain how sustainable building materials, such as recycled insulation or eco-friendly cladding, impact the overall energy efficiency of retrofitted buildings			
	1.2 State the benefits and potential drawbacks of using sustainable materials in retrofitting projects			
	1.3 Describe what factors should be considered during the material selection process			
2. Understand renewable energy technologies and integration in retrofit projects	2.1 Explain the key considerations for integrating renewable energy technologies, such as solar panels or heat pumps, into retrofit projects to maximize energy efficiency and minimize carbon emissions			
	2.2 Describe how the integration of renewable energy systems in retrofit projects can be optimized to work in harmony with existing building infrastructure and energy demands			
3. Understand low-carbon heating and cooling systems, including ventilation considerations	3.1 Explain how the integration of low-carbon heating and cooling systems in retrofit projects can be optimized to ensure energy efficiency while maintaining effective ventilation and indoor air quality			
	3.2 State what challenges and opportunities arise when retrofitting existing buildings with low-carbon heating and cooling systems			
4. Understand circular economy principles in retrofit	4.1 Explain how circular economy principles can be applied in the selection of materials and technologies for building retrofits to minimize waste and extend the lifecycle of existing structures			
	4.2 Explain what strategies can be employed in retrofit projects to ensure that resources are reused, recycled, or repurposed in alignment with circular economy goals			
	4.3 Describe how integrating circular economy principles into retrofit assessments can contribute to			

	reducing the environmental footprint of buildings while maintaining or enhancing their energy performance			

Assessor Comments/Feedback

Notes

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