

Joint Competence Initiative
for the
Building Envelope Sector

Achieving Competence in
the Building Envelope Sector

“By suggesting a phased approach, I think this [White Paper] enables people to get started on the journey which, at the moment, just feels like a very big hurdle that is all too difficult”

“I can see how your paper gets people from where they are today – i.e. not competent – to a position where they are competent in today’s methods of building facades and roofing”

Dame Judith Hackitt - February 2023

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1. Intended Audience

This document has been written to provide a benchmark standard relating to competencies for all Individuals, both domestic and foreign, working in or for Specialist Sub Contractors, Consultants and Material and System Manufacturers that operate in and deal with the Building Envelope Sector of the Construction Industry, including:

- Architectural cladding systems, including rainscreens used in the façade of buildings
- Bolt on balconies
- Brise soleil and external solar control systems
- Curtain walling systems, including unitised systems
- Doors, including revolving, sliding and swing doors whether manually or mechanically operated
- External balustrades
- EWI/ETICS/Rendered systems
- Façade and roof safety systems
- Flat and pitched roofing systems
- GRC façade elements
- Industrial cladding systems used in the façade or roof of buildings
- Louvre systems fitted to the façade or roof of buildings
- Membrane roof systems - ETFE
- Passive fire protection materials required for the proper installation of façade and roof treatments
- Precast Concrete Façade Elements
- Roof safety
- Rooflight systems
- Smoke ventilation systems fitted to the façade or roof of buildings
- Specialised façade systems dealing with blast, ballistic and fire resistant elements
- Specialist metal works used in the façade and/or roof of buildings
- Steel Frame Systems (SFS)
- Windows

This document also provides Principal Contractors, Principal Designers and Developers with a means of measuring “what good looks like” when procuring packages relating to the Building Envelope Sector of the Construction Industry.

2. Preamble

In *Setting the Bar*, published in October 2020, the Competence Steering Group’s Report set out an overarching system in response to Dame Judith Hackitt’s review *Building a Safer Future*. Their report set out four key elements:

- *a new competence committee sitting within the Building Safety Regulator*
- *a national suite of competence standards including new sector-specific frameworks developed by 13 working groups.*

- *arrangements for independent assessment and reassessment against the competence standards using certification from a 3rd party accredited body.*
- *a mechanism to ensure that those assessing and certifying people against the standards have appropriate levels of oversight.*

Each of the frameworks developed by the 13 working groups relies upon there being a sector trade body to develop and lead the application of the competency frameworks. The Joint Competence Initiative (JCI) is an association of associations, set up specifically to:

- use those frameworks to develop and maintain a benchmark standard for the Building Envelope Sector
- provide signposting to appropriate, available training
- to interface with His Majesty's Governmental Departments to ensure the laws and regulations relating to competence in the Building Envelope Sector are proportionate and can be applied in a practicable manner

The members of the JCI involved with the activities of this organisation are listed in the Appendix of this Paper.

3. Definitions

All definitions provided are for guidance and relate to both capitalised and non-capitalised words, as well as the singular and plural.

Accreditation:

Formal recognition by a regulated body that an organisation engaged in assessment and certification activities is operating according to a prescribed standard.

Bloom's Taxonomy:

Bloom's taxonomy is a classification system used to define and distinguish different levels of human cognition, i.e. thinking, learning and understanding. The skill levels build up from a trainee to an expert level, working through levels 1 to 6.

CCPI:

The Code for Construction Product Information

Competency:

Task-level description of skill, knowledge, experience, and behaviour required to achieve a defined outcome. Competency of an Individual includes their understanding of where their skills, knowledge and experience end.

Competence Steering Group (CSG):

The Competence Steering Group (CSG) was set up under the auspices of the Industry Response Group, established in the immediate aftermath of the Grenfell fire in June 2017 jointly by the Ministry of Housing, Communities and Local Government and Build UK, Construction Industry Council and Construction Products Association and the National Fire Chiefs' Council. The CSG is chaired by CIC Chief Executive and CPA Chief Executive.

Continual Professional Development (CPD):

The CIOB (2004) definition of CPD being “the process of regularly assessing current and future skill and knowledge requirements relevant to your responsibilities, and then planning and implementing an ongoing programme of training and development to address those needs” is used within this document, as it provides a pragmatic approach to CPD.

CPD activities include:

- Open distance learning (video packages, the Internet, slide/tape packages, correspondence course);
- Private study, including systematic study of appropriate literature or research;
- Technical and professional conferences, lectures, seminars, workshops, study tours, technical visits and short courses;
- Courses leading to professional qualifications or academic awards;
- Writing articles for publications;
- Teaching/Training (for those not in teaching posts);
- Preparing papers and contributing to technical meetings and study groups;
- Examining, tutoring, and mentoring.

Any training provided through CPD must be subject to a comprehension test upon completion to prove competence.

CSCS:

Construction Skills Certification Scheme.

Golden Thread:

The Department for Levelling Up Housing and Communities definition of Golden Thread is used here identifying it as information that allows the understanding of a building and the steps needed to keep both the building and people safe, now and in the future.

Higher Risk Buildings (HRBs)

Those buildings defined by the Building Safety Act and the Building Act 1984, as amended where the Organisation, Principal Contractor and Principal Designer share heightened responsibilities for managing building safety risks, including fire safety and structural performance, and will be required to adhere to the requirements of the Golden Thread.

Individual:

Any person directly employed by the Organisation or indirectly employed as a subcontractor under the control of the Organisation, regardless of whether they are a domestic citizen or not.

JCI:

The Joint Competency Initiative in the Building Envelope Sector of the Construction Industry.

Organisation:

A corporate body, partnership, or sole trader providing design, manufacturing, procurement, installation and management services to a Principal Contractor or Principal Designer, whether they are a domestic organisation or not.

Principal Contractor:

The Construction (Design and Management) Regulations 2015 definition of a Principal Contractor as that “appointed by the client to control the construction phase of any project involving more than one contractor” applies here.

Principal Designer:

The Construction (Design and Management) Regulations 2015 definition of a Principal Designer as “a designer who is an organisation or individual (on smaller projects) appointed by the client to take control of the pre-construction phase of any project involving more than one contractor” applies here.

Principal Products:

Any products specified, incorporated in to designs, incorporated in to manufactured assemblies or incorporated into buildings constructed by the Organisation and pertain to building structural and/or fire safety.

Project Typology:

Relating to the size, scale, level of complexity and use of buildings handled by the Organisation and the Individuals working for them.

SMSTS:

The Site Management Safety Training Scheme accredited by the CITB.

SSSTS:

The Site Supervisor Safety Training Scheme accredited by the CITB.

Stakeholders:

Any Principal Contractors, Specialist Sub Contractors, Consultants and Material or System Manufacturers operating in the Building Envelope sector.

4. Competency Requirements

The Building Act 1984 (as amended by the Building Safety Act), the Building Safety Act, PAS8671 and PAS 8672 define a competent individual as one who has the relevant Skills, Knowledge, and Experience, combined with appropriate Behaviours (SKEB). These will enable the competent individual to fulfil a defined role, function or activity and carry out specified tasks.

The SKEB required to carry out a role must relate directly to the individual’s function, such as selling, specifying, designing, purchasing, manufacturing, installing, supervising, etc. rather than a role title such as Estimator, CAD Draftsperson, Scheduler, Fabricator or Installer. It must also extend to the Project Typology and Principal Products being handled by the individual.

It is understood that the requirements of Organisations dealing with more simplistic Project Typologies will not be to the same level as those dealing with Higher Risk Buildings (HRBs). However, all Organisations will need to be able to prove competence of those Individuals employed by them, though with lower levels of competence required for schemes that are not classified as HRBs.

Table 1 provides a list of typical departments, roles and functions within an Organisation. It must be noted that this is not an exhaustive list, but merely a guide.

Each Individual within an Organisation will have differing levels of competency across the range of functions that they carry out and critical decisions must be made by Individuals demonstrating the appropriate level of competence. The JCI is based upon the application of Bloom’s Taxonomy (see Fig.1) as an approach to measure the level of suitable competence.

Department	Typical Roles	Functions
Sales/Estimating	Estimators Sales Business Development Marketing	Selling Designing Specifying/Selecting Materials Specifying/Selecting Subcontractors Assessing and managing risk Resource Planning Understanding safety implications of cost and value decisions
Design	CAD Draftsperson Design Manager Structural Engineer Fire Engineer Façade Engineer Architect	Designing Specifying/Selecting Materials Specifying/Selecting Subcontractors Assessing and managing risk Resource Planning Managing safety implications of cost and value decisions
Procurement	Buyer Scheduler	Specifying/Selecting Materials Procuring Selecting Subcontractors Resource Planning Managing safety implications of cost and value decisions
Manufacturing	Fabricator Foreman Manager	Manufacturing/Assembling Resource Planning Managing safety implications of cost and value decisions
Commercial	Commercial Manager Quantity Surveyor	Selecting Subcontractors Resource Planning Assessing and managing risk Managing safety implications of cost and value decisions
Site	Contracts Manager Project Manager Site Manager Supervisor Planners Installers QA/QC Manager	Selecting Subcontractors Supervising Specifying/Selecting Materials Procuring Resource Planning Assessing and managing risk Managing safety implications of cost and value decisions
Project/Company Leaders	Company Director Project Director Contracts Manager	Coordinating holistic approach to design, management and construction

Table 1

Bloom's Taxonomy

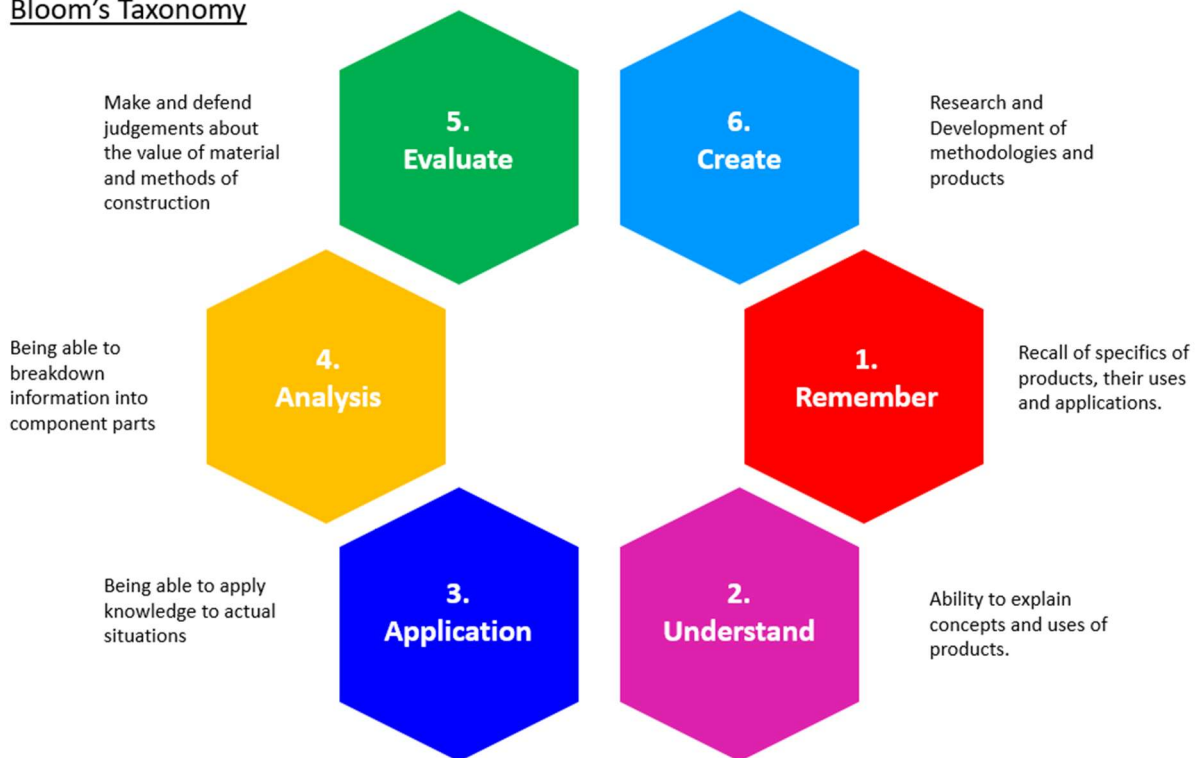


Fig. 1

Individuals at level 1 will be new to the Industry and undergoing training. As they become increasingly competent in their fields they will climb from level 1 to higher levels, though not all Individuals will either wish to or need to reach level 6. Individuals will ascend through the levels at differing speeds as there is no 'time served' element required to move from one level to the next, although the number of years' experience must be considered for those ultimately making decisions (please refer to Table 3 in Section 7 of this Paper).

Turning our attention to the levels that each specific role/function must possess to be competent to make final decisions relating to design, choice of materials, selection of subcontractors and 'sign off' of proposals:

Sales/Estimating Function

Any Individual carrying out the role of a salesperson or an estimator must have suitable training commensurate with the Project Typology, as well as the level of design and product advice that they provide as part of any consultation, meeting, correspondence, or quotations.

For those Organisations selling construction products, ideally, they must comply with the requirements of the CCPI. As a minimum their training must fall in line with Clause 11 of that Code, i.e. a robust training program to demonstrate the level of knowledge required for the product(s).

Although there is no specific training with third party accreditation carrying out the duties of a salesperson or estimator in the Envelope Sector, courses are available that may provide suitable training related to product, design, manufacture, and installation (please see 8. Appendix b.).

Additionally, a minimum of 12 hours of CPD training on the Principal Products being offered, principles of construction, current Building Regulations and Legislation must be undertaken each year. Each Individual must be able to evidence the CPD training courses attended when asked.

Design Function

An Individual carrying out design must have suitable training commensurate with the Project Typology, as well as the level of design and product advice that they provide. For example, if an Individual provides advice in relation to passive fire protection, their training must include fire engineering to a suitable level.

As evidence of competence, an Individual carrying out design could provide evidence of having undertaken a certified course such as one providing a suitable VQ, RQF, NVQ, HNC, HND or Degree. For those working on complex Project Typologies and HRBs either MSc or post graduate training in Façade Engineering would be desirable, though not compulsory, to prove Competence.

Additionally, a minimum of 18 hours of CPD training on the Principal Products being offered, principles of construction, current Building Regulations and Legislation must be undertaken each year. Each Individual must be able to evidence the CPD training courses attended when asked.

Procurement Function

Although there is no specific training with third party accreditation for Individuals carrying out procurement roles in the Envelope Sector a level of understanding the potential impact that buying decisions can have on structural and fire safety must be instilled in Individuals carrying out this function. Accordingly, a minimum of 12 hours of CPD training on the Principal Products being offered, principles of construction, current Building Regulations and Legislation must be undertaken each year. Each Individual must be able to evidence the CPD training courses attended when asked.

Manufacturing Function

Individuals working within a manufacturing environment will display many levels of Competence, dependent upon what functions they are performing.

An Individual working in a supervisory role must have suitable training commensurate with the Project Typology and Principal Products that they deal with during the carrying out of their duties. As evidence of competence, they might have passed a course such as a VQ or RQF Level 3 or 4 Diploma or similar.

An Individual carrying out general manufacturing functions could hold skilled or unskilled position, and suitable percentage of these must be skilled to ensure competency. Skilled Individuals must have training commensurate with the Project Typology and Principal Products they deal with during the carrying out of their duties. As evidence of competence, they might provide evidence of having undertaken and passed a course such as a VQ or RQF Level 2 Certificate or similar.

Additionally, Individuals in a supervisory role must have undertaken 12 hours of CPD each year and each Individual undertaking skilled work must have undertaken 6 hours of CPD training on the Principal Products being manufactured must be undertaken each year. Each Individual must be able to evidence the CPD training courses attended when asked.

Commercial Function

Although there is no specific training with third party accreditation for Individuals carrying out commercial roles in the Envelope Sector a level of understanding the potential impact that buying

decisions can have on structural and fire safety must be instilled in Individuals carrying out this function. Accordingly, it is recommended that suitable, certified training relating to the Principal Products provided, principles of construction, current Building Regulations and Legislation be taken by Individuals in such roles.

Additionally, a minimum of 12 hours of CPD training must be undertaken each year. Each Individual must be able to evidence the CPD training courses attended when asked.

Site Function

Individuals working within a site environment will display many levels of Competence dependent upon what functions they are performing.

An Individual working in a supervisory role must have suitable training commensurate with the Project Typology and Principal Products that they deal with during the carrying out of their duties. As evidence of competence, they will need to have a CITB SMSTS or SSSTS qualification and ideally have undertaken and passed a sector specific course such as a VQ or RQF Level 3 or 4.

Additionally, a minimum of 18 hours of CPD training on the Principal Products being offered, principles of construction, current Building Regulations and Legislation must be undertaken each year. Each Individual must be able to evidence the CPD training courses attended when asked. Wherever possible CPD should be aligned to any relevant national occupational standards, as they contain “Skills and Knowledge” which can be measured, which meets the Building Safety Act’s requirements for industry competence.

An Individual carrying out general site installation functions could hold skilled or unskilled position, and in principle a minimum of 50% of these must be skilled to ensure competency. All Individuals carrying out site installation work must hold a suitable CSCS Card related to their trade, with skilled Individuals being able to evidence of having undertaken and passed a course such as a trade specific apprenticeship, VQ or RQF Level 2 Certificate or similar. Individuals must be able to prove that they have had suitable training commensurate with the Project Typology and Principal Products they deal with during the carrying out of their duties including a suitable amount of CPD training on the Principal Products being installed must be undertaken each year.

The minimum requirement for any Individual working in the Envelope Sector, regardless of their trade or discipline, is to meet the health and safety standards, regardless of whether they are deemed unskilled.

Each Individual must be able to evidence the CPD training courses attended when asked.

These must be used to refresh Individuals’ knowledge as it is a perishable commodity and learned information can be easily forgotten when not regularly used.

To clarify the requirements set out in this White Paper, please refer to Table 3 in Section 7 of this Paper that shows a list of typical roles and functions, alongside suitable qualifications, CPD hours per annum thought suitable for an Individual to take and the capabilities they must have.

Project Lead/Directors

Those Individuals leading projects and companies must display a level of competence that feeds into a ‘top down’ application of the requirements of the Building Safety Act, so that those in their shadow understand the importance of competence in the built environment.

They must be adept in the coordination of building design, management, or construction activities to ensure holistic building safety. They must also be able to demonstrate an understanding construction products, and building system characteristics, and utilise testing, assessment and maintenance information and procedures to minimize risk to safety throughout the building lifecycle.

An Individual working in a leading role must have suitable training commensurate with the Project Typology and Principal Products that they deal with during the carrying out of their duties. As evidence of competence, they will need to have undertaken and passed a sector specific course such as a VQ or RQF Level 4 or 5 Diploma.

Additionally, a minimum of 24 hours of CPD training on the Principal Products being offered, principles of construction, current Building Regulations and Legislation must be undertaken each year. Each Individual must be able to evidence the CPD training courses attended when asked.

Each Individual must be able to evidence the CPD training courses attended when asked. These must be used to refresh Individuals' knowledge as it is a perishable commodity and learned information can be easily forgotten when not regularly used.

To clarify the requirements set out in this White Paper, please refer to Table 3 in Section 7 of this Paper which shows a list of typical roles and functions, alongside suitable qualifications, CPD hours per annum thought suitable for an Individual to take and the capabilities they must have.

5. Gathering Evidence of Competence

Competence is measured by assessing a combination of Skills, Knowledge, Experience and Behaviours and a record of each of these must be maintained for all Individuals. By way of example, we suggest that the information to be captured could fall into the following 'silos':

Skills

This would cover an Individual's Curriculum Vitae, including their most recent role and duties, alongside the CPD sessions taken by them.

Knowledge

This would encompass the educational and/or vocational qualifications held by an Individual, along with affiliations to any organisations, such as CIOB, ICOW, SFE, etc.

Experience

This would need to be broken up in to two categories to identify the Individual's involvement with Building Typologies and the Building Products/Systems that they had either used before or received product specific training for. Specific reference should be made to the duties and responsibilities the Individual has undertaken when considering Experience.

Typologies would need to highlight:

- the height of project undertaken
- sector, e.g. residences, health, education, commercial, mixed use, etc.
- value
- unique construction methods employed

Behaviours

These are hard to measure and record on a daily basis; however, it is suggested that records of any behavioural awareness courses attended by Individuals, alongside feedback from any Professional Development Reviews (or similar), awards, coaching or mentoring.

6. Proposals to Close the Training Gap

With the Building Safety Act having reached Royal Assent in April 2022 and the stated intent of the Building Safety Regulator to begin reviewing competence in October 2023, there is only a short time available to instigate the necessary training and certification required to prove competence in all Individuals.

From anecdotal evidence, it is estimated that somewhere between 5,000 and 10,000 no. Individuals may require some level of training; however, trade bodies operating in the Envelope Sector including the CAB, CWCT, GQA, GGF and NFRC all advise that they do not presently have the resources to provide courses in the numbers required.

It is extremely difficult to identify the number of people who hold recognised qualifications in the sector and the demand for training to meet any new standards is likely to exceed supply. Existing training and qualifications may need to be recognised and CPD used to provide additional information and knowledge required. Alternatively, short form qualifications may be required to provide the necessary accredited and certified training.

It is clear to the members of the JCI that the Individuals performing installation roles for Site functions may hold inappropriate CSCS cards, such as carpentry qualifications, that will not allow them to prove Competency. This must be urgently addressed.

Training for Individuals working in the other functions, i.e. Sales & Estimating, Procurement and Manufacture, is irregular and often product manufacturer led through the delivery of semi-formalised training courses and CPDs. To alleviate the burden on the training organisations further it is proposed that a phased approach be adopted over the coming five years, as shown at Table 2.

The lead Individual in each function must be able to prove their competence by Q1 of 2024 and be given responsibility to ensure that all documents leaving their Organisation meet with the requirements of any given project specification, design and current Building Regulations. This will allow Organisations to assure compliance with the Building Safety Act and any associated legislation in terms of structural and fire safety of the projects they undertake.

	2023	2024	2025	2026	2027
Sales & Estimating		Lead in function to achieve competence	Senior posts to achieve competence	75% of staff to achieve competence	All staff to achieve competence
Design	Lead in function to achieve competence	Senior posts to achieve competence	All staff to achieve competence		
Procurement		Lead in function to achieve competence	Senior posts to achieve competence	75% of staff to achieve competence	All staff to achieve competence
Manufacture		Lead in function to achieve competence	Senior posts to achieve competence	75% of staff to achieve competence	All staff to achieve competence
Commercial		Lead in function to achieve competence		Senior posts to achieve competence	All staff to achieve competence
Site	Lead in function to achieve competence	All supervisors to achieve competence	80% of staff to achieve competence	90% of staff to achieve competence	All staff to achieve competence

Table 2 – Proposed Phasing of Competency & Training Requirements

7. Competency Levels by Function

Table 3 – Sales, Estimating & Design Departments

Department	Typical Roles	Functions	Competence Level Required for Decision Making	Experience Required for Decision Making	Typical Suitable Qualification	Suggested Number of CPD Hours Per Annum	Capabilities (in all cases must include an understanding of own limitation of competence)
Sales/Estimating	Sales staff BDMs Marketing Staff	Selling products and services	2	N/A	N/A	12	Ability to understand and accurately repeat specifics of products and services available from their company.
	Estimators	Specifying/Selecting Materials	4	3 years	VQ/RQF Level 2, 3 or 4 certificate	12	Ability to analyse products and services to apply them to a tender scheme.
		Preparing design proposals for tenders	4				Ability to assess competence of subcontractor and their bid proposals.
		Specifying/Selecting Subcontractors	4				Ability to review and understand the safety implications of offering one product over another (Value Engineering).
		Managing safety implications of cost and value decisions	4				Understanding of the safety implications of installation of the products in a tender bid.
		Assessing and managing risk	2				Understand of the resource required to provide a competent bid proposal.
		Resource Planning	2				
Design	Specialist Subcontract Designer	Designing	5	5 years	HNC, HND or Degree in Construction or MSc in Façade Engineering	12	Ability to make and defend judgements relating to the design to meet current Building Regulations, use of materials and methods of construction.
		Specifying/Selecting Materials					Ability to assess competence of subcontractor and their bid proposals.
		Specifying/Selecting Subcontractors					Ability to appropriately apply Construction Design Management Regulations to design.
		Assessing and managing risk					Understand the resource required to provide a competent design and make sure it is provided.
		Resource Planning					
	Structural Engineer	Preparing and assessing structural engineering calculations.	6	Appropriate for membership of professional body.	M. Tech Civil Engineering	Appropriate for membership of professional body.	Suitable educational qualification to be provided. Ability to apply Current Building Regulations, Codes of Practice and Industry Body Standards e.g. those prepared by CWCT, NFRC and IoR to design calculations.
Design	Fire Engineer	Preparing and assessing fire safety case.	6	Appropriate for membership of professional body.	MSc in Fire Safety Engineering	Appropriate for membership of professional body.	Suitable educational qualification to be provided. Ability to apply Current Building Regulations, Codes of Practice and Industry Body Standards.
		Preparing and assessing fire strategy documentation.					
		Assessing specialist subcontractor design proposals.					
	Façade Engineer	Preparing design proposals and specification documents.	6	Appropriate for membership of professional body.	MSc in Façade Engineering	Appropriate for membership of professional body.	Suitable educational qualification to be provided. Ability to apply Current Building Regulations, Codes of Practice and Industry Body Standards e.g. those prepared by CWCT, NFRC and IoR to design calculations.
Assessing specialist subcontractor design proposals.							

Table 3 – Procurement, Manufacturing & Commercial Departments

Department	Typical Roles	Functions	Competence Level Required for Decision Making	Experience Required for Decision Making	Typical Suitable Qualification	Suggested Number of CPD Hours Per Annum	Capabilities (in all cases must include an understanding of own limitation of competence)
Procurement	Buyer/Scheduler	Procuring goods and services	4	3 years	CIPS Level 2, 3 or 4	12	Ability to ensure that the choice of materials and services procured meet the requirements of Building Regulations and any given project specifications.
		Selecting Subcontractors	5	5 years			Ability to assess competence of subcontractor and ensure the products and services procured from them meet the requirements of Building Regulations and any given project specifications.
		Managing safety implications of cost and value decisions	3	3 years			Understand the safety implications of offering one product over another (Value Engineering).
Manufacturing	Fabricator/Foreman	Manufacturing/Assembling	3	5 years	VQ/RQF Level 2, 3 or 4 certificate	12 Foreman/6 Fabricator	Ability to ensure that manufactured products or elements meet the requirements of Building Regulations and project specifications.
		Managing safety implications of cost and value decisions	3				Understand the safety implications of offering one product over another (Value Engineering).
Commercial	Commercial Manager/Quantity Surveyor	Resource Planning	2	3 years	VQ/RQF Level 3 or 4 Diploma	12	Understand of the resource required to provide a competent support to project.
		Selecting Subcontractors	4	5 years			Ability to assess competence of subcontractor and their bid proposals.
		Assessing and managing risk	2	3 years			Understanding of the safety implications of installation of the products in a tender bid.
		Managing safety implications of cost and value decisions	5	3 years			Ability to review and understand the safety implications of offering one product over another (Value Engineering).

Table 3 – Site Management & Installation Departments

Department	Typical Roles	Functions	Competence Level Required for Decision Making		Suitable Qualification	Suggested Number of CPD Hours Per Annum	Capabilities (including an understanding of own limitation of competence)
Site	Contracts Manager/ Project Manager/ Site Manager/ Supervisor	Supervising site installations	5	2 years	SSSTS/SMSTS and VQ/RQF Level 3 or 4 Diploma	18	Ability to make and defend judgements relating to the choice of materials, installation and sequencing of works to meet current Building Regulations, use of materials and methods of construction.
		Specifying/Selecting Materials		5 years			Understanding the function and how to ensure safety of products and services procured.
		Procuring	2	3 years			Evaluate the resource required to provide competent supervision and installation labour to meet the requirements of Building Regulations and any given project specifications, and provide it.
		Resource Planning	5	5 years			Ability to appropriately apply Construction Design Management Regulations and HASAWA Regulations to the construction of projects.
		Assessing and managing risk	6	5 years			Ability to review and understand the safety implications of offering one product over another (Value Engineering).
		Managing safety implications of cost and value decisions	4	5 years			
	Planners	Resource Planning	2	2 years	N/A	12	Understand the resource required to provide competent resources to meet the requirements of Building Regulations and any given project specifications.
Site	Installers	Correct installation of Materials	3	N/A	VQ/RQF Level 2, 3 or 4 certificate	As appropriate to materials installed	Correct application of materials in line with manufacturers' instructions in order to meet the requirements of Building Regulations and any given project specifications.
		Selecting Secondary Subcontractors	4	5 years			Ability to assess competence of subcontractors.
		Assessing and managing risk	3	N/A			Ability to appropriately apply HASAWA Regulations to the construction of projects.
		Resource Planning	3	2 years			Apply the correct resource required to meet the requirements of Building Regulations and any given project specifications, and provide it.
	QA Manager	Correct installation of Materials	4	N/A	VQ/RQF Level 2, 3 or 4 certificate	12	Ability to analyse the installation of materials meets with manufacturers' instructions in order to meet the requirements of Building Regulations and any given project specifications.

Table 3 – Project & Organisational Leads

Department	Typical Roles	Functions	Competence Level Required for Decision Making	Experience Required for Decision Making	Typical Suitable Qualification	Suggested Number of CPD Hours Per Annum	Capabilities (in all cases must include an understanding of own limitation of competence)
Project Lead	Director/ Contracts Manager	Coordinate building design, management or construction activities to ensure holistic building safety	5	5 years	VQ/RQF Level 4 or 5 Diploma	24	Appropriate selection for intended use so that construction products and building systems function individually and together to maintain building
		Understand construction products, and building system characteristics, and utilise testing, assessment and maintenance information and procedures to minimize risk to safety throughout the building lifecycle.	4				Impact of installation quality on construction product and building system performance for quality assurance and quality management processes.
							Requirements for construction product durability over time taking building use into account.
							Consideration of location and context in construction product performance and selection, e.g. proximity of boundary, boundary conditions (fire resistance, water resistance), size, environmental conditional, geometry.
							Use of construction product or building system testing information including certification, classification and industry approved or recognized standards (alongside as-built design and construction information on existing buildings), to inform design, specification, construction, installation and maintenance decisions.
							Maintenance requirements for construction products and building systems through building lifecycle, including planning, procuring, monitoring, undertaking or managing maintenance of building fabric, fire protection or life safety systems.
							Replacement (and safe disposal) of construction products and building systems at the end of their lifecycle to maintain building safety.
							Notification of building operators, suppliers, and manufacturers where defects or maloperation issues and found in construction products or building systems which impact on building safety.

Table 3 – Important Notes:

It is important for Individuals to not only hold a recognised qualification for their role and meet the above baseline requirements, but also adhere to the recommendations made by the Competence Steering Group (CSG) Working Groups listed here:

- Engineers (WG1)
- Installers (WG2)
- Fire engineers (WG3)
- Fire risk assessors (WG4)
- Building standards professionals (WG6)
- Building designers, including architects (WG7)
- Site supervisors (WG9)
- Project managers (WG10)
- Procurement (WG11)
- Products (WG12)

This competence standard is iterative and will be reviewed on a regular basis to reflect any changes taking place in Legislation, the Sector, and wider Construction Industry. Accordingly, it must be understood that Competence is not a static achievement, and all Individuals must maintain and develop their own knowledge and skills relevant to the duties they undertake.

8. Appendix

a. List of Joint Competence Initiative Steering Group Members

Trade & Advisory Bodies	Automatic Door Suppliers Association (ADSA)
	Centre for Window and Cladding Technology (CWCT)
	Council for Aluminium in Building (CAB)
	Glass & Glazing Federation (GGF)
	Institute of Construction Managers (ICM)
	Institute of Roofing (IoR)
	Liquid Roofing and Waterproofing Association (LWRA)
	Metal Cladding and Roofing Manufacturers (MCRMA)
	National Federation of Roofing Contractors (NFRC)
	Society of Façade Engineers (SFE)
Principal Contractors	BAM
	ISG
	Kier
	Laing O'Rourke
	Lendlease
	Mace
	Morgan Sindall
	Multiplex
	Sir Robert McAlpine
	Sisk
	Skanska
	Wates
	Consultants
Alan Brookes Consultants	
Fenton Partners	
Ramboll Facades	

Fire Engineers	AW Fire
	BB7 Consulting
Insurance Sector	Consort Insurance
Legal Profession	Mishcon De Reya
Client	Ocado
Specialist Subcontractors	Alumet
	Clarison Group
	DPS Facades
	Erbay
	Façade Guru
	Permasteelisa
Material Manufacturers and Suppliers	Cupa Pizarras
	Fischer Fixings UK
	Kingspan
	Metalline
	Permavent
	Siderise
	SIG Design & Technology
Education & Training Providers	GQA Qualifications Ltd
	Paddeco
	West Suffolk College
Specialist Competency Management	Dynamic Knowledge

b. List of available training courses at date of publication

Provider	Level	Title	Sales & Estimating	Design	Procurement	Manufacturing	Commercial	Site
ADSA	Certificate	BS EN 16005	✓	✓				✓
	Certificate	BS 7036	✓	✓				✓
CAB	CPD	Curtain Wall Essential Knowledge						✓
	CPD	Building Regulations Explained	✓	✓	✓	✓	✓	✓
	CPD	Contract Law and Commercial Training					✓	
	CPD	Office Function Training Courses	✓					
	CPD	Powered Pedestrian Doors	✓	✓	✓		✓	✓
CIOB	CPD	Smoke Control Management	✓	✓	✓		✓	
CWCT	CPD	Acoustics	✓	✓				
	CPD	Fire	✓	✓	✓		✓	✓
	CPD	Built up walls: Construction and specification	✓	✓	✓			
	CPD	Built up walls: Thermal and moisture performance	✓	✓				
	CPD	Built up walls: Loads and structural performance	✓	✓				
	CPD	Managing the cladding package (2-days)					✓	✓
	CPD	Curtain walling design and construction (4-days)	✓	✓	✓			✓
UWE/CWCT	MSc	MSc in Façade Engineering	✓	✓				✓
GQA	GQA Level 2	NVQ Certificate in Curtain Wall Installation						✓
	GQA Level 2	Continued Competence in Curtain Wall Installation						✓
	GQA Level 2	Fenestration Installation - Competency Update v2						✓
	GQA Level 3	Diploma for Fenestration Installation - Competency Update						✓
	GQA Level 2	Certificate in Understanding Window & Door Fabrication Specifications	✓	✓				
	GQA Level 3	Certificate in Fabrication of Glass Supporting Structures				✓		
	GQA Level 3	NVQ Certificate in Glazing						✓
	GQA Level 3	Certificate in Knowledge of the Principles of the Glass Related Working Environment	✓	✓	✓	✓	✓	✓
	GQA Level 3	NVQ Diploma in Curtain Wall Installation						✓
	GQA Level 3	NVQ Diploma in Fire Resistant Glazing	✓		✓		✓	✓
	GQA Level 4	Diploma in Occupational Leadership in a Glass or Glass Related Working Environment	✓	✓	✓	✓	✓	✓
	GQA Level 4	Diploma in Façade Technology	✓	✓				

Provider	Level	Title	Sales & Estimating	Design	Procurement	Manufacturing	Commercial	Site
GQA	GQA Level 2	Award in Knowledge of the Principles of the Glass Related Working Environment	✓	✓	✓	✓	✓	✓
	GQA Level 2	Award for Fenestration Installation Competency Update						✓
	GQA Level 2	NVQ Certificate in Fabrication of Glass Supporting Structures				✓		
	GQA Level 2	NVQ Diploma in Fenestration Installation						✓
	GQA Level 2	NVQ Certificate in Glazing						✓
GGF	NVQ Level 1	Construction Health and Safety						✓
	NVQ Level 1	Window and Door Installation		✓				✓
	NVQ Level 2	Cladding (Construction)		✓				✓
	NVQ Level 2	Curtain Wall Installation		✓		✓		✓
	NVQ Level 2	Fabrication of Glass Supporting Structures		✓				✓
	NVQ Level 2	Fenestration Installation		✓				✓
	NVQ Level 2	Glass Processing				✓		
	NVQ Level 2	Glass Related Occupations (Construction)	✓	✓	✓	✓	✓	✓
	NVQ Level 2	Glazing						✓
	NVQ Level 2	Installation of Photovoltaic Panels		✓				✓
	NVQ Level 3	Cladding Occupations (Construction)		✓				✓
	NVQ Level 3	Fabrication of Glass Supporting Structures		✓		✓		✓
	NVQ Level 3	Fenestration Installation		✓				✓
	NVQ Level 3	Glass Processing				✓		
	NVQ Level 3	Glazing						✓
	NVQ Level 3	Occupational Work Supervision (Construction)						✓
	NVQ Level 4	Construction Site Supervision						✓
	NVQ Level 4	Occupational Leadership in a Glass or Glass Related Working Environment			✓			✓
	NVQ Level 6	Construction Site Management (Construction)						✓
NVQ Level 7	Construction Senior Management	✓	✓	✓	✓	✓	✓	
LWRA	NVQ Level 2	Training and Upskilling Programmes for Liquid						✓
	Certificate	Liquid-Applied Roofing: A New Foundation For Learning						✓

Provider	Level	Title	Sales & Estimating	Design	Procurement	Manufacturing	Commercial	Site
MCRMA	Certificate	Introductory Level of Competency		✓				✓
	CPD	GD10 Working at heights: a fall prevention and safety checklist						✓
	CPD	GD15 Guidance for wind loadings on roof and wall cladding	✓	✓				
	CPD	GD16 Guidance for snow loading on cladding	✓	✓				
	CPD	GD17 A guide to site installation of insulated roof panels						✓
	CPD	GD19 Effective sealing of end lap details in metal roofing constructions		✓				✓
	CPD	GD20 Serviceability states and deflection criteria	✓	✓				
	CPD	GD24 Installation of purlins and side rails		✓				✓
	CPD	GD26 Aluminium fabrications: a guide to good practice		✓		✓		
	CPD	GD27 Installed tolerances: best practice		✓				✓
	CPD	GD28 Mineral wool insulation installation: best practice design guide		✓				✓
	CPD	GD29 Manufacturing tolerances for profiled metal roof and wall cladding		✓		✓		
	CPD	GD31 Pre-laminated membrane and factory assembled insulated pre-laminated membrane gutters		✓		✓		
	CPD	GD33 Fasteners for metal roof and wall cladding: design, detailing and installation guide		✓				✓
	CPD	GD34 The definition of cladding within the construction sector	✓	✓			✓	
	CPD	GD35 Aesthetics: assessment and evaluation of cosmetic imperfections or damage						✓
	CPD	GD36 Cavity barriers for ventilated rainscreen façades	✓	✓	✓		✓	✓
	CPD	GD39 Sustainability and durability of metal roofing and cladding systems Section 1: Introduction and overview	✓	✓				
	CPD	GD39 Sustainability and durability of metal roofing and cladding systems Section 4: Durability of metal roofing and cladding systems	✓	✓				
	CPD	GD39 Sustainability and durability of metal roofing and cladding systems Section 5: Metals: steel and aluminium	✓	✓				
NFRC	Certificate	RoofCERT						✓
ProQual	NVQ Level 2	Diploma in Cladding Occupations (Construction)						✓
	NVQ Level 3	Diploma in Cladding Occupations (Construction)						✓
	NVQ Level 2	Rainscreen Cladding Installation						✓
	NVQ Level 3	Heritage Skills Fully Supported Lead & Hard Metal Roofing and Cladding						✓
	Level 2 Award	Understanding of Fire-Rated Glazing Screens	✓	✓	✓			✓