### PAS 8671

Built environment – Framework for competence of individual Principal Designers and designated individuals working under the Organization Principal Designer – Specification

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#### Foreword

#### **Publishing information**

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#### SG members to be listed

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This PAS forms part of a comprehensive suite of documents relating to competence in the built environment. The suite comprises:

- BSI Flex 8670, Built environment Core criteria for building safety in competence frameworks – Code of practice;
- PAS 8671, Built environment Framework for competence of Individual Principal Designers and Designated individuals working under the organization Principal Designer – Specification;
- PAS 8672, Built environment Framework for competence of Individual Principal Contractors and Designated Individuals working under Organizational Principal Contractors – Specification;
- PAS 8673, Built environment Framework for competence of individual Building Safety Managers and Nominated individual Building Safety Managers – Specification

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Commentary, explanation and general informative material is presented in smaller italic type and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization", not "organisation").

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#### Compliance with a PAS cannot confer immunity from legal obligations.

Particular attention is drawn to the following specific regulations and draft regulations:

- CDM Regulations [1]
- Building Safety Bill [2]
- Draft Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations [3]
- Draft Building (Higher-Risk Buildings) (England) Regulations
- Draft Higher-Risk Buildings (Descriptions and Supplementary Provisions) Regulations

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#### 0 Introduction

This PAS addresses the new dutyholder role of Principal Designer, which is part of a drive to make buildings safer for the people who occupy them.

This drive was galvanized by the Grenfell Tower fire on 14 June 2017, which prompted a review of the system for regulating high-rise residential buildings. Led by Dame Judith Hackitt, it concluded (among other findings) that the roles and responsibilities of those procuring, designing, constructing and maintaining all buildings (i.e. not just high-rise residential buildings) were unclear, and that competence across the system is variable.

The UK government accepted the recommendations of her review, *Building a Safer Future, Independent Review of Building Regulations and Fire Safety: Final Report*, and, after consultation and due parliamentary process, introduced the Building Safety Bill [4].

#### 0.1 The Building Safety Bill

The Building Safety Bill (BSB) 2021 sets out how the Government intends to deliver the principles and recommendations of Dame Judith Hackitt's report. It aims to ensure that there is greater accountability and responsibility for fire and structural safety issues throughout the lifecycle of buildings. It establishes a new regulatory regime for building safety and introduces more stringent requirements for higher-risk buildings (HRBs). It also sets the scene for instituting a culture change and motivating compliance in the industry.

#### 0.2 Higher-risk buildings

The definition of higher-risk buildings (HRBs) is set out in the draft *Higher-Risk Buildings* (*Descriptions and Supplementary Provisions*) *Regulations*, 2021 [5].

NOTE The BSB enables the definition of HRB to be reviewed and amended over time by way of amending the Regulations.

#### 0.3 New competence system and BSI FLEX 8670

Complementary work by the Competence Steering Group for Building a Safer Future (CSG) explored the competences needed for safety-critical disciplines working on higher risk buildings [6]. The final report, *Setting the Bar*, recommended that, as one of the three critical roles with oversight of building safety at each stage of a building's lifecycle, the Principal Designer role would require enhanced competences, in addition to any discipline-specific competence. The CSG noted that individuals in the role need an overarching understanding of all aspects of building safety and the competence to interrogate design, challenge bad practice, identify major hazards, and minimize safety risks to occupiers of the completed asset.

Setting the Bar paved the way for a new system for harmonizing and standardizing the competences needed to determine compliant building safety outcomes in the UK's built environment industry as a whole, not just in HRBs.

The new system of competences is underpinned by *BSI Flex 8670*, which establishes the overarching framework for behavioural and functional competences needed to improve both building safety outcomes and the dominant culture at work in the built environment sector. It also defines the scope and common terms of reference that discipline-, sector- or role-specific competence frameworks can conform to, aiming for consistency, reliability, and comparability regardless of the disciplines, sectors, or roles involved.

NOTE This PAS 8671 is aligned to BSI Flex 8670.

#### 0.4 New dutyholders and the Building Regulations

The BSB's strategy for driving change includes the creation of new dutyholder roles to improve compliance with the building regulations, including that of Principal Designer. Although the new Principal Designer role reflects the role of Principal Designer under the Construction (Design and Management) Regulations 2015 (hereafter referred to as the CDM

Regulations 2015) and has the same name, the duties it entails are distinct and different, being focused primarily on compliance with the building regulations [7].

The expected duties of and the competence requirements for the new Principal Designer dutyholder role are set out in the Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations, (APICD), currently in draft form.

NOTE 3 Failure of Principal Designers to meet requirements can constitute a criminal offence.

NOTE 4 Guidance about how Principal Designers should meet their responsibilities as dutyholders under the Buildings Regulations is beyond the scope of this PAS.

Under the APICD, the Principal Designer role can be carried out by an individual or an organization. Where the role is carried out by an organization, it must designate a competent individual to manage the functions on its behalf.

Regardless of whether the individual in the Principal Designer role is designated by an organization or not, the competences needed to carry out these slight variations of the role are sufficiently similar to be considered identical, and therefore this PAS does not distinguish between them.

The competence requirement is proportional to the needs of the project. If the project entails complexity and risks that are high (even if not for an HRB), the individual in the Principal Designer role is expected to have the competence to match. This might be a higher level of competence than the minimum thresholds set out in this PAS 8671. (See Annex B.2.3)

Clients have a duty to appoint a designer with control over the design work to the role of Principal Designer and take reasonable steps to satisfy themselves of the would-be Principal Designer's competence for the work they are engaged to undertake. The Principal Designer must not carry out work for which they are not competent.

NOTE 5 The Principal Designer role and its relationship to other dutyholder roles is more fully defined in Annex A.3.

#### 0.5 Building control for higher-risk buildings

The Principal Designer role is also affected by the new, more stringent building control procedures for work that applies to HRBs. These procedures are set out in the draft Building (Higher-risk Buildings) (England) Regulations, which include the application process, variations to approvals, the golden thread and other prescribed information, completion certificates, and the review and appeals process.

#### 0.6 Competence thresholds

This PAS 8671 specifies two thresholds needed to be competent to undertake the Principal Designer role. The first is the threshold for all buildings. The second is the threshold for HRBs. Both are framed in terms of desirable outcomes.

NOTE This PAS is specific to Principal Designers appointed for work in jurisdictions where the Principal Designer role is regulated under the Building Regulations.

These competence thresholds apply regardless of the candidate's prior learning, qualifications, professional registrations, work experience and track record, and can be thought of as minimum (but still high) thresholds that should have been reached even for the simplest projects with the least risk. This accommodates the full range of possible situations and is inclusive of the diverse backgrounds of candidates without compromising on the ultimate objective of safer buildings for occupants (See Annex B.1.3).

#### 0.7 Competence levels

The normative requirements of this PAS are set as eight 'functional requirements' that align to the duties and competence requirements in the APICD and the draft Building (Higher-risk Buildings) (England) Regulations, and are set out in categories that are familiar to designers.

They are supported by core competences that are phrased using verbs that relate to the cognitive domain of Bloom's Taxonomy [8].

NOTE Bloom's Taxonomy is a hierarchical model used to classify educational learning objectives into six levels of complexity and specificity. In the cognitive domain, this goes from remembering basic facts to being able to analyse, evaluate, and create new information. Using it is intended to make it easier for assessors to adapt sector-specific competence frameworks, learning objectives and assessment procedures so that they conform to this PAS.

#### 1 Scope

This PAS specifies the competence requirements of individuals carrying out or managing the function of Principal Designer as set out in relevant building regulations. This PAS is aligned to BSI Flex 8670.

NOTE 1 Individuals carrying out the function of Principal Designer can be sole traders with no employees or, if directly employed by an organization, an individual designated by the organization to manage its functions in compliance with the draft APICD.

NOTE 2 The competence to carry out or manage the function of Principal Designer includes the ability to fulfil the role's regulated duties and all its associated activities and tasks.

This PAS specifies the Principal Designer's areas of competence as:

- a) legal framework and compliance;
- b) design coordination and integration;
- c) design risk management;
- d) design project management;
- e) design team facilitation and orchestration;
- f) information creation and maintenance, including the golden thread of information;
- g) communication and cooperation; and
- h) appropriate behaviour.

This PAS specifies the functional requirements and core competences needed by individuals to carry out or manage the function of Principal Designer. It also specifies the requirements needed by individuals to carry out or manage the function of Principal Designer on projects that lead to HRBs, as defined in the draft HRB (Descriptions and Supplementary Provisions) Regulations. The thresholds of competence are set using Bloom's Taxonomy.

This PAS is for use by persons assessing Principal Designer competence, including awarding bodies, professional institutions, education and training providers, certification bodies, and built environment designer organizations (such as architects, structural engineers, and building services engineers) interested in evaluating staff members.

This PAS may help assessors and awarding bodies create or adapt relevant sector- or discipline-specific competence frameworks in a way that matches the needs of their particular cohorts.

This PAS may also be used by individuals to assess their own competence and by those connected to the delivery and governance the built environment, including clients and other dutyholders, the new Building Safety Regulator introduced by the BSB, relevant accreditation bodies, relevant government departments, and insurers.

Annex A describes the Principal Designer role's functions and duties, the Principal Designer's relationship with other dutyholder roles, and how the duties and competence requirements map to this PAS. Annex B provides guidance for assessors, clients, and candidates hoping to assess themselves for Principal Designer competence. Annex C describes how the PAS maps to BSI Flex 8670.

This PAS does not cover:

- a) guidance about how to comply with or interpret legislation;
- b) the competence requirements for the role of Principal Designer under the Construction (Design and Management) Regulations 2015 (CDM Principal Designer);
- c) requirements for the organizational capability needed for organizations to carry out the role of Principal Designer;

- d) individuals' additional competence levels for projects of different complexity and type;
- e) additional competence levels for individual designers from different sectors or design disciplines, or with different work experience;
- f) pathways for individuals to acquire knowledge and understanding to meet competence requirements;
- g) systems for assessing competence; or
- h) individuals' required prior learning or eligibility criteria in the form of qualifications.

NOTE 3 APICD stipulates that persons in the role of Principal Designer must also be designers, which it defines as 'any person who, in the course of a business, carries out any design work or arranges for, or instructs, any person under their control to do so'.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this PAS<sup>1</sup>. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BSI Flex 8670, Built environment – Core criteria for building safety in competence frameworks – Code of practice

<sup>&</sup>lt;sup>1)</sup> Documents that are referred to solely in an informative manner are listed in the Bibliography.

#### 3 Terms and definitions and abbreviated terms

#### 3.1 Terms and definitions

For the purposes of this PAS, the terms and definitions given in BSI Flex 8670 and the following apply.

#### 3.1.1 accreditation

formal recognition by a regulated body that an organization engaged in assessment and certification activities is operating according to a prescribed standard

#### 3.1.2 building safety

any matter relevant to protecting the safety of people in and around buildings (including but not limited to fire safety, structural safety, public health and public safety) and pertaining to the specification, design, manufacture, procurement, construction, inspection, assessment, management, operation, maintenance, refurbishment and demolition of buildings

[SOURCE: BSI Flex 8670:2021, 3.2 adapted]

#### 3.1.3 building safety risks

risks that are inherent in the project brief and that arise during the design phase that have the potential to threaten compliance with the building regulations

#### 3.1.4 candidate

individual undergoing competence assessment to undertake the Principal Designer role

#### 3.1.5 competence(s)

combination of skills, knowledge, experience and behaviour that enable an individual to make decisions on an informed basis that results in safe outcomes for defined functions

[SOURCE: BSI Flex 8670:2021, 3.4 adapted]

#### 3.1.6 competence assessment

Evaluating and documenting evidence of an individual's performance against competence requirements

[SOURCE: BSI Flex 8670:2021, 3.5]

#### 3.1.7 competence framework

procedures and requirements for the assessment and maintenance of a set of agreed skills, knowledge, experience and behaviours required for an individual undertaking a role, function, activity or task in order to perform their work to predetermined standards and expectations and maintain or improve their performance over time

[SOURCE: BSI Flex 8670:2021, 3.6 adapted]

#### 3.1.8 competency/competencies

task level description of skills, knowledge, experience and behaviours required to undertake a defined task effectively

#### 3.1.9 compliance

fact of being in accord with the requirements of legislation and statutory regulations

#### 3.1.10 continuing professional development (CPD)

activities undertaken by individuals to maintain and develop competence, including formal and informal learning, self-assessment, obtaining feedback and identifying areas for improvement

[SOURCE: BSI Flex 8670:2021, 3.9]

#### 3.1.11 duty

obligation imposed by law on a natural person or organization

#### 3.1.12 dutyholder

individual or organization fulfilling a role with a duty or duties prescribed under the BSB and related regulations

[SOURCE: BSI Flex 8670:2021, 3.10 adapted]

#### 3.1.13 experience

knowledge or skill acquired by a period of practical experience of something, especially that gained in a particular profession, discipline, role or function

[SOURCE: BSI Flex 8670:2021, 3.11 adapted]

#### 3.1.14 gateway process

three key stages in design and construction, introducing new requirements during construction, that apply to higher-risk buildings:

- planning Gateway one at the planning application stage (which is covered under planning legislation);
- gateway two before building work starts; and
- gateway three when building work is completed.

NOTE Gateways two and three are covered under the BSB and are stop/go decision points that are passed before a development can proceed to the next stage.

#### 3.1.15 golden thread of information

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

[SOURCE: Building Regulations Advisory Committee: Golden thread report.]

#### 3.1.16 higher risk buildings

buildings subject to enhanced regulatory requirements in scope of the new, more stringent regulatory regime, as defined in the draft *Higher-Risk Buildings (Descriptions and Supplementary Provisions) Regulations, 2021* 

[SOURCE: BSI Flex 8670:2021, 3.15 adapted]

#### 3.1.17 prescribed information

information and documents set out in the draft The Building (Higher-Risk Buildings) (England) Regulations that form most of the content in the golden thread of information

NOTE This information is required in:

- building control applications that must be submitted to the Building Safety Regulator before building work starts;
- change control applications when deviations to original plans are proposed; and
- completion certificate applications that must be submitted to the Building Safety Regulator when building work is complete.

#### 3.1.18 prior learning

formal or informal learning that can be used as evidence by candidates to demonstrate their eligibility to undergo assessment or their competence to undertake a specific role

[SOURCE: BSI Flex 8670:2021, 3.20 adapted]

#### 3.1.19 risk profile

#### nature and level of threat in building safety risks in building work and/or a building

#### 3.2 Abbreviated terms

For the purposes of this PAS, the following abbreviations apply.

APICD	Draft Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations
BSB	Building Safety Bill
CCEA	Council for the Curriculum Examinations and Assessment
CDM	Construction (Design and Management) Regulations 2015
CDM PD	Principal Designer under CDM
CPD	continuing professional development
CQFW	Credit and Qualifications Framework for Wales
FHEQ	Frameworks for Higher Education Qualifications of UK degree-awarding bodies
HRB	higher-risk building
Ofqual	Office of Qualifications and Examinations Regulation
RQF	Regulated Qualifications Framework
SCQF	Scottish Credit and Qualifications Framework
SQA	Scottish Qualifications Authority

#### 4 Functional requirements and core competences

COMMENTARY ON CLAUSE 4

The primary aim of the BSB is to improve compliance with the building regulations so that buildings are safer for their users.

Except in the simplest projects, the process of compliance, which is significantly affected by the design work, requires a broad range of inputs from many design disciplines using in-depth knowledge, skills, and experience of many kinds and from many professionals in the field of the design and architecture.

It is unlikely that a single individual has this range or depth of competence. This is reflected in the duties placed on Principal Designers: the APICD does not require that Principal Designers have the full range and detailed technical knowledge, skills, and experience to understand how every design input can comply as part of an integrated whole. Instead, the APICD requires that Principal Designers plan, manage, monitor, and coordinate the design work.

The fulfilment of Principal Designers' duty to plan, manage, monitor, and coordinate is supported by designers' duty to be competent to comply with building regulations to the extent required by their domain-specific competence (e.g. as architects, engineers, plumbers, or specialist consultants).

It is not sufficient, however, for carrying out the Principal Designer role to be a box-ticking exercise to record designers' claims of compliance. Individuals in the new Principal Designer role should have the competence to facilitate and orchestrate the design work, and to interrogate design inputs in a way that holds designers to account and achieves regulatory compliance.

In overseeing the integration and finalisation of the design work, and liaising with the Principal Contractor, Principal Designers should be competent to analyse and evaluate building safety risks, and act on the resulting conclusions. They should also have an extensive grounding in the relevant technical and legal framework and systems of information management, and the competence to address any project-specific gaps in their own understanding.

While this suggests that Principal Designers should have whole-building competence and control of the design work, there are likely to be instances where it is reasonable for other types of designer to undertake the role. The

requirements of this PAS are therefore framed to include all kinds of designers regardless of their prior learning, qualifications, and sector- or discipline-specific skills, knowledge, and experience. (See Annex B1).

To fulfil the duties under the APICD and the draft Building (Higher-risk Buildings) (England) Regulations, the Principal Designers will need to have a high level of personal integrity and responsibility, and to be able to communicate openly and effectively, which is why appropriate behaviour features as a functional requirement, and why the associated core competences are equivalent to those required by professional codes of conduct.

The functional requirements and their related core competences in this PAS are separated into categories for ease of communication and to facilitate competence assessment. In practice, however, the separate categories overlap to a considerable extent and so are expected to be applied evenly and concurrently.

The Principal Designer shall demonstrate competence by applying the functional requirements set out in **4.1- 4.8** concurrently in the performance of their duties and in carrying out the role of Principal Designer or managing the function of Principal Designer.

#### 4.1 Legal framework and compliance

The Principal Designer shall have the competence to oversee the design work during the design phase so that, if built as designed, the building work to which design work relates would comply with relevant building regulations.

The Principal Designer shall have the core competences relating to the legal framework and compliance at the level for all buildings and, if working on a project that is or will be an HRB, at the level for HRBs, as set out below.

NOTE In accordance with Bloom's Taxonomy, the threshold level of understanding required in each of the core competences is set by the choice of verb. In Bloom's Taxonomy, there are six levels of understanding in the cognitive domain. From lowest to highest, they are remembering; understanding; applying; analysing; evaluating; and creating.

## 4.1.1 Core competences relating to the legal framework and compliance for all buildings

The Principal Designer shall:

- a) demonstrate knowledge about the general regulatory framework and legislation relevant to producing design work sufficient to coordinate ways to comply with relevant building regulations;
- b) demonstrate knowledge about relevant legislation to produce design work that, if built as designed, the building work to which the design work relates would comply with relevant building regulations;
- c) explain and, where they relate to the Principal Designer's role, use the prescribed procedures introduced under the BSB for all projects, including HRBs;

NOTE It is possible for projects that start off as non-HRBs to becomes HRBs and so it is important for all Principal Designers to understand the prescribed procedures for HRBs

d) explain the requirements related to HRB design work so that, if built as designed, the HRB building work to which the design work relates would comply with relevant building regulations;

e) demonstrate understanding of own duties, and explain other dutyholders' duties and competence requirements;

f) demonstrate knowledge about relevant legislation sufficient to coordinate the production of information relevant to the planning, managing, and monitoring building work to comply with relevant building regulations;

g) demonstrate knowledge about relevant legislation sufficient to oversee the production of information relevant to the coordination of design work and building work to comply with relevant building regulations; and

g) demonstrate knowledge about relevant legislation sufficient to coordinate the production of prescribed information for the golden thread of information in relation to HRBs.

## 4.1.2 Additional core competences for legal framework and compliance with the building regulations for HRBs

The Principal Designer shall:

- analyse legislation related to HRB design work so that, if built as designed, the HRB building work to which the design work relates would meet the applicable legal requirements comply with relevant building regulations; and
- analyse relevant legislation sufficient to coordinate the production of information relevant to the planning, managing, and monitoring of building work to comply with relevant building regulations.

#### 4.2 Design, coordination and integration

The Principal Designer shall have the competence to plan, manage, monitor and coordinate the design work and analyse and evaluate its integration during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant regulations.

The Principal Designer shall have the core competences for design, coordination and integration at the level for all buildings and, if working on a project that is or will be an HRB, at the level for HRBs, as set out below.

#### 4.2.1 Core competences for the design, coordination and integration for all buildings

The Principal Designer shall:

- a) plan, manage, and monitor design work during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations;
- b) plan, manage and monitor design work to coordinate the production of technical design inputs and agreed stage outputs during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations;;
- c) demonstrate understanding of the principles of building design (including the design of structures, fabric and services) sufficient to hold designers to account in the performance of their duties;
- d) assess the potential for unforeseen building safety risks to compliance to emerge when separately designed packages of design work are integrated;
- e) analyse technical design inputs and their integration into the design work to establish the likelihood that, if built as designed, the building work to which the integrated design work relates would comply with relevant building regulations; and

NOTE 1 Principal Designers should pay attention to all considerations, including the effect of changes on interdependent design features or strategies, and systems of quality assurance for works, services, products and materials, and their limitations.

f) evaluate the design work's likelihood of compliance if built as designed, communicate results to relevant dutyholders, and coordinate corrective design work.

NOTE 2 There are no additional core competences for design, coordination and integration for HRBs.

#### 4.3 Design risk management

The Principal Designer shall have the competence to analyse, monitor, manage building safety risks, and make decisions based on building safety risks during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations.

The Principal Designer shall have the core competences for design risk management at the level for all buildings and, if working on a project that is or will be an HRB, at the level for HRBs, as set out below.

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#### 4.3.1 Core competences for design risk management for all buildings

The Principal Designer shall:

- a) use the general principles of risk analysis and risk management sufficient to coordinate the identification, monitoring, and avoidance, elimination, mitigation, acceptance and control of building safety risks to compliance in the coordination and production of the design work;
- b) demonstrate understanding about the common hazards in existing buildings and that arise in design and building work, including those physical and systemic hazards that threaten fire safety, structural safety, and public health, sufficient to hold designers to account in the performance of their duties;
- c) assess the severity of potential impacts from hazards to coordinate design work that eliminates, avoids, reduces, mitigates, controls or accepts building safety risks in ways that comply with relevant building regulations;
- evaluate the potential for new building safety risks to emerge during the design phase and for the assessed severity of potential impacts of all building safety risks to change during the design phase;
- e) evaluate building safety risks and orchestrate proportionate responses from the design team during the design phase; and
- f) demonstrate understanding of the scope of relevant insurances and the limitations of relevant warranties to monitor their effect on building safety risks, and orchestrate proportionate responses from the design team and other dutyholders if building safety risks change during the design phase.

#### 4.3.2 Additional core competences for design risk management for HRBs

The Principal Designer shall evaluate building safety risks in connection with the regulated system of mandatory occurrence reporting sufficient to report events related to structural safety or fire safety in HRBs if they are assessed as posing a significant risk to life.

#### 4.4 Design project management

The Principal Designer shall have the competence to project manage the production of the design work during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations.

The Principal Designer shall have the core competences for design project management at the level for all buildings and, if working on a project that is or will be an HRB, at the level for HRBs, as set out below.

#### 4.4.1 Core competences for design project management for all buildings

The Principal Designer shall:

- analyse the project management processes involved in the coordination and production of design work sufficient to comply with relevant building regulations at the same time as meeting project objectives;
- b) evaluate the factors that affect the management of the project during the design phase, including the effect of change; and

NOTE The factors include:

- 1) the Client brief and project objectives, including key performance indicators;
- 2) the chosen procurement route and its effect on the order and progression of the design work;
- 3) contractual relationships between members of the design team;
- 4) the regulated duties and functions of members of the project team, including the Client, designers, the Principal Contractor, Contractors, Accountable Person, and Building Safety Manager, and their reciprocal arrangements for cooperating and sharing information relevant to compliance with the building regulations;

- 5) the limits of the design team's competence;
- 6) the assignment of responsibilities in the design team;
- 7) the available human resources in the design team;
- 8) the accessibility, currency and accuracy of information about the design work, including audit trails tracking changes;
- 9) the available project budget;
- 10) the agreed production programme;
- 11) the analysis and management of building safety risks; and
- 12) the effect of insurances.

c) demonstrate understanding of the factors that affect design management to plan, manage, monitor and coordinate the design work during the design phase.

#### 4.4.2 Additional core competences for design project management for HRBs

The Principal Designer shall:

- demonstrate understanding of dutyholders' and Building Safety Managers' duties, functions, activities, tasks and procedures associated with design work so that, if built as designed, the HRB building work to which the design work relates would comply with relevant building regulations;
- 2. analyse design progress to identify and report controlled and notifiable changes;
- **3.** create and maintain golden thread information, key building information, the design and build approach document, the fire and emergency file, a partial completion strategy, and the planning statement; and
- 4. create schedules of own appointees' responsibilities in the construction control plan.

#### 4.5 Design team facilitation and orchestration

The Principal Designer shall have the competence to orchestrate design team coordination and facilitate the production of the design work during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations.

The Principal Designer shall have the core competences for design team facilitation and orchestration at the level for all buildings and, if working on a project that is or will be an HRB, at the level for HRBs, as set out below.

#### 4.5.1 Core competences for design team facilitation and orchestration for all buildings

The Principal Designer shall:

- a) demonstrate understanding of designers' duties and limits of competence sufficient to assign responsibilities and monitor performance against agreed objectives to produce the design work;
- b) demonstrate understanding of designers' duties and limits of competence sufficient to orchestrate the design team coordination and facilitate the production of the design work;
- c) demonstrate understanding of the factors that motivate design team performance sufficient to comply with relevant building regulations at the same time as meeting agreed project objectives; and
- d) analyse designers' limits of competence sufficient to hold them to account for meeting agreed objectives and to identify when additional competence is needed.

## 4.5.2 Additional core competences for design team facilitation and orchestration for HRBs

The Principal Designer shall explain mandatory occurrence reporting procedures to design team members.

#### 4.6 Information management, including the golden thread of information

The Principal Designer shall have competence to use information management systems to support the planning, management, monitoring, and coordination of design work during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations, and so that sufficient information about the design work can be handed over to clients, Principal Contractors and replacement Principal Designers to allow them to fulfil the Client's, Principal Contractor's or replacement Principal Designer's duties.

The Principal Designer shall have the core competences for information management at the level for all buildings and, if working on a project that is or will be an HRB, at the level for HRBs, as set out below.

#### 4.6.1 core competences for information management for all buildings

The Principal Designer shall:

- a) use the principles of information management and related systems to coordinate the production of the design work during the design phase and to allow required information to be handed over to clients, Principal Contractors, and replacement Principal Designers;
- b) demonstrate knowledge about information management systems to plan, manage, and monitor design work and coordinate the design team's outputs by maintaining relevant information; and
- c) analyse the principles of information management and related systems sufficient to coordinate the maintenance and communication of information relevant to the planning, managing and monitoring of building work and to allow required information to be handed over to clients, Principal Contractors, Accountable Persons, and replacement Principal Designers.

#### 4.6.2 Additional core competences for information management for HRBs

The Principal Designer shall analyse information management systems on projects involving an HRB sufficient to establish and maintain:

- the golden thread of information, including the production, monitoring and communication of prescribed information; and
- the mandatory occurrence reporting system.

#### 4.7 Communication and cooperation

The Principal Designer shall have the competence to communicate and cooperate in overseeing the production of the design work and in carrying out own duties during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations.

The Principal Designer shall have the core competences for communication and cooperation at the level for all buildings and, if working on a project that is or will be an HRB, at the level for HRBs, as set out below.

#### 4.7.1 Core competences for communication and cooperation for all buildings

The Principal Designer shall:

a) use the principles of communication and cooperation sufficient to effectively plan, manage, monitor and coordinate the production of the design work;

- c) demonstrate knowledge of communication and cooperation in performing own duty to assist the Client in providing information to designers and contractors;
- demonstrate knowledge of communication and cooperation in performing own duty to liaise with the Principal Contractor and share with the Principal Contractor information relevant to the planning, management and monitoring of the building work and the coordination of design work and building work for the purpose of producing building work that complies with relevant building regulations;
- e) demonstrate knowledge of communication and cooperation in performing own duty to have regard to comments by the Principal Contractor about complying with relevant building regulations;
- f) demonstrate knowledge of communication and cooperation in performing own duty concerning relationships with other dutyholders for the purpose of producing building work that complies with relevant building regulations; and
- g) appraise the need to ask for assistance from appropriately competent persons when the Principal Designer's role is beyond own skills, knowledge or experience.

#### 4.7.2 Additional core competences for communication and cooperation for HRBs

The Principal Designer shall demonstrate understanding of the procedures for notifying the Building Safety Regulator, and applying for completion certificates.

#### 4.8 Appropriate behaviour

The Principal Designer shall have the competence to behave appropriately, including by demonstrating a commitment to a strong safety culture and the personal responsibility never to take on duties beyond own competence during the design phase.

The Principal Designer shall meet the core competences to demonstrate appropriate behaviour at the level for all buildings and, if working on a project that is or will be an HRB, at the level for HRBs, as set out below.

#### 4.8.1 Core competences to demonstrate appropriate behaviour for all buildings

The Principal Designer shall:

- a) demonstrate behaviour in accordance with the core behaviours set out in BSI Flex 8670 or any code of professional conduct aligned to BSI Flex 8670;
- analyse project-specific requirements and projects' specific risk profiles and evaluate own competence to undertake the role or manage the functions of Principal Designer before own appointment;
- c) analyse the amount of support likely to be needed from within own organization and/or from third-party persons to fulfil the duties of Principal Designer for specific projects and use the information to decide whether own competence is sufficient to undertake the role or manage the function of Principal Designer before own appointment;
- analyse the limits of own competence to turn down appointments to be Principal Designer if own competence, even with delegated support, is on the balance of risk insufficient for the needs of a specific project;
- e) monitor and evaluate project needs and building safety risks to identify gaps in own competence, and act to fill gaps after own appointment;
- f) monitor and evaluate changing project needs and building safety risks to determine the likelihood that design work will comply with relevant building regulations, and refuse to

carry out work if the design work cannot comply with relevant building regulations, after own appointment;

- g) evaluate understanding of core behaviours to:
  - 1) ask for help;
  - 2) cooperate with other dutyholders;
  - demonstrate having regard for Principal Contractor's comments related to complying with relevant building regulations;
  - 4) encourage design team members to comply with their own duties and cooperate with other dutyholders; and
  - 5) lead the team, establish a strong safety culture, and inspire teamwork; and
- evaluate understanding of how to manage, maintain and develop own competence to undertake the role or manage the duties of Principal Designer, including through formal and/or experiential learning, and/or by adhering to the terms and conditions of ongoing Principal Designer competence certification of any awarding body, certification body or register aligned to this PAS.

#### 4.8.2 Additional core competences to demonstrate appropriate behaviour for HRBs

The Principal Designer shall:

- evaluate project-specific requirements and projects' specific risk profiles, and own competence to undertake the role or manage the functions of Principal Designer, before own appointment;
- assess the amount of support likely to be needed from within own organization and/or from third-party persons to fulfil duties of Principal Designer for a specific project and use the information to decide whether own competence is sufficient to undertake the role or manage the function of PD before own appointment; and
- 3) judge the limit of own competence in order to turn down appointments to be Principal Designer if own competence, even with delegated support, is on the balance of risk insufficient for the needs of a specific project.

#### Annex A (informative)

#### A.1 Role definition

The duties of the Principal Designer introduced by the BSB are distinct from those of the dutyholder identified under CDM (CDM Principal Designer) for health and safety duties. Although the same person is likely to undertake both roles. The Client may decide to appoint a Principal Designer for CDM, and a separate Principal Designer for building regulations duties.

NOTE Regardless, the individual in the role or the individual managing the functions on behalf of the organization will need to be competent for the work.

The duties and competence requirements for dutyholders (including Principal Designers) under the Building Regulations and the rules for dutyholders' appointments are set out in the draft APICD.

Under the APICD, where there is more than one contractor likely to be undertaking building work, the Client must appoint a 'designer' with control over the 'design work' as Principal Designer.

NOTE 1 'Designer' means any person (including a client or contractor) who, in the course of a business, carries out any design work or arranges for, or instructs, any person under their control to do so.

NOTE 2 'Design work' means design of any building work.

NOTE 3 'Building work' has the meaning given in the Building Regulations 2010, which includes work on buildings that are already in operation and occupied [9].

NOTE 4 'Design phase' means any period of time during which design work is carried out for a project and may continue during the construction phase.

Principal Designer dutyholder role can be held by individuals (i.e. sole traders with no employees) or organizations. If held by an organization, the organization is responsible for designating an individual under their contractual control to manage the function on their behalf.

Whether the responsibilities are held by an organization or a sole trader with no employees, the individual carrying out the Principal Designer role or managing its functions should be competent at a level appropriate to the risks, size and complexity inherent in the project.

NOTE 5 For the avoidance of doubt, the competences needed to carry out the role of Principal Designer or manage the functions of Principal Designer are thought to be sufficiently similar to be treated as identical.

NOTE 6 As a minimum, the individual in the role of Principal Designer should meet the competence threshold for all buildings and, as the case may be, the competence threshold for HRBs, both of which are specified in this PAS.

Recognising that flexibility is important for complex projects, and to respond to emergent building safety risks, the Principal Designer can delegate functions and seek advice in fulfilling their duties either from within their own organization or from third parties, provided the persons supplying this advice are sufficiently competent. Individuals in the role of Principal Designer should nonetheless be individually competent to fulfil all their duties as Principal Designer to plan, manage and monitor the design work, cooperating and coordinating their work with other dutyholders and maintain control over the design work.

NOTE 7 Help that comes from within the Principal Designer's own organization is called organizational capability but, although defined in the APICD Regulations, is beyond the scope of this PAS.

#### A.2 Principal Designer role's functions and duties

The Principal Designer has several specific duties but the overall responsibility is to oversee the design work so that, if built, the building work to which the design relates would comply with relevant building regulations.

NOTE 1 Relevant building regulations include the functional requirements of the Building Regulations.

The duties that are specific to carrying out the Principal Designer role, and which are within the scope of this PAS, are set out below. Principal Designers should:

- a) plan, manage and monitor the design work during the design phase;
- b) coordinate matters relating to the design work comprised in the project to satisfy themselves that the primary duty is met;
- c) take all reasonable steps to satisfy themselves that designers and any other person involved in relation to design work cooperate with the Client, the Principal Designer, the Principal Contractor and each other;
- d) take all reasonable steps to satisfy themselves that the design work of all designers is coordinated so that the primary duty is met;
- e) take all reasonable steps to satisfy themselves that designers and any other persons involved in relation to design work comply with relevant building regulations;
- f) liaise with the Principal Contractor and share with the Principal Contractor any information relevant to the planning, management and monitoring of the building work, and the coordination of building work and design work for the purpose of satisfying themselves that the building work will meet the comply with relevant building regulations;
- g) have regard to comments provided by the Principal Contractor in relation to comply with relevant building regulations; and
- h) assist the Client in providing information to other designers and contractors, if requested.

If the Principal Designer is replaced before the end of the design phase, it should prepare a document for the Client to explain the arrangements the Principal Designer put in place to fulfil the Principal Designer's duties. The incoming Principal Designer should review these arrangements to satisfy itself that the primary duty can be met.

#### A.2.1 Competence requirements

The Principal Designers should:

- a) comply with the relevant building regulations;
- b) cooperate with other persons in relation to the work;
- c) ask for assistance, where necessary;
- d) refuse to carry out any design work if they cannot meet the primary requirement; and
- e) refuse to carry out work which is beyond their skills, knowledge or experience.

The Principal Designer's duties and competence requirements (i.e. functions) under the APICD form the basis of the provisions specified in this PAS, as mapped out in Table A.1.

## Table A.1 – Matrix mapping functions of the Principal Designer role to functional requirements in this PAS

Functional requirements in PAS 8671

Principal Designer functions	Cl. 4.1 Legal framework and compliance	Cl. 4.2 Design, coordination, and integration	Cl. 4.3 Design risk management	Cl. 4.4 Design project management	Cl. 4.5 Design team facilitation and orchestration	Cl. 4.6 Information management	Cl. 4.7 Communication and cooperation	Cl. 4.8 Appropriate behaviour
Technical oversight of design work								
Comply with relevant building regulations	$\checkmark$		~					
Coordinate design work		$\checkmark$		$\checkmark$				
Have regard to Principal Contractor comments about complying with relevant building regulations			~				~	~
Project management of design work								
Plan, manage, monitor design work	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$		
Encourage designers to perform their legal duties	$\checkmark$				$\checkmark$		$\checkmark$	$\checkmark$
Coordinate work of the design team	$\checkmark$				$\checkmark$	$\checkmark$		
Encourage design team to cooperate with dutyholders					$\checkmark$		$\checkmark$	$\checkmark$
Information management during design phase								
Maintain information relevant to planning, managing, and monitoring of building work	$\checkmark$					$\checkmark$		
Maintain information relevant to the coordination of design work and building work	√					~		
Liaise with Principal Contractor							$\checkmark$	
Assist the Client in providing information to designers and contractors							~	
Behavioural functions during design phase								
Ask for assistance from others where necessary							$\checkmark$	$\checkmark$
Refuse to carry out work if it cannot comply with relevant building regulations								$\checkmark$
Refuse to carry out work if beyond Principal Designer's competence								$\checkmark$
Cooperate with others							$\checkmark$	$\checkmark$

This PAS also incorporates the shared responsibilities of Principal Dutyholders and possible requirements in relation to helping the Client to comply with the draft Building (Higher-risk Buildings) (England) Regulations, as mapped out in Table A.2.

	-							
		Functional requirements in PAS 8671						
	Cl. 4.1 Legal framework and compliance	Cl. 4.2 Design, coordination, and integration	Cl. 4.3 Design risk management	Cl. 4.4 Design project management	Cl. 4.5 Design team facilitation and orchestration	Cl. 4.6 Information management	Cl. 4.7 Communication and cooperation	Cl. 4.8 Appropriate behaviour
Principal Designer functions								
Assist the Client in managing controlled and notifiable changes	~			$\checkmark$				
Before the Client ceases to be the Client, assist the Client to gather together information for the new Client	$\checkmark$							
Contribute to creating and maintaining Golden Thread information, key building information, design and build approach document, fire and emergency file, partial completion strategy, and planning statement	~			V				
Assist the Client in arrangements for an electronic facility and procedures for maintaining it	~					$\checkmark$		
Assist the Client in creating and maintaining key building information	~			$\checkmark$				
Establish and maintain a system that enables the prompt reporting of safety occurrences and appropriate frequency of inspections of HRB design work throughout the construction phase			V		✓	~		
Encourage reporting people to know how to report safety occurrences			$\checkmark$					

# Table A.2 – Matrix mapping functions of the Principal Designer role to functional requirements in this PAS

Follow the reporting procedure and, when necessary, provide written reports about safety occurrences	√	~				
Assist the Client in notifying the regulator in writing that HRB work has been completed					~	
Assist the Client in applying for completion certificates, contribute to compliance declarations, and/or if necessary explain in writing why compliance cannot be declared	V					
Contribute to construction control plan a schedule of own appointees and their responsibilities			$\checkmark$			

#### A.3 Principal Designer role's relationship with other dutyholder roles

Under the APICD, dutyholders have reciprocal duties not to accept roles for which they are not competent, and the Principal Designer and the Principal Contractor have reciprocal duties to meet all applicable requirements, cooperate, and share information with each other. This is intended to promote the accountability, competence, transparency and teamwork necessary for establishing a strong safety culture and compliance with relevant legislation over the life of a project and beyond into operation. The reciprocity that underpins these duties apply to all design and building work regardless of whether it is related to HRBs.

Beyond these general designer duties, the Principal Designer has specific duties owed to other dutyholders.

#### A.3.1 Principal Designer's relationship with clients

Principal Designers should support clients' duties to make suitable arrangements to plan, manage and monitor the project by:

- a) planning, managing, and monitoring the design work;
- b) maintaining building information and assisting the Client in providing it to designers and contractors;
- c) providing the Client with a document explaining the arrangements put in place to fulfil the Principal Designer's duties, if the Principal Designer's contract ends before the end of the project;
- d) refusing to carry out work that is beyond the Principal Designer's competence; and
- e) refusing to carry on with the design work if complying with relevant building regulations is in jeopardy.

#### A.3.2 Principal Designer's relationship with designers

Principal Designers should support designers by:

- a) orchestrating the planning, managing, and monitoring the design work so that it is coordinated;
- b) facilitating designers to cooperate with other dutyholders; and
- c) helping designers to perform their legal duties.

#### A.4.3 Principal Designer's relationship with Principal Contractors

Principal Designers should support Principal Contractors by liaising with the Principal Contractor and sharing information relevant to:

a) inform the planning, management and monitoring of the building work; and

b) coordinate building work and design work for the purpose of complying with relevant building regulations.

#### Annex B (informative)

#### B.1 Guidance for assessors and awarding bodies

#### **B.1.1 Conformance to this PAS**

This PAS is for the construction industry's various domain-specific (i.e. sector-, discipline- or role-specific) independent or in-house competence assessors and awarding bodies (including education providers, licensing or certification bodies, professional institutions, CPD providers, trainers, or designer organizations) who want to amend existing competence frameworks or syllabuses, or develop new ones, so that candidates in their target cohorts can demonstrate their baseline competence to be Principal Designers.

Competence frameworks or syllabuses that conform to this PAS give confidence that, no matter what the domain, candidates whose competence is assessed against them are tested for the same competences to the same threshold level.

NOTE 1 Assessments carried out against conforming competence frameworks developed in-house (by, for example, architectural or engineering firms) or developed independently by awarding bodies are likely to give more confidence if the assessment systems used are accredited, third-party assessed, registered, monitored through CPD, and subject to periodic revalidation.

NOTE 2 This PAS conforms to BSI Flex 8670, which recommends that individuals working in the construction industry should maintain their competence through CPD and have their competence periodically revalidated.

#### **B.1.2 Adoption**

Because the core competences in this PAS are phrased using verbs that map to Bloom's Taxonomy, they communicate the desired learning objectives in a consistent language that is intended to ease their translation to and adoption in existing or new competence frameworks or syllabuses.

For example, provided the objectives of a relevant qualification are defined using Bloom's Taxonomy, it should be possible to determine whether that qualification already meets the level of competences specified in this PAS and so the extent to which the qualification already indicates that the qualification holder is competent to take on the role of Principal Designer. Analysis will highlight where there are gaps, setting the agenda for how the syllabus and learning pathways should be amended.

#### **B.1.3 Standards and quality**

The competence thresholds in this PAS for all buildings and, separately, for HRBs, were set by industry consensus, balancing an aspiration for improved outcomes through high standards against practical realities of how design work is delivered on actual projects.

The PAS 8671 Steering Group's conclusions acknowledge that the range of possible situations where a Principal Designer might be appointed is very wide, from simple refurbishment jobs to complex major projects. They also acknowledge that the range of designers who could take on the role is very wide, including but not limited to design and build contractors, MEP contractors, structural engineers, and registered architects. For these reasons, this PAS does not set any eligibility criteria or required prior learning.

While the competence specified in this PAS is tightly focused on the Principal Designer role, the level of competence needed to conform to it is appropriate to the seriousness of the responsibilities involved. Assessors and awarding bodies are expected to ensure that, in conforming to this PAS, their systems of assessment, learning pathways, and the quality of evidence they require from candidates are proportionate to the level of the role.

The levels in this PAS are not aligned to the UK's national qualifications frameworks although, in the interests of consistency, it is highly desirable that awards that meet the levels through training courses and examinations for Principal Designer competence should be so.

NOTE 1 The relevant home nations qualifications frameworks are the Regulated Qualifications Framework (RQF) in England, the Council for the Curriculum Examinations and Assessment (CCEA) in Northern Ireland, the Credit and Qualifications Framework for Wales (CQFW), the Scottish Credit and Qualifications Framework (SCQF) in Scotland, and the Frameworks for Higher Education Qualifications of UK Degree-awarding Bodies (FHEQ) in the UK.

In the interests of assuring the quality of awards for Principal Designer competence, it is highly desirable that assessors' and awarding bodies' awards are accredited and recognised by the relevant national statutory regulator.

NOTE 2 The national statutory regulators are Ofqual in England and Northern Ireland, Qualifications Wales in Wales, Scottish Qualifications Authority (SQA) in Scotland, and CCEA in Northern Ireland.

#### **B.2 Guidance for clients**

#### **B.2.1 Whole-building competence**

Even apparently simple projects can entail significant building safety risks, some of which only emerge during the project. It is important, therefore, that the person the Client appoints in the Principal Designer role is alive to this potential and can respond competently if need be. Since building safety risks can arise when design work is integrated, it is helpful if the individual in the role has the skills, knowledge and experience to oversee design work of the whole project rather than just a part of it.

#### **B.2.2 Appointment: assurance and competence**

In appointing Principal Designers, sufficient competence is theoretically assured by the Principal Designer's duty only to take on work that they are competent to carry out. Nonetheless, clients might want some independent assurance in the form of evidence of track record, referrals, and, if they conform to this PAS, recognised awards, certificates of competence, third-party assessments of competence, or certified qualifications, equivalent qualifications, and professional registrations or licenses.

#### B.2.3 Appointment: competence proportionate to risk

The competence levels in this PAS should be thought of as the minimum threshold for individuals carrying out the role or managing the functions of Principal Designer. Although these levels are set comparatively high, clients should satisfy themselves, as a regulated duty as well as normal due diligence, that the person they appoint in the Principal Designer role has specific competencies relevant to the brief, building type, and risk profile of a specific job.

#### **B.2.4 Supporting behaviours**

The smooth functioning of the Principal Designer role depends critically on the individual in the role demonstrating appropriate behaviours, some of which are duties. The duties include having the integrity and personal responsibility to refuse to take on work that is either beyond their competence or is unlikely to result in building work that can comply with the building regulations.

NOTE The Client has a reciprocal duty to cooperate with the Principal Designer in fulfilling the Principal Designer's duties, and so should support these behaviours.

#### **B.3 Guidance for self-assessment**

Individual candidates interested in offering their services to carry out the role of Principal Designer or manage its functions can use this PAS to assess their own competence first.

They should appraise their knowledge, skills, experience and track record of behaviour honestly, in reference to actual situations where they demonstrated the required competences to the required level.

If they find any gaps in their competence, they should record and target them for formal or informal learning. Formal learning can be achieved through CPD, certification, gaining qualifications, or other kinds of training. Informal learning can be achieved on the job and under appropriate supervision by volunteering for projects, functions, tasks, and activities, or shadowing an individual who is appropriately competent.

There is no requirement for candidates to undergo formal in-house or independent assessment to demonstrate their competence. Doing so however tests the findings of self-assessment in an unbiased way and inspires confidence in clients, co-workers, and insurers.

NOTE Third-party assessment that conforms to this PAS and is carried out by an accredited, recognised independent assessor is likely to inspire the most confidence.

#### Annex C (informative)

#### C.1 Relationship of PAS 8671 to BSI Flex 8670

BS Flex 8670 stipulates that competence frameworks in the construction industry are organized under its overarching core behavioural competences and core functional requirements. These are:

- a) ethical principles, standards and conduct;
- b) building safety principles and standards;
- c) managing building safety;
- d) knowledge management and communication; and
- e) building as systems, construction products and quality.

NOTE The purpose of BSI Flex 8670 is to harmonize sector-specific competence frameworks to ensure terminology and objectives are consistent and to allow competences from different frameworks to be compared.

The functional competences in this PAS shall map to BSI Flex 8670's core competences as shown in Table C.1.

## Table C.1 – Mapping functional requirements in PAS 8671 to core competences in BSI Flex 8670

Function	В	F	Μ	Κ	S
Legal framework and compliance	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
The Principal Designer shall have the competence to oversee the design work during the design phase so that, if built as designed, the building work to which design work relates would comply with relevant building regulations.					
Design coordination and integration	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
The Principal Designer shall have the competence to plan, manage, monitor and coordinate the design work and analyse and evaluate its integration during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant regulations					

# Table C.1 – Mapping functional requirements in PAS 8671 to core competences in BSI Flex 8670

Function	В	F	М	κ	S
Design risk management	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
The Principal Designer shall have the competence to analyse, monitor, manage building safety risks, and make decisions based on building safety risks during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations.					
Design project management	$\checkmark$		$\checkmark$	$\checkmark$	
The Principal Designer shall have the competence to project manage the production of the design work during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations.					
Design team facilitation and orchestration	$\checkmark$		$\checkmark$	$\checkmark$	
The Principal Designer shall have the competence to orchestrate design team coordination and facilitate the production of the design work during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations.					
Information maintenance, including the golden thread of information	$\checkmark$	$\checkmark$	√	√	
The Principal Designer shall have competence to use information management systems to support the planning, management, monitoring, and coordination of design work during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations, and so that sufficient information about the design work can be handed over to clients, Principal Contractors and replacement Principal Designers to allow them to fulfil the Client's, Principal Contractor's or replacement Principal Designer's duties.					
Communication and cooperation	$\checkmark$		$\checkmark$	$\checkmark$	
The Principal Designer shall have the competence to communicate and cooperate in overseeing the production of the design work and in carrying out own duties during the design phase so that, if built as designed, the building work to which the design work relates would comply with relevant building regulations.					

# Table C.1 – Mapping functional requirements in PAS 8671 to core competences in BSI Flex 8670

Function	В	F	Μ	Κ	S
Appropriate behaviour	$\checkmark$		$\checkmark$	$\checkmark$	
The Principal Designer shall have the competence to behave appropriately, including by demonstrating a commitment to a strong safety culture and the personal responsibility never to take on duties beyond own competence during the design phase.					
Key to CORE COMPETENCES					
B = Behavioural competence					
F = Fire safety, structural safety and public safety					
M = Managing building safety					
K = Knowledge management and communication					
S = Buildings as systems, building systems and construction	on pro	ducts			

#### Bibliography

#### **Standards publications**

For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BSI Flex 8670 v3.0:2021-04, Built environment – Core criteria for building safety in competence frameworks – Code of practice

#### Other publications

[1] GREAT BRITAIN. Construction (Design and Management) Regulations 2015. London: The Stationery Office, 2015.

[2] HM GOVERNMENT. Building Safety Bill. London: The Stationery Office. July 2021.

[3] GREAT BRITAIN. The draft Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations. London: The Stationery Office. 2021.

[4] HM GOVERNMENT. *Building a Safer Future, Independent Review of Building Regulations and Fire Safety: Final Report.* 2018.

[5] GREAT BRITIAIN. The draft Higher-Risk Buildings (Descriptions and Supplementary Provisions) Regulations 2021. London. The Stationery Office. 2021.

[6] CONSTRUCTION INDUSTRY COUNCIL. Setting the Bar: a new competence regime for building a safer future; The final report of the Competence Steering Group for Building a Safer Future. October 2020.

[7] Ministry of Housing, Communities and Local Government. Building Safety Bill Explanatory Notes. 2021.

[8] Anderson, Lorin W.; Krathwohl, David R. eds. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Longman.

[9] GREAT BRITAIN. The Building Regulations. London: The Stationery Office. 2010.