RIBA Plan of Work

Identifying Existing Fire Safety Issues

0 Strategic Definition	1 Preparation and Brief	2 Concept Design	3 Developed Design	4 Technical Design	5 Construction	6 Handover and Closeout	7 In Use
Briefing		Design			Delivery	Defects Period and Aftercare	Evaluation
			Planning	Tender Action		Occupation	

Building Regulations Requirements Fire Safety – Design Decisions					B1, B5	B2, B3, B4, M	2. PART B DESIGN DECISIONS TOO LATE	
Statutory Bodies	HSE				3. NO INVOLVEMENT OF HSE			
	Local Planning Authority			PLANNING APPROVAL			5. LATE APPROVALS CAN RUN INTO CONSTRUCTION	
	Building Control Body			4. LIMITED ADVICE OR INVOLVEMENT		DETAILED FULL PLANS APPROVAL	COMPLETION APPROVAL	
	Fire and Rescue Authority						6. NO APPROVAL FOR OCCUPATION	7. NO FRA OVERSIGHT OF BUILDING MANAGEMENT
Client Team	Client/Building Owner 1. NO DUTYHOLDER							
	Users/Residents		8. NO USER / RESIDENT INPUT					9. ONLY SUPERFICIAL INVOLVEMENT WITH MANAGEMENT + MAINTENANCE
	Facilities Manager/ Building Safety Manager		10. NO EARLY INVOLVEMENT				11. NO PRE-HANDOVER REVIEW	
	Project Lead			12. NO CONTINUED MANAGEMENT OVERSIGHT OF THE PROJECT				
	Insurer/Warranty Provider		13. NO EARLY INVOLVEMENT				14. NO VALIDATION OF WORKS	
	Clerk of Works						15. NO INDEPENDENT INSPECTION	16. NO INVOLVEMENT IN REVIEWING DEFECTS
Design Team	Principal Designer 1. NO DUTYHOLDER			17. NO PRINCIPAL DESIGNER INVOLVEMENT				
	Architect/Architectural Designer		18. LIMITED INVOLVEMENT				19. LATE FIRE SAFETY DESIGN	
	Structural Engineer			20. NO ENGAGEMENT				
	Building Services Engineer							
	Specialist Consultants (eg. access, fire engineering)							
Construction Team	Principal Contractor 1. NO DUTYHOLDER				21. NO PRE-TENDER ADVICE		22. LATE DESIGN	
	MEPH Contractor							
	Specialist Sub-Contractors (inc. product manufacturers)							

KEY

The RIBA conducted a review of the current industry delivery of fire safe design, construction, and ongoing maintenance of buildings, including the findings from the Independent Review of Building Regulations and Fire Safety, and has identified several issues.

Dame Judith Hackitt DBE FREng called for transparency, strengthened accountability and greater collaboration, across statutory authorities, and the client, design and construction teams. A key culture change within the industry is not only greater collaboration between these parties, but including users and residents within design, management and maintenance of the buildings they occupy – with a direct route to the fire and rescue authority at regular reviews.

Read in conjunction with the Existing Fire Safety Issues and Proposed Solutions Table and the RIBA Plan of Work for Fire Safety, this process map identifies gaps in necessary involvement, late input, lack of dutyholder responsibilities and limited statutory approvals.

- Statutory oversight
- Briefing and consultation
- Fire safety design
- Construction
- Occupation and management

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RIBA Plan of Work for Fire Safety

RIBA Plan of Work

0 Strategic Definition	1 Preparation and Brief	2 Concept Design	3 Developed Design	4 Technical Design	5 Construction	6 Handover and Closeout	7 In Use
Briefing		Design			Delivery	Defects Period and Aftercare	Evaluation
			Planning	Tender Action		Occupation	
Statutory Gateways				Gateway 1	Gateway 2	Gateway 3		
Building Regulations Requirements Fire Safety – Design Decisions			B1, B5	A, B4, M	B2, B3, 7			
Statutory Bodies							
HSE				HSE3	HSE4	HSE5	HSE6	HSE7
Local Planning Authority			LPA2	PLANNING APPROVAL LPA3	LPA4			
Building Control Body			BCB2	BCB3	DETAILED FULL PLANS APPROVAL BCB4	COMPLETION APPROVAL BCB5		
Fire and Rescue Authority			FRA2	FRA3	FRA4	OCCUPATION APPROVAL FRA5	SAFETY CASE REVIEW FRA6	SAFETY CASE REVIEW FRA7
Client Team							
Client/Building Owner (DUTYHOLDER)	KEY REQUIREMENTS CBO0	BRIEF CBO1 ☑	FINAL BRIEF CBO2 ☑	CBO3	CBO4	PRE-OCCUPATION ASSESSMENT CBO5 ☑	DIGITAL RECORD FEF CBO6 ☑	DIGITAL RECORD FEF CBO7 ☑
Users/Residents		U1	U2				U6	U7
Facilities Manager/ Building Safety Manager		FM1				FM5	FM6	FM7
Project Lead		PL1	PL2	PL3	PL4	PL5		
Insurer/Warranty Provider		IN1			IN4	IN5		
Clerk of Works					CW4	CW5	CW6	
Design Team								
Principal Designer (DUTYHOLDER)			FIRE SAFETY STRATEGY PD2 ☑	FIRE SAFETY COORDINATION PD3 ☑	FIRE SAFETY SPECIFICATION PD4 ☑	INSPECTION REPORTS DIGITAL RECORD & FEF PD5 ☑	PD6	
Architect/Architectural Designer		A1	A2 ✓	A3 ✓	A4 ✓	A5 ✓		
Structural Engineer			SE2	SE3 ✓	SE4 ✓	SE5 ✓		
Building Services Engineer			BS2	BS3 ✓	BS4 ✓			
Specialist Consultants (eg. access, fire engineering)			SC2	SC3 ✓	SC4 ✓			
Construction Team								
Principal Contractor (DUTYHOLDER)				(PCSA) PC3	PC4 ✓	PROGRESS REPORTS DIGITAL RECORD & FEF PC5 ☑	PC6	
MEPH Contractor				(PCSA) MEPC3	MEPC4 ✓	MEPC5 ✓		
Specialist Sub-Contractors (inc. product manufacturers)				(PCSA) SUBC3	SUBC4 ✓	SUBC5 ✓		

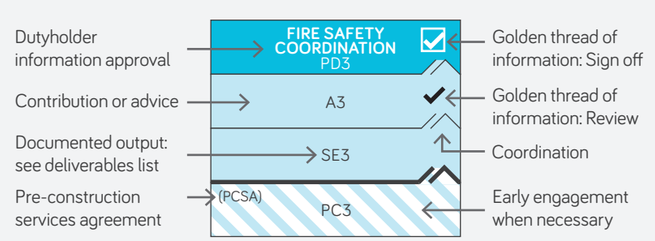
KEY

The RIBA Plan of Work for Fire Safety maps roles, responsibilities and deliverables for Fire Safety of project team members and statutory bodies on building projects across the eight stages of the RIBA Plan of Work.

The roles of the statutory bodies, clearly defined by three strategic gateways and associated safety case reviews under occupation, and the designation of CDM 2015 dutyholders, follows the recommendations of the final report by Dame Judith Hackitt DBE FREng, 'Building a Safer Future, Independent Review of Building Regulations and Fire Safety', May 2018. The RIBA proposes that this framework can be applied to a wider range of building types and scales.

The RIBA Plan of Work for Fire Safety provides a simple, effective and clear structure, setting out Hackitt's golden thread of information, identifying when built environment professionals, legislators and those invested in building projects are required to review their deliverables against the current fire safety information, and when dutyholders are required to sign-off the information as conforming to the regulatory requirements and approved plans.

- Statutory oversight
- Briefing and consultation
- Fire safety design
- Construction
- Inspection
- Occupation and management



- Statutory approval gateway
- Occupation commencement

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RIBA Plan of Work for Fire Safety Consultation

Identifying existing fire safety issues and proposed solutions table

Ref	Current Issues	Proposed Solutions
1	**No dutyholders**	**Assigned dutyholders**
	No clear allocation of responsible persons across the design team in building projects. No clarity that the client / building owner is the responsible person under the Regulatory Reform Order (Fire Safety), or a key duty-holder under Construction (Design and Managements) Regulations 2015. The flow of fire safety design information from design stage through construction and into a final operation and maintenance file (Regulation 38) is poorly administered and often incoherent for the owner / user and for use in future design advice. Through the process of the building project, fire safety design information gets fragmented when it passes between the project team and from the design team to the contractor in Design & Build projects.	Following CDM 2015, dutyholders consisting of the, Client / Building Owner, Principal Designer and Principal Contractor, with respect to all Fire Safety issues from design to construction to maintenance to refurbishment. A digital record (golden thread) should be maintained from design intent, through to construction, including any changes that occur and any subsequent changes throughout occupation. This record would be used by the duty-holders to demonstrate to the regulator the safety of the building throughout its lifecycle, and for use by the building manages and users. A Fire and Emergency File is required to sit alongside the CDM Health and Safety File, adhering to Regulation 38 requirements (This would require a revision to the CDM 2015 Guidance or addressed under separate legislation).
2	**Part B design decisions too late**	**Part B design decisions agreed early**
	Building Regulations 2010, Part B1 to B5 and part M, are considered too late in the design and construction process, resulting in inadequate or incomplete designs and subsequently late changes.	Earlier consideration of the Building Regulations Requirements, Part A, Part B, Part M and 7 within the design stages will ensure that these can be considered in a timely manner and reviewed and assessed accordingly with the design team. Agreeing these upfront and earlier from Stage 2 through to Stage 4, ensures that fire safety design is complete and can be signed off by the statutory authorities, prior to Stage 5 construction.
3	**No involvement of HSE**	**HSE provide fire safety regulatory oversight from Stages 3 to 7**
	No involvement of HSE for fire safety of building users in any building project.	HSE applies risk management expertise and oversight of the regulatory system for fire safety, with enforcement powers and ability to issue stop notices prior to construction or during occupation.
4	**Limited advice or involvement of Fire and Rescue Authority and Building Control**	**Fire and Rescue Authority and Building Control are statutory consultees of planning applications (Statutory Gateway 1)**
	There is limited advice or involvement from Building Control Bodies and the Fire and Rescue Authority at Stages 2 and 3. Currently, there is no Fire Brigade consultation prior to the submission of a Planning application, where site layout is designed and agreed following an approval. This can lead to Fire brigade access being compromised or non-compliant, with potential changes as the project is developed in Stage 4. Limited involvement by Building Control Bodies results in inadequate or no advice on external wall / façade materials, space separations and unprotected areas etc. Such design decisions, form key aspects of the design ethos and geometry, may need to be revised. Late changes, often without a full review of the wider design team, not only causes delay, but can lead to design coordination being overlooked, with changes made at the latter RIBA Stages.	Early engagement and advice from Building Control Bodies and the Fire and Rescue Authority will provide comments, considerations and requirements that need to be made at the early stages of the design, feeding into the project strategies and forming the core regulatory foundation to develop a coordinated design. These bodies are statutory consultees of planning applications (Statutory Gateway 1) and can advise for the need of fire safety planning conditions or recommend that planning permission is not given, providing reasons for both.

Ref	Current Issues	Proposed Solutions
5	Late approvals can run into construction	Approvals issued prior to construction (Statutory Gateway 2)
	Building Regulations Plans Approval, such as Conditional Approvals, can enable construction works to begin on site following a notice of intent to Building Control. Without all necessary changes to the plans having been made an approved, fire safety requirements can be left out of the project.	A detailed Full Plans Approval at Stage 4 (Statutory Gateway 2), must adequately address key building safety risks, including approval of Regulatory Requirement A (Structure), B (Fire Safety), M (Access to and use of buildings) and 7 (Construction Materials and workmanship), prior to construction works commencing in Stage 5.
6	No Approval for occupation	Occupation approval required (Statutory Gateway 3)
	Buildings can be occupied for sleeping, accommodation and other uses prior to the provision of a Building Regulation Completion Certificate or review by the Fire and Rescue Authority. This permits lax approaches to rectifying defective or incomplete works, and can result in poor fire safety management processes during the use of buildings.	A Building Regulations Completion Certificate must be issued by Building Control, prior to occupation of any building (Statutory Gateway 3). This verification and approval process can certify that the building has been delivered in accordance with the approved plans, and any subsequent changes since Full Plans Approval have been verified as meeting Building Regulations requirements. This approval would also be contingent on the release of the Digital Record and Fire and Emergency File, to enable the building owner and residents to understand how to manage operate their building.
7	No Fire and Rescue Authority oversight during the buildings use	Ongoing Fire and Rescue Authority Safety Case Reviews
	The current process for Fire Risk Assessments operate on a self-certification basis following occupation, which are commonly very poorly controlled or executed by someone with the relevant skills, knowledge and experience. There is generally no agreed review schedule, or consideration of the risk level of the building / use and when reviews require to be re-visited after alterations are made to the building.	A Safety Case Review programme is agreed prior to occupation with the Fire and Rescue Authority on a risk-based approach. The dutyholder (Client / Building Owner) will ensure that reviews are undertaken by a competent person with the relevant skills, knowledge and experience. The Fire and Rescue Authority and HSE will undertake review visits and have the authority to issue stop/rectification notices.
8	No User/Resident Input in briefing and design	Integrated User/Resident Role at RIBA Stages 1 and 2
	Users/Residents have no input into the initial Preparation and Brief (RIBA Stage 1) and Concept Design (RIBA Stage 2). The process of developing the brief lacks input on the access requirements and behavioural feedback of the users, including comments on the conceptual design and fire safety management strategy.	Users/Residents included in RIBA Stages 1 and 2 will assist the wider project team of use characteristics and behaviours. The more that residents are informed the better they will be able to understand and play an active role in maintaining fire safety.
9	Users / Residents only have superficial involvement with management and maintenance	Integrated User/Resident role at Stages 6 and 7 throughout the occupation of the building
	Currently, there is only superficial involvement of users/residents with the management, maintenance and refurbishment works of their buildings. There is a lack of complete information to inform users on the safety and potential changes to their building. There is no clear route for residents to raise concerns, or to escalate concerns where these have not been addressed by the building owner.	Users/residents to be given a clear and integrated role in the ongoing management, maintenance and refurbishment works of their building. Residents voice to be provided with new rights, enhanced involvement, better information and transparency, with reassurance and recourse to the Fire and Rescue Authority and HSE The Building Owner Dutyholder should have a resident engagement strategy in place to convey to residents their duties and how residents will be included in decisions that affect their building.

Ref	Current Issues	Proposed Solutions
10	**No Early Involvement of**	**Involvement of facilities manager / building safety manager at RIBA Stage 1**
	Facilities Manager / Building Safety Manager are not involved in developing Brief in Stage 1. This key information is required to ascertain the projects spatial requirements, management preferences and specific role feedback on other projects.	Input from the Facilities Manager / Building Safety Manager at RIBA Stage 1 will provide a more robust, in depth and accurate Brief. Their involvement will strengthen the fundamental requirements for the operation and maintenance of the building, highlighting feedback from previous projects, the control and management preferences and any existing or expected fire strategy measures.
11	**No pre-handover review by the Facilities Manager**	**Earlier appointment of Facilities Manager / Building Safety Manager at Stage 5**
	Facilities Managers, appointed by the Client / Building Owner to manage day to day issues, are often third parties and not involved in Handover and Closeout, where critical information regarding the systems, manuals, maintenance requirements etc are handed over to the Client / Building Owner.	A Facilities Manager / Building Safety Manager should be appointed by the Client / Building Owner for day to day management and fire safety issues, as well as a point of contact for users / residents and statutory authorities. Combined with their proposed earlier involvement in Stage 1 the Facilities Manager / Building Safety Manager will have a clearer understanding of how the building has been designed to operate in relation to passive and active fire protection measures.
12	**No continued fire safety programme management by Project Lead**	**Increase scope of involvement and oversight of the project by the Project Lead**
	Fore fire safety, the Project Lead is currently only involved at RIBA Stages 1 and 2, where the services relate to establishing the project programme, management procedures and negotiating the other client appointments and hierarchy of responsibility.	An increased and continued management oversight of the project by the Project Lead will continue to maintain the project management procedures and the exchange of information between the Project Team in relation to fire safety. A management oversight role will enable the Client / Building Owner to understand the fire safety status of the project.
13	**No early Insurer / Warranty Provider involvement**	**Early Insurer / Warranty Provider involvement at Stage 1**
	Insurers and warranty providers are not involved in the building project at an early stage, where their input and requirements can be intrinsic to the geometry and technical design. Late advice results in design changes often when the large proportions of the design have been agreed or even on site, resulting in late variations and inadequate provision.	Once the need for a building project is identified, Insurers / Warranty Providers should be involved from Stage 1 to provide input into the brief. Early involvement enables Insurers / Warranty Providers to state technical project requirements, e.g. sprinklers, fire safety measures and protection, means of escape etc, to ensure that the building project would be eligible for insurance.
14	**No validation of works by Insurer / Warranty Provider**	**Validation of works by Insurer / Warranty Provider prior to occupation**
	Prior to Handover and Closeout, there is no formal review and validation of the works to confirm that the building meets the requirements for insurance and warranty.	At the end of Stage 5 construction, Insurers / Warranty Providers must review and validate works, to ensure compliance with their technical requirements provided at Stage 1.
15	**No independent inspection of construction works**	**Independent inspection of construction works at Stage 5 by the Principal Designer and supported by a Clerk of Works**
	Currently, third party inspection and self certification of works, undertaken as a route of inspection on many buildings has proven to be inadequate, resulting in major fire safety issues.	Independent inspection and validation of the works by Principal Designer dutyholder, supported by a Clerk of Works, appointed directly by the commissioning client, can apply an independent level of scrutiny without a conflict of interest.

Ref	Current Issues	Proposed Solutions
16	No involvement in reviewing defects	Clerk of Works and Principal Designer to review defects at Stage 6
	There is no involvement of the clerk of works or principal designer in reviewing defects and approving rectification, leaving vital review processes with self certification.	Independent inspection by the clerk of works, alongside review by the principal designer in identifying defects and approval of rectification works in RIBA Stage 6, can validate that the passive and active fire protection measures have been installed as designed.
17	No Principle Designer for fire safety	Principle Designer made a dutyholder for Fire Safety
	The Principal Designer under The Construction (Design and Management) Regulations 2015 has no duties with respect to Fire safety of building users. This highlights the need for a broader scope for the Principal Designer, where the dutyholder considers fire safety from concept design through to handover.	The Principal Designer role should include due consideration for the life safety of building users, with emphasis on fire safety. The RIBA recommends a modification of CDM 2015 Statutory instrument to enforce fire safety dutyholder involvement.
18	Limited involvement of the Architect / Architectural Designer in briefing	Involvement of the Architect / Architectural Designer from Stage 1
	At the briefing stage there is limited involvement of the Architect / Architectural Designer, who can provide the necessary skills, knowledge and experience in developing the brief with the project team.	Involvement of the Architect / Architectural Designer at Stage 1 will assist in the preparation and development of the brief, to ensure that key project information has been included before the concept design is developed.
19	Late fire safety design form the Design Team	Fire safety design completed before construction begins
	Late fire safety design occurs at the construction stage. Fire safety protection measures are not fully designed or left for contractor design at Stage 5 which often results in ambiguities and unintended omissions.	All technical design is completed at Stage 4. Design Team complete all design prior to construction, to achieve full plans approval at Statutory Gateway 2 Where designs cannot be progressed without the need for specialist sub-contractor design, then early engagement with the construction team should be obtained (see point 21).
20	No engagement of engineering and specialist consultants in Stage 2	Early engagement of engineering and specialist consultants in Stage 2
	No engagement of the Structural Engineer, Building Services Engineer and Specialist Consultants at Stage 2. Concept designs lack necessary and critical input of these services to inform the full fire safety strategy, leading to unintended omissions or errors in fire safety design.	Early consultation with Structural Engineers, Building Services Engineers and Specialist Consultants, with respect to fire issues, is necessary to inform the full fire safety strategy and building geometry at concept stage. This provides required advice to develop the design sufficiently for fire safety, including the preparation of the maintenance, operational and construction strategies, and risk assessments.

Ref	Current Issues	Proposed Solutions
21	No pre-tender construction advice	Pre-construction services agreements when necessary
	No pre-tender advice from the construction team prior to contractor appointment results in inadequately resolved or costed MEPH and specialist sub-contractors details, solutions, and diminishes robustness of the outline specification for fire safety, leading to changes at the latter RIBA work stages.	Prior to contactor appointment, a pre-construction services agreement can provide more accurate cost certainty and agreed fire safety specifications, reducing the likelihood of amendments and late design during construction. Either the Design team should fully design for fire safety (traditional procurement) or a Pre-Contact Service Agreement for fire Safety design should be contracted (design and build procurement). Advice from the contactor, MEPH and Specialist Sub-Contractors can inform the developed and technical design, where fire safety design and specification can be fixed and approved before Full Plans Approval.
22	Late design by Construction Team	Design completed prior to RIBA Stage 5
	Specialist and contractor design portion occurs too late which often results in ambiguities and unintended omissions that are not coordinated with the original design. Fire safe specification can be value engineered by the contractor comprising the integrity of the fire safety design.	Early consultation with the construction team is necessary to address fire safety issues and specification to inform the overall fire safety design and cost plan. This ensures that the design and specification for fire safety is agreed prior to construction, and is delivered as designed. A rigorous change control process is required after Statutory Gateway 2, which would not jeopardise the fire safety design.