

THE LONDON
SCHOOL
OF
ARCHITECTURE



PART 4

DESIGN FOR LIFE? FIRE SAFETY
AND PROPERTY RESILIENCE

* Prospectus for 2023

→ the-lsa.org/programmes/part4/

INTRODUCTION

A developing catalogue of digital and blended **MODULAR LEARNING EXPERIENCES** for **BUILT ENVIRONMENT PRACTICES** and **PRACTITIONERS** to **ACCESS ANY TIME**, anywhere.

* PART 4: MODULAR LEARNING FOR PROFESSIONAL PRACTICE

In a changing world, learning shouldn't stop after Part 3. In fact, it should never stop. That's why we are reclaiming the CPD and training landscape and developing our ground-breaking Part 4 programme: modular learning experiences for professional practice.

2020: A CALL FROM OUR PRACTICE NETWORK

In 2020 we engaged with our Practice Network to understand experiences of professional learning in its current form. Practice Network members shared frustration that quality professional learning material was difficult to find and time consuming in seeking out - they wanted someone to make their lives easier.

They challenged us to develop regular content for them and we responded with our "Collective Peer Development" programme - a series of weekly CPD sessions designed to have an afterlife, rather than just becoming another box ticking exercise and a free lunch.

2021: A CHANGING REGULATORY LANDSCAPE

In 2021 the RIBA launched The Way Ahead - its Educational and Professional Development Framework - and the ARB published its consultation on CPD. Their ideas were similar to ours - both recognising the need for driving up competence in the profession, and recognising the commercial CPD market was failing to deliver. We responded by designing more robust training and development modules that would rise to the new regulatory standards practitioners would have to meet.

2022: PART 4: POST QUALIFICATION LIFELONG LEARNING

We teamed up with subject-specific experts and a wide range of practitioners from across the built environment to create meaningful learning experiences that:

- * cover mandated essentials under new regulatory frameworks
- * provide knowledge and skills to push businesses forward

Using our experience and knowledge of teaching in our Part 2 programme, we developed a learning programme that puts design at the heart of all our learning experiences - something our competitors don't offer.

2023: PART 4 UNVEILED

The first three of our innovative, modular courses will be delivered in-person starting in May with fully online and hybrid options available in the autumn.

These courses will ultimately save practices time and resources by providing a one-stop shop for their staff training and development, meeting regulatory requirements and further developing the skills and competencies of practitioners.

This course will focus on:

- * Health and Life Safety (RIBA Mandatory Core Competency)
- * Fire and Life Safety (ARB requirement)
- * Property Protection and Resilience (extending beyond the current regulatory frameworks).

This will answer to ARB's beefed-up powers under the Building Safety Act to monitor ongoing competency and the RIBA's Mandatory Core Competencies for Chartered Membership. The RIBA's Health and Safety competency is likely to be a mandatory condition of membership from 2024.

DESIGN FOR LIFE? FIRE SAFETY AND PROPERTY RESILIENCE

Coordinated by **Dr Liam Ross**, Senior Lecturer at the University of Edinburgh and author of *Pyrotechnic Cities: Architecture, Fire-Safety and Standardisation*. With an expert advisory panel that includes:

Paul Bussey **AHMM**, Helena Rivera **A SMALL STUDIO**,
Paul Hyett **VICKERY HYETT**, Arita Morris **GGW ARCHITECTS**,
Ian Abley **FIRE PROTECTION ASSOCIATION**

* **OUTLINE**

The LSA is launching its Part 4 courses on Fire, Health and Life Safety in response to the tragic fire at Grenfell Tower, the Edinburgh Schools scandal, and the passing of the Building Safety Act 2022.

Questions of ethics, design and commercial practice can sometimes be side-lined through a focus on regulation and competence. This courses cover all topics included in the RIBA's 'Health and Life Safety' Knowledge Schedule, and the ARB's competence guidance on Fire and Life Safety, preparing candidates for related professional competence tests. However, it also seeks to exceed those requirements, reflecting on safety as a political and ethical concern, understanding fire-as a design-driver, identifying shortcomings in existing statute, and recognising the commercial pressures architect's face in the post-Grenfell context. It offers a unique learning experience that narrows the gap between the technical and the social, the legal and the creative.

Design is central to the concerns and delivery of this course. An understanding of core competencies will be introduced through weekly design exercises, which will support participants in exploring the generative

potential of fire-safety guidelines, and assist them in developing confidence in identifying fire-safety risks. Weekly talks will be led by industry experts, and grounded in current professional practice. Participants will be supported to apply learning to live projects, by design, and through a reflective statement of the way Fire, Health and Life-safety informs their own professional practice. Taken together, the course aims to support a new generation of practitioners to engage critically and creatively with this topic, forging a culture of responsibility and excellence.

* AUDIENCE

This courses is aimed at architects in practice, architectural students, as well as clients and built environment professionals who have a role in the design of buildings. Structured through current UK statute and standards, these courses are nonetheless relevant to a global audience. They introduce fundamental principles of fire-safety design and risk management, as well as ethical issues and technical challenges necessary today to ensure health and life safety in design and construction.

WEEKLY OVERVIEW

Structured through the RIBA work-stages, the course introduces a series of topics as they occur within the life-cycle of a building project.

RULES

- * What caused the Grenfell Tower fire?
- * Were regulation to blame?
- * How is the architect's competence defined, and when are other forms of expertise required?

The first week offers an overview of the legal frameworks for fire, health and life-safety in the UK. Expert guests will discuss limitations in UK statute with respect to property resilience, detailed failings revealed by the Grenfell Tower fire. They will outline changes made in the wake of that fire, and their consequence for professional practice. Mapping out how responsibility for fire, health and life-safety is distributed between stakeholders in the building process, the first week will assist architects in assessing their own competence, and recognising where additional expertise is required, so as to support the client in appointing a suitable design team. The content of week 1 maps against the RIBA CPD core curriculum requirements for 'Legal Regulatory and Statutory Compliance'.

MONEY

- * What are the economic consequences of fire, health and life-safety concerns?
- * How does Insurance shape building design?
- * What civil liabilities are architects exposed to?

The second week considers the economic impacts of fire, health and life-safety, recognising commercial pressures that the delivery of safe design are subject to.

Expert guests will consider the commercial importance of fire-safe design for property investment and business continuity, introducing frameworks for enhanced property resilience by-design. Discussing the importance of engaging insurers early, and the potential to reduce client premiums as well as opportunities for enhanced fee income through fire-safe design. The content of week 2 maps against the RIBA CPD core curriculum 'Business, Clients and Services'.

DESIGN

- * What is fire?
- * What design principles should we employ to limit its spread?
- * Are ambitions for enhanced fire-safety and sustainability incompatible?

The third week of the course focusses on fire-safety as a design-driver. It outlines the fundamentals of fire-science and first-principles for fire-safe design. Expert guests will extend these concerns beyond the requirements of UK statute to consider a wide range of design concerns to be addressed at concept stage. A particular focus will be offered on the challenge of fire-safe timber construction, and the challenge of balancing the demands of fire-safety with increased ambitions for sustainability. The content of week 3 maps against the RIBA CPD core curriculum 'Design, construction and technology'.

MATERIALS

- * How do materials respond to fire?
- * How is that performance certified, and can certification be trusted?
- * How can detail for fire-safety, and recognise unsafe details?

The fourth week explains material performance in fire, processes of material certification, and principles of fire-safe detailing. Expert guests will detail shortcomings in product certifications revealed by the Grenfell Tower fire, and offer guidance for specifying safe materials.

The content of week 4 maps against RIBA CPD core curriculum 'Design, construction and technology'.

RISK

- * What are most significant risks in construction?
- * What are the principles of design risk management?
- * How can architects design-out risk, and how can they limit their own risk-exposure?

The fifth week of the course outlines key construction-phase risks, introduces general principles of prevention, and the way these should be addressed in building design. Expert guests outline the way risk-management practices have been effected by post-Grenfell regulation, as well as the impact of this event on architect PII premiums. Week 5 maps against RIBA CPD core curriculum 'Health, Safety and Wellbeing'.

THE USER

- * Why were the safety concerns of Grenfell's resident's ignored?
- * What can architects do to ensure the 'user's voice is heard'?
- * What is the 'responsible person' responsible for, and how can their insights improve design?

The final week of the course consider the role of the user in building safety post-construction, and strategies for effective stakeholder engagement. Expert guests explain how a neglect of the user's voice played a role in the Grenfell Tower fire, and provide guidelines for effect engagement with building occupants during the design phase. The responsibility of building users for ongoing safety is also considered, as well as the design insights that might be drawn from Facilities Managers and the 'Responsible Person'. Week 6 content maps against RIBA CPD core curriculum 'Inclusive Environments'.

LEARNING OUTCOMES

Fire, Health and Life Safety courses will meet and exceed core competences required by relevant ARB competence guidelines and RIBA Knowledge Schedules, challenging participants to apply this learning through design exercises and live projects.

On completion of the FHALS1 course, participants will:

- * Understand the potential health and safety consequences of poor design decisions.
- * Understand the role of the architect for Fire, Health and Life-Safety, as well as where and how input should be sought from other experts and stakeholders.
- * Understand the regulatory context for Fire, Health and Life safety within the UK, and be able to review a selected project for compliance with these codes.
- * Understand the principles of design risk management, and be able to
- * Understand the civil liability and insurance implications of design decisions, and be able to design buildings to reduce client insurance costs.
- * Understand the fundamental of fire science, and demonstrate an ability to limit the spread of fire and smoke through passive design principles.
- * Understand the importance of the User's Voice, and be able to use effective mechanisms for stakeholder engagement.

- * Understand the importance of the User's Voice, and be able to use effective mechanisms for stakeholder engagement.
- * Understand the significance of product specification for fire-safety, and be able to make informed decisions about materials and detailing for fire-safety.
- * Understand the role others play in ensuring health and safety, and the fire and life-safety information to be provided by the architect.
- * Understand the key risks entailed by construction, and be able to design buildings that mitigate construction risk by design.
- * Understand the key risks experienced on site visits, and demonstrate an ability to complete a Site Hazards Assessment.
- * Understand the key information required for Fire, Health and Life Safety.
- * Understand the key risks entailed by building maintenance, and be able to design buildings that mitigate maintenance risk by design.
- * Demonstrate an awareness of the importance of an ethical, and research-informed approach to architectural design.

* **LEARNING INTERACTIONS**

The course has been developed with and is delivered by leading UK practitioners and related experts with a deep insight and personal passion for Fire, Health and Life Safety. It is supported by educators, researchers and activists who bring additional insight to bear on these concerns. This content will be delivered through preparatory exercises and weekly in-person events.

PRE-QUIZ

Core competencies will be introduced and assessed through a weekly 'pre-quiz', allowing participants to gauge their existing understanding against mandatory knowledge frameworks, and focus learning on selected topics.

DESIGN EXERCISES

The courses are unique in putting design front and centre in questions of Fire, Health and Life Safety, and in offering an interactive and applied learning experience. Weekly design exercises will be offered supporting participants in analysing fire-safe design, and exploring the generative potential of fire-safety principles. No software will be required, and design exercises will be accessible to those with or without professional architectural training.

EXPERT TALKS

Beyond core competencies, weekly in-person meetings will host talks from industry experts, offering personal insight, professional guidance and opportunity for discussion through concise illustrated articles, podcast talks and videos.

PEER DISCUSSION AND FEEDBACK

Weekly in-person meetings will also provide opportunities for peer discussion of core competencies, and the impact of Fire, Health and Life Safety concerns on their own practice.

APPLIED LEARNING AND RESOURCES

The course will also provide structured prompts that support participants to apply weekly learning to live projects in their own practice, to develop a reflective statement on the way Fire, Health and Life-safety informs their own professional practice, as well as providing take-away resources for use in their future practice.

* ASSESSMENT AND FEEDBACK

The Fire, Health and Life Safety course has been designed to prepare candidates to successfully complete forthcoming mandatory competence tests. Participants understanding of core-competencies, and readiness for the RIBA Health and Safety test, will be self-assessed

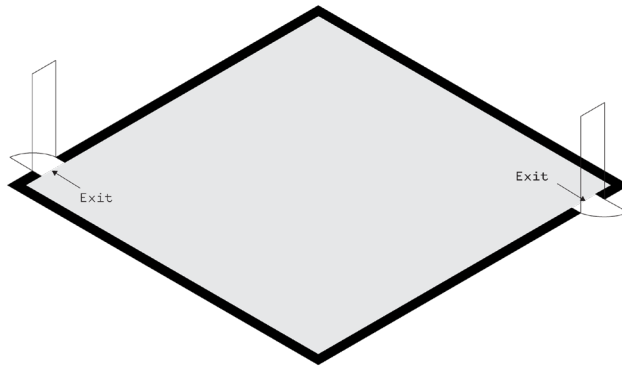
through weekly pre-quizzes, with opportunities for in-person and expert feedback on topics not understood. Applied learning and reflective statements will support participants to preparation for the ARB's Fire and Life Safety statement.

* EXAMPLES OF LEARNING INTERACTIONS

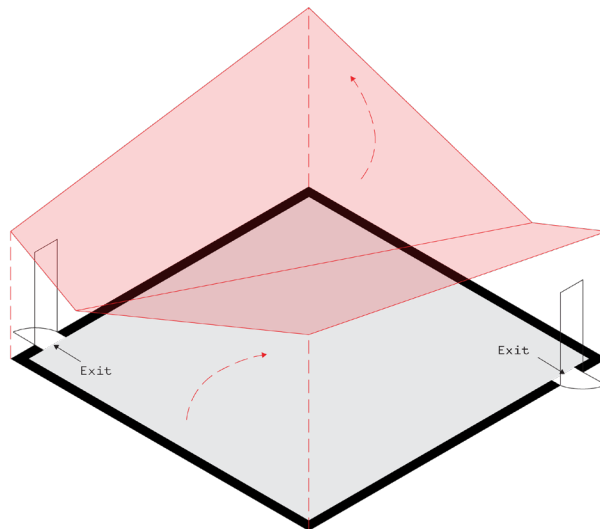
DESIGN EXERCISES

Sample question:

For the room below, illustrate how ceiling profile might be used to direct smoke away from the direction of escape.

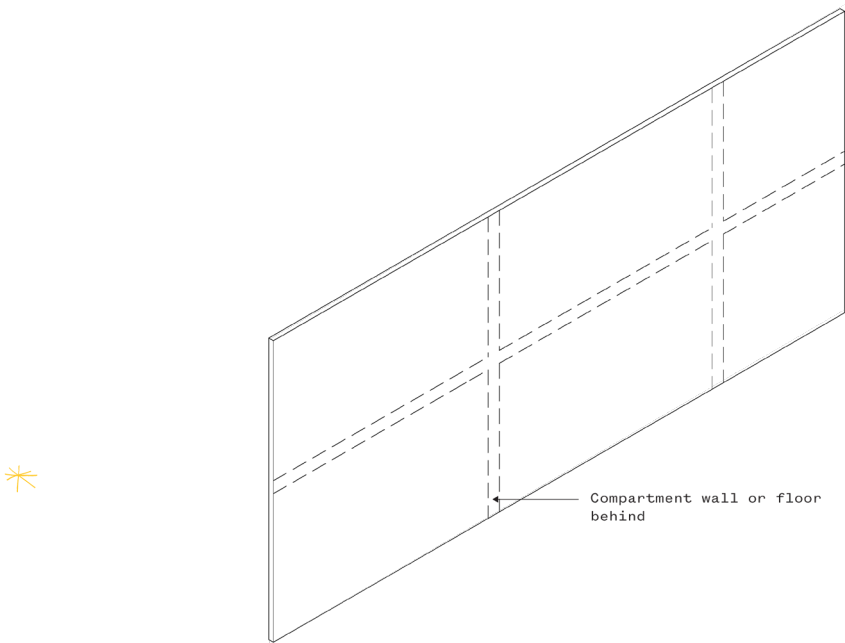


Sample answer:

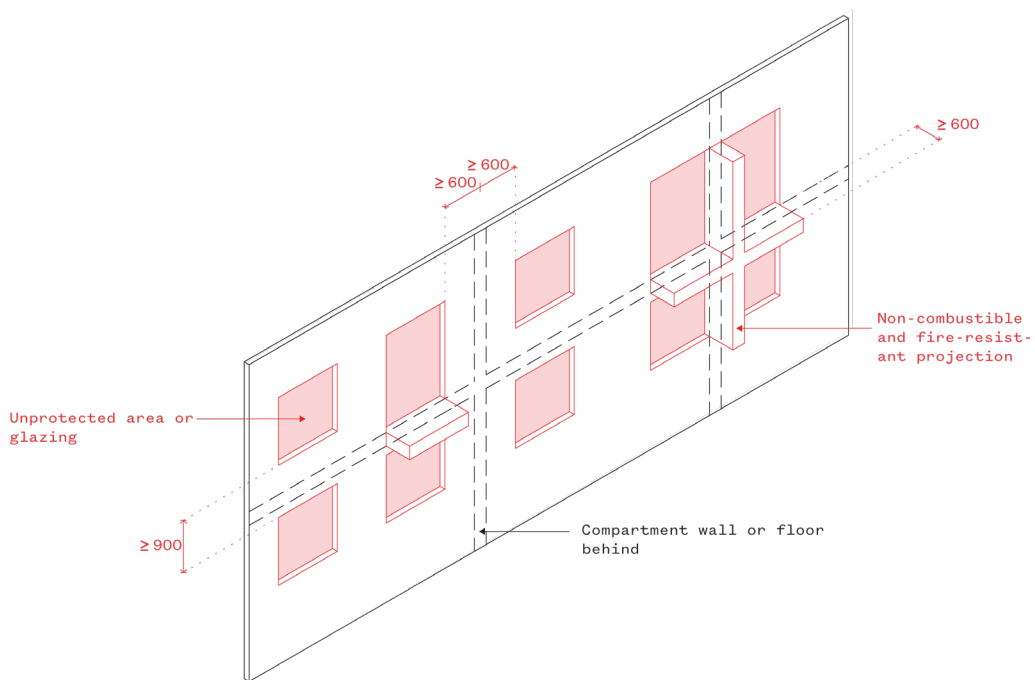


Sample question:

For the façade below, illustrate how the spread of fire between compartments might be limited through the location of unprotected areas and openings.



Sample answer:



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