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BUILDING SAFETY SUMMIT

BUILDING TOGETHER FOR A SAFER FUTURE

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DISCLAIMER

The presentations today are intended to outline general updates to the Building Safety Act as they are at this current point in time. The legislation is continuously changing so what may be accurate today may not be in the future. The content is for information purposes only and outlines some guidance on how to address the requirements of the Act but should not be construed or used as legal advice or application of any law, regulation or regulatory guideline.

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AGENDA

10:40 – 11:10

OPENING ADDRESS

Building a Safer Future: Time to Rethink, Reset and Take Responsibility

Dame Judith Hackitt

11:10 – 11:25

HEALTH & SAFETY

Best Practices for a Safer Future

Debi Waite, Health & Safety Executive (HSE)

11:25 – 11:40

UPDATES TO THE STANDARDS

BS 8644 – Digital Management of Fire Safety Information

Varun Soni, calfordseaden

11:40 – 12:00

PANEL DISCUSSION

Dame Judith Hackitt, Debi Waite, Varun Soni, Steve Rudge

12:00 – 13:00

LUNCH

AGENDA

13:00 – 13:30
GETTING THROUGH THE GATEWAYS

Gateway 1, 2 & 3

Mark Turner, AEW Architects

Steve Rudge, Symetri

13:30 – 14:00
STEPS TO SUCCESS

Adopting smarter building processes for high-risk buildings and beyond

Steve Rudge, Symetri

14:00 – 14:20
Q&A

Opportunity to ask our experts any questions you may have

14:20 – 14:30
WRAP UP

14:30
CLOSE

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At Symetri we have continuously expanded to provide even better leading-edge solutions and services to more markets.

1000
EMPLOYEES

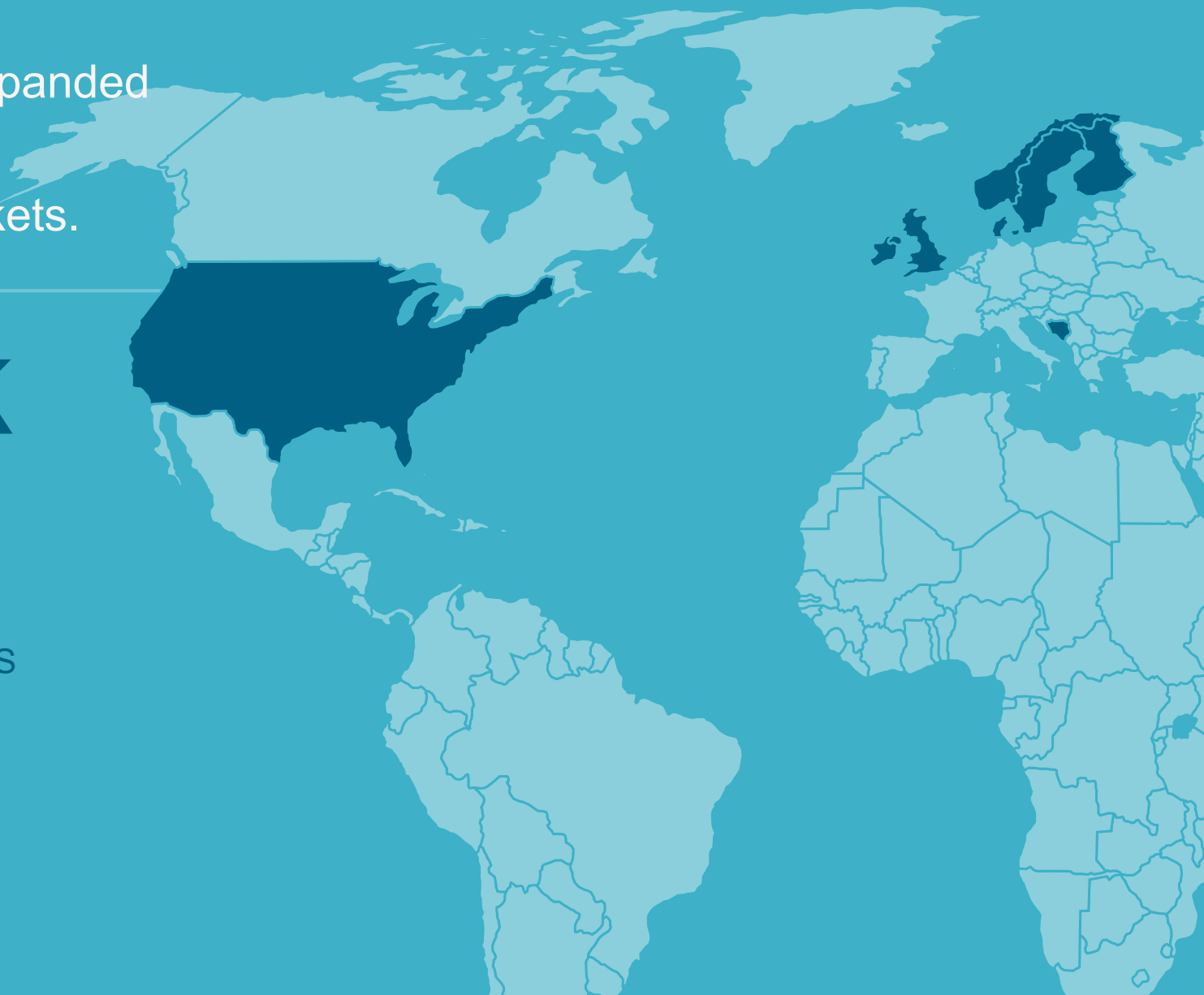
400K
USERS DAILY

7
COUNTRIES

500+
CONSULTANTS

33
OFFICES

90
DEVELOPERS



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OUR CORNERSTONES

LEADING-EDGE TECHNOLOGY

KNOWLEDGE & EXPERTISE

WORK SMARTER

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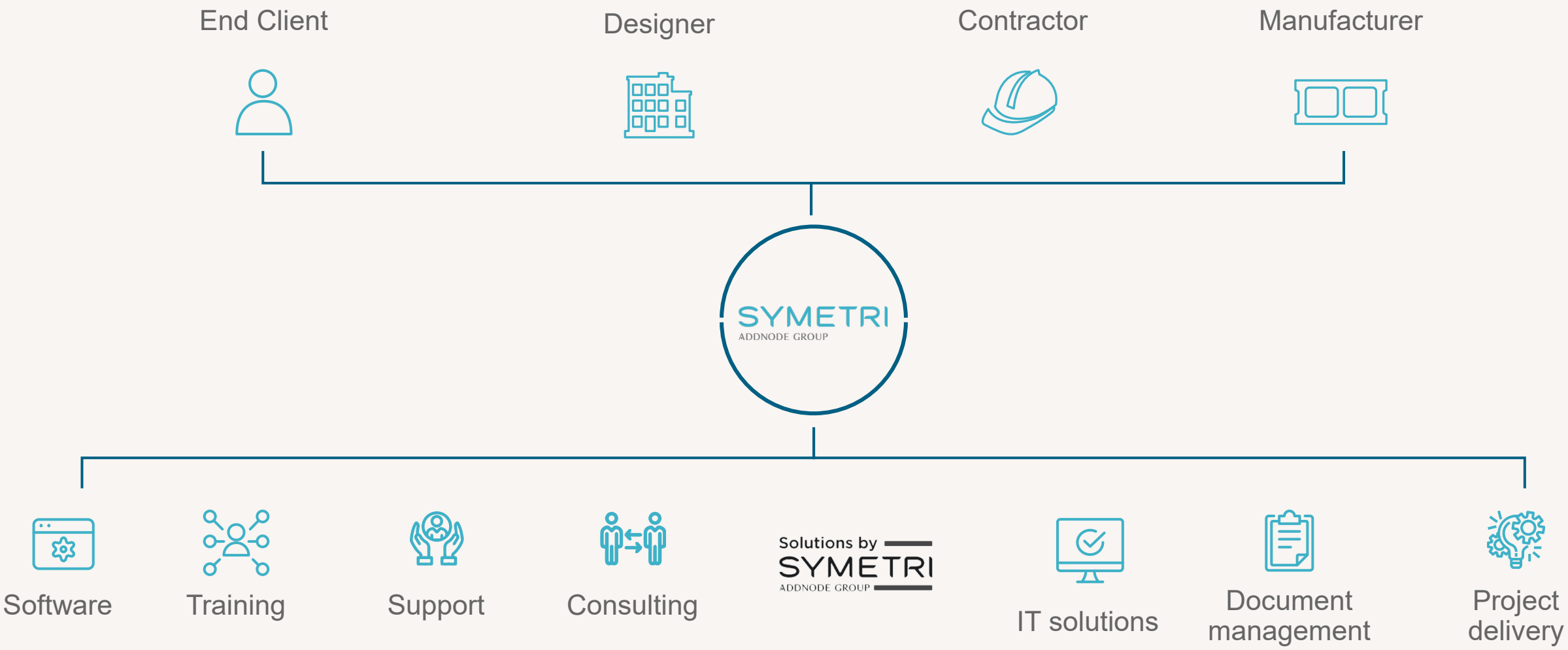
WHAT WE DO



TECHNOLOGY

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“The focus of the legislation is on the buildings of highest risk…but the underlying message is very clear. Those same high standards of construction should be applied everywhere”

DAME JUDITH HACKITT: 2023

Adviser to UK and Australian Governments on Building Safety

Building a Safer Future :

Fire Safety

Time to Rethink, Reset and Take Responsibility

10th October 2023

Dame Judith Hackitt DBE FREng

Symetri Building Safety Summit, Manchester

In June six years ago we were all in a state of shock and horror at what had just happened…….

Six long years since the tragedy and when my review started in the wake of Grenfell Tower…

Timeline

- July 2017 - Public Inquiry announced - ongoing
- August 2017 – Started Independent Review of Building Regulations and Fire Safety
- May 2018 – Final Report published
- July 2018 Industry Safety Steering Group established
- Late 2019 new Building Safety Regulator and Construction Products Regulator announced
- April 2022 Building Safety Act receives Royal Assent
- October 2023 Registration of all buildings in scope
- April 2024 Act takes full effect

The world has changed in the meantime
- and will continue to do so

- Brexit
- Covid 19
- Climate change and its impacts
- Concern about serious health risks in buildings
- Inflation
- Political Uncertainty

- Building safety is now also about quality and resilience – it is our collective responsibility to fix these issues for the long term
- Every element of every building has a part to play
- Requires many champions to maintain focus and drive

On Building Safety – My review showed a system that was broken, not fit for purpose and had to be fixed

Diagnosis of the problem

- The existing regulatory system for ensuring fire safety in high rise and complex buildings was weak and ineffective with little or no enforcement – a new regulator was needed.
- Industry behaviour was characterised as a “race to the bottom” with significant evidence of gaming the system
- Conflicts of interest abounded
- Design, change management and record keeping was poor, both during construction, occupation and refurbishment
- Experts were not listened to, Residents were not listened to
- Culture of the whole construction and built environment industry has to change
- Product testing, marketing, labelling and approval processes are flawed, unreliable and behind the times – new regulator needed
- General lack of assured competence and QA across the sector
- Unspoken knowledge about extent of shortcuts being taken without real assessment of potential consequences
- Trust and confidence has been betrayed

The new regime underpinned by a set of key principles is now very close

- A systems based approach to both regulations and to buildings
- Competence, accountability and responsibility at the heart of the system
- A culture change with:
  - Positive incentives for good building practices and those who are willing to stand up and be counted for doing the right thing.
  - Punitive sanctions for those who continue to try to game the system.
- A risk-based, proportionate regulatory framework
- An outcomes-based framework to encourage real ownership and accountability – overseen by the regulator with those undertaking design and building work needing to demonstrate they know what they have and are doing all they can to manage and reduce risk.
- Focus on delivering quality buildings which are safe and feel safe to live in
- Genuine engagement with and concern for residents and rebuilding of trust and reputation

Time to Rethink and Reset

- Regulatory change was and is a very necessary precursor but not the whole story by any means
- The new outcomes based framework shifts responsibility and accountability and is clear about who the dutyholders are
- Those who continue to wait for further detail in secondary regulation are missing the point – in a big way
- This is no longer about compliance – but demonstrating that the Building SYSTEM will work and be safe
    - breaking out of silos and collaborating
    - cannot assume others have done their bit
    - all foreseeable events need to be considered – not dismissed
    - recognising the importance of layers of protection

The links to Quality, Sustainability and Resilience

- Clear responsibility is required to ensure the quality of the final outcome
- A fundamental culture change is needed in the industry
  - Clarity of purpose
  - Sense of ownership and responsibility
- Regulators must hold all of industry to account not “tick boxes” on compliance
- Assurance needs to be underpinned by third party accreditation and professional competence
- Multiple occupancy buildings are complex systems but there is a lack of systems thinking all around us
- Responsible, design, construction and lifecycle care is required to ensure asset integrity
- We all have a think in multiple and interconnected dimensions

Learning from other sectors

- My career has been spent mostly in major hazards industries – chemicals, oil and gas, nuclear, rail
- Everyone talks with passion about the need to learn and share lessons but the reality is we are not very good at it

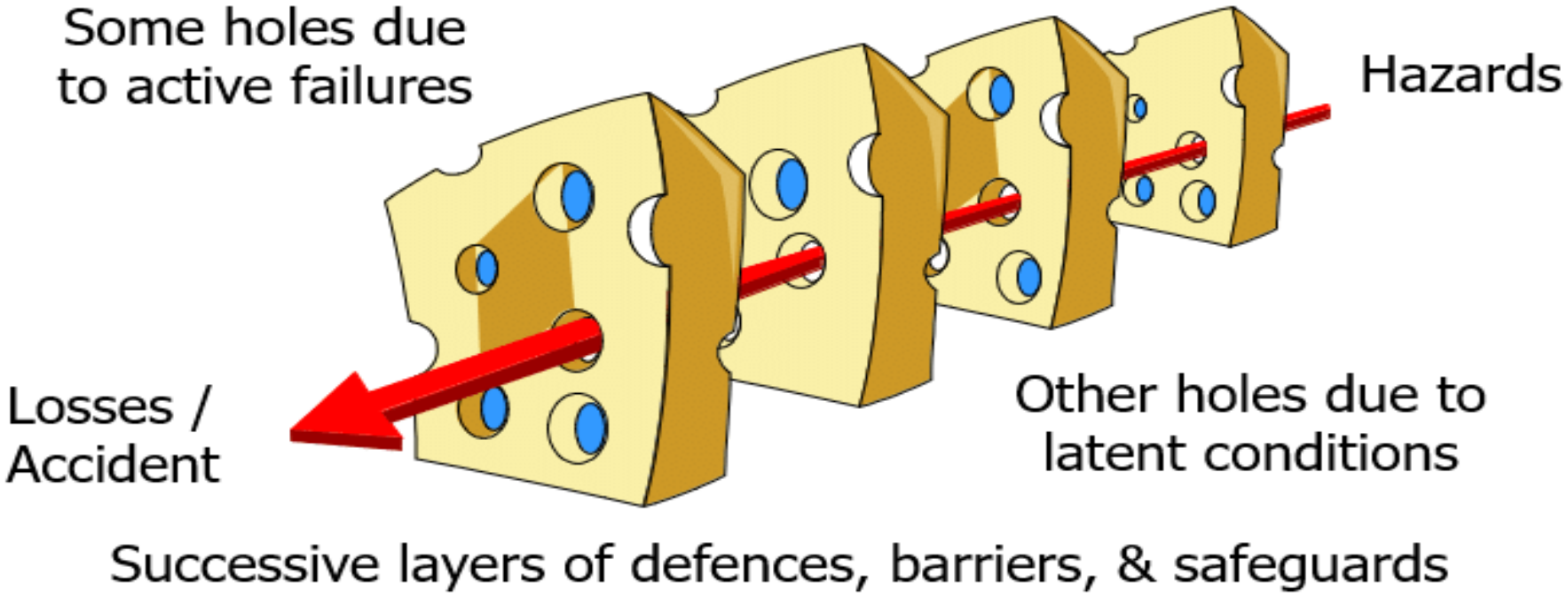
“There are no new accidents just different people making the same mistakes because of a failure to *recognise the relevance to them of other people’s experience and therefore not* learning”

What helps/hinders learning from mistakes of the past/other sectors

- Seeing the need to change as someone else's problem
- Learning is harder for those who hear about it later or were not directly involved
  - Focus of the story becomes about WHAT happened not WHY it happened
- Addressing failure of individuals and organisations is hard to talk about
- Apportioning blame gets in the way of learning
- Rationalising why others' experiences are not relevant to us
- We fixate on a single mode of failure
  - The level gauge
  - The cladding

Layers of Protection – the concept and the reality

The 'Swiss Cheese' model of system failures



Progress in driving culture change ahead of regulatory change

- Learnings from Industry Safety Steering Group
  - Progress on all fronts and pace is accelerating now that regulation is in sight
  - But some are still waiting to be told what to do and asking for detail
  - Industry leadership is emerging but not fast enough and not enough of it
  - Insurance and Financial markets are now alert/sensitised to concerns
    - Loss of trust and confidence
  - Market solutions are being developed which will support the thrust of regulation and recognise those who can be trusted
  - Challenges of new build and existing stock are different and must be handled differently
  - Professional competence is fundamental – not enough to know your own job/trade but need to understand impact on system integrity overall

Some key features of the future Building Safety system

- Focus on demonstrating safety and fitness for purpose of buildings for use and occupation across the whole industry
- Safety case regime for higher risk buildings – makes people think about what might happen and how to manage consequences
- Gateways at design and commissioning stage
  - Not enough to say what you intend to build
  - Must demonstrate what has been built based on evidence and proof
- Supply chain needs to be ready and able to provide data and performance accreditation
  - Collaboration and data sharing
  - Standardised system(s)
  - Performance testing
  - Less substitution
  - Advice on use and application from competent persons
  - Regular integrity checks
  - “Product stewardship”

- ***All of these are about cultural change and new thinking - not rules and regulation but Responsible and Ethical Behaviour***

New Build – getting the system right for the future

- Requires a digital approach – the sector must catch up with what is commonplace in other sectors
- Assurance and proof of quality will be required by clients
- “Value Engineering” will not be about cost reduction but delivering quality, value and resilience
- Building owners, occupiers and financers will demand proof of quality and competence
- A once in a generation opportunity to leave the race to the bottom behind and change industry practice for good
- Setting new standards eg 2 staircases

Existing Building stock – a more complex issue to address

- A different challenge to assess and address what we already have
- High rise/high risk existing buildings are within scope of new regulatory regime
- Requirement to make improvements but in a proportionate way
- Defending past poor practice not helpful
- Not knowing is not an excuse
- Need to rebuild confidence and trust
- Proportionality, resident engagement and new thinking are key

Change must be fundamental and across all buildings….

- My review focused on addressing buildings where there is the highest potential for loss of life in a fire or other catastrophic failure
  - Height is a blunt proxy for risk
  - Vulnerability of residents
  - Building use/purpose (hospitals/care homes/halls of residence)
- Feeling safe in one's home is everyone's right irrespective of type of dwelling
- Basing our new regulatory regime on risk means just that – a proportionate approach to risk, not gaming of thresholds – behaviours and competences must also reflect that
- Competence and Quality Assurance must become part of the new culture in all of Construction

Change is coming – and there will be more to follow

- The regulatory regime in England is changing on Building safety
- Effective regulation of Products remains a weak link in the system and is about to be the subject of a white paper
- Calls for reform to Leaseholder system
- New/modern materials of construction – managing innovation
- Sustainable buildings

- Integrated Systems based approach to creating the whole regulatory framework is essential

Time to Rethink and Reset and act Responsibly

- Recognise the change of mindset required from everyone
- Commit to being part of creating a new and effective system which people can trust
- Work collaboratively and show leadership – don’t wait to be told
- Everyone has an important part to play in delivering Integrity of buildings
- NEVER forget WHY we are doing this

- Thank you!

Building Safety Regulator

Debi Waite, Head of Operations (Investigations and Intelligence Unit)

ilding
Safety
ulator

HSE

BSR Functions

Building Safety Regulator HSE

Oversight of the standard and safety of buildings

Regulation of Building Control Profession

Industry Competence

Planning Gateway One – Live

Design & Construction

Gateways Two & Three – MoR / GT

In Occupation

Registration / KBI / AP-PAPs / Safety Cases/BAC

Building Safety Regulator

HSE

Gateway 1

Planning Gateway One (PGO)

Planning Gateway One

Building Safety Regulator HSE

- HSE is a statutory consultee for planning applications
- Developers required to submit fire safety information with its planning application
- HSE raised concerns on over 56% of cases in 2022
- Actively challenging the view that fire safety should only be dealt with at the building regs stage
- HSE substantive responses provide advice for local planning authorities, and applicants

Building Safety Regulator

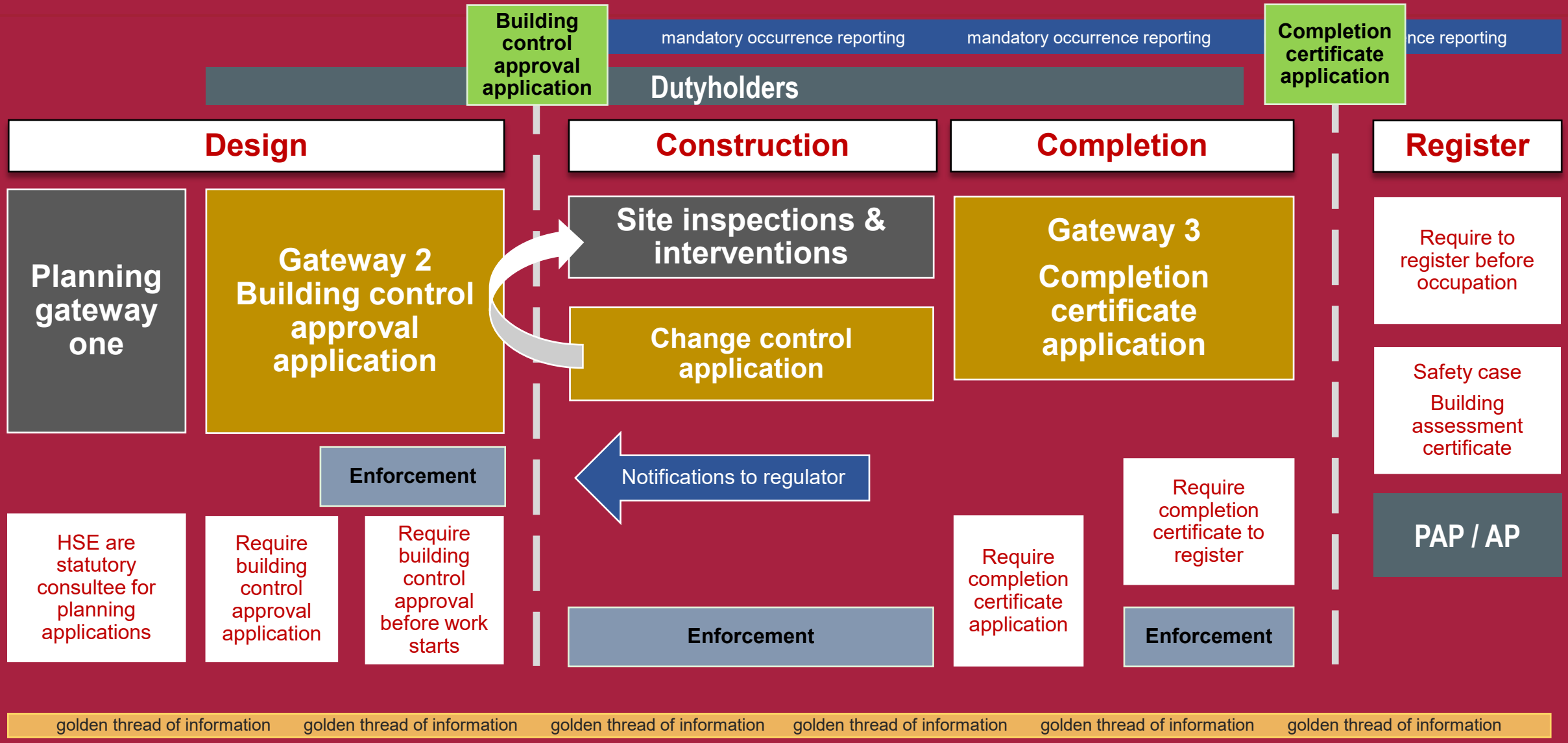
HSE

Gateway 2

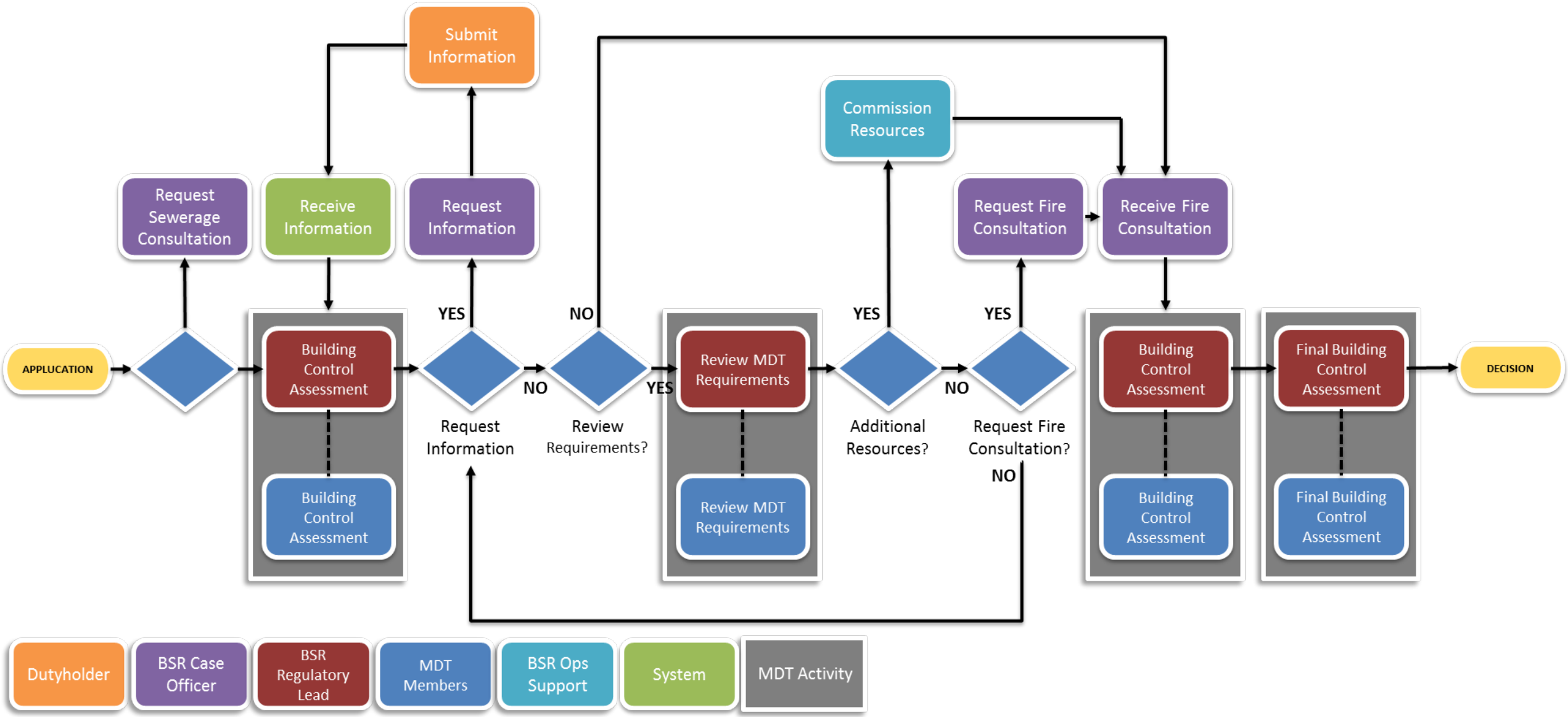
Building control approval application

BSR
Building control authority

Building Safety Regulator HSE



GW2 - Building control approval (12 weeks)



Prescribed documents

New set of prescribed documents will be required for HRB work, which will include:

- Competence declaration
- Construction control plan
- Change control plan
- **Building regulations compliance statement**
- Fire and emergency file
- Planning statement

Construction control plan + Competence declaration

- A construction control plan describing the strategies for managing building work to maintain building regulations compliance
- A competence declaration confirming that the client is satisfied that their Principal Designer and Principal Contractor are competent to carry out their roles; and written records of the steps the client has taken to be satisfied of their competence

Fire and emergency file

Initial questions –

(a) Does this outline any identified ‘building safety risks’, and reference them to compliance with building regulations?

(b) Have the risks been considered alongside realistic management expectations for the occupation phase?

(c) Is there a suitable fire strategy, which includes reference to management proposals for the relevant person?

(d) Are there suitable plans and information to assure compliance with the relevant fire brigade access requirements

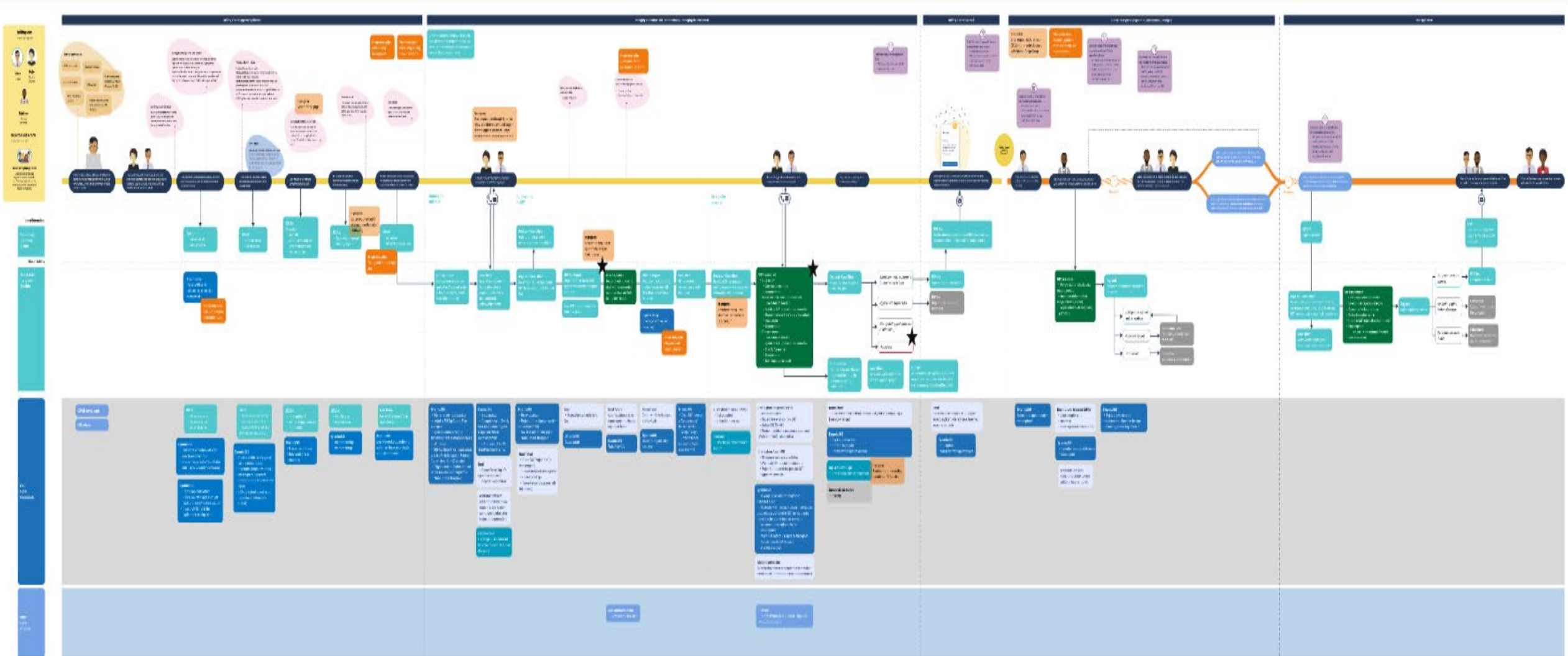
“design, design, design”

BSR will mark (not do) application homework!

Building Safety Regulator HSE

Digital application via portal gov.uk

Building Safety Regulator HSE



Building Safety Regulator

HSE

Any Questions?

Building Control: An overview of the new regime Gateways 2 and 3 – application to completion certificate

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BS 8644

An Overview and an Update to the Standard

Varun Soni

calfordseaden

Varun Soni

Partner

Head of BIM & Digital

Today's topics

- The role of BS 8644-1
- Why did we develop BS 8644-1
- Strategic Objectives
- The Role of BS 8644-1
- Bs 8644-1 and the nima Fire Safety Working Group

The role of BS 8644-1

- Digital management of fire safety information – Part 1: Design, construction, handover, asset management and emergency response – Code of practice.
- Provides an IM process from which users can define their information requirements
- Provides the means to manage fire safety information and linked documentation between all relevant parties, throughout the lifecycle of an asset.

The role of BS 8644-1

- Single document, in the form of a code of practice, manages the flow and presentation of information relevant to fire safety so that it remains accessible, available and useable by all parties through the lifetime of the project by those responsible for each stage.

Why did we develop BS 8644-1

- Dame Judith Hackitt's review identified a recurring theme around information management practices
- In the call for evidence process London Fire Brigade made the following observations:
  - "(We) are aware that (in many cases) the BCB …does not review or see the content of the Regulation 38 package of information"
  - "Their approach is to get a signed undertaking that they (PD/PC) will pass this information to the Responsible Person"
  - "LFB are not convinced that the process is robust, nor that there is the appropriate level of compliance with Regulation 38"

Strategic Objectives

- Develop a standard information management approach for the fire safety sector
- Develop capability and enhance competency of information management in the fire safety sector
- Produce best practice for effective fire safety information management throughout the lifecycle of an asset, that is robust and digital by default.

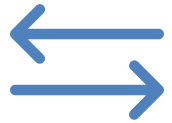
Strategic Objectives

Should be relevant to developments using BIM & non-BIM protocols

Scope should cover all parts of the built environment

Must enhance knowledge and understanding of the BS EN ISO 19650 series & the UK BIM Framework

Must enable better communication and information management

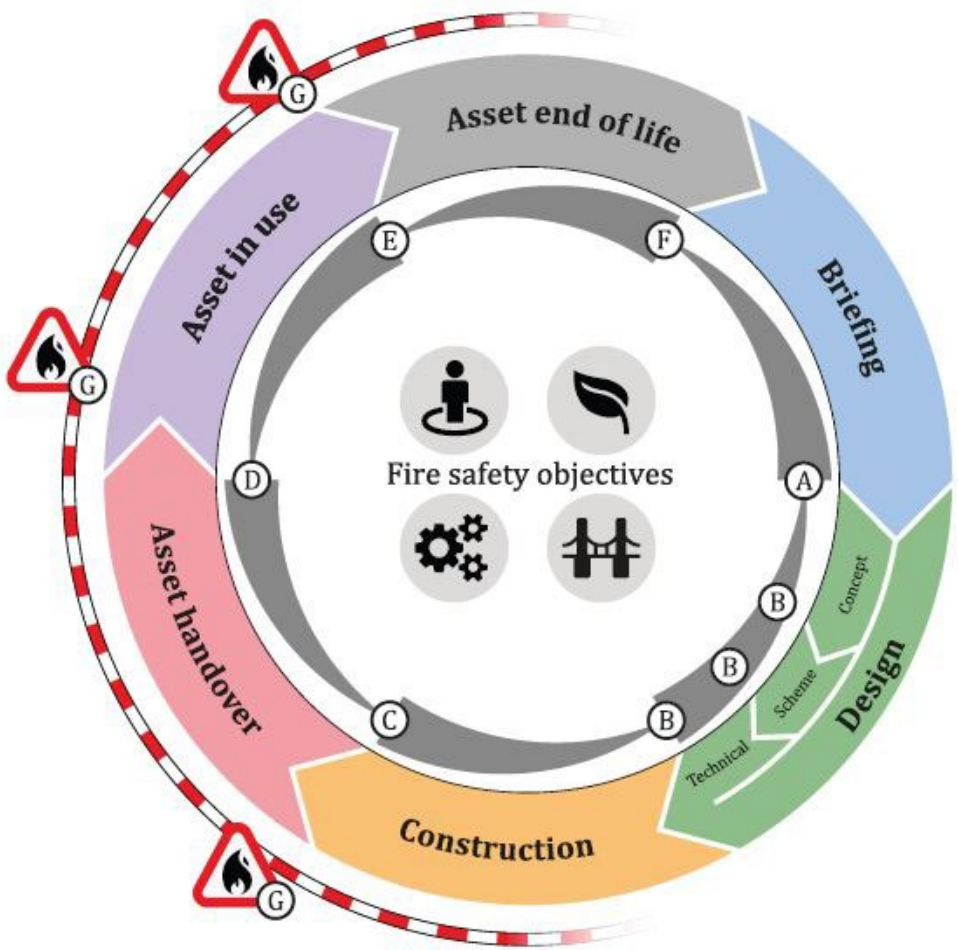


Should be usable at any point during a built asset's lifecycle

The role of BS 8644-1 and the Golden Thread

- Provides an IM process from which users can define their information requirements
- BS 8644-1 builds upon the principles of the golden thread, offering best practice for effective whole-life digital fire safety information management

The role of BS 8644-1 and the Golden Thread



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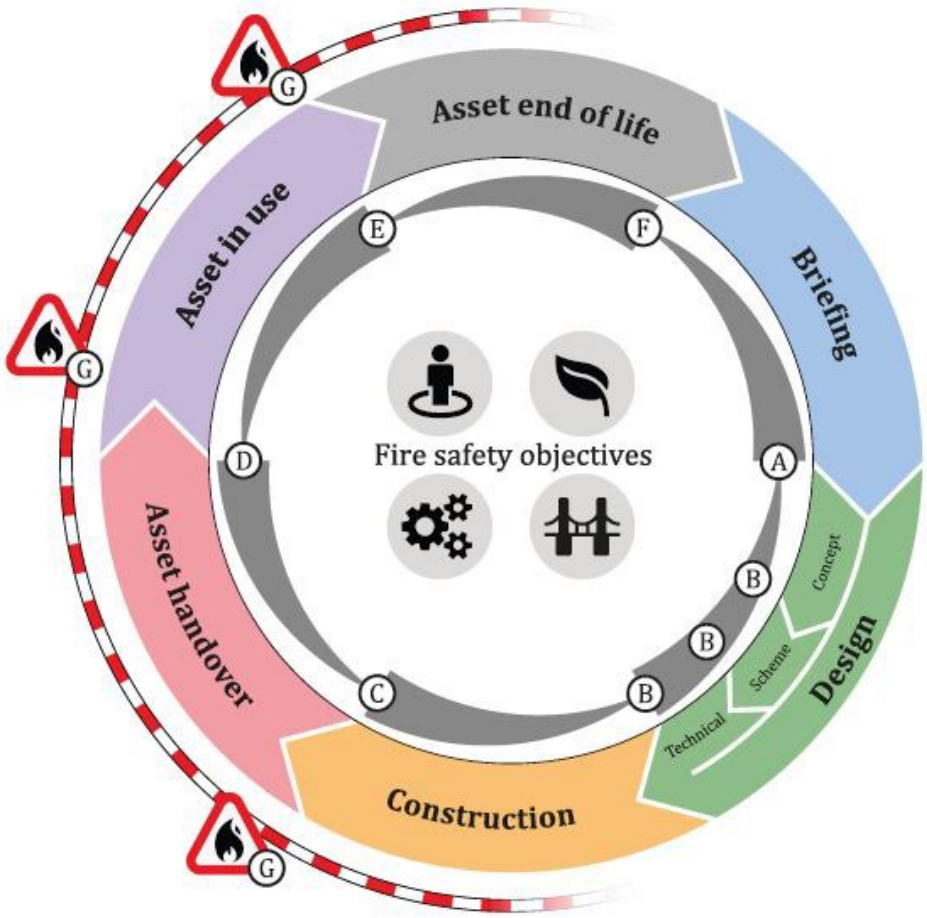
The role of BS 8644-1 and the Golden Thread



- Briefing
- Design
- Construction
- Asset Handover
- Asset In Use
- Asset End Of Life
- FRS Intervention

BS 8644-1 & nima Fire Safety Working Group

- Purpose - Purpose of the Content. Review of existing 4 purposes stated in Annex 4
- Level of Information Need - Determine how this varies according to purpose, and the granularity which is appropriate
- Upskilling - Define gaps in fire experts' knowledge on IM and identify the requirements for upskilling
- Aim of FIREie - The aim of FIREie and what should it be supporting
- Aim of Appendix A – The aim of Appendix A and what is it supporting

Thank you for listening

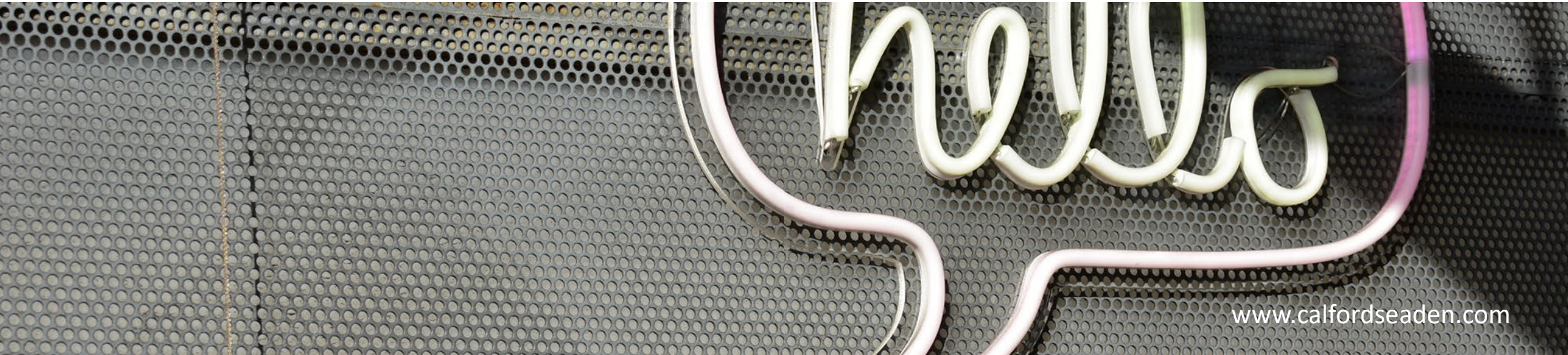
Are there any questions?

calfordseaden

Contact Us

calfordseaden
Kings Head House
Kings Head Yard
London
SE1 1NA

e vsoni@calfordseaden.com
t 07912572772
w calfordseaden.com



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GETTING THROUGH THE GATEWAYS: WHAT'S THE IMPACT ON THE INDUSTRY?

STEVE RUDGE, SYMETRI

CONTACT DETAILS

STEVE RUDGE

Head of Consulting

Steve.rudge@symetri.com

@steverudge

07734328302

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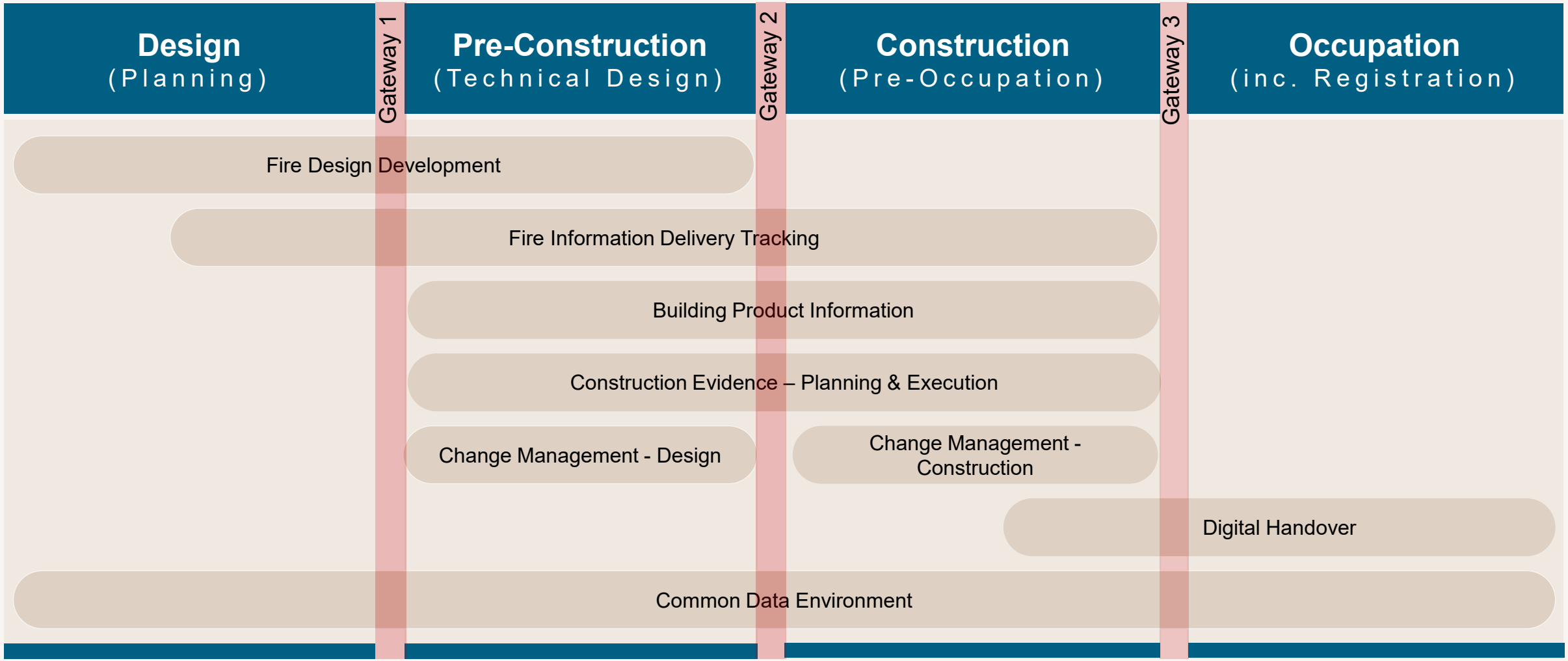
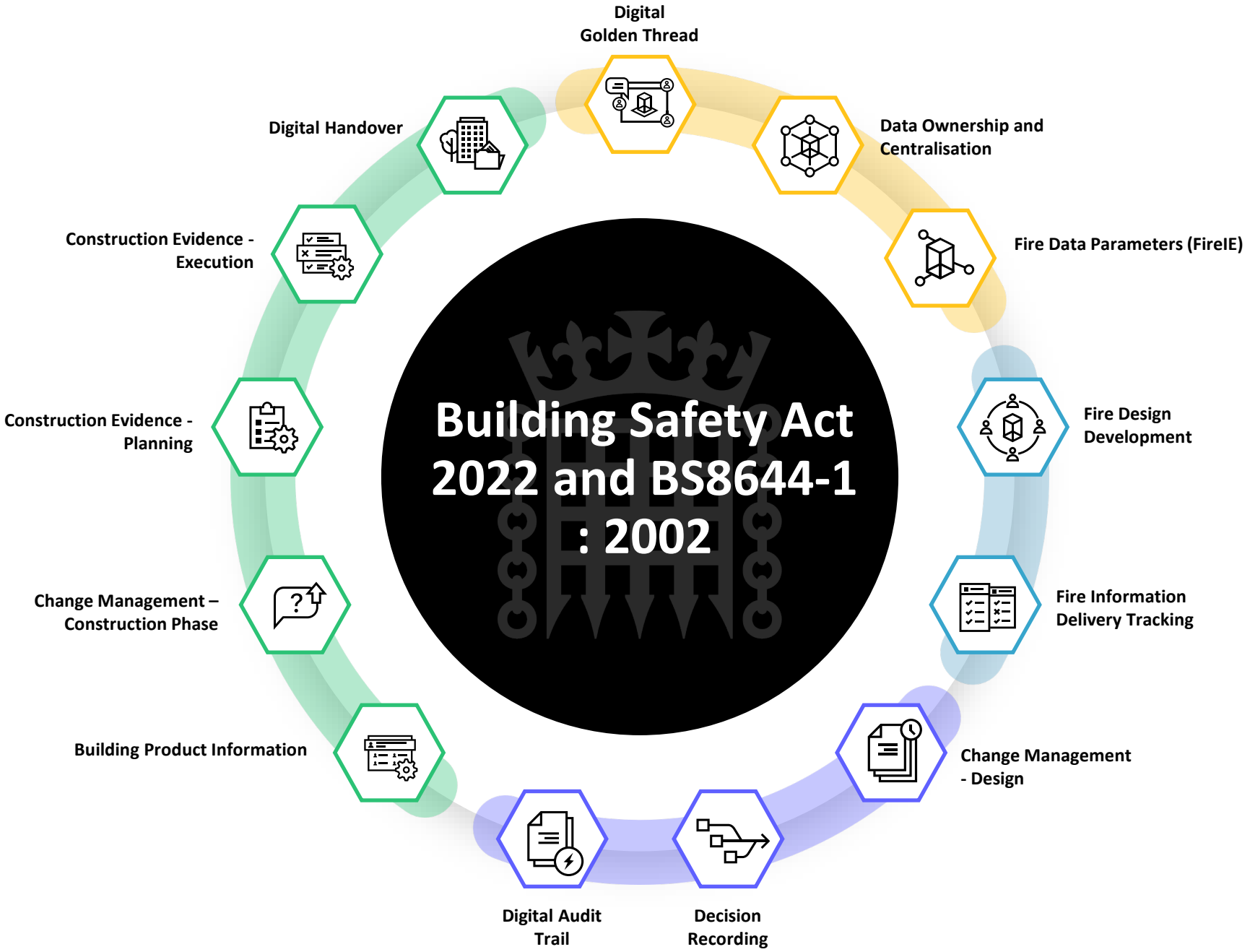
BSA SUMMARY

- Ensure we build safe buildings
- Key roles – Responsibility
- 3 Gateways – Sign off
- Golden Thread of Digital Information
- You will need to demonstrate competence
- You will need to capture supporting evidence

BSA GATEWAYS

- Mapping to BSA Workflows




Digital
Golden Thread
Data Ownership and
Centralisation
Fire Data Parameters (FireIE)
Fire Design
Development
Fire Information
Delivery Tracking
Change Management
- Design
Decision
Recording
Digital Audit
Trail
Building Product Information
Change Management –
Construction Phase
Construction Evidence -
Planning
Construction Evidence -
Execution
Digital Handover
Building Safety Act
2022 and BS8644-1
: 2002

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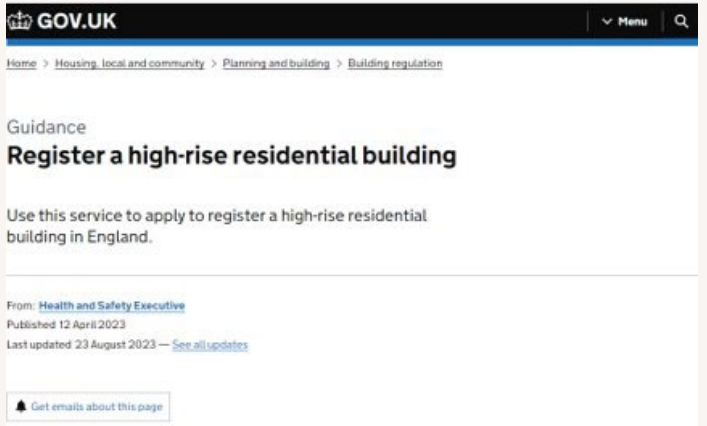
THE CLIENT/DEVELOPER/BUILDING OWNER

THE PRINCIPAL ACCOUNTABLE PERSON



- The **Principal Accountable Person (PAP)** is usually an organisation, like a commonhold association, local authority or social housing provider.

- 30th September 2023

Upload Information to the BSR

REQUIREMENTS

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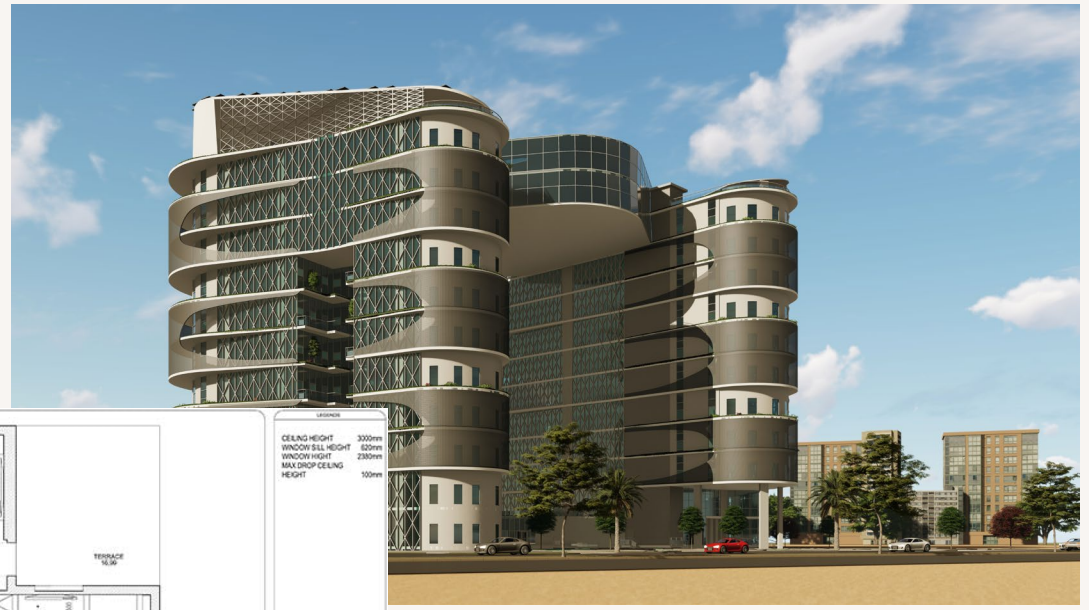

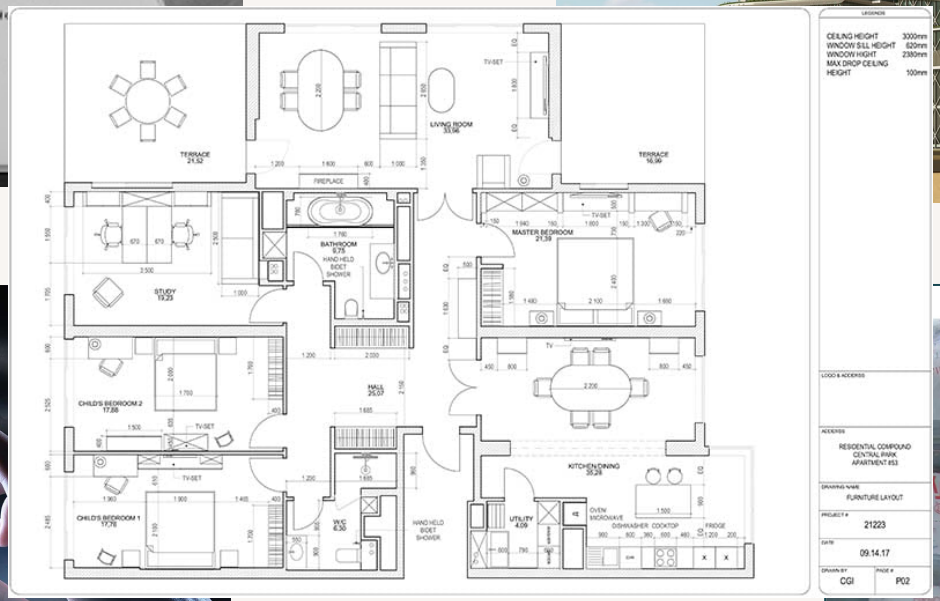

CAPTURE
META-
DATA
DMS
Updates
SOFTWARE
WORKFLOW
USERS
ELECTRONIC

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GATEWAY 1 SUBMISSION REQUIREMENTS

- Confirmation that the development includes higher-risk building work;
- Details of the person intending to carry out the work (i.e. the client);
- Address of the site;
- Site location plan; and,
- Description of the work including specifying which work relates to the non higher-risk buildings.

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NOT JUST **NEW** BUILDING CONSTRUCTION !

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EXISTING BUILDING INFORMATION

- Fire and smoke controls
- Fire doors
- Energy supplies, storage and generation
- Type of structure
- Roof
- Staircases
- External walls
- Building use
- Building works since the original build
- Connections (between buildings and structures)

THE DESIGN CONSULTANTS

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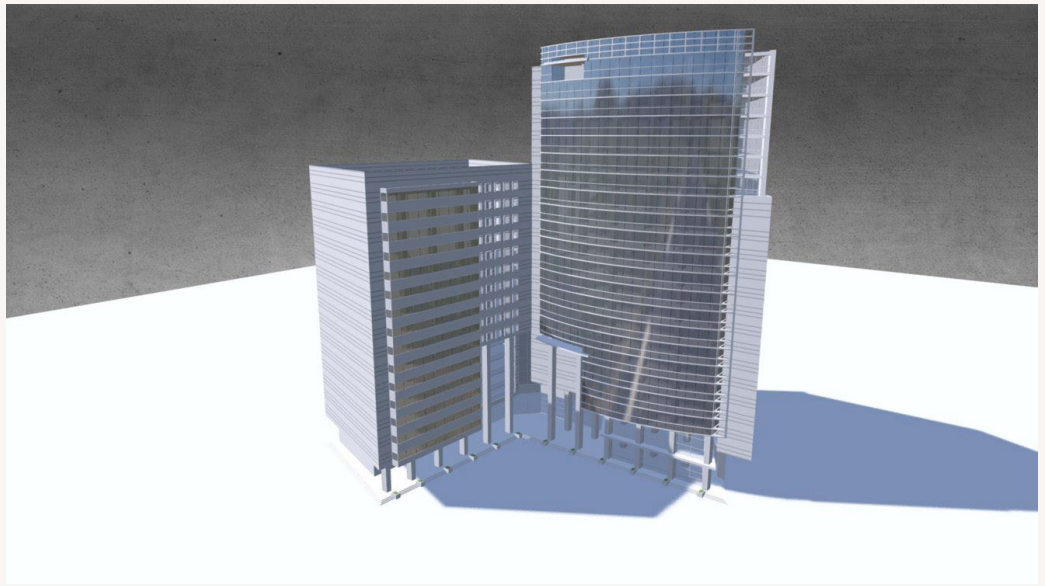
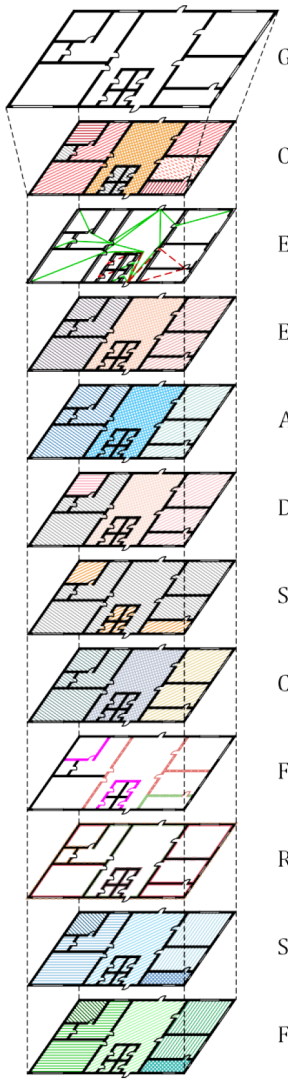
GATEWAY 2 SUBMISSION REQUIREMENTS

- Plans
- Competence Declaration
- Construction Control Plan
- Design and Build Approach Document
- Fire and Emergency File
- Partial Completion Strategy (if applicable)
- Planning Statement



Complete Design!

Figure C.1 — *Example of fire safety information as represented in information deliverables – High-level view of information model*



General arrangement plan (see Figure C.2)

Occupant load (m^2 per person) (see Figure C.3)

Egress paths (see Figure C.4)

Evacuation zones (see Figure C.5)

Alarm zones (see Figure C.6)

Detection zone (see Figure C.7)

Special fire risk (see Figure C.8)

Compartment reference (see Figure C.9)

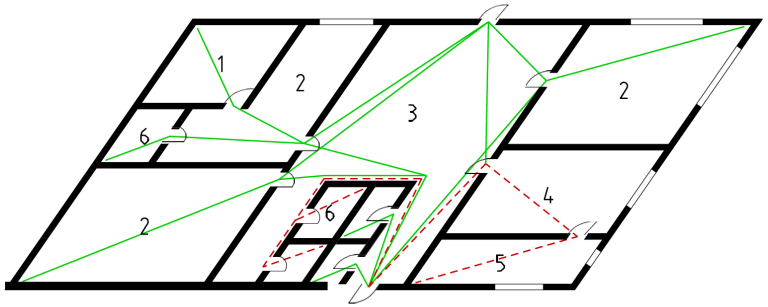
Fire resistance requirement (see Figure C.10)

Reaction to fire requirement (see Figure C.11)

Smoke control zones (see Figure C.12)

Fire suppression zones (see Figure C.13)

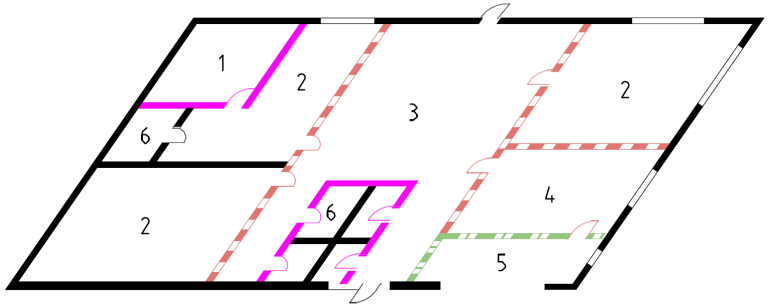
Figure C.4 — *Example of fire safety information as represented in information deliverables – Egress paths*



Key

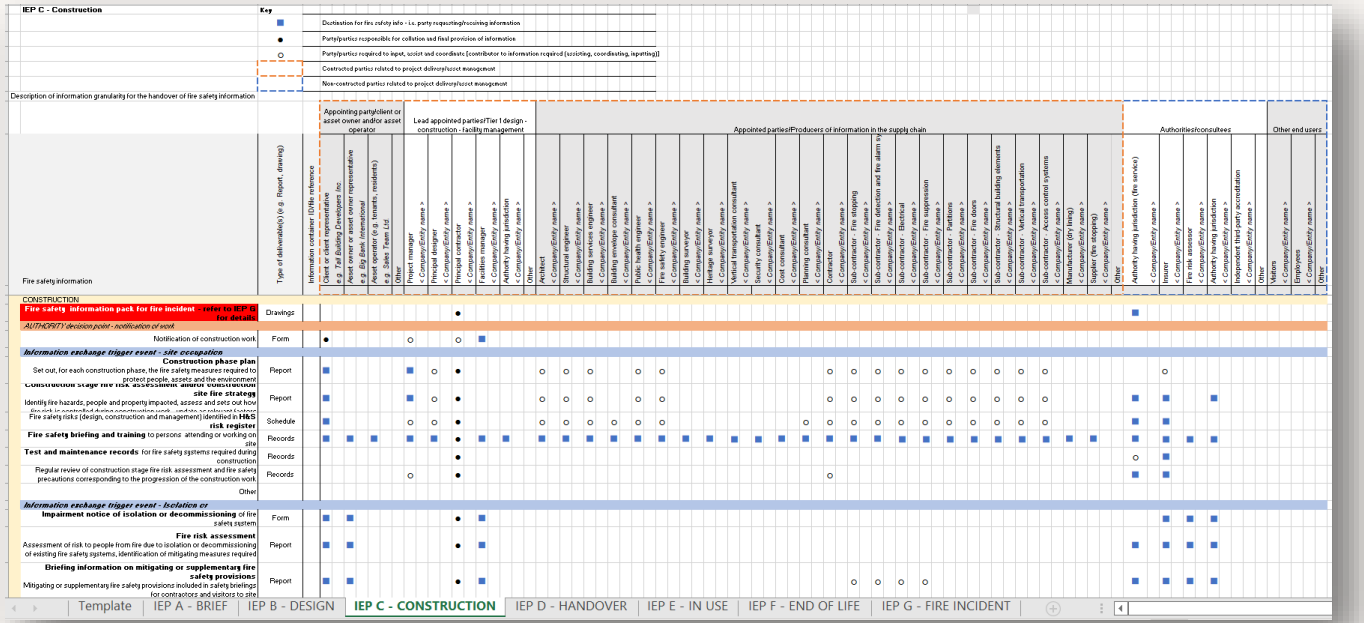
1	Store	4	Staff room
2	Office	5	Storage
3	Circulation	6	Staff kitchen
	Compliant egress path		Non-compliant egress path

Figure C.10 — *Example of fire safety information as represented in information deliverables – Fire resistance requirement*



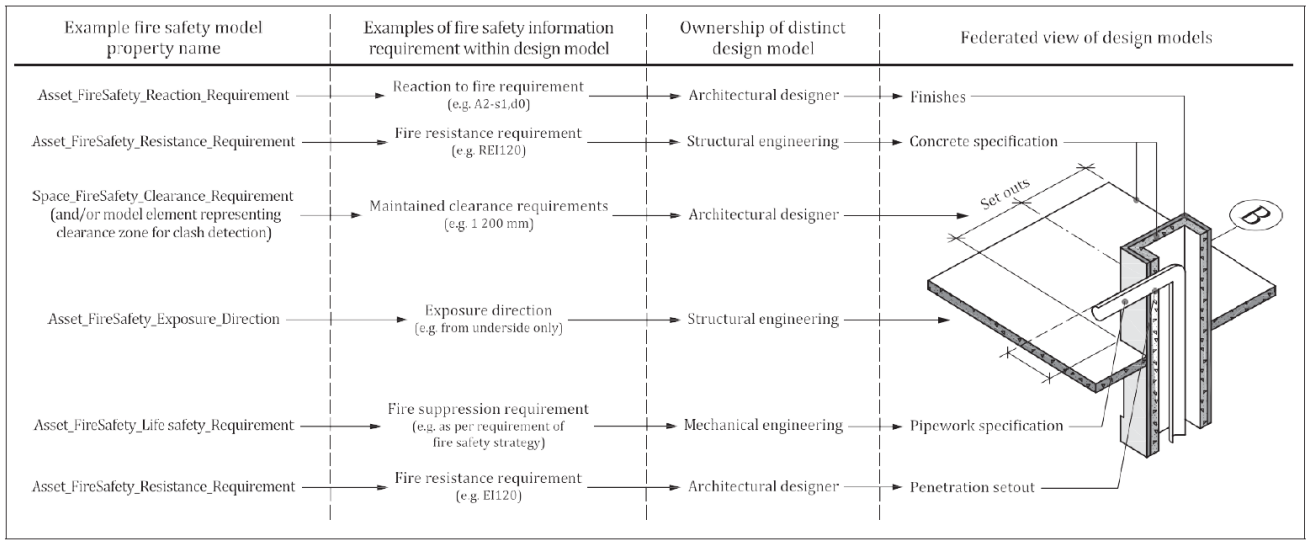
Key

1	Store	4	Staff room
2	Office	5	Storage
3	Circulation	6	Staff kitchen
	Fire resistance EI30		Fire resistance EI120
	Fire resistance EI60		



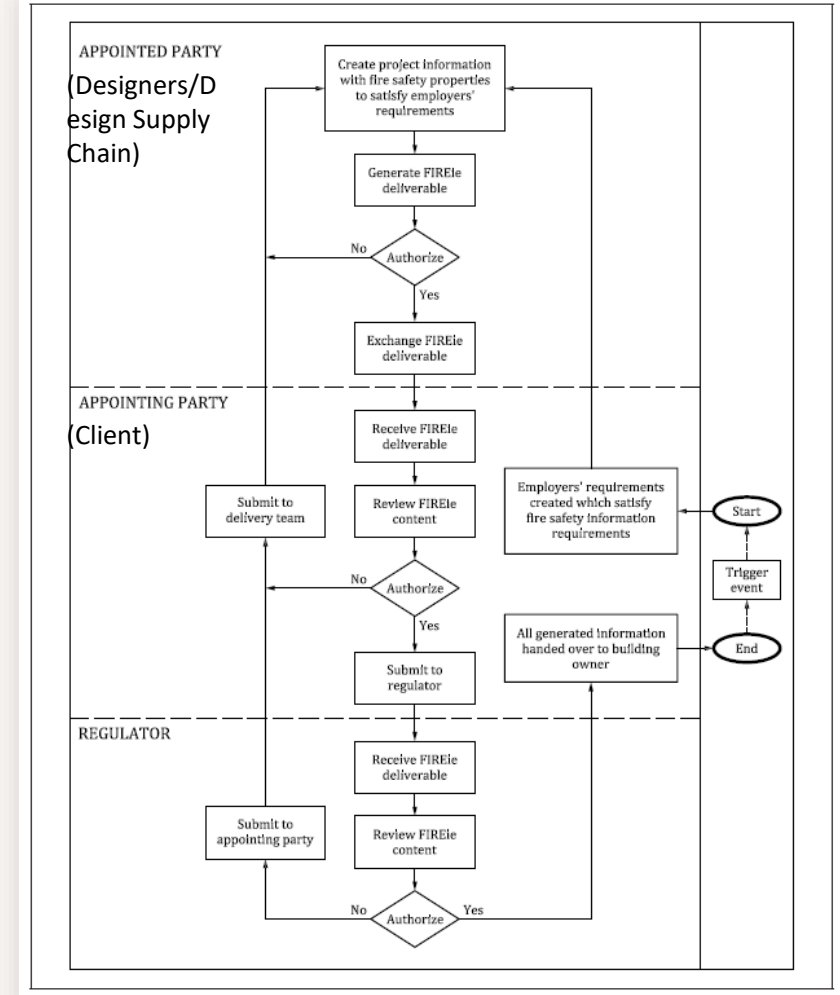
BS8644-1:2022 - Information Exchange Point (IEP) – Template included in BS8644, covers briefing to Fire Incident (Info for Fire & Rescue Services)

Figure 3 — *Example of application of fire safety properties*



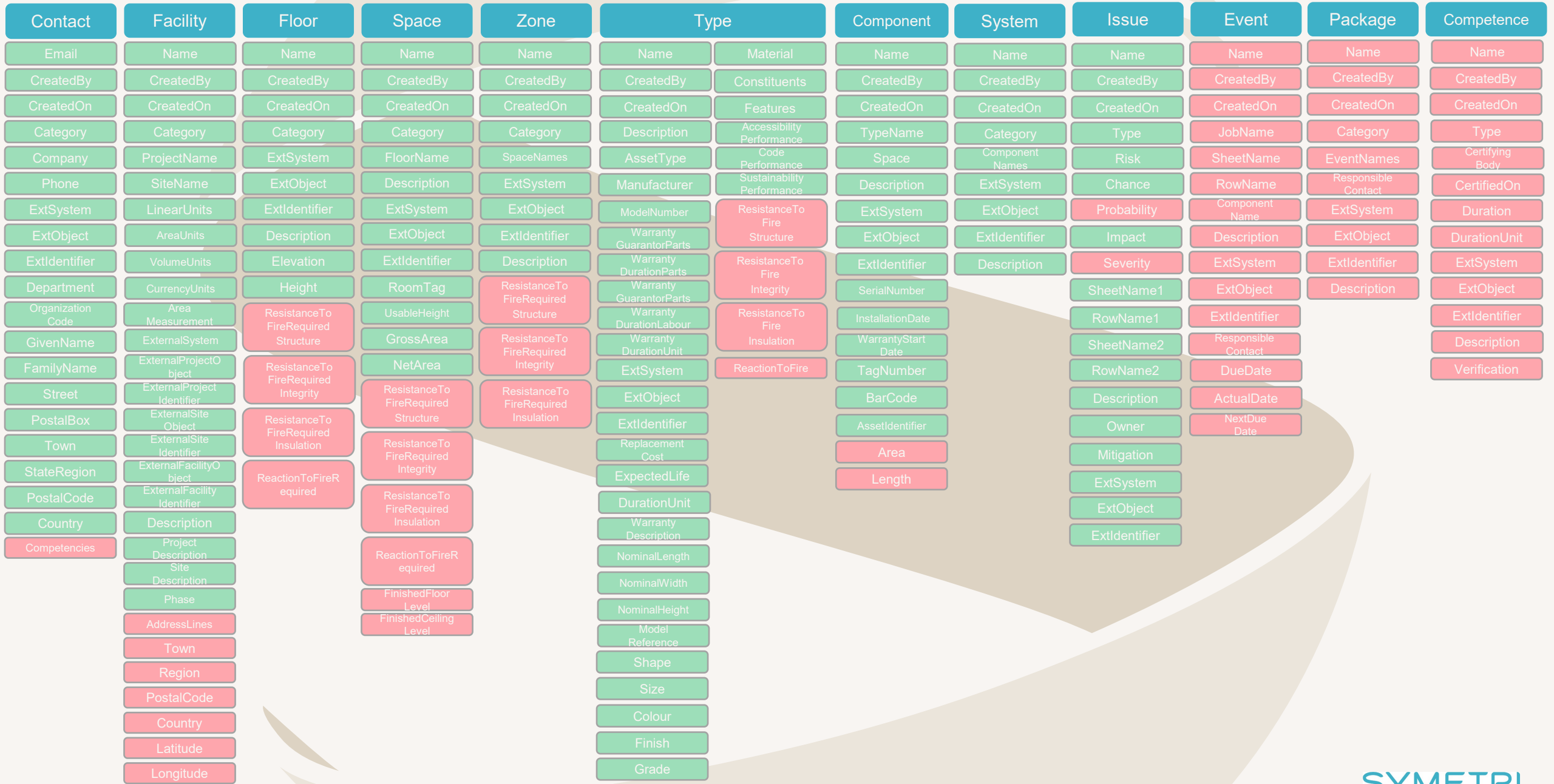
BS 8644:1 –2022 Pg 14, Fig 3. Example application of fire safety properties

Figure 8 — *Workflow for FIREie*



BS 8644:1 –2022, Pg 23, Fig 8. - Workflow for FIREie

Field data comparison between COBie (BS 1192-4:2014) and FIREie (BS 8644-1:2022)



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MATERIALS USED MUST BE CLASSIFIED

Fire Performance Classification to EN 13501-1:2018

Definition	Grade	Smoke Propagation	Flaming Droplets
Non-Combustible Materials	A1	-	
	A2	s1 and all variations	d0
Combustible materials: Very limited contribution to fire	B	s1 and all variations	d0
Combustible materials: Limited contribution to fire	C	s1 and all variations	d0
Combustible materials: Medium contribution to fire	D	s1 and all variations	d0
Combustible materials: High contribution to fire	E	E-d2	
Combustible materials: Easily flammable	F		

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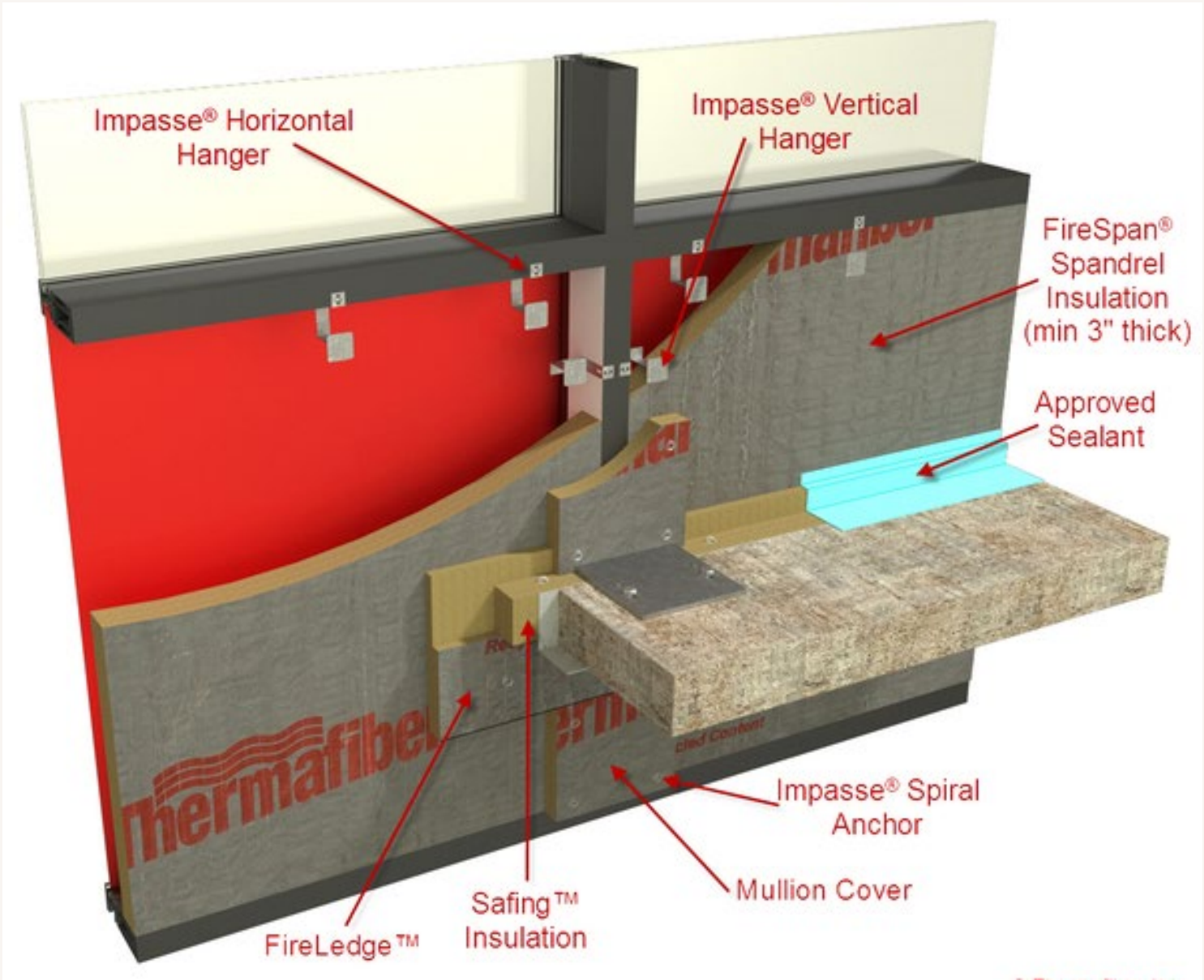
NO DESIGN / SPEC CHANGES



AS-BUILT

THE MAIN CONTRACTOR

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WHEN DOES THE MAIN CONTRACTOR GET APPOINTED?

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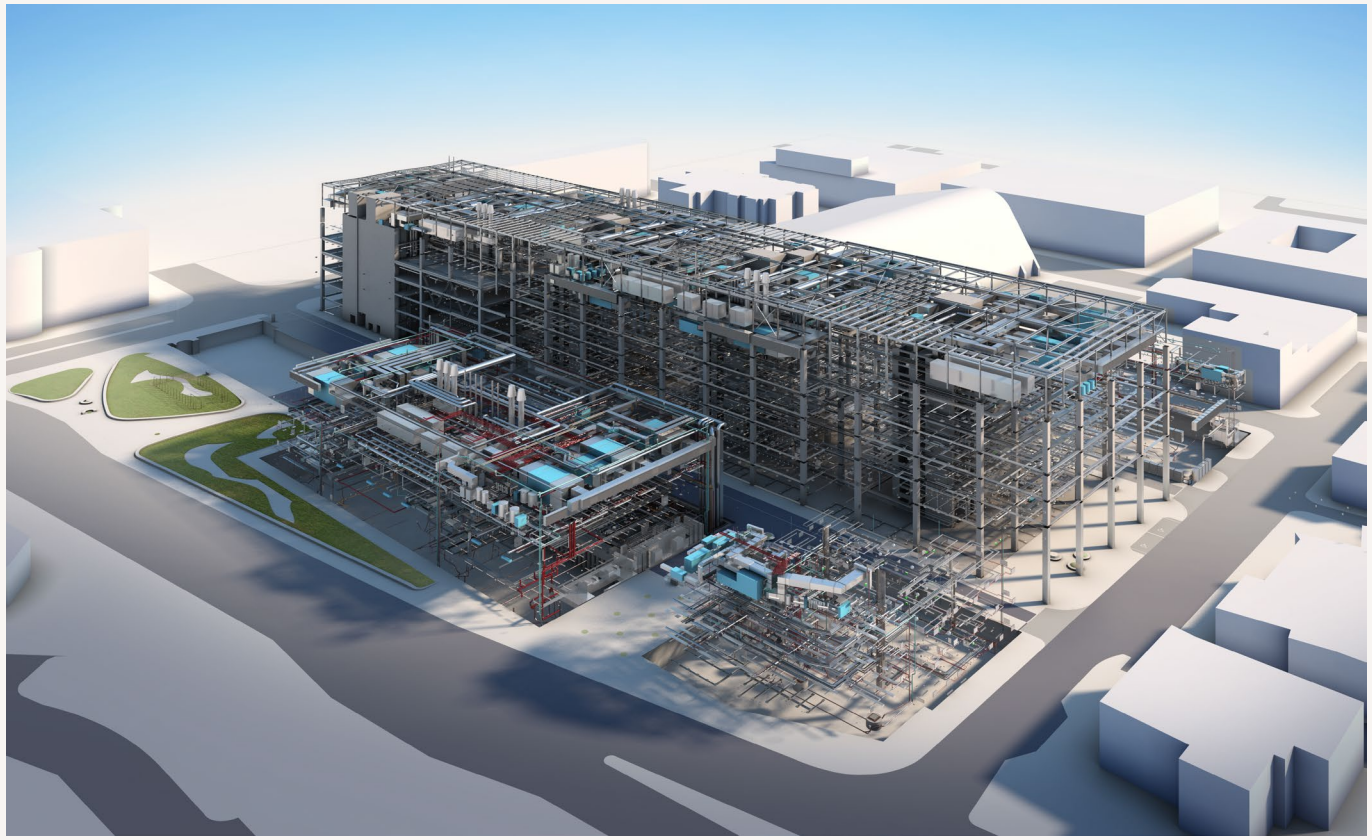
COMPLETED DESIGN

- Value Engineering
- Supply Chain
- Material Availability / Procurement
- D&B Contracts



THE ULTIMATE GOAL

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Reports

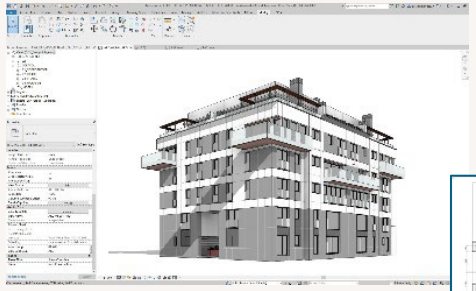
Certificates

Gateway Docs

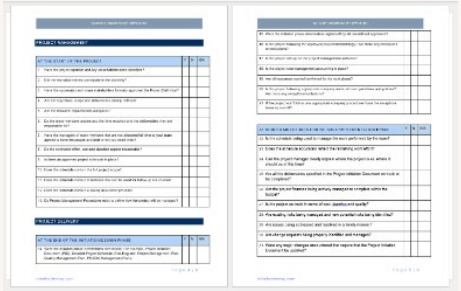
Could be off-line

Evidence

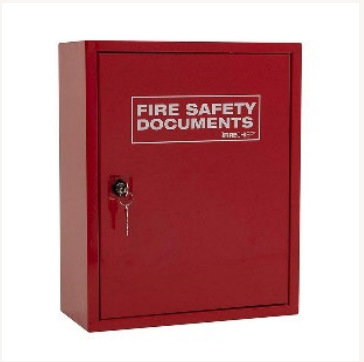
CDE

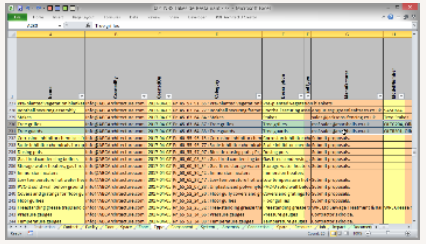


As-Built Model/Drawings



Checklists / ITPs





FIREie

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CHANGE MANAGEMENT REQUIREMENTS

- The name of the individual recording the change;
- A description of the proposed change;
- An explanation of the reason why the change has been proposed;
- Whether the change is a **notifiable change, major change** or a **Recorded**;
- A list of the name and occupation of each person, if any, whose advice was sought in relation to the proposed change and a brief summary of any advice provided;
- An assessment of which agreed document is affected by the proposed change and confirmation that a revised version has been produced;
- An explanation, in relation to the proposed change, of how the building work will, after the proposed change is carried out, meet all applicable building regulations; and,
- A revised version of any agreed document affected by the change.

GATEWAY 3 REQUIREMENTS

- Contact Information:
- Statement:
- Description of the higher-risk building work:
- Compliance with building regulations statement:
- Golden thread statement:
- Plan: As Built
- Prescribed Documents:
- BS 8544 -1 2023 – FIREie

STORING YOUR BUILDING'S INFORMATION – THE GOLDEN THREAD

The Building Safety Act 2022 requires you to store information about your building. This information should be **accurate, up to date, accessible and kept digitally**. This is known as the golden thread of information.

THE INFORMATION YOU WILL NEED TO MANAGE

Your building's information must be:

- Kept digitally
- Kept securely
- A building's single source of truth
- Available to people who need the information to do a job
- Available when the person needs the information
- Presented in a way that a person can use

YOUR DATA

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HSE
Health & Safety Executive

Prove Building Regs alignment

THANK YOU

BUILDING SAFETY SUMMIT:
Building Together For A Safer Future

Getting through the gateways

A+eW

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Mark Turner BSc MSc MCIAT

Associate Director – AEW Architects

- **20+ yrs. Experience**
- **Chartered Architectural Technologist**
- **Focus on Building Information Modelling**
- **MSC in BIM & Integrated Design from Salford University**

I am focused on continual improvement, using IM as an umbrella to advance the design process, production of information, information exchanges and key industry improvement agendas. Regardless of any mandate, I promote Information Management principles to drive efficiencies and improvements in our projects for the benefit of the whole team.

I lead an in-house team of experts, who provide IM consultancy services direct to clients, contractors and external consultants. Within the practice we provide continuous training and support for our team, along with coordination and technical support to AEW projects.

aew

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aew architects
together we
create buildings and
interiors, masterplan and
design urban spaces, we
work with the virtual and
the real, we make places
to work, live and play, we
volunteer and fundraise,
we collaborate with each
other, with every client on
every project.

together we create buildings and interiors, masterplan and design urban spaces.

Together we collaborate to design and deliver projects that exceed expectations - our mission.
We are a 100 strong team of Architects, Technicians and Technologists, Interior Designers, BIM specialists, Conservation Architects and Planning Consultants.

together we specialise in five key sectors

+ Community & Culture
+ Industrial
+ Offices
+ Residential
+ Retail & Leisure

together we provide a wide range of services

- Architecture
- BIM Consultancy
- Interior Design
- Heritage
- Masterplanning
- Planning Consultancy
- Sustainability Consultancy
- Retrofit

together we make places to work, live and play.

We understand Building Information Management and share our passion and knowledge collaboratively with others to explore the benefits.

We undertake design work for all new projects in three dimensions to maximise stakeholder engagement. Our continual improvement agenda explores the design process, production of information, information exchanges, embedded data, removal of risk, coordination and all other industry workflows.

Our BIM team is available for BIM manager, Information manager, bid support, BIM consultancy and training requirements.

together we believe in architecture as a force for good.

We are committed to sustainability. We lead by example, setting ambitious business targets while supporting our clients in achieving their own sustainability goals.

Our efforts to meet science-based targets for achieving ***net zero carbon by 2040***, along with our ongoing commitment to being a ***carbon-neutral business***, provide us with valuable insight into the challenges of reconciling carbon emissions with economic growth.

We have established a robust framework to attain these objectives. Our office operations and project services both adhere to an ***ISO14001*** certified environmental management system, fully integrated within our ISO9001 quality management system.

Our journey towards these goals is ongoing, and there's still much more we can do to align with our aspirations. We remain devoted to continuous research and development, seeking ways to enhance our performance.

We also recognise we can't do this on our own and are supporters of ***Architects Declare*** and the ***RIBA 2030 Climate Challenge***. Together we're helping to mobilise the wider industry to address the climate and biodiversity emergency. Within the wider business community, we align ourselves with the ***B Corp*** movement, which champions the belief that businesses can be a positive force for change.

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agenda

- Introduction
- BSA ‘22 Secondary Legislation
- Higher Risk Buildings
- The New Regime
- Gateways 1, 2 and 3
- Change Control
- Golden Thread
- The UK BIM Framework
- BS 8644
- Final thoughts

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BSA ‘22 secondary legislation update

- The Building (Higher-Risk Buildings Procedures) (England) Regulations 2023
- The Building Regulations etc. (Amendment) (England) Regulations 2023
- The Building (Approved Inspectors etc. and Review of Decisions) (England) Regulations 2023
- The Building Safety Act 2022 (Consequential Amendments etc.) Regulations 2023
- The Higher-Risk Buildings (Management Safety Risks etc.) (England) Regulations 2023

1 October 2023

HSE

Building Control: An overview of the new regime

Gateways 2 and 3 – application to completion certificate

https://www.hse.gov.uk/building-safety/building-control/regime-overview.htm

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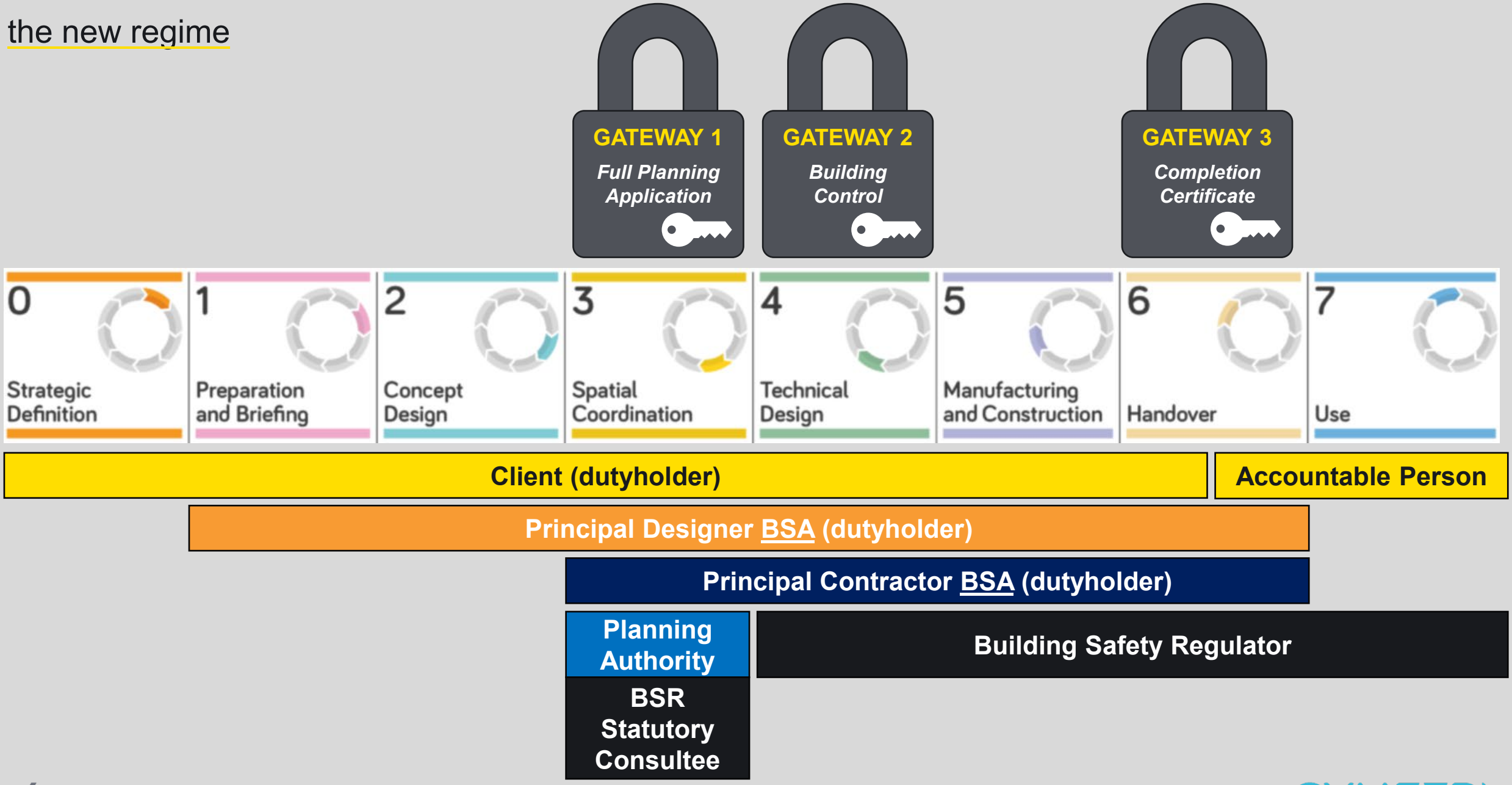
What is a higher risk building (HRB)?

Building Safety Act 2022: definition:

Meaning of "higher-risk building" etc.

- In this Part "higher-risk building" means a building in England that -
  - (a) is at least 18 metres in height or has at least 7 storeys, and
  - (b) contains at least 2 residential units.

the new regime



gateway 1
full planning application

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gateway 1 – full planning application

Full Plans Planning Approval Pack

A Full Plans Planning Application should encompass vital documentation for a proposed construction project. This includes detailed site plans, floor plans, elevations, sections, and construction details, ensuring comprehensive representation of the development. A design and access statement, construction specifications, utility plans, landscaping details, and potential environmental or heritage impact assessments should also be included.

Fire Statement

A fire statement serves to integrate fire safety considerations into land use planning for a development. It should be specific, relevant, and proportionate to the proposal's scale and complexity. The statement provides evidence of incorporating fire safety thinking into the planning application.

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gateway 2
building control submission

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gateway 2 – building control submission accompanying documents

Building Regulations Approval Pack

A Building Regulations Full Plans package includes detailed architectural and structural plans, fire safety measures, energy efficiency plans, building services info, access provisions, and compliance documentation. It's a comprehensive set of documents demonstrating regulatory compliance for a construction project.

Competence Declaration

Client to satisfy themselves that their Principal Designer, Principal Contractor and any other person appointed in relation to the work are competent to carry out their roles; and provide a written record of the steps the client has taken to be satisfied of their competence.

Building Regulations Compliance Statement

The Buildings Regulations Compliance Statement outlines how planned construction will comply with relevant building regulations. It emphasizes the need to carefully consider compliance before construction, referencing specific guidance and standards. While approved documents are common references, they may not guarantee compliance for all scenarios. Dutyholders should tailor their approach to suit their project's needs, using the statement as a guide for regulators.

Fire & Emergency File

The Fire and Emergency File (FEF) ensures early consideration of safety strategies in building design, emphasizing realistic assumptions. It guides owners on evacuation measures during emergencies. Key points include pre-construction assessment of fire and structural risks, maintaining an updated FEF during construction, and its importance in the "golden thread" of building information for regulatory compliance and handover.

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gateway 2 – building control submission accompanying documents

Construction Control Plan

A construction control plan (CCP) outlines strategies for managing building work to comply with regulations. It emphasizes cooperation, coordination, and competence, ensuring evidence of compliance. The CCP aids in managing change control, storing key information, and preparing for completion certificates. It guides the Principal Contractor and contractors, covering work details, management, 'as built' evidence, and adequate training for workers.

Change Control Plan

A change control plan ensures a clear process for documenting and managing changes during construction, considering their impact and involving relevant parties. Dutyholders need to assess changes and record them to reflect the actual construction. Accurate records are vital for maintaining an up-to-date golden thread of building information for handover.

Mandatory Occurrence Reporting Plan

Mandatory Occurrence Reporting (MOR) is crucial for reporting safety incidents during design or construction that pose a significant risk. It helps capture risks, enhance safety culture, and improve industry standards. The Principal Designer and Contractor must establish an effective MOR system. Clients ensure appointed parties can meet MOR requirements but aren't responsible for operating the system.

Partial Completion Strategy

Partial completion allows occupying a building section before full completion, emphasising safety. BSR approval is needed, prioritising resident safety. Full building completion is preferred; exceptions for non-residential elements are made. Building Safety Act mandates a completion certificate and registration for higher-risk buildings before occupation.

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application portal is now live

Start now >

Before you start

You'll be asked for your contact details. We'll use these if we need to check anything you have told us in this application.

You'll also be asked for details of the client, principal designer and principal contractor for the higher-risk building. We'll use these details if we have questions about the building work.

Cost

It costs £180 to apply for building control approval.

You can pay this charge by debit card, credit card, or invoice.

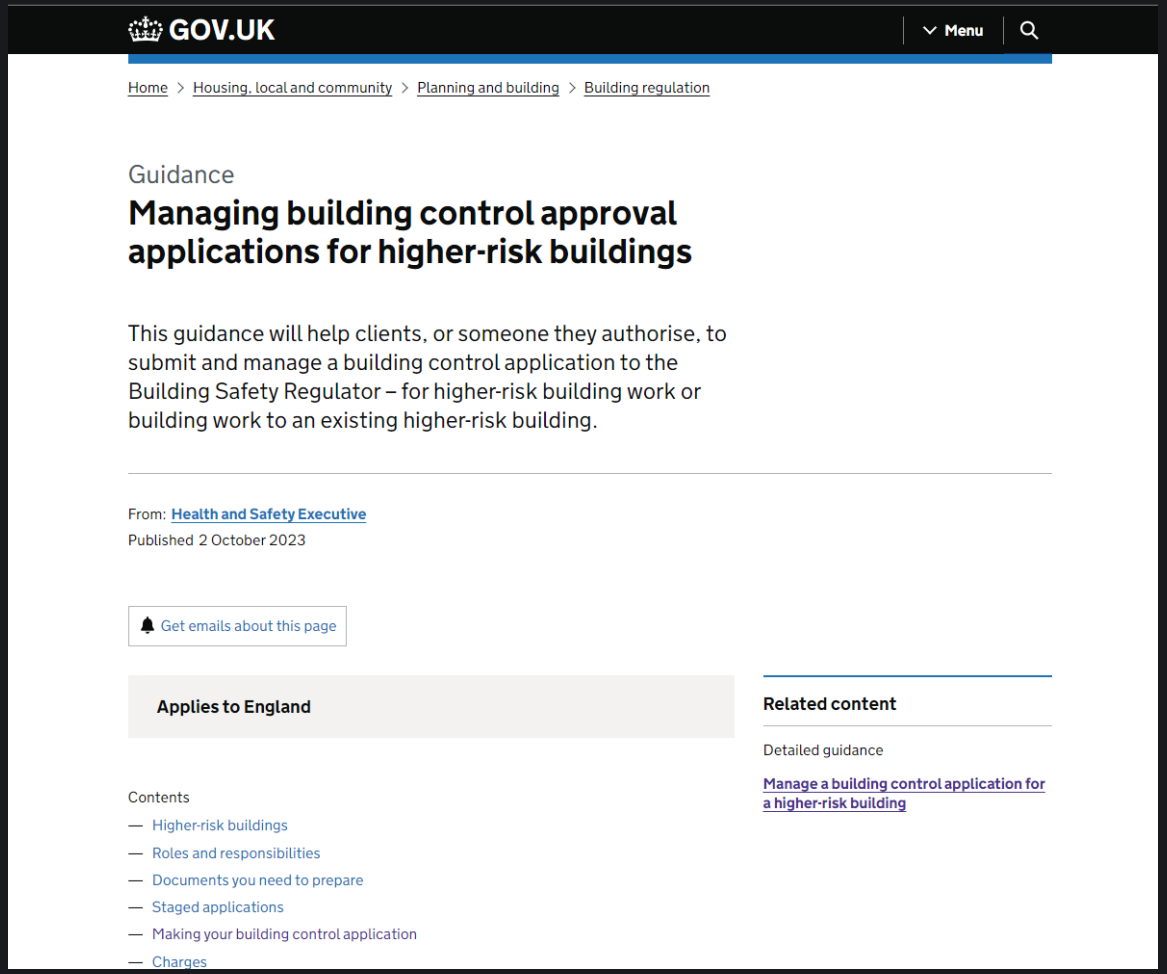
You'll also be charged:

- £144 per hour for Building Safety Regulator (BSR) staff to work on your case
- for any costs BSR incur from relevant authorities or third parties

There is no charge to:

- submit a notice of intent to start work or commencement
- tell us you have reached a certain inspection point

https://www.gov.uk/guidance/manage-a-building-control-application-for-a-higher-risk-building



https://www.gov.uk/guidance/managing-building-control-approval-applications-for-higher-risk-buildings#making-your-building-control-application

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gateway 3
completion certificate

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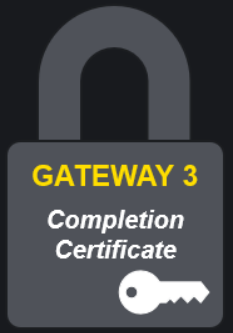
gateway 3 – completion certificate



Building Control Approval	Final Certificate
Change Control Records	Any controlled changes and change control log
Mandatory Occurrence Reports	Completed schedule (for the design and Construction Phase) of Occurrence Reporting.
Compliance Declaration	Client to satisfy themselves that the information provided is complete and accurate
“as built” plans and information	Drawing, models, schedules, specs etc
Final versions of all Gateway 2 information	All documents from Gateway 2
Information captured during construction	Serial numbers, product specs, test certificates etc.
Information captured during commissioning	Commissioning certificates, performance data, maintenance details etc.

1 October 2023

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change control – foundations of the golden thread

There are 3 types of change to be aware of, specifically relevant between Gateways 2 and 3…

- Major Change
  - A major change is one that would undermine the basis by which building control approval was granted.
- Notifiable Change
  - A notifiable change is one that potentially has an impact on compliance. If the change is notifiable, the client must notify the regulator. A notifiable change can be started once BSR has been notified.
- Recorded Change
  - Doesn't undermine the basis of the design – record and continue

All changes from the approved design must be recorded

Northbound M40, exit at Junction 15 cc-by-sa/2.0 - © David Dixon - geograph.org.uk/p/3520406

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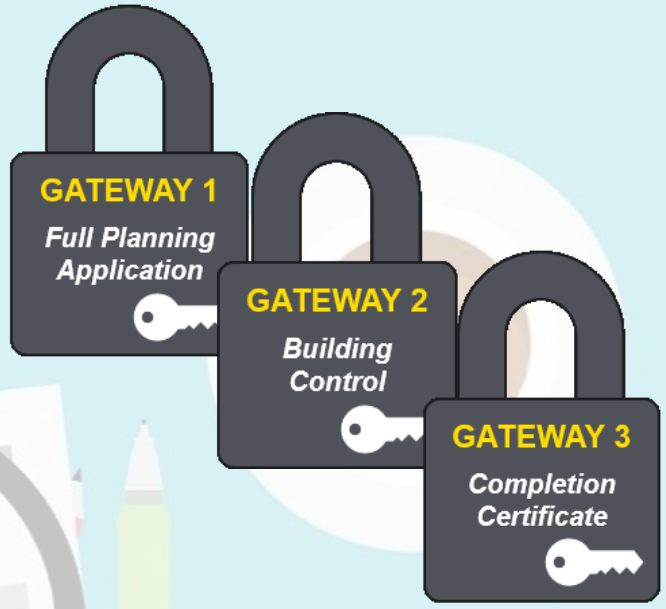
golden thread

Digitally stored, correct information, available at the right time for the right people, for the lifecycle of a building.



Further guidance is awaited on the type of information to be included, however…

the Client is to set out the information requirements

- Should be specified at the outset of the project. Support may be needed from design team members.
- **BSA PD** is to audit the information submitted by the project team during early stages
- During construction, the **Principal Contractor** will manage the Golden Thread information
- Information supplied during Gateway submissions, contributes to the Golden Thread, in particular the **Change Control Records**.

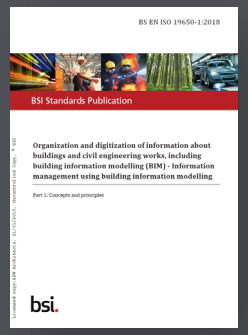
https://www.hse.gov.uk/building-safety/golden-thread.htm

https://www.gov.uk/government/publications/building-regulations-advisory-committee-golden-thread-report/building-regulations-advisory-committee-golden-thread-report#golden-thread-definition

how?

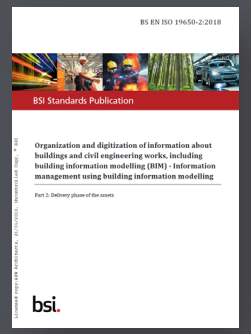
uk bim framework

CORE STANDARDS



ISO 19650-1
Concepts

ISO 19650-2
How – In construction

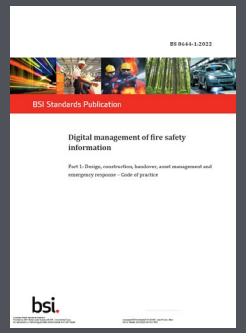


ISO 19650-3
How – In use

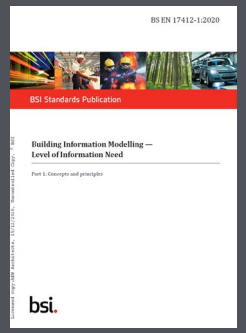
ISO 19650-4
Exchange (COBie)

ISO 19650-5
Data Security

ASSOCIATED STANDARDS



BS 8644-1
Digital Management of Fire Information

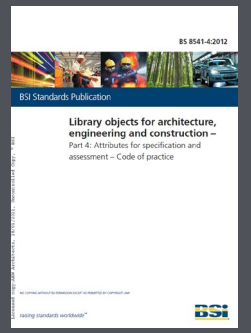


BS EN 17412-1
Level of Information Need

BS 8541-1
Library Objects Identification

BS 8541-2
Library Objects 2D Symbols

BS 8541-3
Library Objects Shape



BS 8541-4
Library Objects Attributes

uniclass

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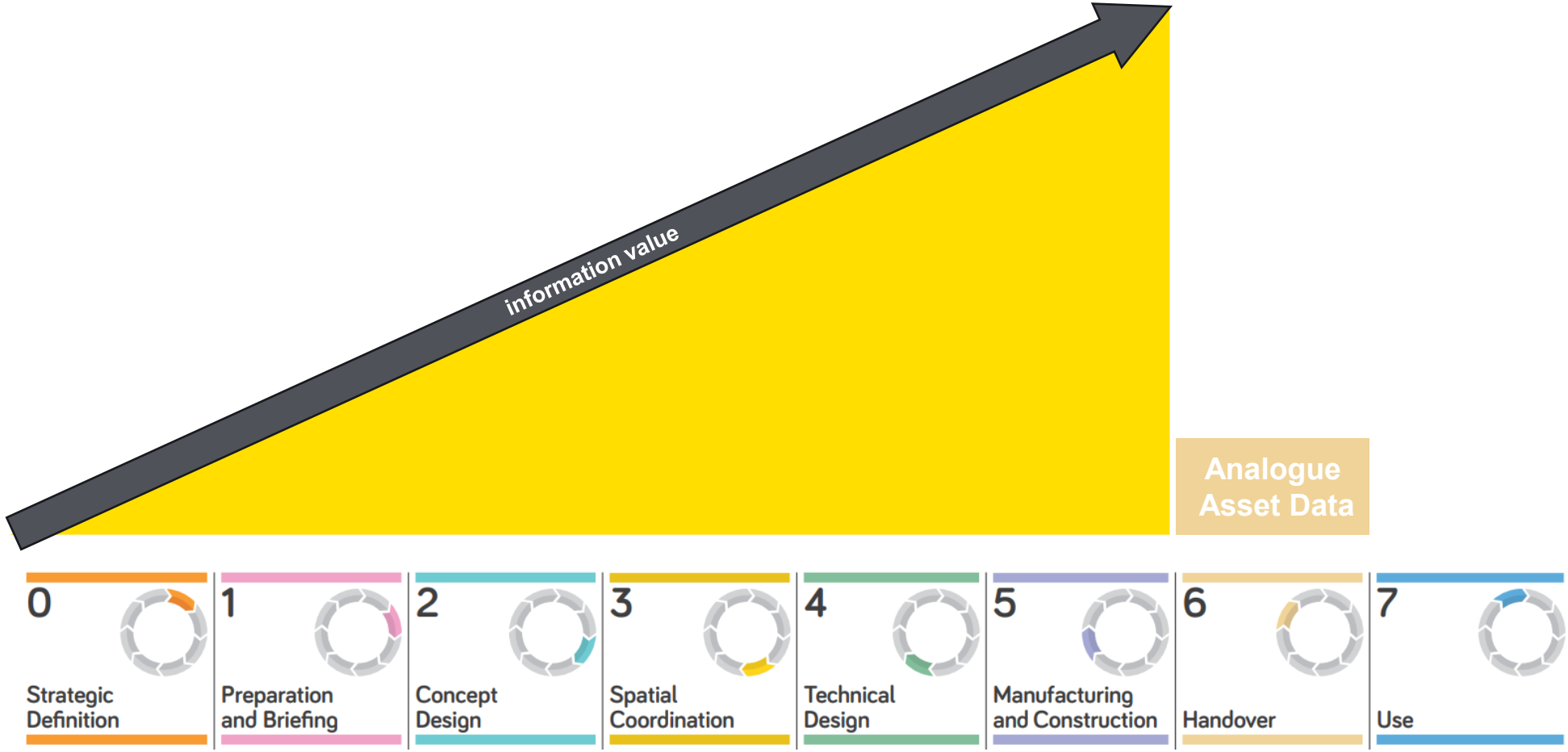
uk bim framework

information value



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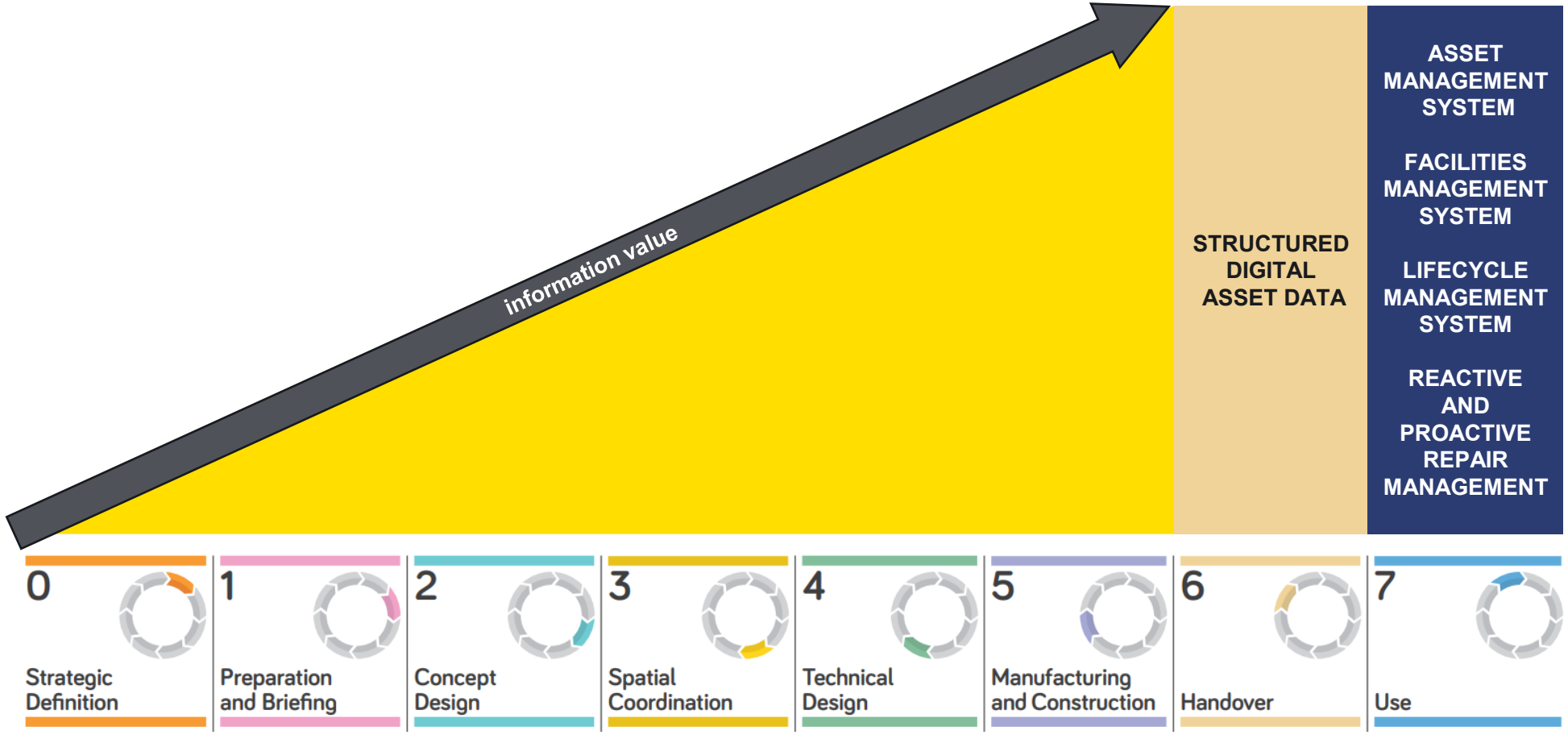
ELBA tric

information value



ISO19650-1 Information Delivery Cycle

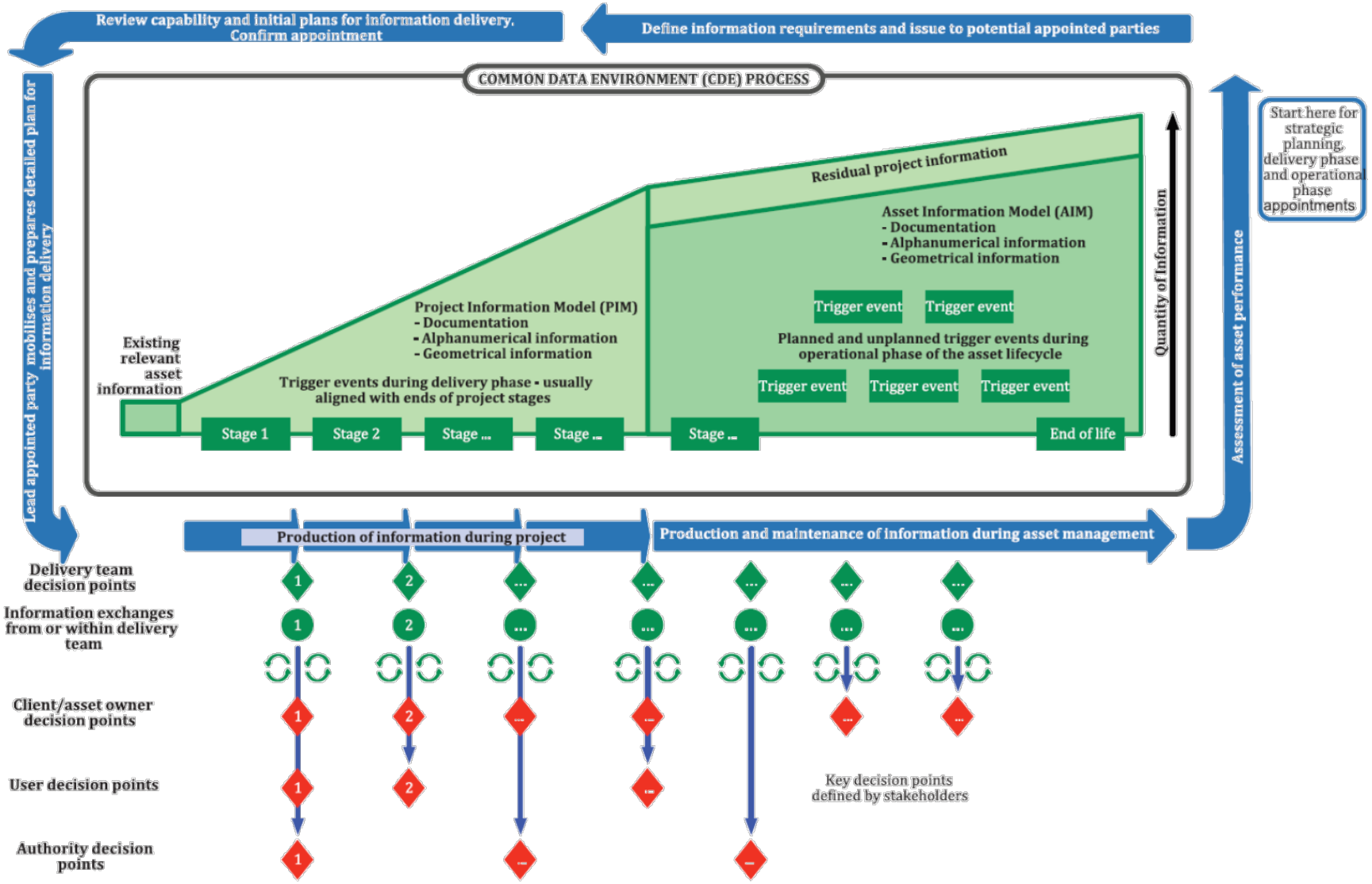


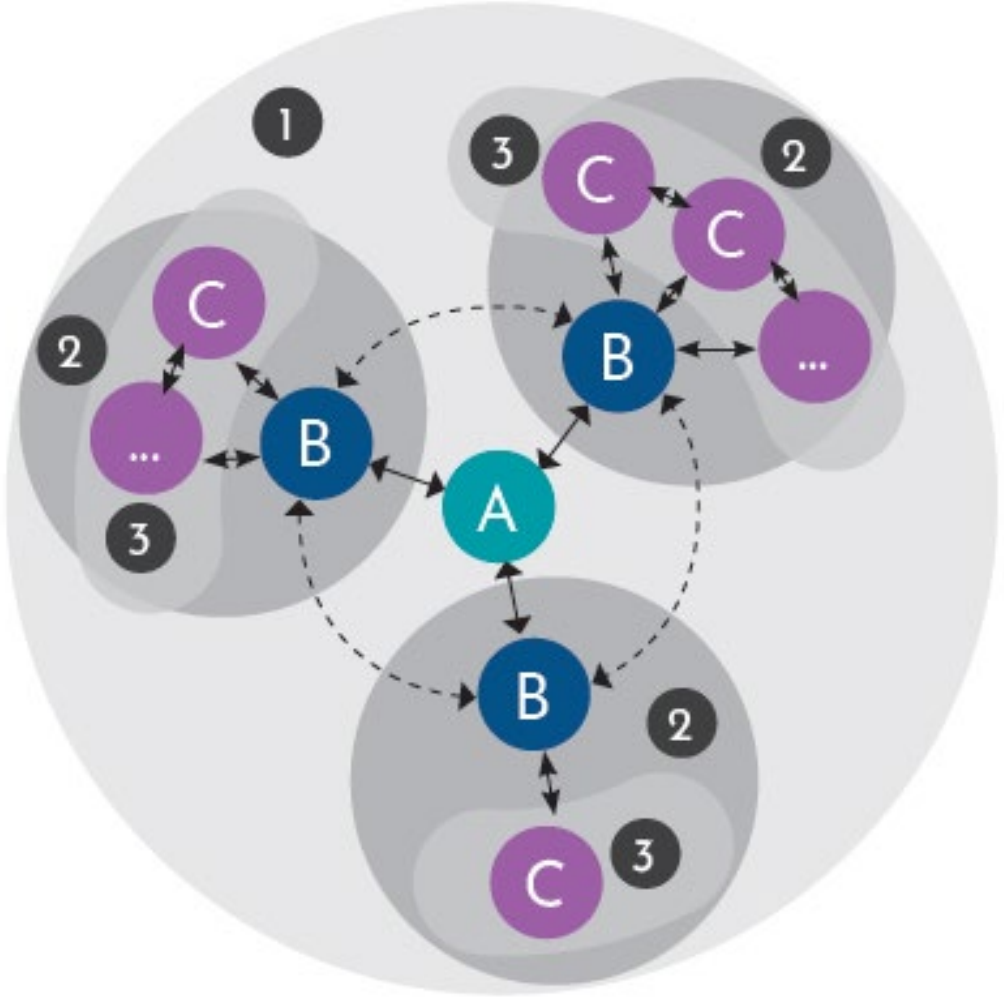
Image taken from ISO 19650-1

ISO 19650 team relationships

Appointing party

Lead appointed party

Appointed party



Key:

- A — Appointing Party
- B — Lead Appointed Par
- C — Appointed Party
- 1 — Project Team
- 2 — Delivery Team
- 3 — Task Team(s)
- ↔ — Information requiren and information excl within a delivery team and with the appointing party
- ↔ (dashed) — Information co-ordination between delivery teams

Extract from "Information management according to BS EN ISO 19650 Guidance Part 2 Parties, teams and processes for the delivery phase of the assets"

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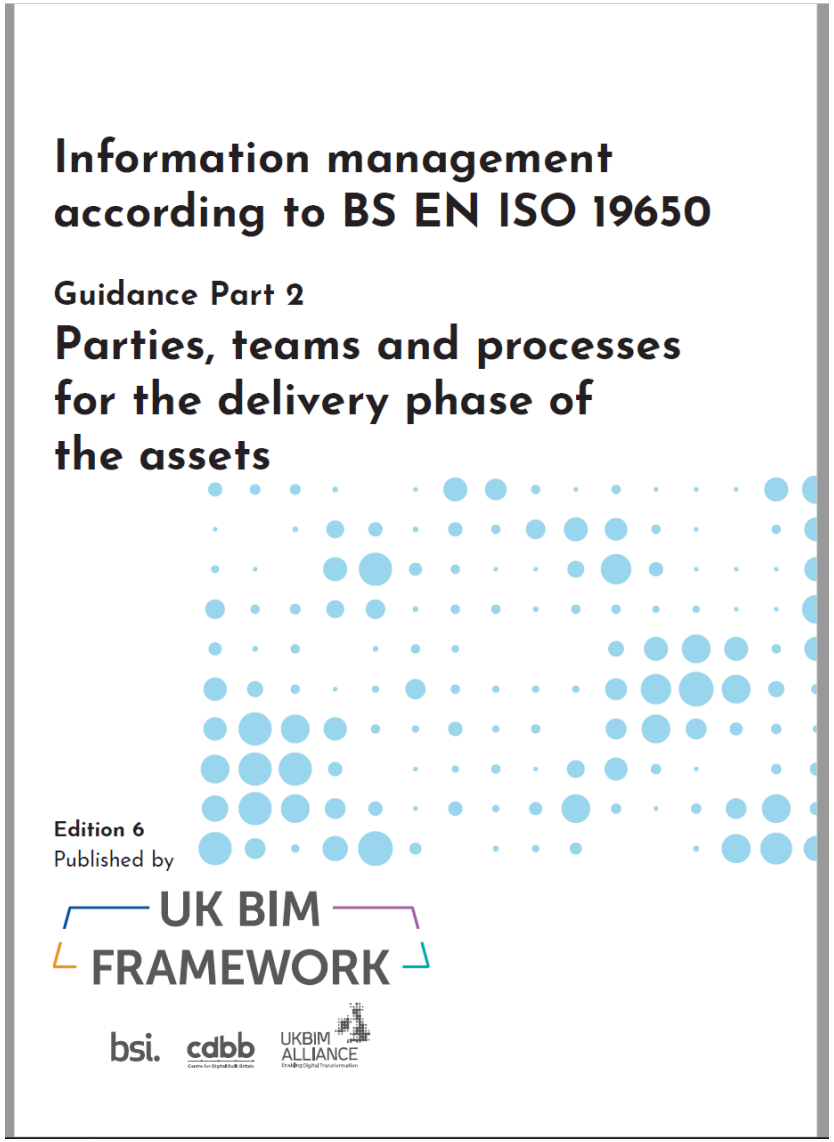
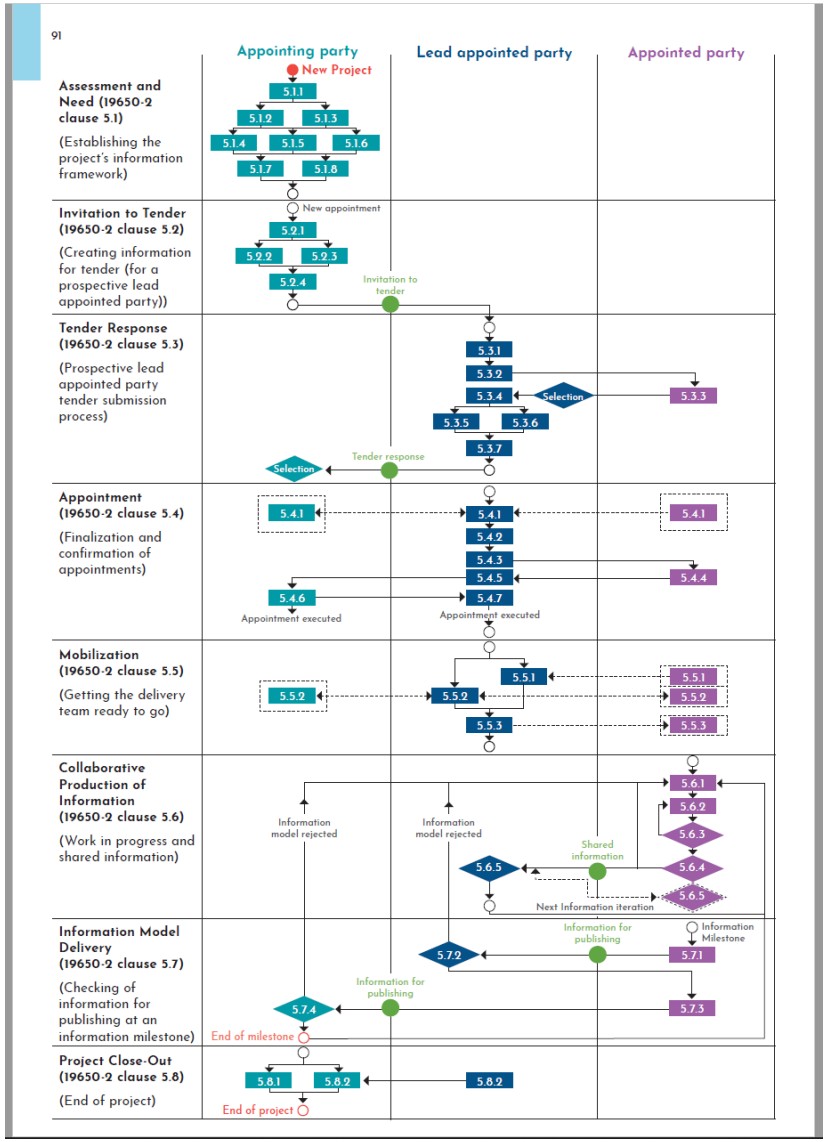
UK BIM Framework





Extract from "Information management according to BS EN ISO 19650 Guidance Part 2 Parties, teams and processes for the delivery phase of the assets"

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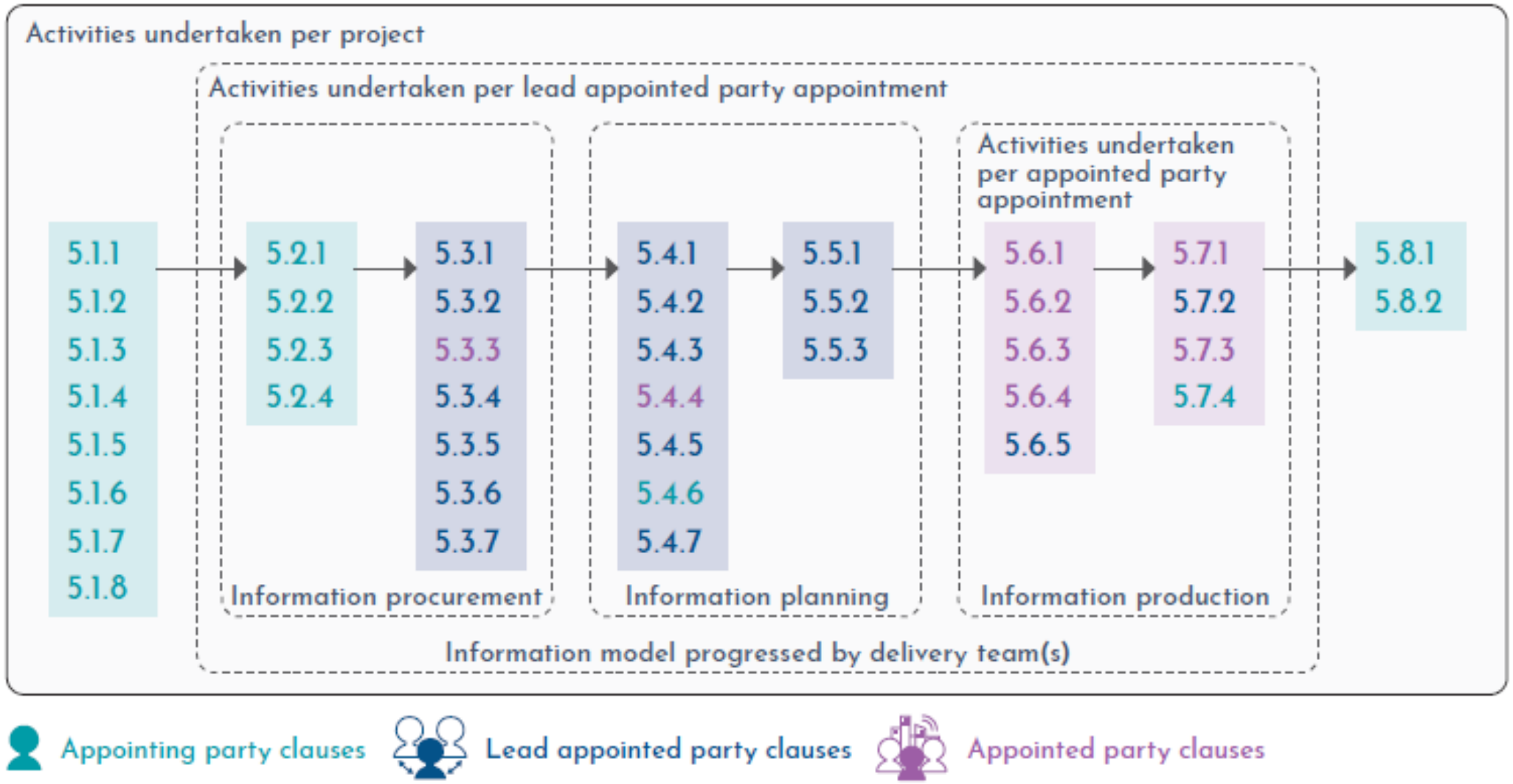
UK BIM Framework



Extract from "Information management according to BS EN ISO 19650 Guidance Part 2 Parties, teams and processes for the delivery phase of the assets"

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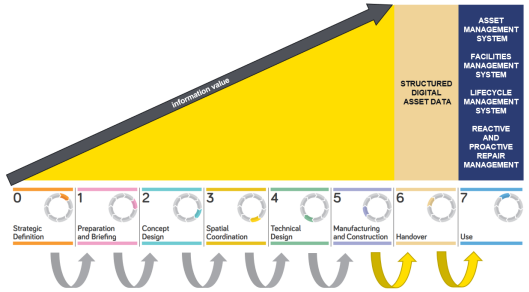
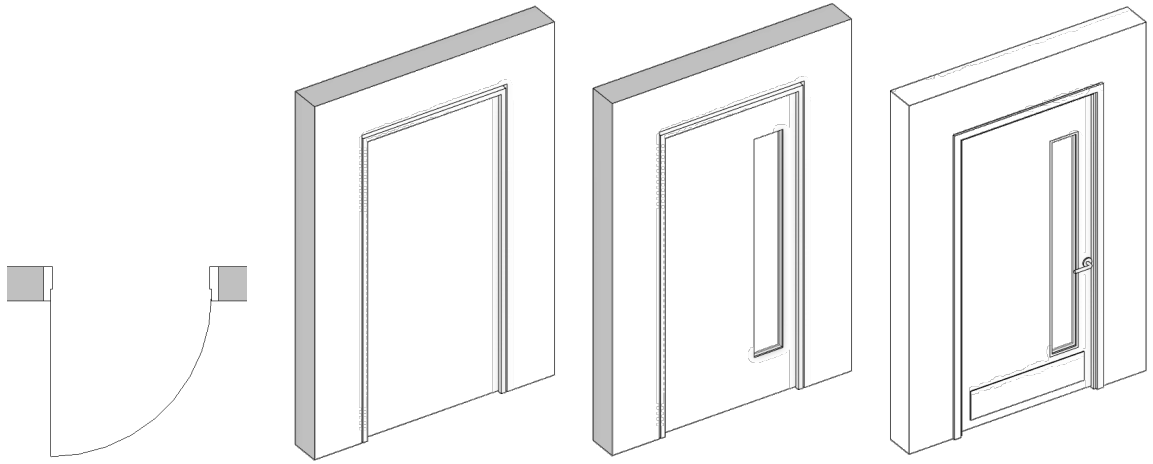
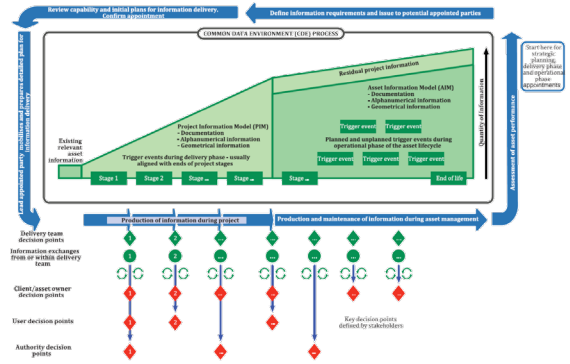
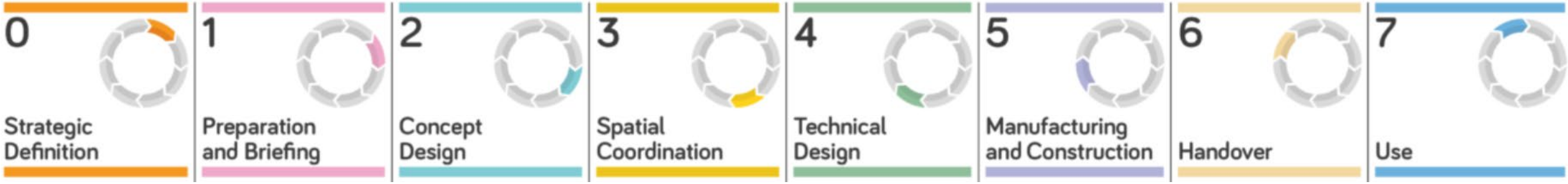
progressive levels of detail









BS 8644-1

The application of this part of BS 8644 is intended to enable:

+ getting the right information to the right people at the right time;
+ clear identification of fire safety hazards, people, assets and environments at risk, and measures
+ put in place to mitigate those risks;
+ clear identification of tasks and trigger events throughout an asset's life cycle;
+ clear allocation of responsibility for fire safety through an asset's life cycle;
+ clear understanding of technical information by all parties sharing responsibilities for fire safety;
+ appropriate dissemination of fire safety knowledge, experience and lessons learnt.

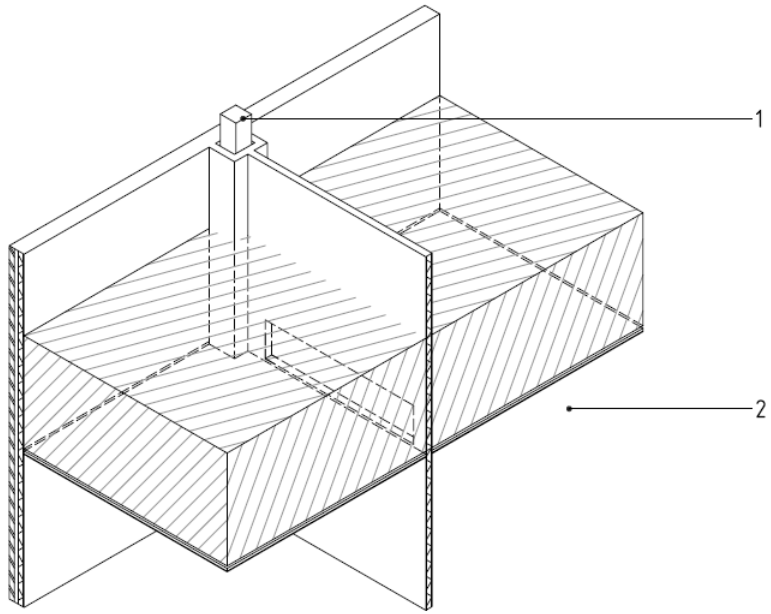
NB. not an official logo (ai generated)

BS 8644-1

2

Concept Design

Figure 4 — *Example of geometrical representation of properties relevant to fire safety at concept stage*



Key

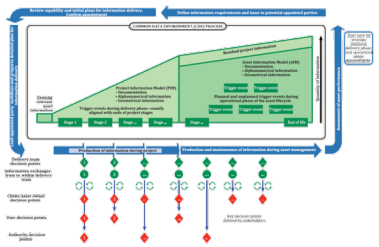
1 Space allowance within architectural design model for structural elements that might require fire protection (see Note)

2 Spatial elements within architectural design model representing a room

Building services zone

NOTE Space needs to be allowed to fit fire safety protection of elements or fire safety systems to be included in the asset at a later stage.

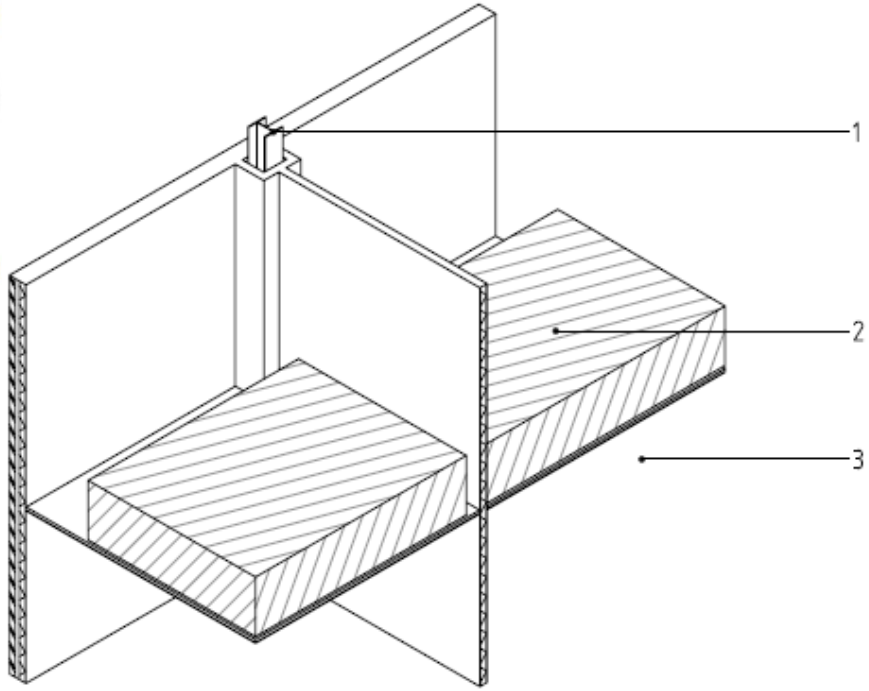
Image taken from BS 8644-1:2022 Digital management of fire safety information



3

Spatial Coordination

Figure 5 — *Example of geometrical representation of properties relevant to fire safety at spatial coordination stage*



Key

1 Column within both structural and architectural design models (see Note 1)

2 Spatial allowance within mechanical electrical and plumbing model (see Note 2)

3 Spatial element within architectural design model representing a room

Building services zone

NOTE 1 During the spatial coordination stage, elements often reside within multiple discipline models, e.g. structure exists within both the architectural and structural models. Some objects, such as floor slabs, can have shared ownership, but by the end of the coordination phase need to reside solely within the responsible discipline's design.

NOTE 2 Spatial requirements are determined with regard to fire safety of building services or the protection of structural elements. This includes planning access so that fire safety assets such as dampers are serviceable.

Image taken from BS 8644-1:2022 Digital management of fire safety information

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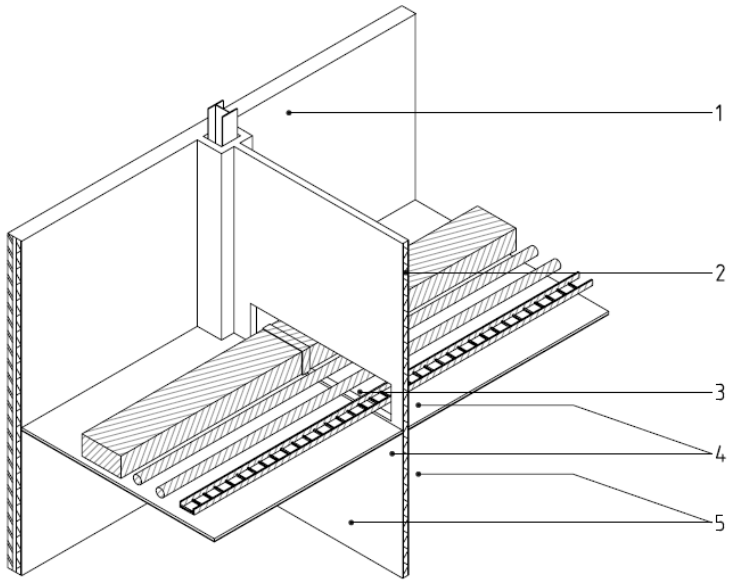
BS 8644-1

4

Technical Design

Figure 6 — *Example of geometrical representation of properties relevant to fire safety at detail design stage*



Key

1 External architectural wall
2 Internal architectural wall
3 Fire stopping detail element
4 Architecural wall and ceiling finish elements
5 Architectural space element
Building services zone

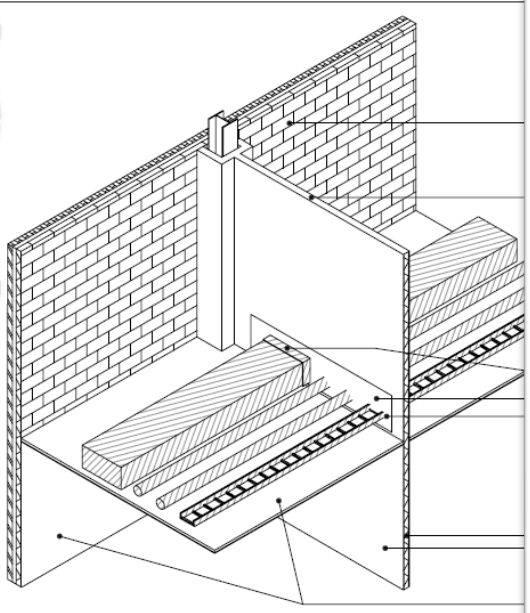
NOTE In this example, it is assumed that the architectural designer has the asset envelope in their design model, and that advice has been obtained from a fire safety engineer on reaction to fire performance of materials and the extent of fire resistance required. (This information can be used in the architectural designer's performance specifications and schedules to specify products, systems and materials so they align with those fire safety requirements.) Examples of fire safety engineering properties can be found in Annex B.

Image taken from BS 8644-1:2022 Digital management of fire safety information

5

Manufacturing and Construction

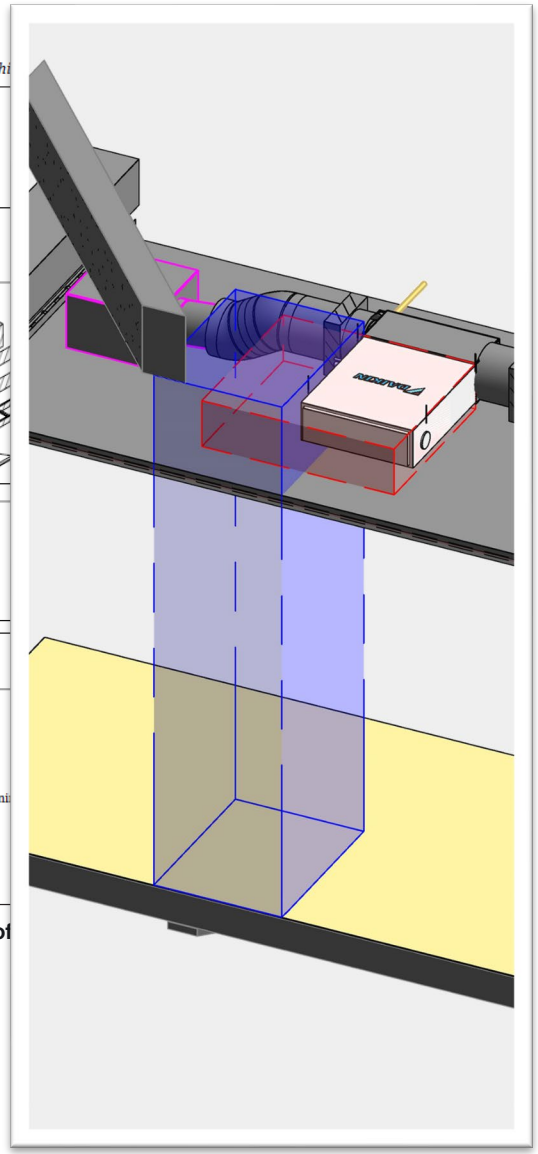
Figure 7 — *Example of geometrical representation of fire safety properties withi*

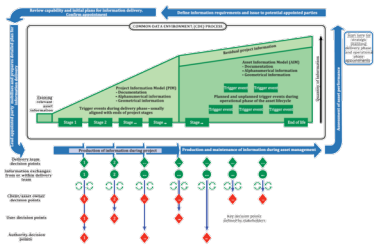


Key

1 Element of structure with fire-resisting property (e.g. R60, EI60, REI60)
2 Fire stopping element (e.g. void fillers, fire stopping detail, fire damper)
3 Opening with minimum clearance requirements (e.g. distance between service openi
4 Non-loadbearing element with fire-resisting property (e.g. EI60)
5 Surface with reaction-to-fire property (e.g. BS EN 13501-1:2018, class B-s3, d2)
Building services zone

Image taken from BS 8644-1:2022 Digital management of





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Annex C (informative)
Example of fire safety information as represented in information deliverables

Figure C.1 to Figure C.13 show a graphical representation of the fire safety properties contained in a single information model.

Figure C.1 — *Example of fire safety information as represented in information deliverables – High-level view of information model*

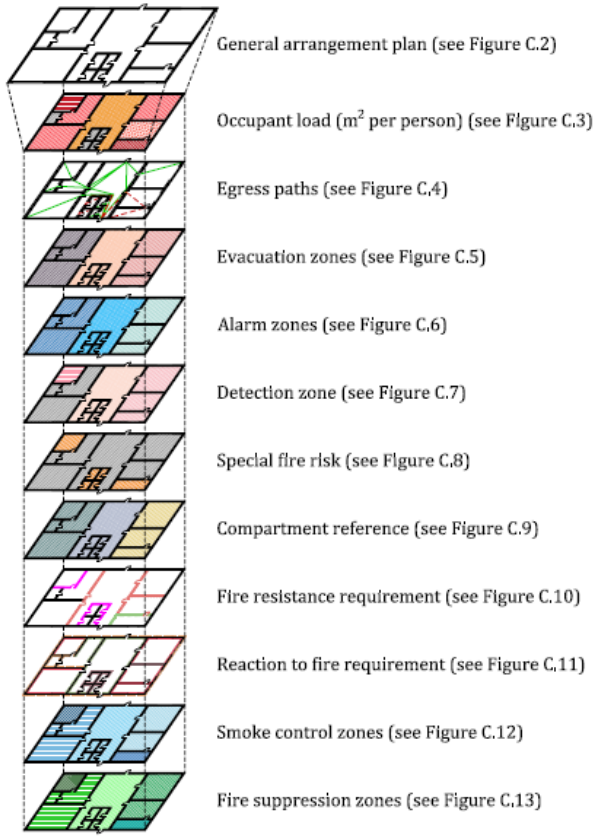


Figure C.4 — *Example of fire safety information as represented in information deliverables – Egress paths*

Figure C.6 — *Example of fire safety information as represented in information deliverables – Alarm zones*

Figure C.5 —

Figure C.7 —

Figure C.10 — *Example of fire safety information as represented in information deliverables – Fire resistance requirement*

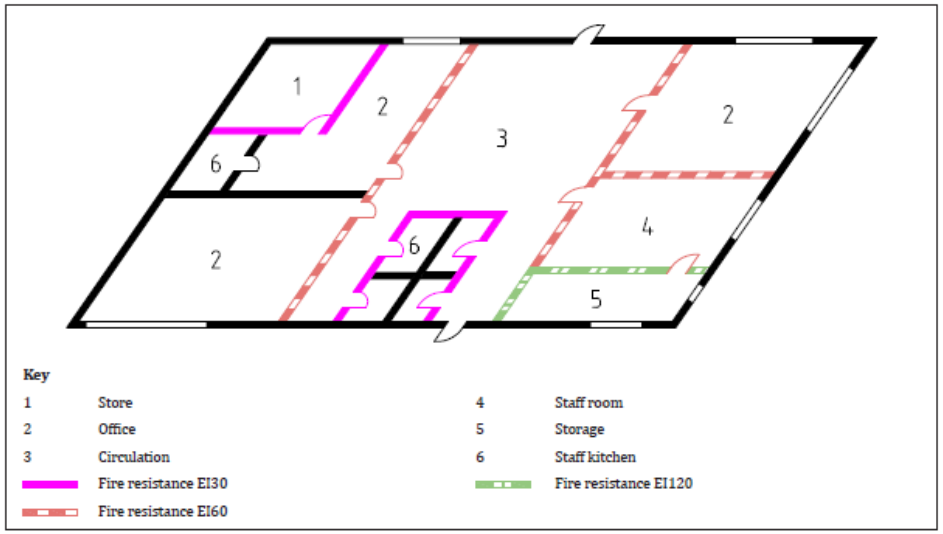
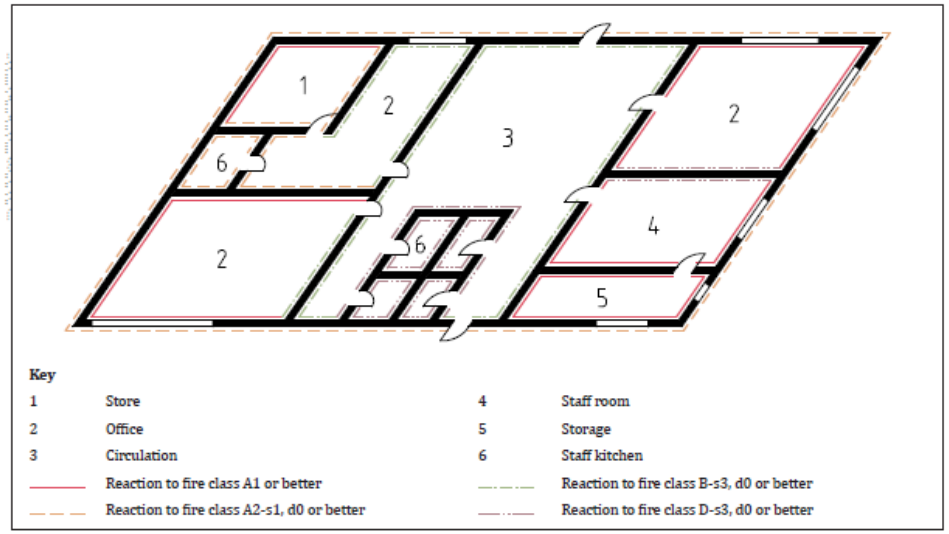


Figure C.11 — *Example of fire safety information as represented in information deliverables – Reaction to fire requirement*



final thoughts…

Everything will continue to be in a state of transition

COBie v3

FIREIE

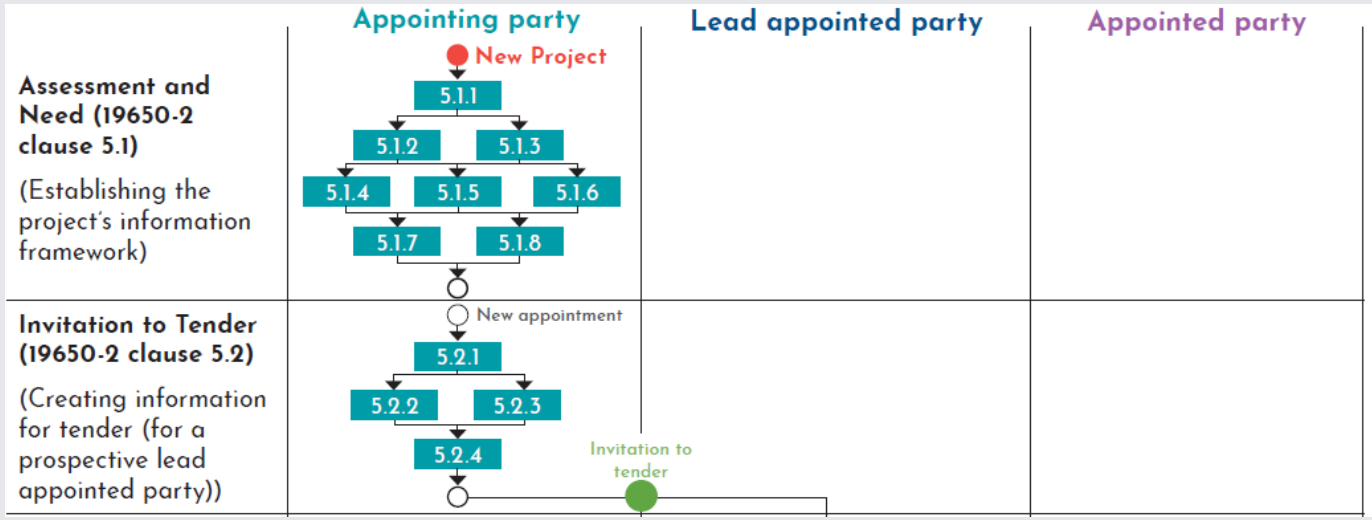
NB. not an official logo
(ai generated)

THE CHANGE SPECTRUM

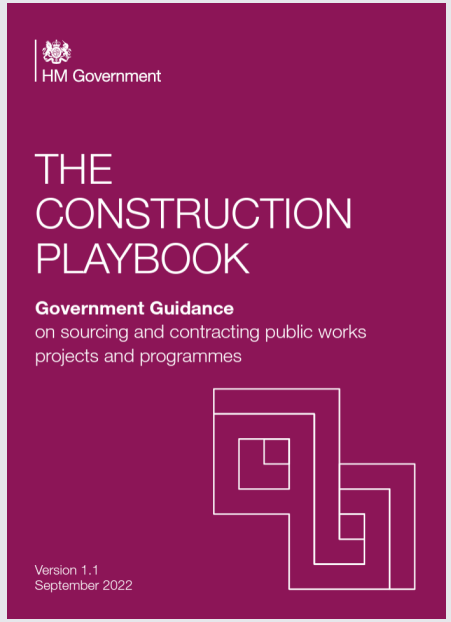
Continuous improvement — disruptive innovation

KAIZEN	KAIKAKU	KAKUSHIN
change for better	radical change	reform, innovation

Clients need help from the industry



Extract from "Information management according to BS EN ISO 19650 Guidance Part 2 Parties, teams and processes for the delivery phase of the assets"



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Thank you

Any Questions? Please get in touch!

mturner@aewarchitects.com

aew architects
7th Floor, Trinity Court
16 John Dalton Street
Manchester
M2 6HY
T: 0161 214 4370
www.aewarchitects.com

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STEPS TO SUCCESS: HOW CAN TECHNOLOGY SUPPORT US?

STEVE RUDGE, SYMETRI

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UK BIM FRAMEWORK

bsi. cdbb UKBIM ALLIANCE

How the UK BIM Framework will help your business

The UK BIM Framework is...
an overarching approach that helps you to implement information management successfully into your business.

The Construction Playbook was created to ensure that we change our approach to delivery and asset operation. It recommends using the UK BIM Framework to align with the correct standards as well as having the right tools and guidance to make this a reality.

Begin implementing better information management into your organisation, with the guidance and support of the UK BIM Framework.

UKBIMFramework.org

Key benefits:

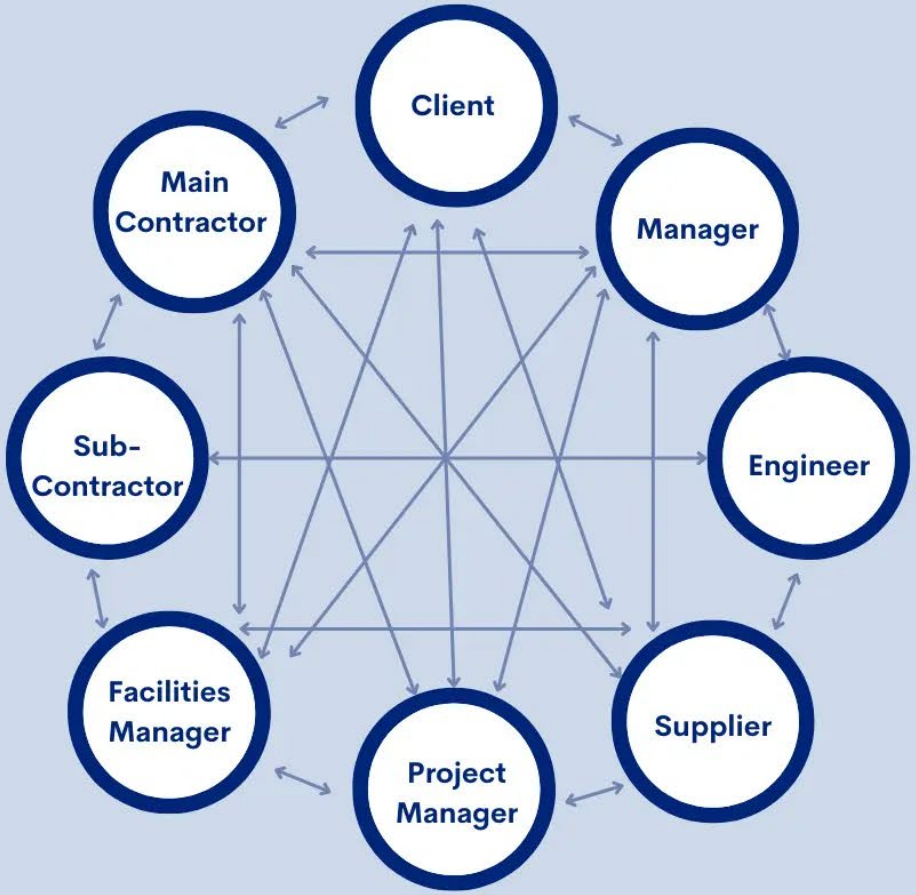
Helps owners and operators achieve their business objectives and reduce the risks and costs through effective, secure and efficient production, use, and management of information

Reference:

ISO 19650 series of standards
Guidance Parts 1-3
Guidance Parts A-F

Information Requirements **State what you want**	**How can I get the right information to make decisions?** By developing organisational information requirements that support your strategic objectives By developing robust and sufficiently precise information requirements	**Key benefits:** Information requirements that can be tested and more easily followed Ensure such requirements meet business objectives and operational needs without compromising on risk of loss, misuse or modification of sensitive information	**Reference:** ISO 19650-2, 5.1 ISO 19650-3, 5.1 ISO 19650-5, 9 BS 8536-1/2 Guidance Part A, D Guidance Part 2, 3 GSL Guidance
Tendering **Invite and Respond**	**How can I ensure organisations working on a project are capable, competent and will meet the brief?** By having a value-based approach to procurement that considers quality as well as cost Ask all lead organisations for a BIM Execution Plan. Establish team member capability and capacity, ensure robust mobilisation planning	**Key benefits:** Helps suppliers cost and assess project risks by making structured information available Ensure that the right information is received to effectively assess the capability and capacity of potential suppliers	**Reference:** ISO 19650-2, 5.2-4 ISO 19650-3, 5.2-4 Guidance Part E Information Protocol
Information Delivery Planning **Plan how and when to deliver it**	**How can I ensure the right information will be available to the right people at the right time?** By investing in processes, procedures and IT infrastructure that support collaborative working Develop and test procedures	**Key benefits:** Ensures the consistent production of information by establishing the standards, methods, and procedures to be followed Ensures that the methods specified are valid by testing them prior to the production of information	**Reference:** ISO 19650-2, 5.5 ISO 19650-3, 5.5 Guidance Part C Guidance Part F
Information Delivery **Deliver and authorise it**	**How can I produce information consistently and with confidence?** By making sure the information standard and information production methods and procedures are robust and inform the authorisation process	**Key benefits:** Reduces guesswork by having access to information produced by others when needed Reduces rework by having access to relevant standards, methods and procedures	**Reference:** ISO 19650-2, 5.6 ISO 19650-3, 5.6 BS 1192-4 PAS 1192-6 Guidance Part B Guidance Part E Guidance Part F
Information Acceptance **Accept and use**	**How can I ensure what I receive meets my brief?** Verify against the information requirements as well as information standard and information production methods and procedures	**Key benefits:** Know that information has gone through a robust approval and authorisation procedure before it has been delivered Easier verification through the ability to test delivered information against the information requirements as well as the relevant standards, methods and procedures	**Reference:** ISO 19650-2, 5.7 ISO 19650-3, 5.7 Guidance Part 3

Traditional Information Sharing



Common Data Environment (CDE)

Autodesk Revit 2023 - SH02_2023_original.rvt - 3D View: AXO DISPLACE 4

samuel.macali...

File | Architecture | Structure | Steel | Precast | Systems | Insert | Annotate | Analyze | Massing & Site | Collaborate | View | Manage | Add-Ins | Modify

Modify | Wall | Door | Window | Component | Column | Roof | Ceiling | Floor | Curtain System | Curtain Grid | Mullion | Railing | Ramp | Stair | Model Text | Model Line | Model Group | Room | Room Separator | Tag Room | Area | Area Boundary | Tag Area | By Face | Shaft | Wall | Vertical | Dormer | Level | Grid | Set | Show | Ref Plane | Viewer

Select | Build | Circulation | Model | Room & Area | Opening | Datum | Work Plane

Properties

3D View

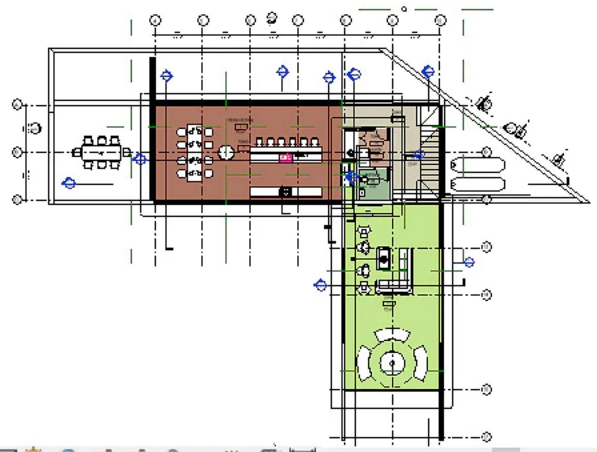
3D View: AXO DISPLACE 4 | Edit Type

Graphics

Detail Level	Fine
Parts Visibility	Show Original
Visibility/Graphics Ov...	Edit...
Graphic Display Optio...	Edit...
Discipline	Architectural
Default Analysis Displ...	None
Show Grids	Edit...
Visible In Option	all

Properties help | Apply

Level 1



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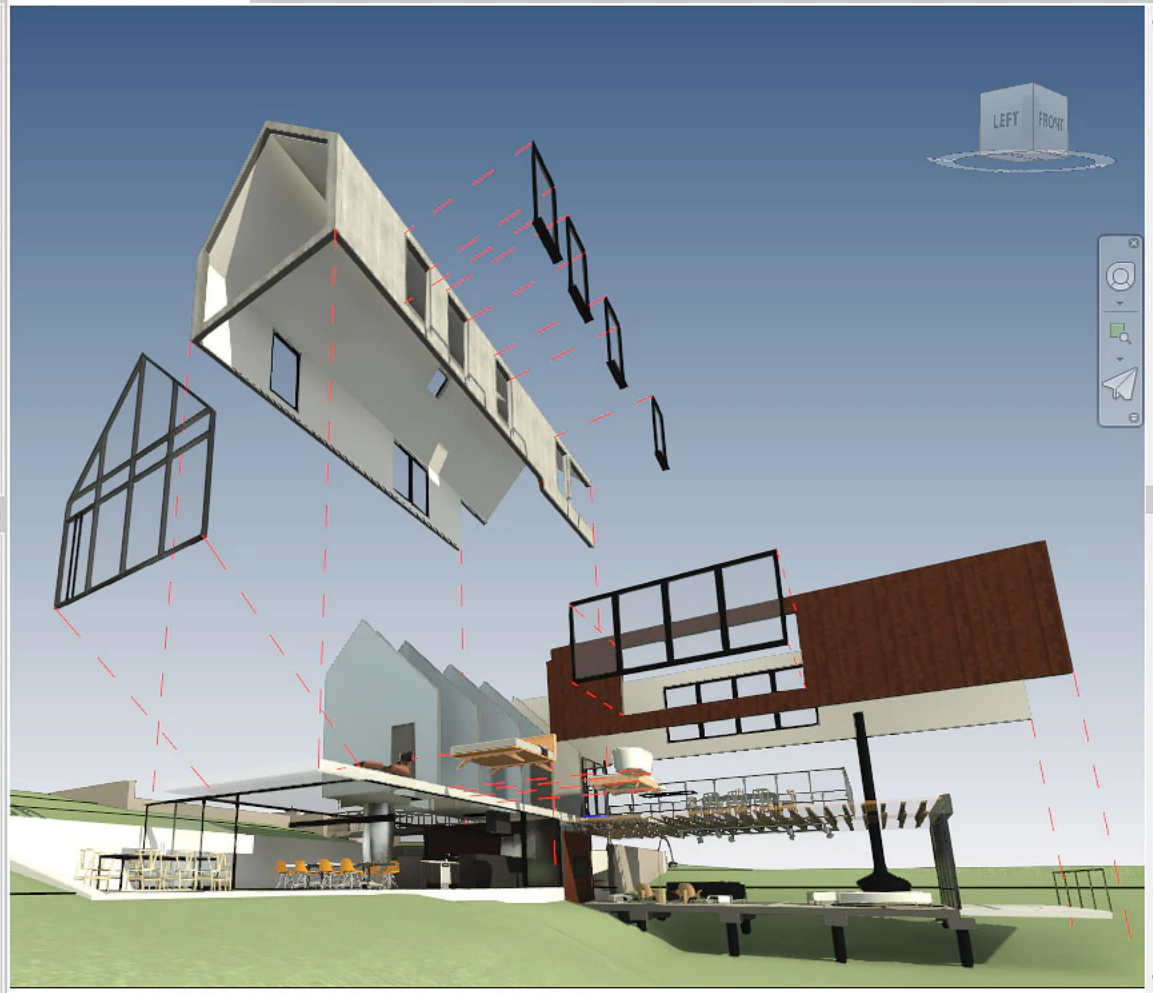
AXO DISPLACE 4



Perspective

Project Browser - SH02_2023_original.rvt

- AXO DISPLACE 4
- Axo view
- Axo view divide parts
- CFD Axo view
- kitchen detail
- Material view
- {3D}
- Elevations (Building Elevation)
- Sections (Building Section)
- Renderings
  - 3D View 1_Render
  - 3D View 2_Render
  - 3D View 3_render_draft
- Area Plans (Gross Building)
- Area Plans (Rentable)
- Legends

3D View 2_Render

1 : 1

Click to select, TAB for alternates, CTRL adds, SHIFT unselects.

:0

Main Model

Exclude Options

:0

21°C Mostly s...

ENG 16:30

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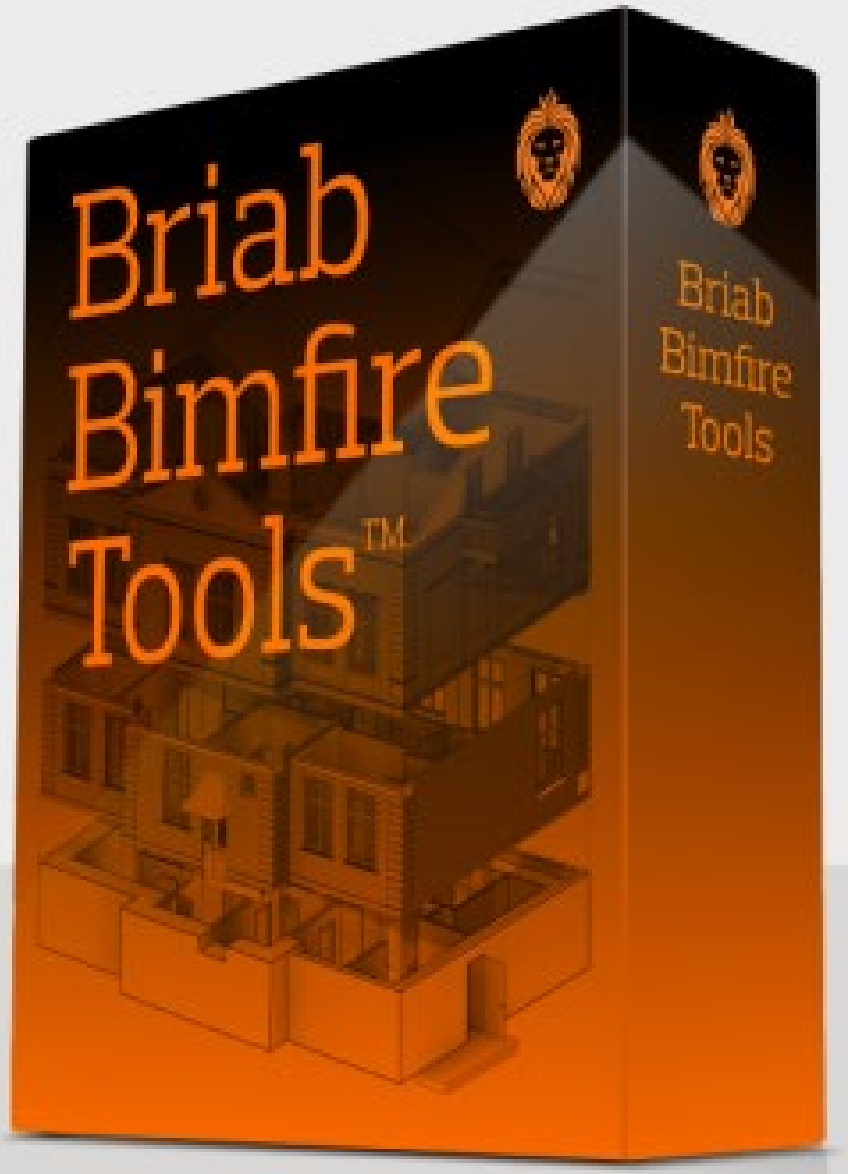
Briab Bimfire Tools™
for Revit users

Breakthrough digital work process efficiency in fire safety design that lets you integrate fully with the BIM process.



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AUTODESK
Construction Cloud

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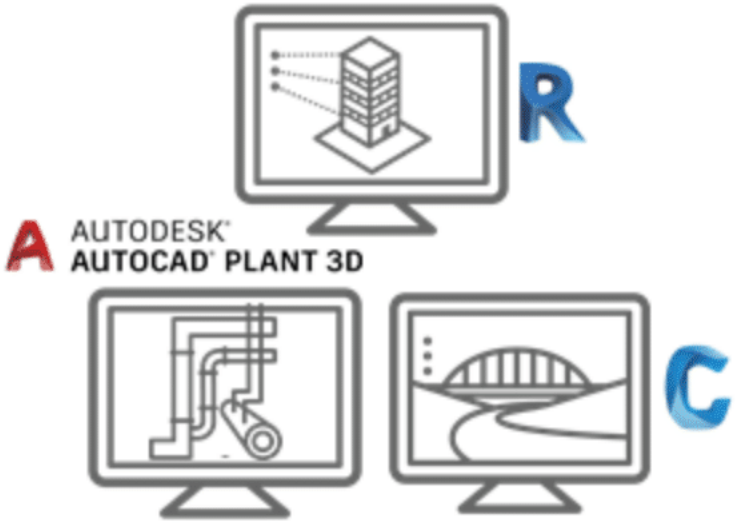
AUTODESK® **BIM COLLABORATE PRO**



Work anytime, anywhere in
Revit, Civil 3D & **Plant 3D**

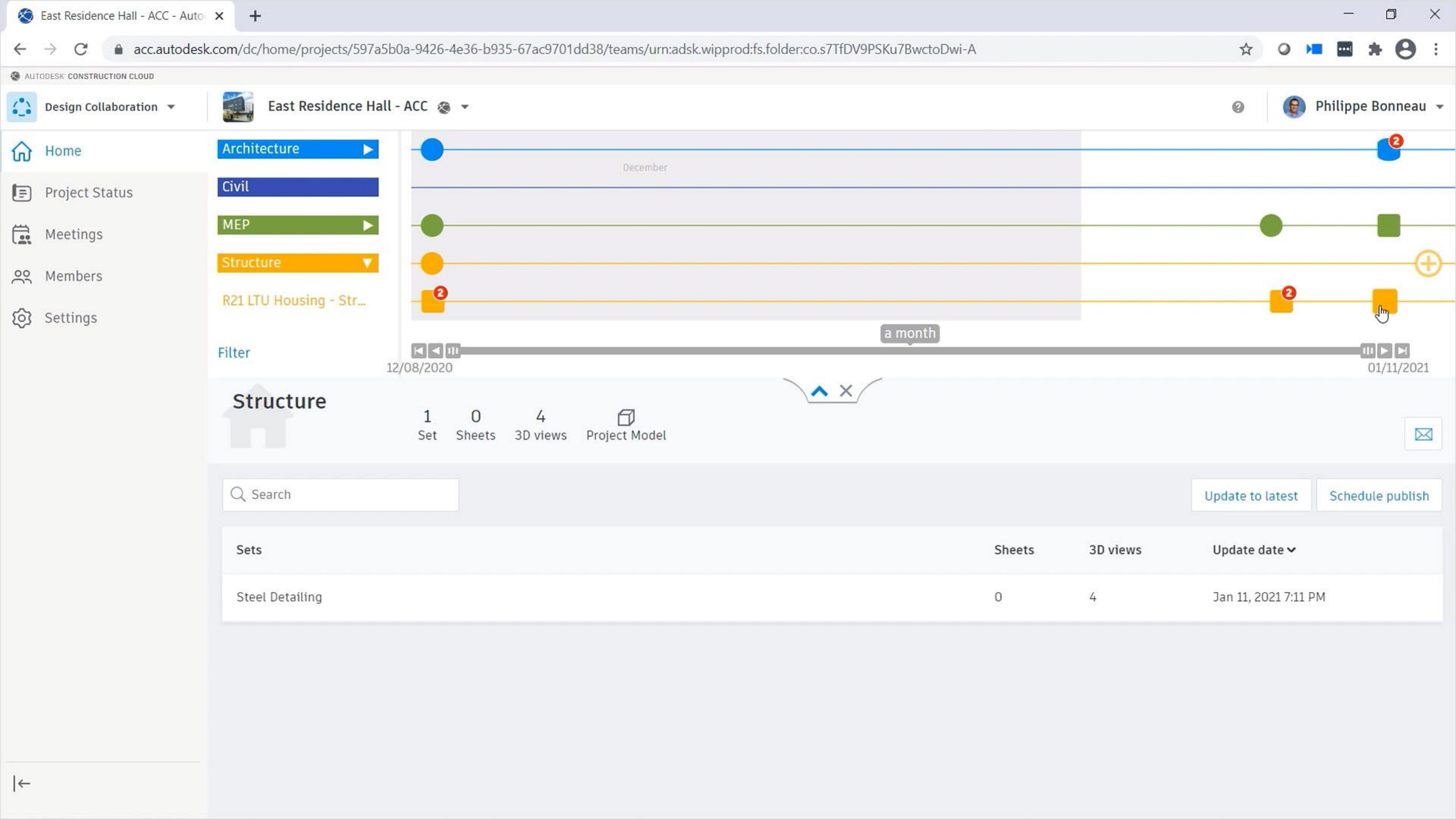
Designers (Authors)

Centrally manage your data in a
unified platform

Reviewers

Share feedback, view insights, and detect clashes **on any device**

Decision Makers


East Residence Hall - ACC - Auto
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AUTODESK CONSTRUCTION CLOUD
Design Collaboration
East Residence Hall - ACC
Philippe Bonneau
Home
Project Status
Meetings
Members
Settings
Architecture
Civil
MEP
Structure
R21 LTU Housing - Str...
Filter
December
a month
12/08/2020
01/11/2021
Structure
1
Set
0
Sheets
4
3D views
Project Model
Search
Update to latest
Schedule publish
Sets
Sheets
3D views
Update date
Steel Detailing
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4
Jan 11, 2021 7:11 PM

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TOTTENHAM HALE – NORTH LONDON

- Completed in May 2023
- Client Requirement
- Completed Project
- Completed Records
- Depleting Team

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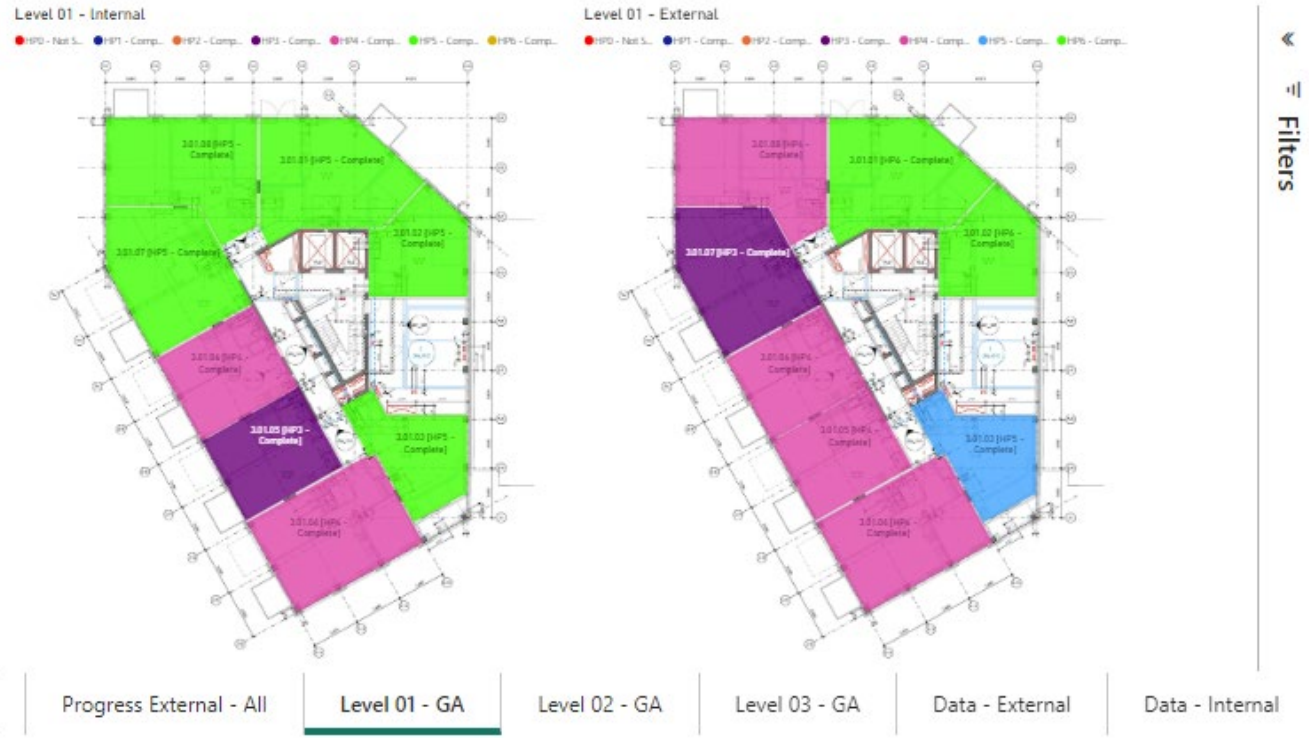
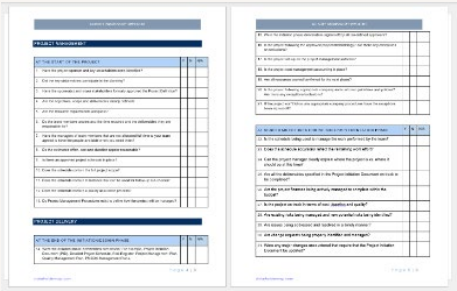
COMPLETED PROJECT

Power BI Samples

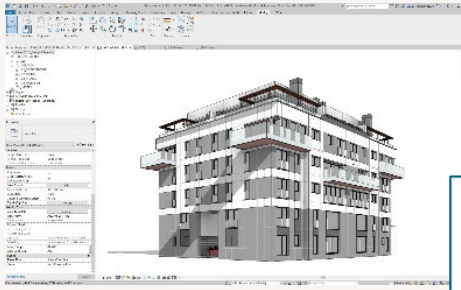
THNI TEST

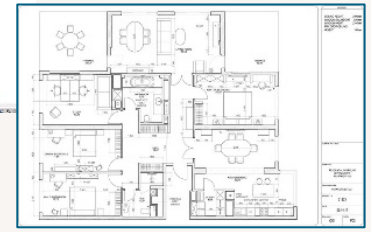




Checklists / ITPs

Photo's





As-Built Model/Drawings

Reports

Certificates

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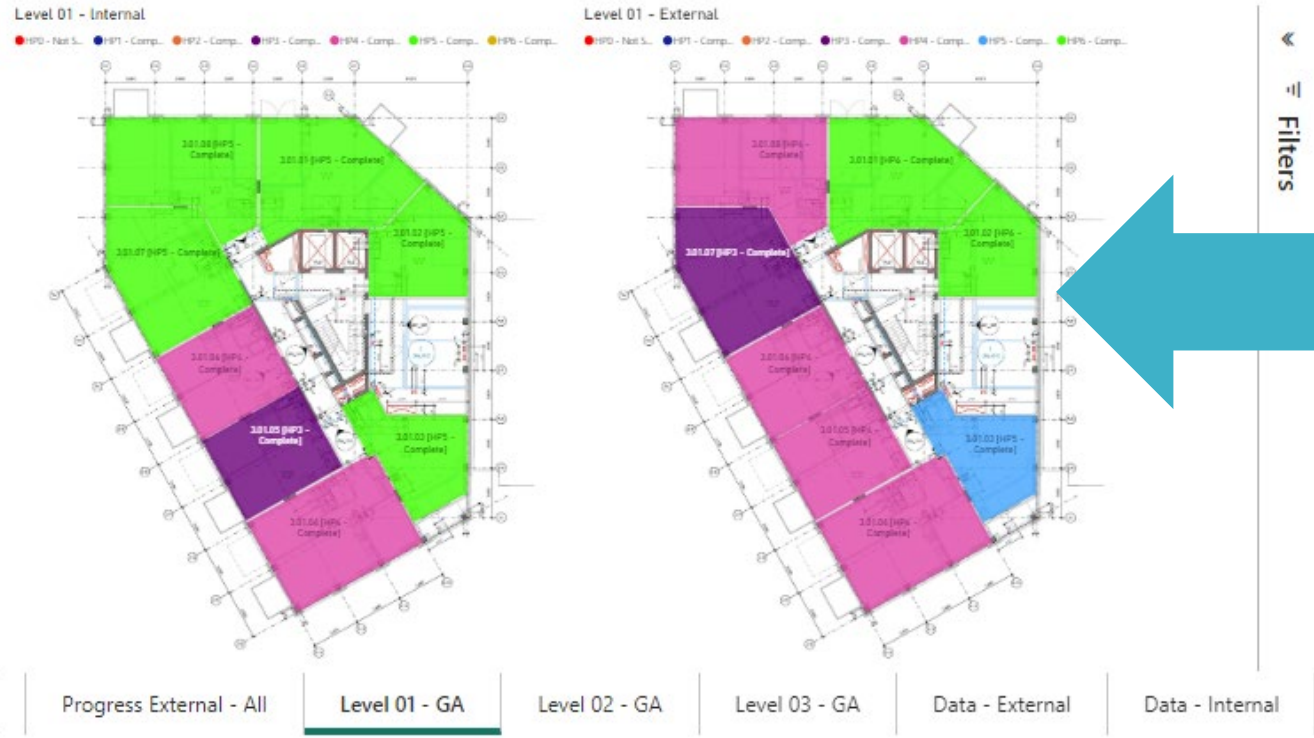
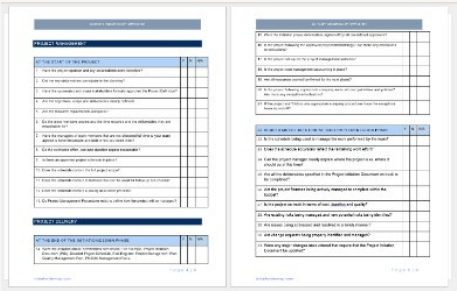
COMPLETED PROJECT

Power BI Samples

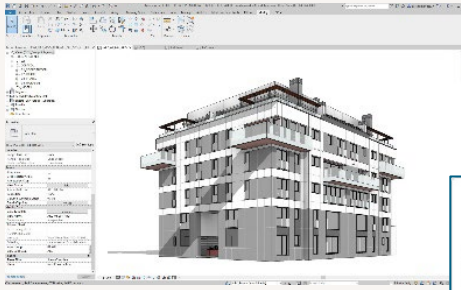
THNI TEST





Checklists / ITPs

Photo's



As-Built Model/Drawings

Reports

Certificates

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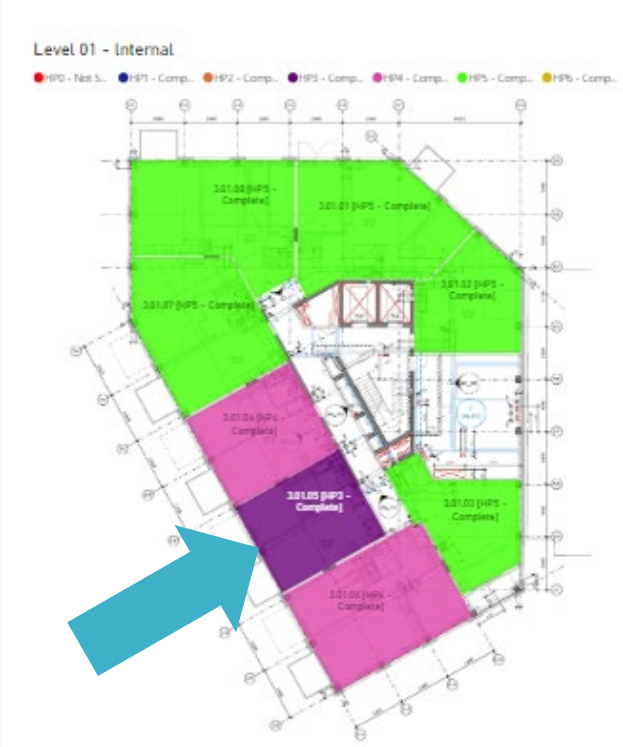
HANDOVER ?

AUTODESK
Construction Cloud

AUTODESK
Construction Cloud



Clients System

Collate the Data

Data Migration

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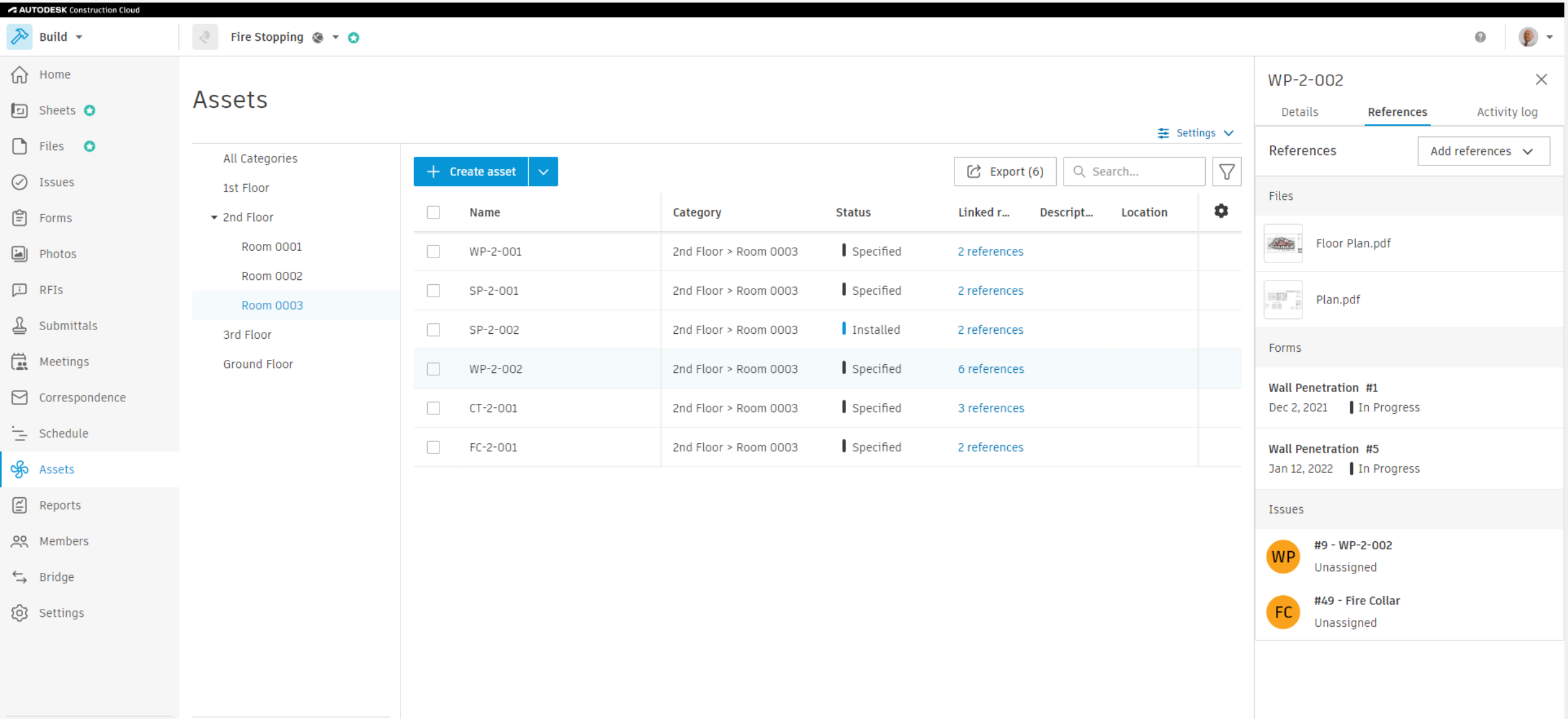
ROOMS AS ASSETS



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MORRIS NORTH – EAST LONDON

- 9 Months into construction
- The unknown requirements was a challenge
- No COBie requirements

AGREED FIRE INFORMATION

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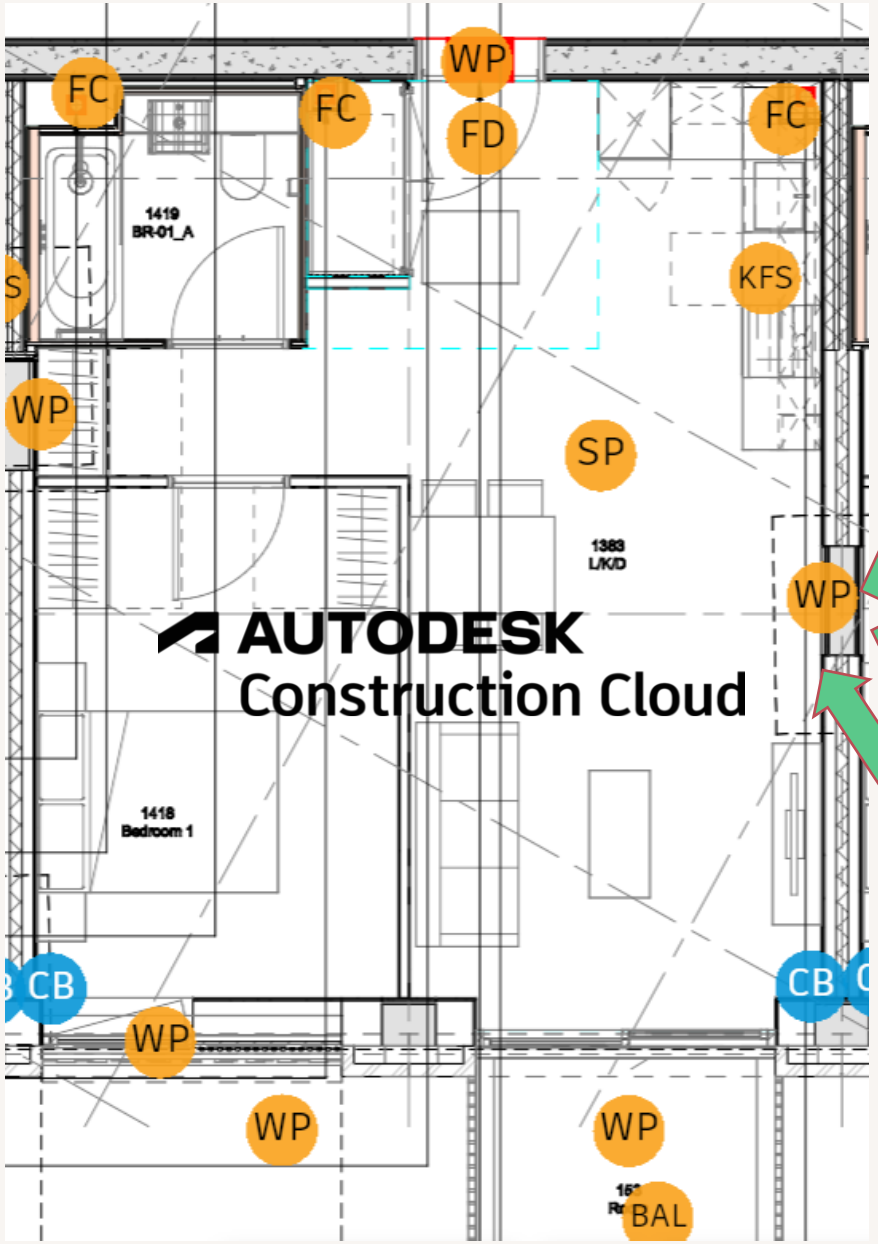
	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Name	Category	Description	Location	Status	Barcode	Backup Power Type	Batch Number	Date Installed	Fire Exit Type	Fire Exposure Direction	Fire Protection Method	Installed by
2	FC-2-001	2nd Floor > Room 0003			Specified	FC-2-001							
3	CT-2-001	2nd Floor > Room 0003			Specified								
4	WP-2-002	2nd Floor > Room 0003			Specified	BC010							
5													

	O	P	Q	R	S	T	U
6							
7	Material Used	Minimum Operation Period	Minimum Operation Pressure	Minimum Operation Temperature	Oculo Link	Reaction to Fire	Resistance To Fire - Insulation (I)
8					https://app.uk.oculo.ai/clients/60f6ddca2797883b9ddb57e4?sceneId=		
					https://app.uk.oculo.ai/clients/60f6ddca2797883b9ddb57e4?sceneId=		
					https://app.uk.oculo.ai/clients/624739ff5ab8f95a58a0f528?sceneId=6		

	V	W	X	Y	Z	AA	AB	AC
	Resistance To Fire - Integrity (E)	Resistance To Fire - Structure (R)	Signed off	Space from	Space To	Competency of installer	Linked Documents	Visual Fire Record
	=60f6dd664c1527cacb1515e4&fot=1							
	=60f6dd654c1527cacb1515d6&fot=1							
	62473960fbb19fb600a19949&fot=1							

SYMETRI
ADDNODE GROUP



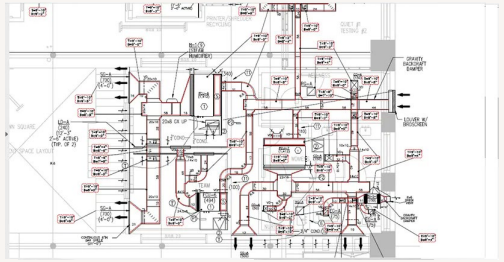
Test Inspection Plan

WORK INSPECTION SHEET

Contract		Sheet No.	
ITEM	Fire Stopping – Floor Slab	DWG.	
LOCATION:		SUBCONTRACTOR	

NO.	ITEM	SC	HG	COMMENTS
1	**Fire Stopping – Floor Slab**			
1.1	Have all floor and soffit penetrations been firestop according to approved method?			
1.2	Was any ad-hoc method used?			
1.3	Was the Floor below checked for any spillage and/or cleaned?			
1.4	Area cleaned and ready for next trade			

Subcon Name		Signature		Date	
HG Name		Signature		Date	



SYMETRI
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SYMETRI
ADDNODE GROUP

REPORT

Issue detail

#103: Steve test1

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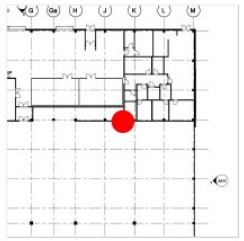
Status	Open
Type	D Design > Design
ID	#103
Description	—
Assigned to	**Steve Rudge** (Excitech360)
Created by	**Steve Rudge** (Excitech360)
Created on	22 Feb 2022
Location	Ground Floor > Meeting Room 1
Location details	—
Due date	25 Feb 2022 (563 days late)
Start date	—
Placement	1234-EXC-A1-00-DR-A-001.pdf
Root cause	—



Images

20210305_120221_photo
Taken on 5 Mar 2021, 12:03 GMT
Added on 5 Mar 2021, 12:02 GMT
Added by Steve Rudge

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CASE STUDY

Stevenage

526 apartments

Completion 2025

LOVELL

SYMETRI
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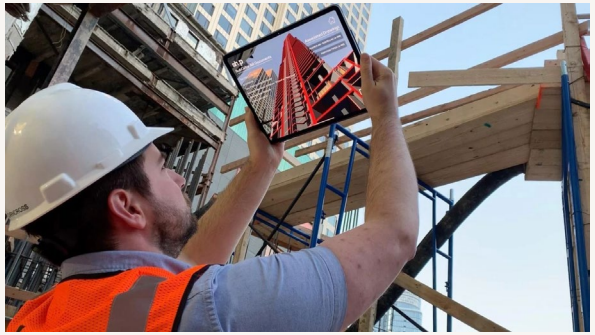
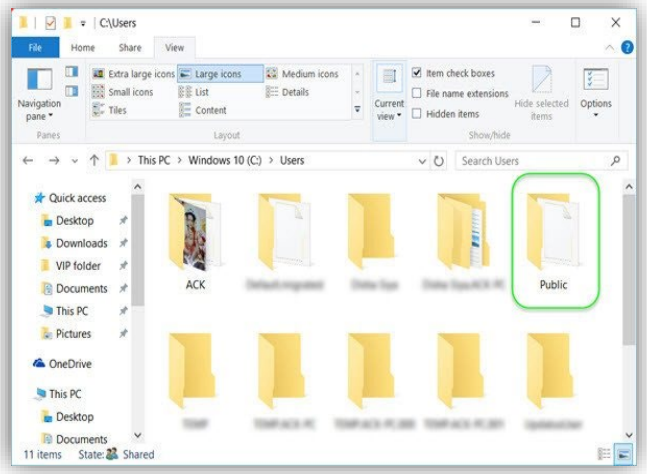
EVIDENCING – HOW???



Problem: Data about construction project is slow to capture, hard to access, and leaves blind spots

Taking individual photos is **laborious & time-consuming**



Photos manually uploaded and **hard to organize & compare**

Incomplete data: “The photo you need is the one you didn’t take!”

DURING PROJECT

POST-PROJECT

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OCULO
Working towards a new way of documenting and monitoring site work
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OCULO COMPONENTS

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Hard hat mounted camera

Use
- Capturing on site 360 visual record

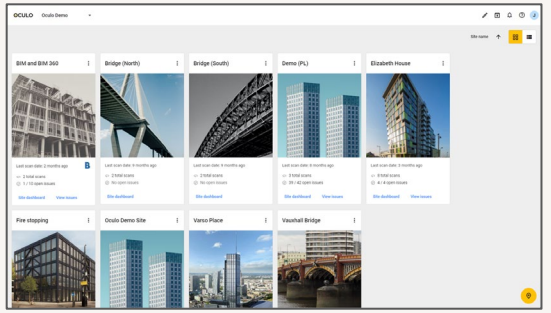
User
- On site scanner

Oculo Mobile App

Use
- Starting and stopping 360 camera
- Capturing mobile Issues (photos and voice notes)

User
- On site scanner

Web Platform



Use
- Uploading floor plans, BIM models, video files
- Accessing Oculo scans
- Creating and managing Issues

User
- On and off site users

OCULO

Problem: Lack of data has an impact on project management, building safety, and claims

Project Management Challenges

- The need to be in many places at once, and labour shortages
- Time consuming, ineffective, inconsistent, distributed and incomplete site documentation
- Paper based and 2D outputs
- Low adoption of BIM and other supporting technologies

Building Safety Requirements

- The need to radically improve safety measures and accountability
- Requirements such as the ‘Golden Thread’ mandate the capture of safety information through visual documentation
- De-risking entire portfolios involving multiple parties

Claims and Dispute Pain

- The continued rise in costs of construction disputes (2-3% of project value)
- Multiple perspectives with no reliable single source of truth
- Reactive rather than proactive contract management resulting in drawn out disputes

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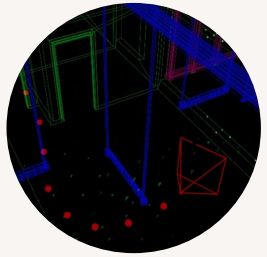
WHAT IS OCULO: SIMPLE SOLUTION TO CAPTURE 100% OF YOUR SITE AND VISUALLY ANALYSE PROGRESS

CAPTURE

Fully passive & hands free

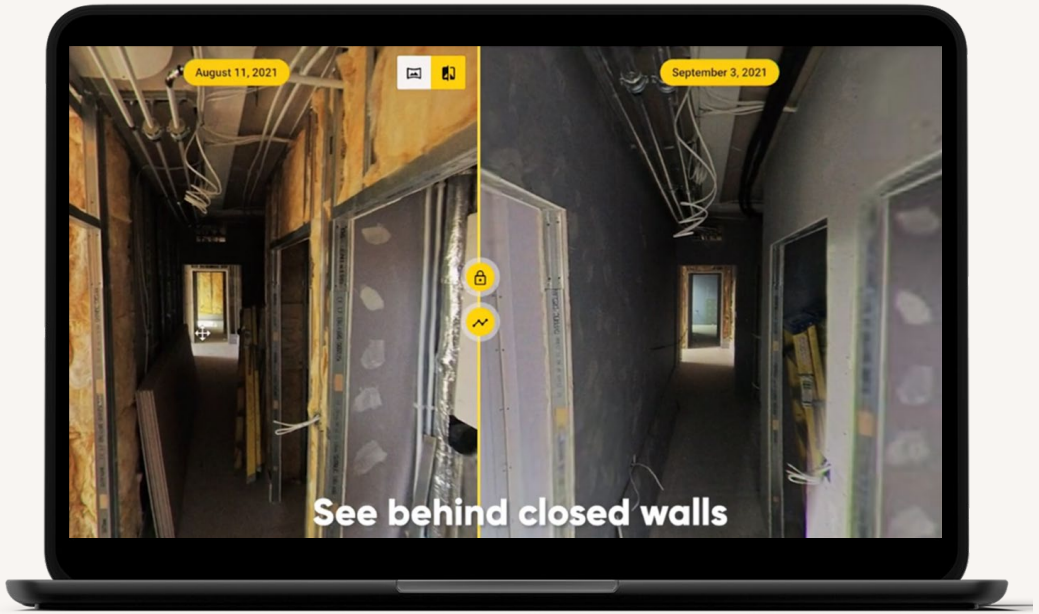


PROCESS:

Oculo AI recreates path in 3D

360 COVERAGE

Complete & comprehensive: 100% of your site



OCULO

START/STOP LOCATIONS - FROM V1.20.8

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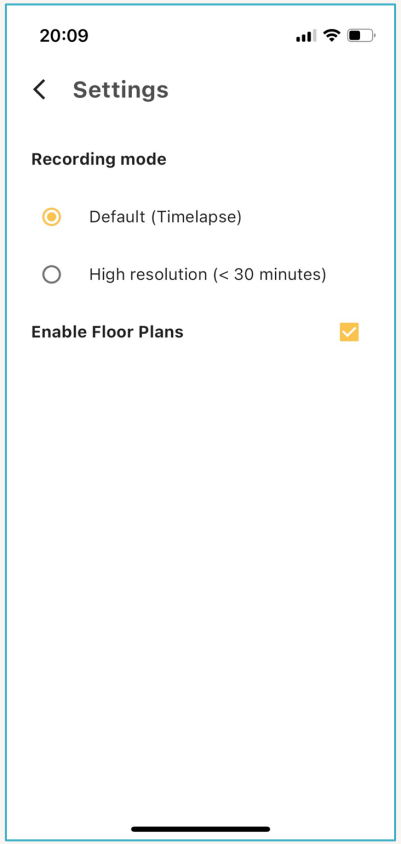
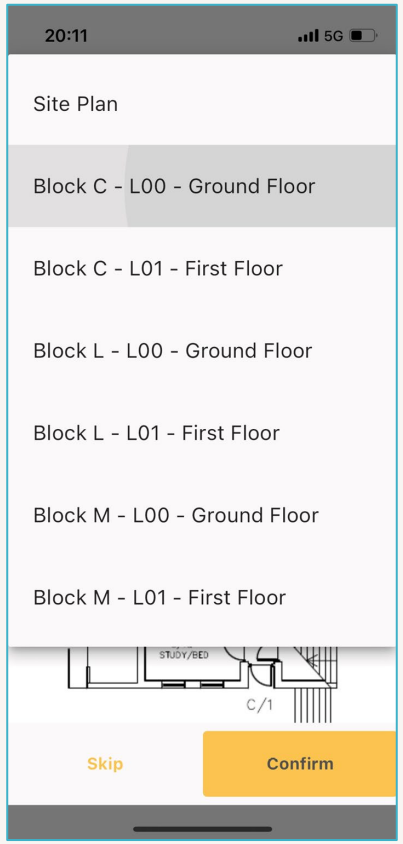
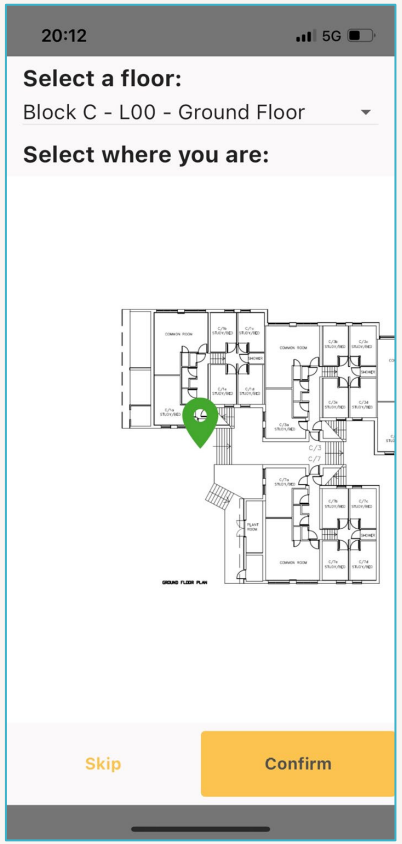


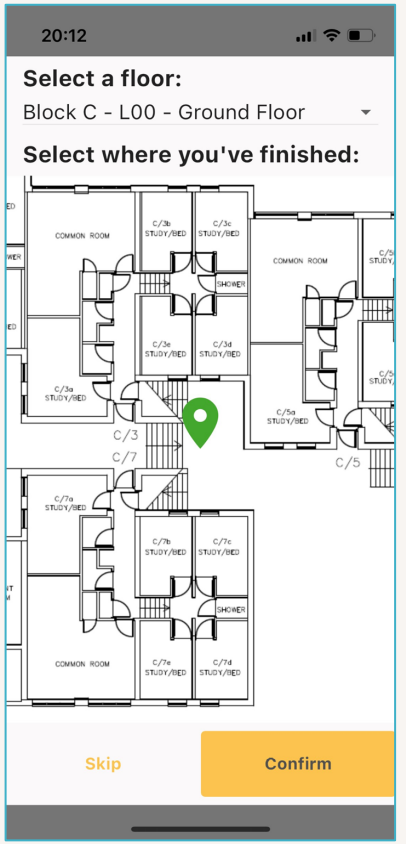
Enable in Settings



Choose level



Start location



Finish location

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CAPTURE: MOBILE

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Current Lovell Building Safety Category List

External walls - SFS studs only
External walls - SFS inc boarding, fire mastic and EPDM
External walls - SFS and Insulation (internal)

Fire stop - Letterbox inc services
Fire stop - Letterbox firestopped with labels
Fire stop - Above ceiling firestopping (inc labels)
Fire stop - Ductwork fire dampers

Party walls - Partitions boarded 1 side
Party walls - Insulation (preclose)
Party walls - Partitions boarded both sides with fire tape
Party walls - Putty Pads

Doors - Frame installed no fire stopping
Doors - Frame installed with fire stopping
Doors - Final install inc floor finishes, ironmongery and signage

Fire stopping through floors - Penetration with services
Fire stopping through floors - Penetration with services and firestopped
Fire stopping through floors - Surface fire collars
Fire stopping through floors - Insitu fire collar (pre slab pour)

Fire Protection to steel frame - Intumescent paint
Fire Protection to steel frame - Fire boarding inc fire tape

External cavity insulation and fire breaks

Other - Fire rated ductwork

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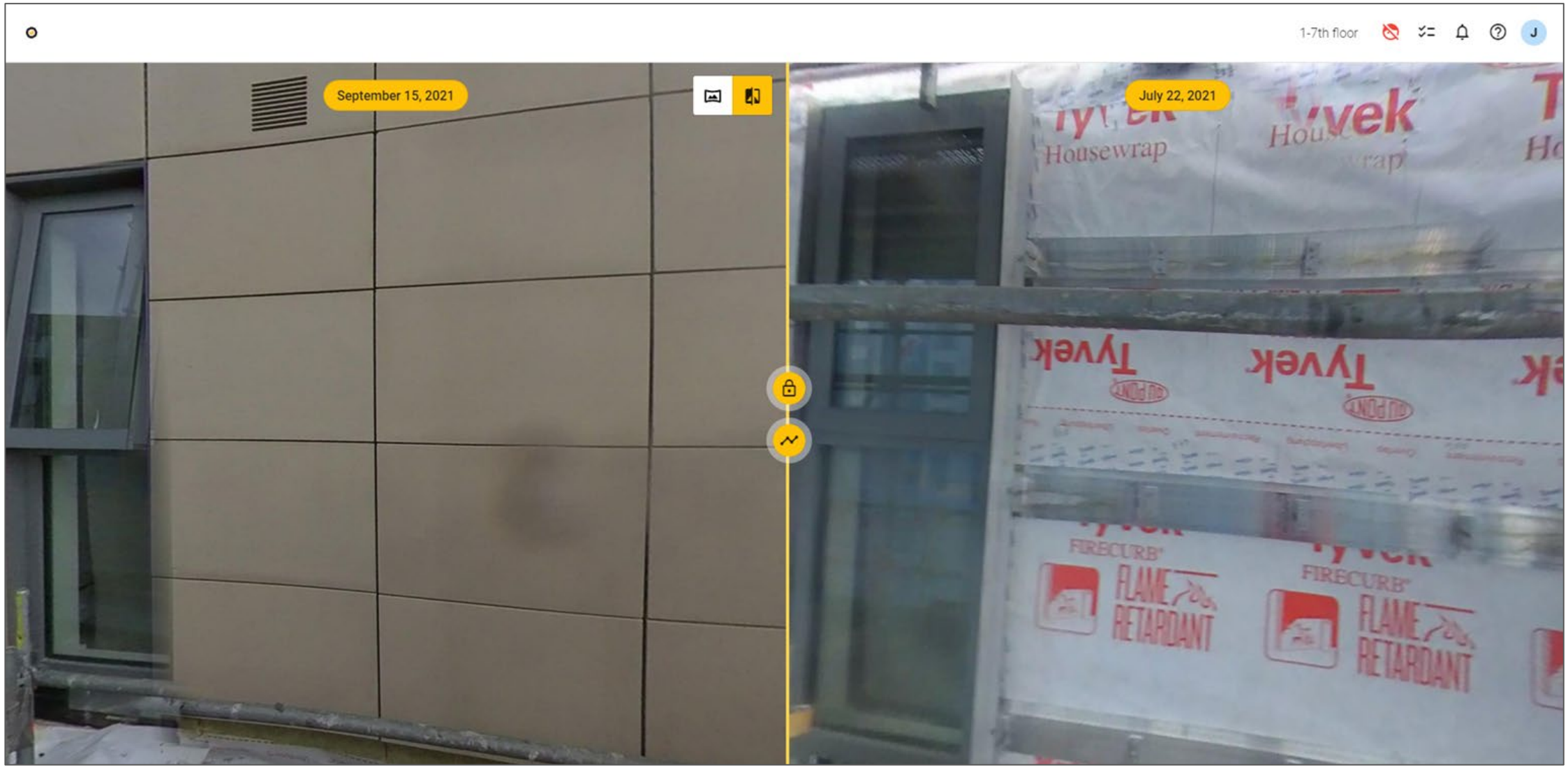
ADDNODE GROUP

EXTERIOR CLADDING



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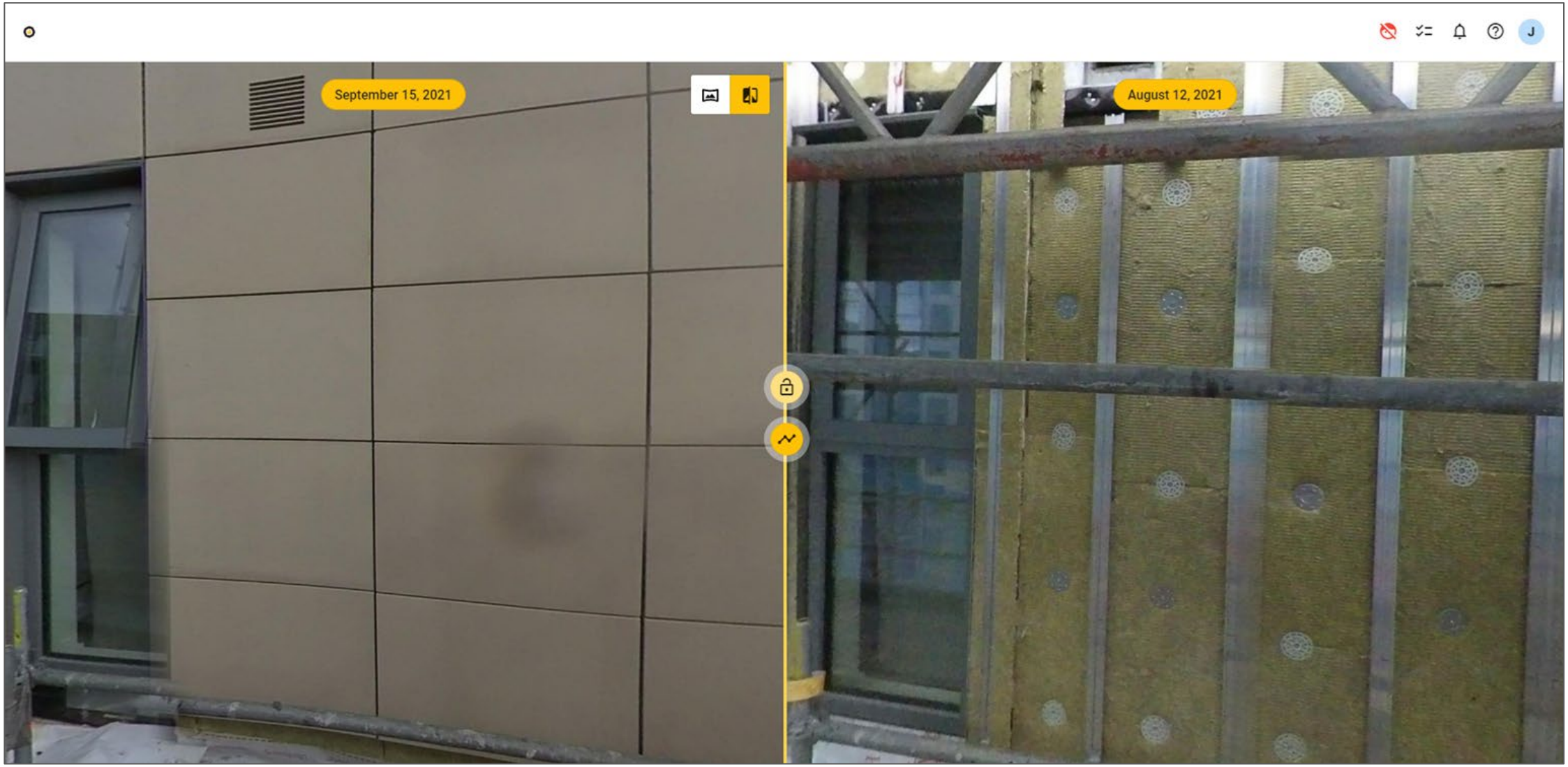
EXTERIOR CLADDING



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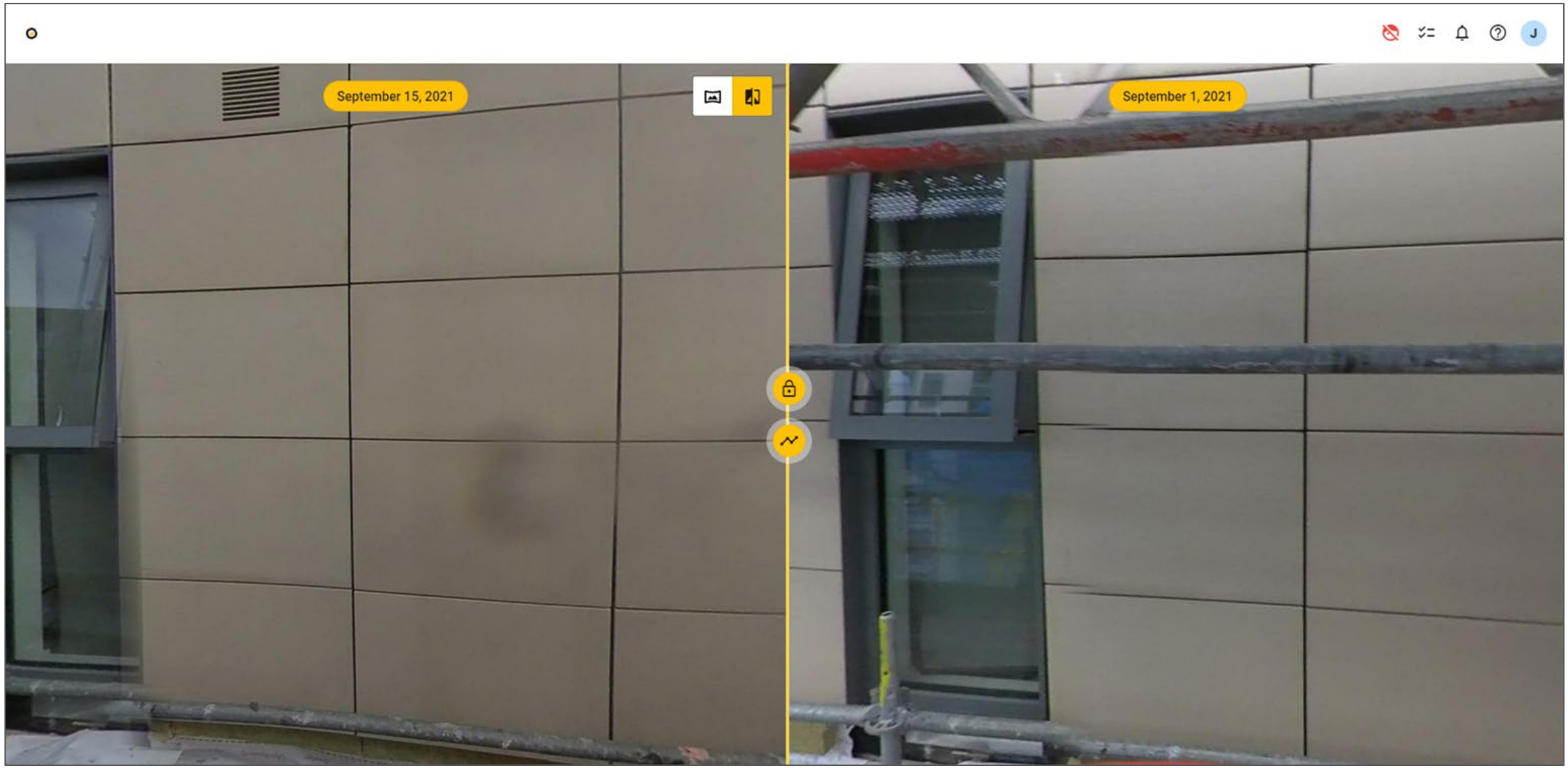
EXTERIOR CLADDING



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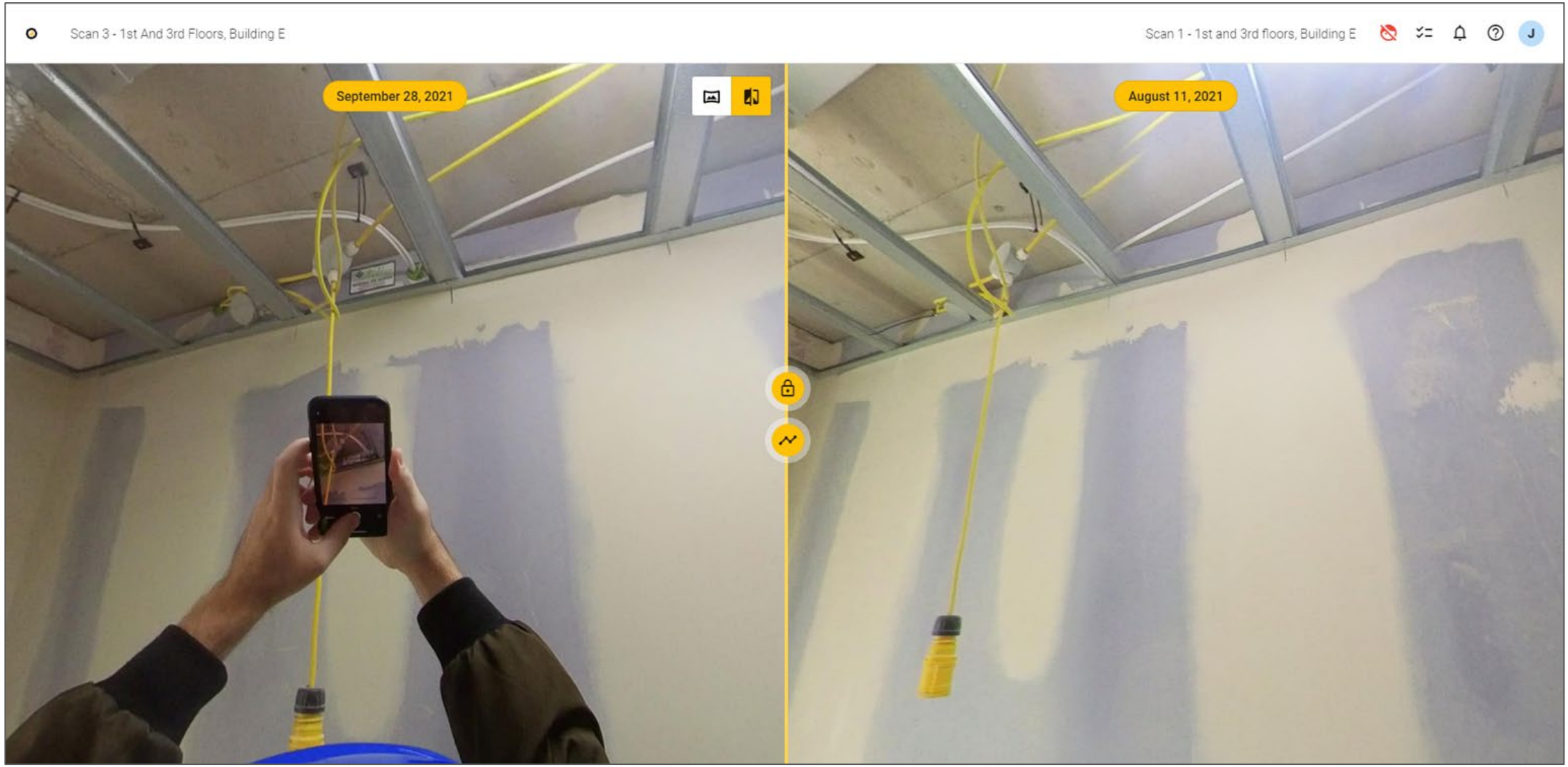
FIRE STOPPING - 1



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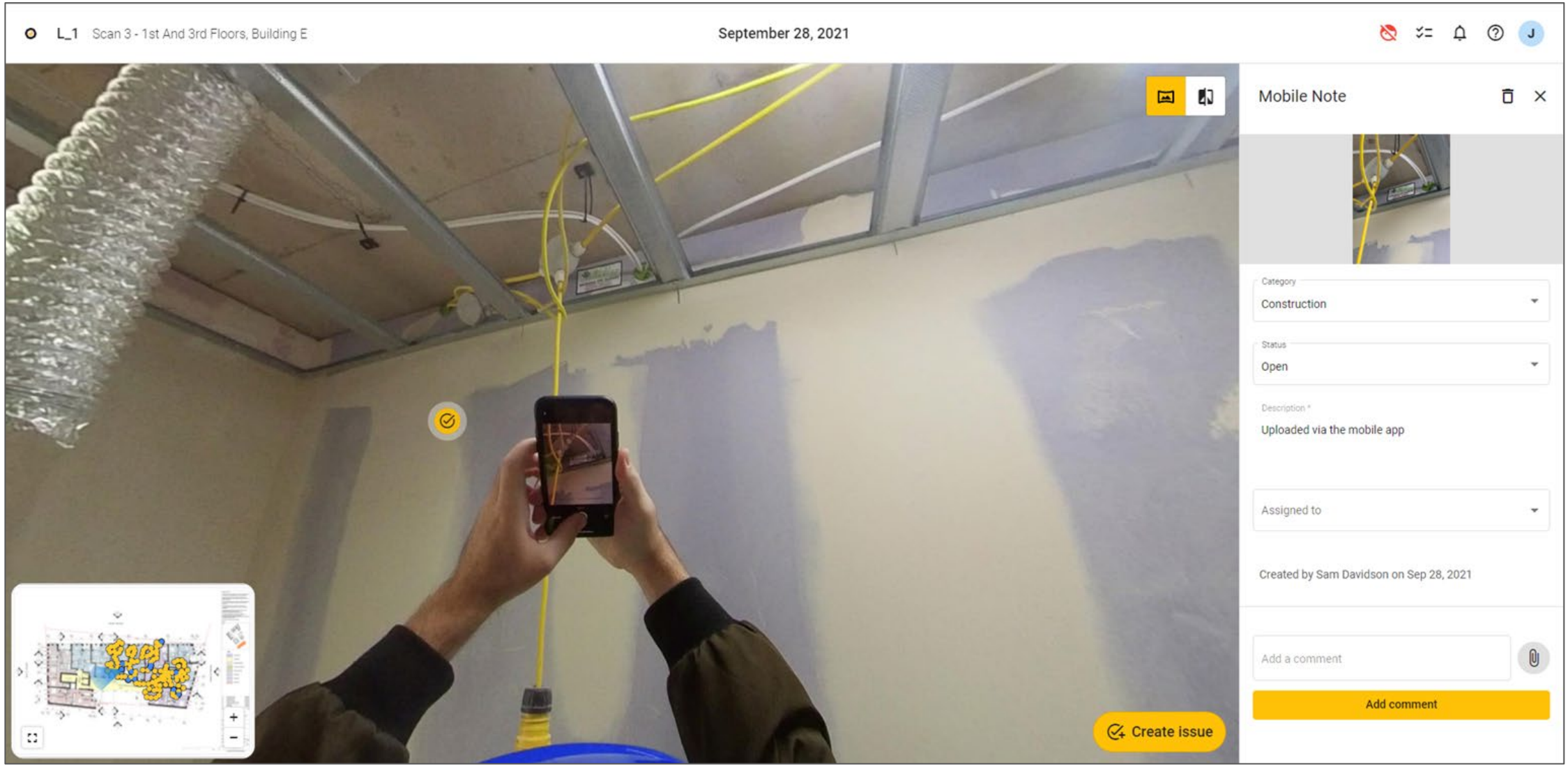
FIRE STOPPING - 2



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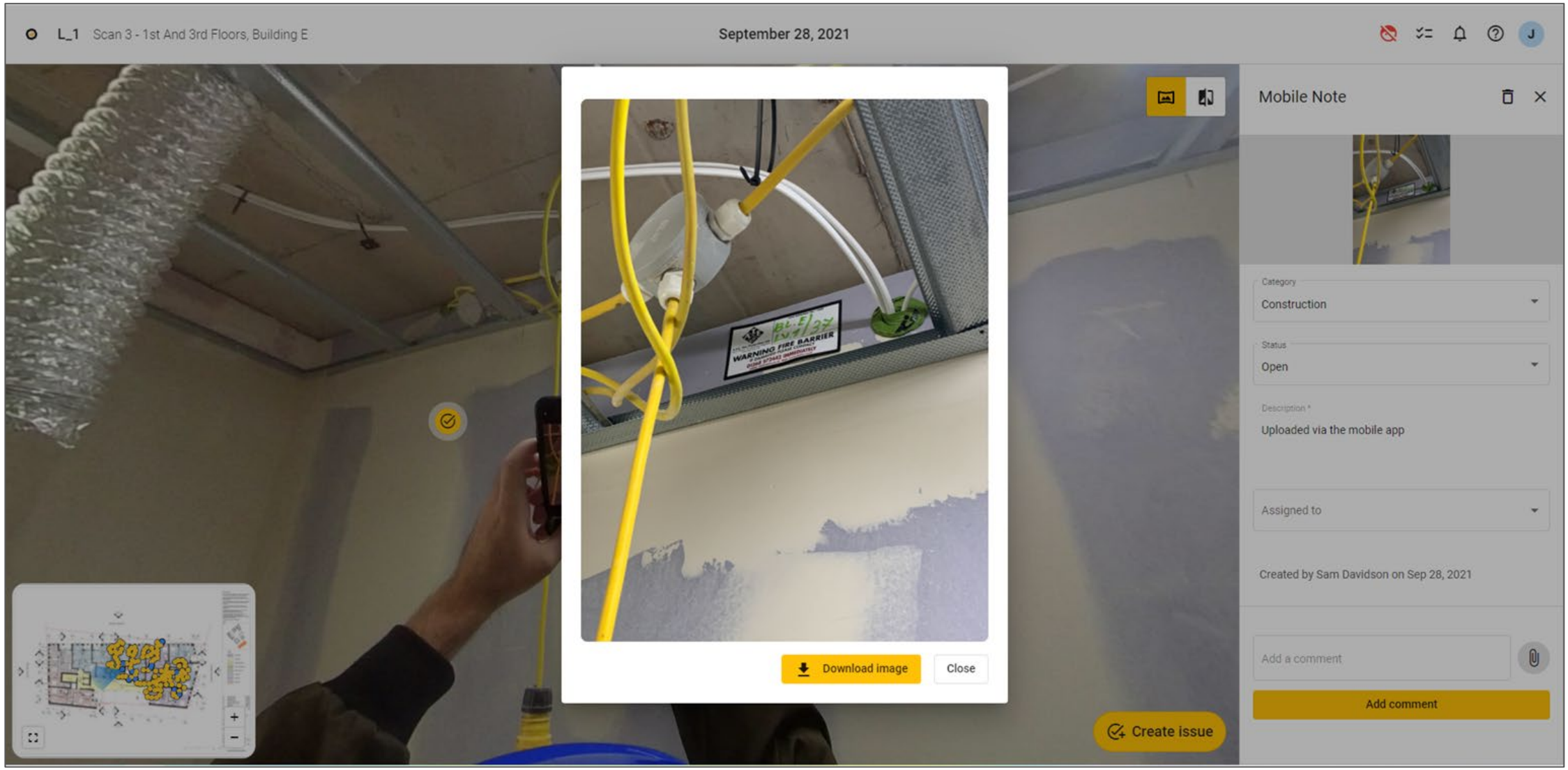
FIRE STOPPING - 3



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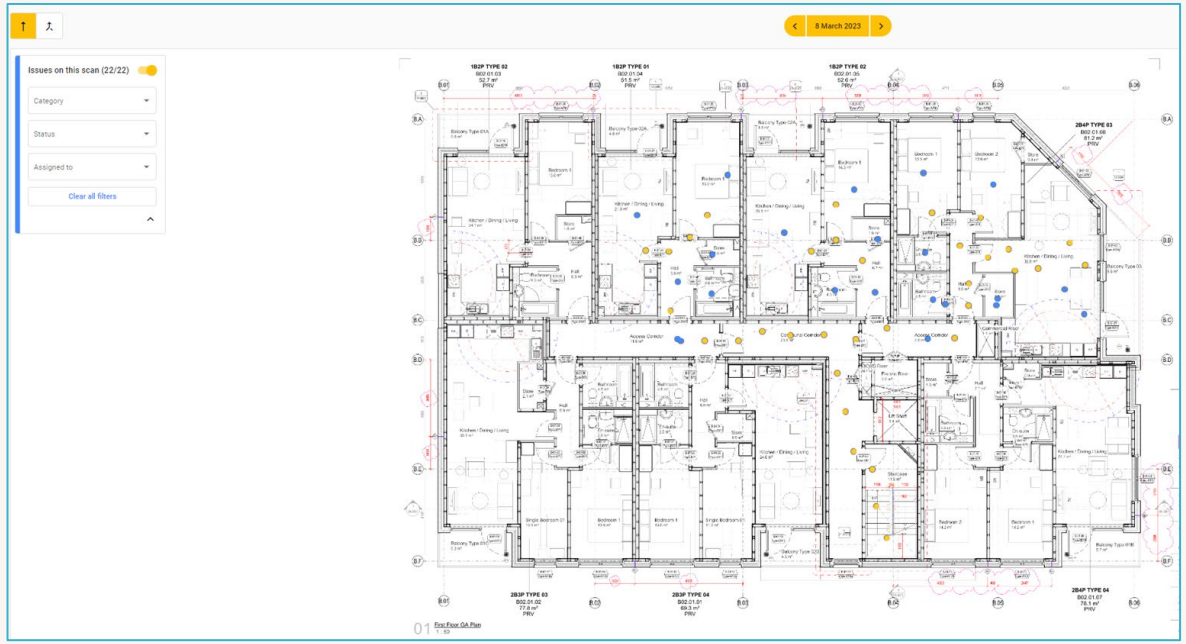
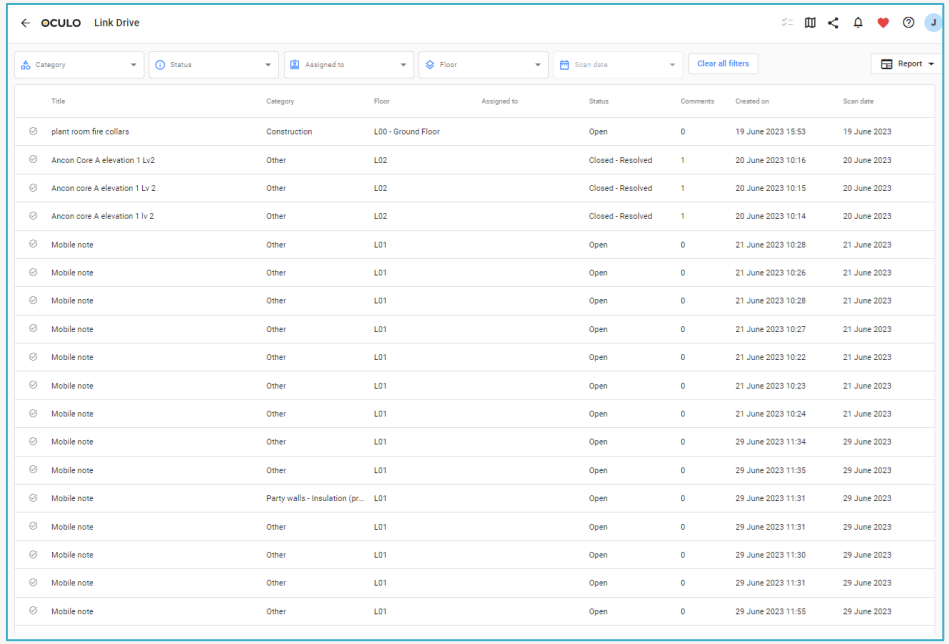
VERIFY

TIP: You can add or update Category from the Issue Dashboard after processing



[Issue category filtering on floor plan view (multi scan overlay)]

Eg. filter for ‘fire collars’ and confirm one blue dot for each



Issue category and Level filtering on Issue Dashboard

Eg. filter for ‘fire alarms - L01’ and confirm expected number

OCULO

REPORTING AND HANDOVER

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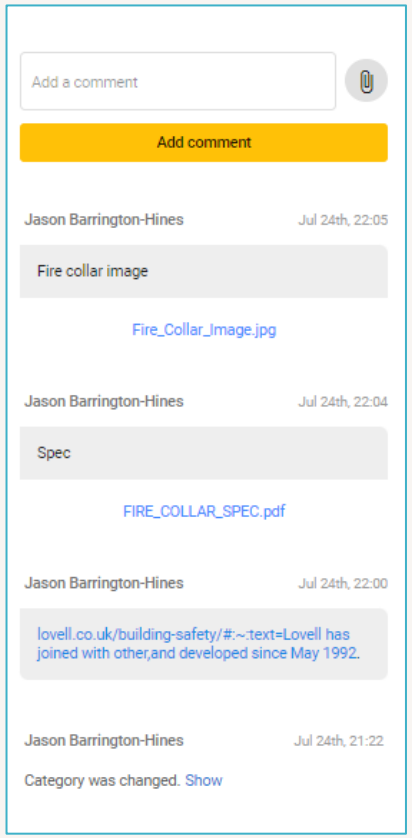
Filter issues by category and level - generate reports



Add images, PDFs, and clickable hyperlinks to comments

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THE ULTIMATE GOAL

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Reports

Certificates

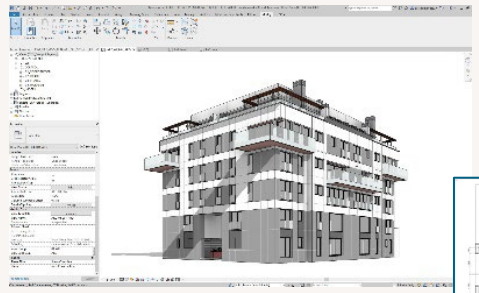
Health and Safety Executive

Gateway 3 Docs

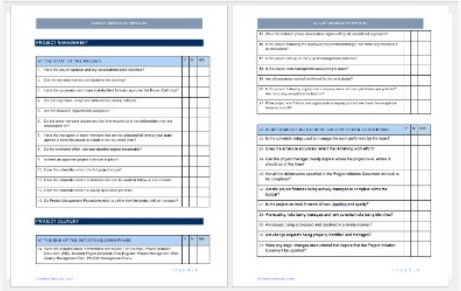
Could be off-line

Evidence

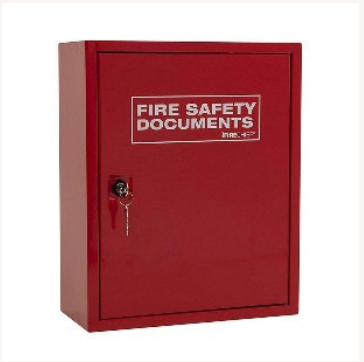
AUTODESK
Construction Cloud

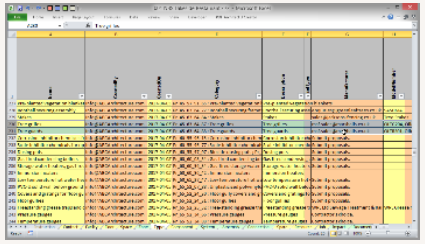


As-Built Model/Drawings



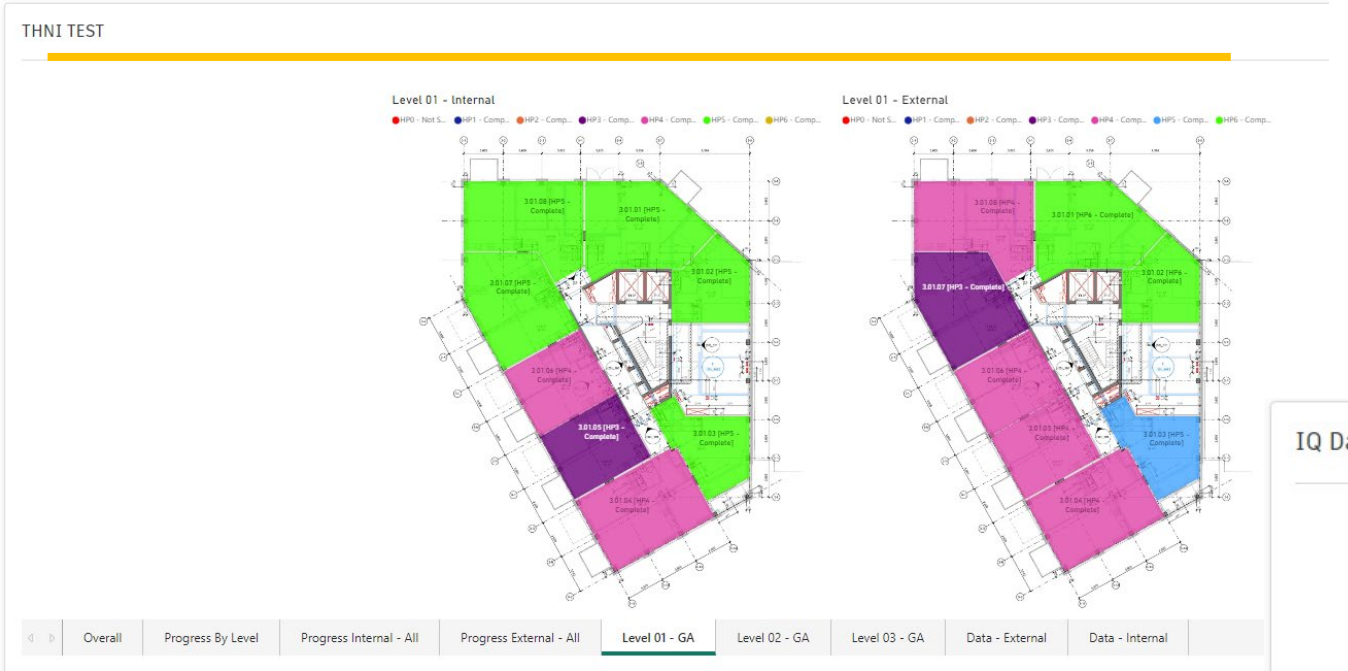
Checklists / ITPs

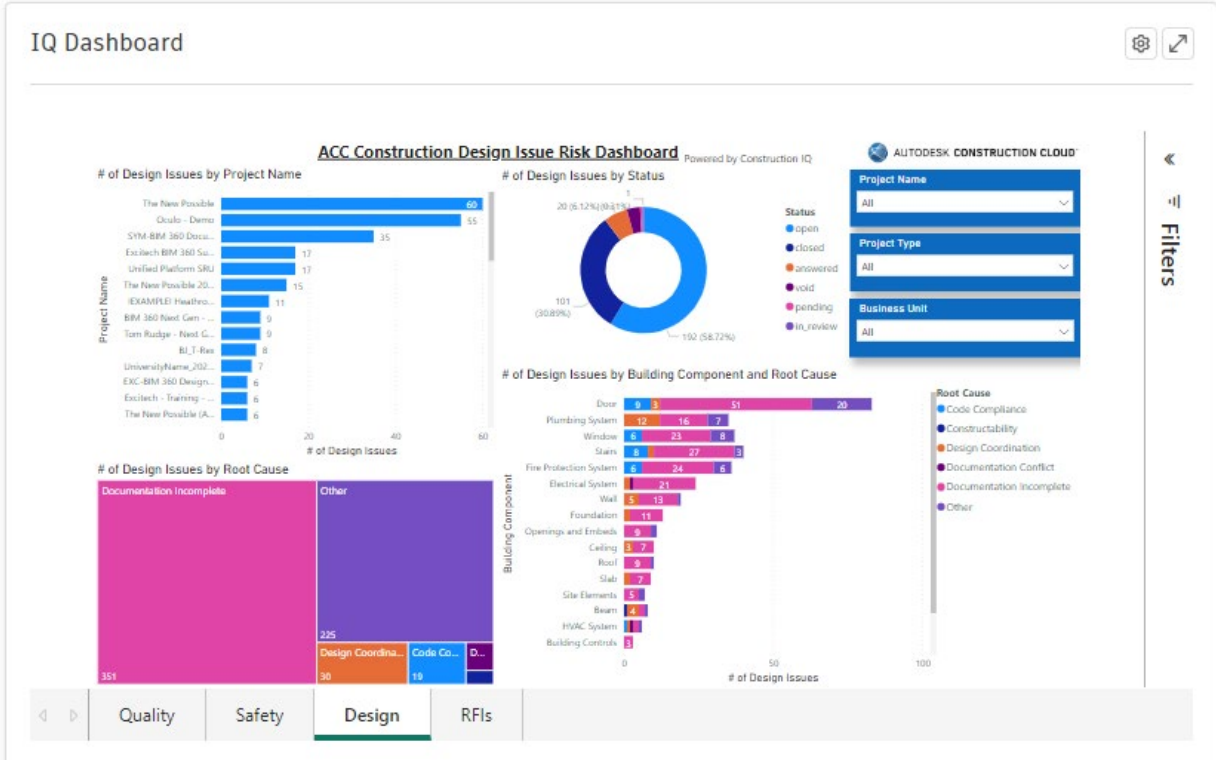




FIREie

PROGRESS TRACKING / ANALYTICS





SYMETRI

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SUMMARY

- The Building Safety Act is no longer just about compliance, it is about collaboration and driving culture change
- The role of the Building Safety Regulator and the steps required for passing each of the Gateways
- BS 8644 provides the key for collaboration by linking all documentation to all relevant parties throughout the lifecycle of an asset
- Best practices for remaining compliant and building a safer future from an architectural, contractor & building owner viewpoint
- The “ultimate goal” is to have all as-builts, gateway documents & certificates etc underpinned by a CDE
- The technologies and frameworks/processes available to help
- Whilst the Act focuses on buildings of higher risk, we should apply this thinking for ALL buildings

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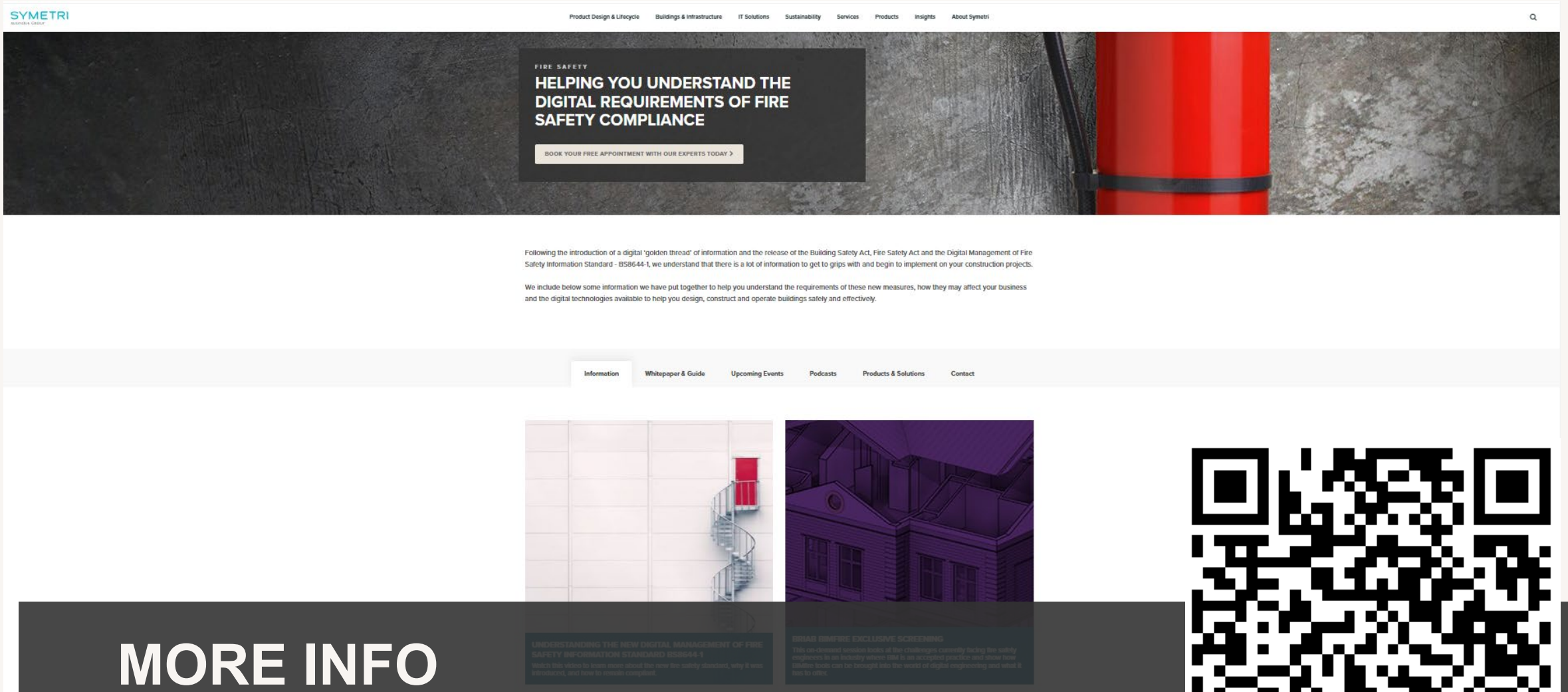

MORE INFO

SYMETRI

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