



Making the case for building safety; what do we need to do now?

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Clarion's Building Safety Journey



'One other thing we don't see enough of in this sector, is good practice sharing and a willingness to learn from others...'*

*Dame Judith Hackitt, Homes UK – 1 December 2020



The three phases...



- 1. Make safe (intervention)
- 2. Make good (remediation)
- 3. Make safe for good

(systemic improvement)



What is a building safety case?



Definition

The **safety case** is an **evidence-based** approach in which the duty-holder identifies the **hazards and risks**, describes how risks are controlled, and describes the **safety management system** in place, including emergency procedures in the event of an incident.

This applies to existing buildings as well as new builds

Why build a safety case?



The legal imperative

A requirement on the duty-holder to present a **safety case** to the **Building Safety Regulator** at regular intervals to check that building safety risks are being managed so far as is reasonably practicable.

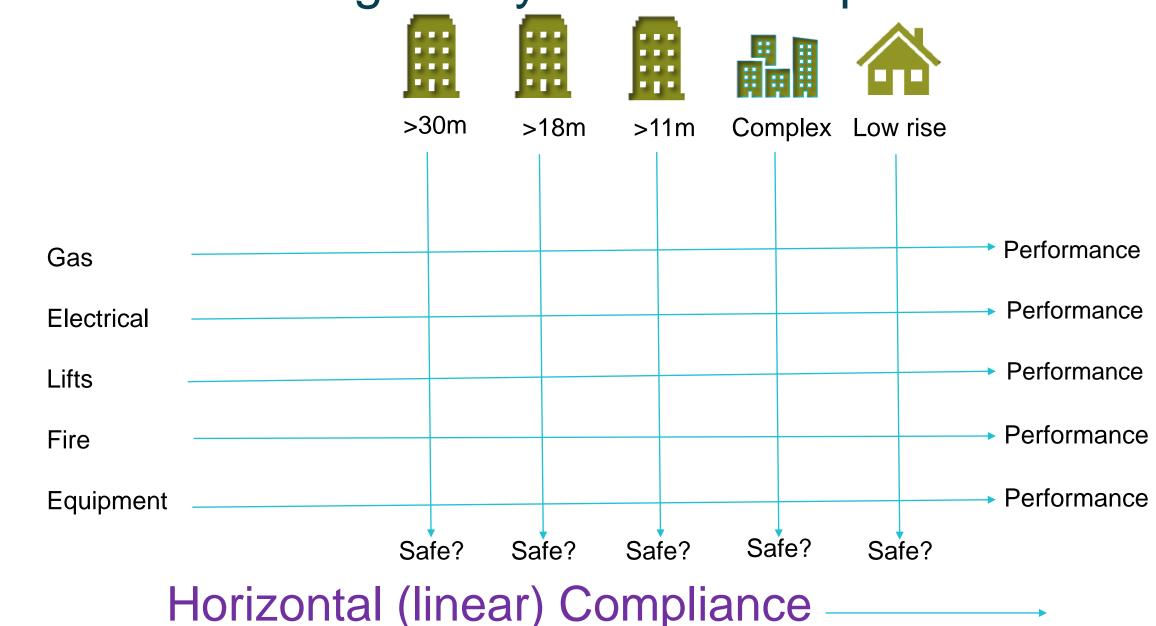
This requirement is now written into the draft **Building safety bill** (section 74) which is set to become law in the next Parliamentary sitting.

The moral imperative

As a sector the way we currently manage higher-risk buildings needs to improve; **Too much is being left to chance!**

We are trying to prevent a catastrophe!

Holistic building safety versus Compliance



The Safety Case



Piper Alpha

- Operator kept pumping oil even after fire was discovered
- 167 fatalities



Safety case



Used in the following *Life Critical* sectors...

Oil and Gas

Petrochemical

Nuclear

Defense

Aerospace

Medical

Rail

Housing

- PiperAlpha 1988

- Buncefield 2005

- Sellarfield 2005

- Afghanistan 2006

- Lockerbie 1988

- Northwick Park 2006

- Clapham 1988

Grenfell

Other industries e.g. aviation, finance, oil and gas, have undergone major culture change, often in the wake of very serious incidents and loss of life.

The safety case journey...

In 2018 Clarion started working with MHCLG on its first building safety case, which resulted in a large evidence file and report containing a wide range of building safety information.

It was difficult to establish whether the case for safety had actually been achieved.

The resulting building safety report had to be shortened and simplified in order to make it accessible, but this meant it lacked detail.

In 2019 we decided to review our approach;



A safety case methodology





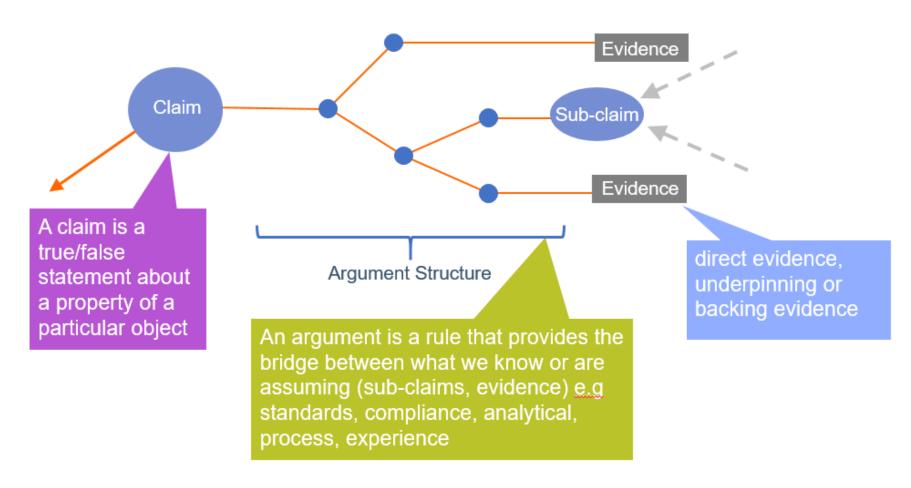
We partnered with Safety Case experts; Adelard

Adopting a methodology to construct the safety case is important because it provides a sound logical base to build upon, and for us, **Claim-Argument-Evidence** works well in this respect

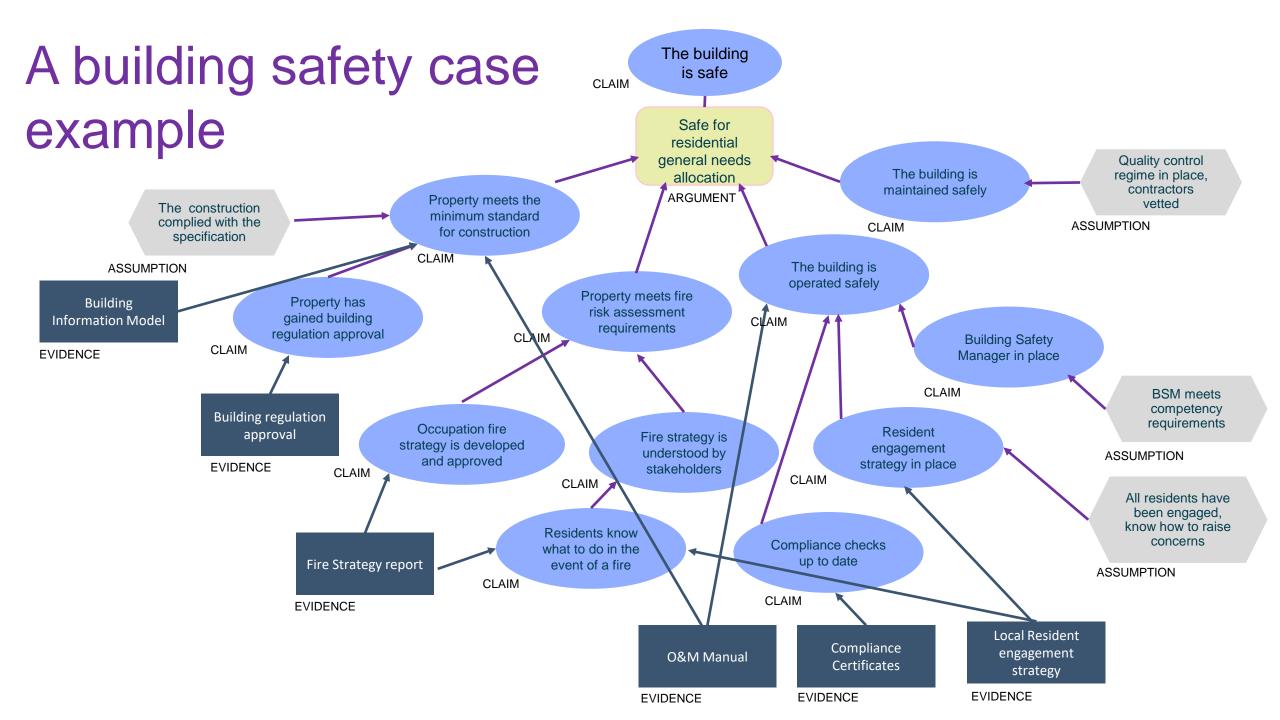
As a building is a complex system, with lots of interdependencies and interactions, it's helpful a have a framework tool to aid with constructing, navigating, and explaining the safety case. We used Adelard's **ASCE** tool

Safety Case based on a structured argument

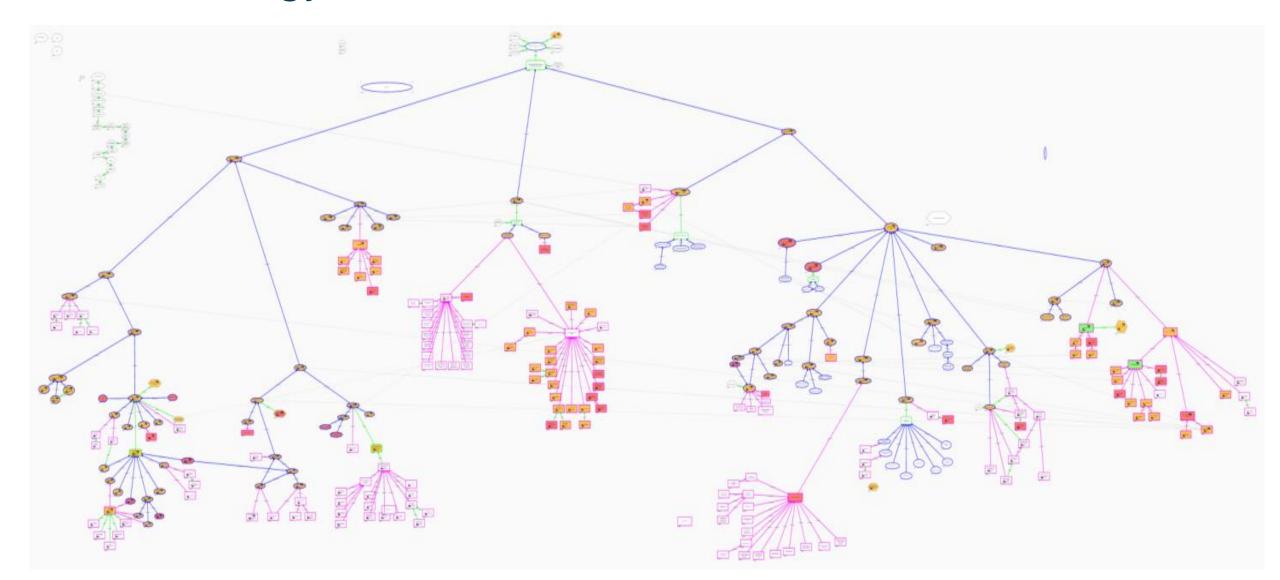


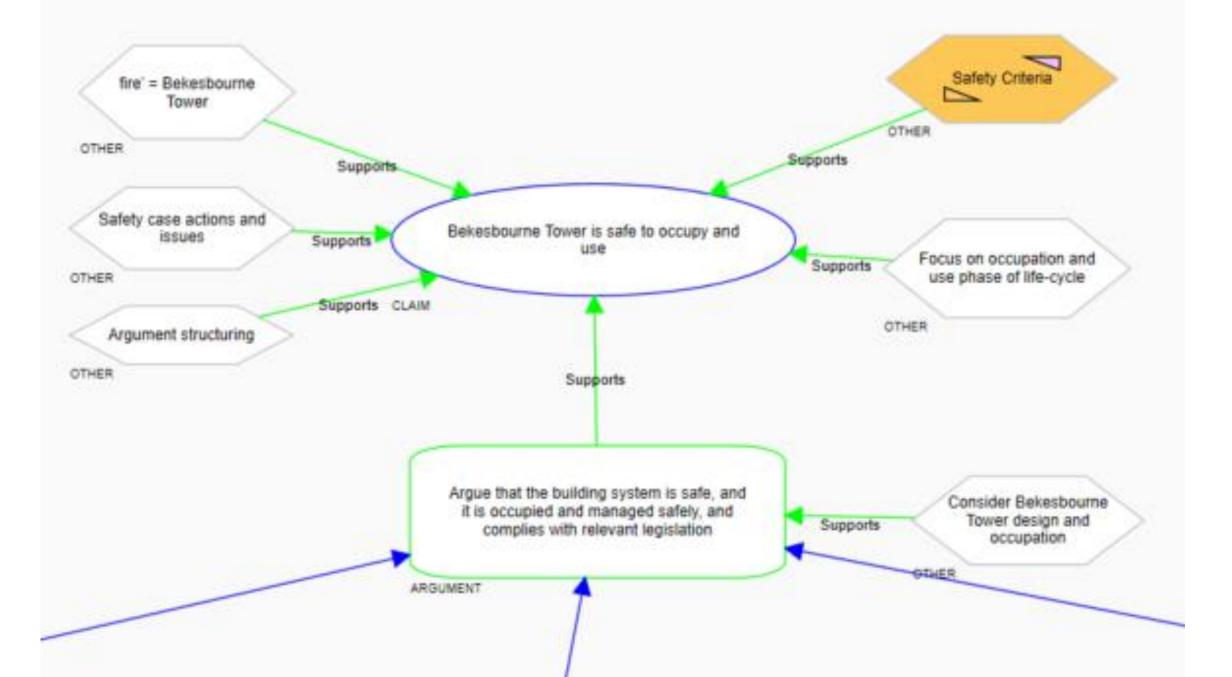


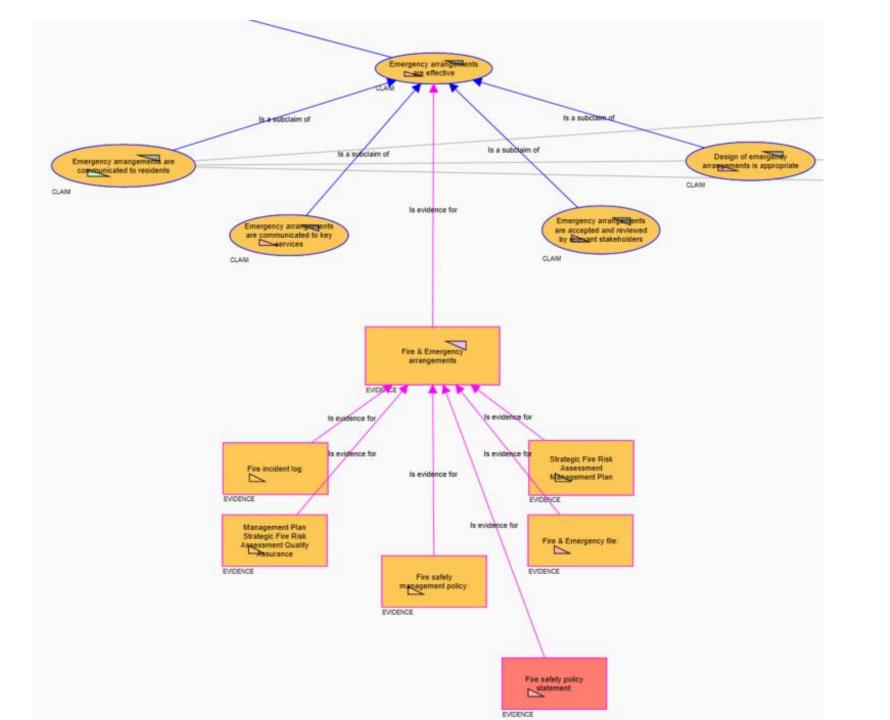
Claim – Argument - Evidence

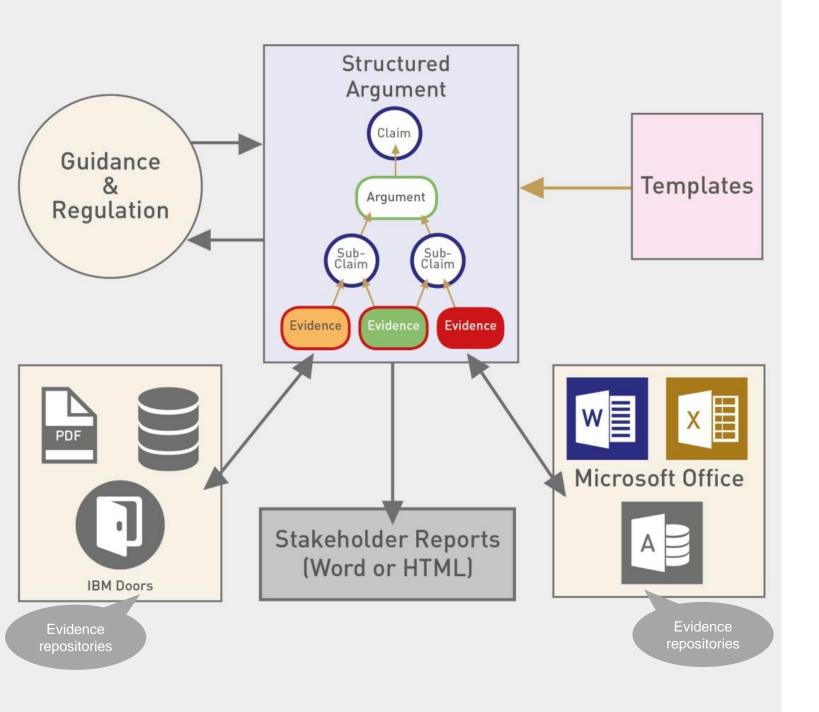


Clarion's Safety Case using Claim-Argument-Evident methodology set out in ASCE







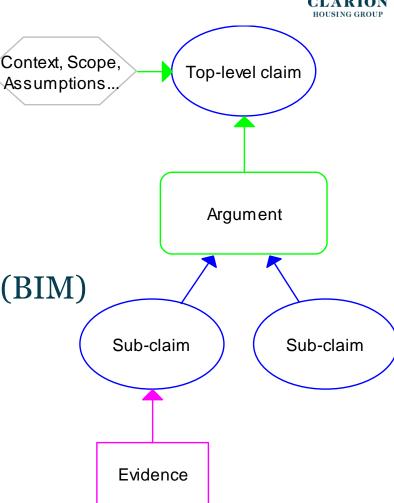


Safety case overview

What should be in a building safety case?

CLARION

- Safety management system
- Hazard identification and risk analysis
- Bow-tie analysis for fire and structural integrity
- Golden thread proving the provenance of the building (BIM)
- Current compliance and performance information
- Resident engagement strategy
- Fire and emergency file



Treating a building as a system



Residents are part of the building system

Layer of protection;

- Stop fires starting
- Stop fires spreading
- Evacuate effectively



We want residents to feel safe and be safe in their homes

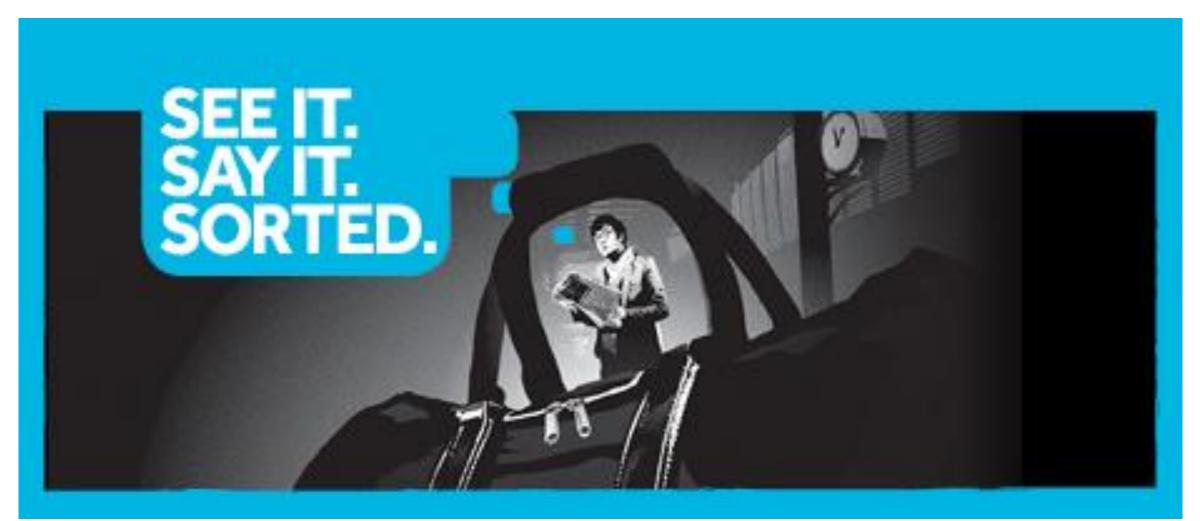
Building safety resident engagement verses Traditional resident engagement



Scope	Traditional Resident Engagement	Building Safety Resident Engagement
Range	Corporate / Geographical	Micro / Ultra-local
Context	Generic / Strategic	Practical / Tangible
Governance	General / Representative/ Democratic	Personal / Neighbourly / Block
Mind-set	Conceptual / Instructional / Listening	Salient / Relevant / Doing
Dynamic	Affect perception	Affect behaviour
Currency	Increase Satisfaction	Increase Trust
Outcome	Greater understanding	Greater assurance

Building safety resident engagement - Nudge





The Building Safety Manager

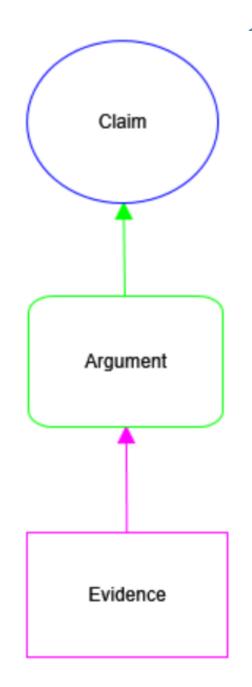




Searching for Unicorns; Who would want to be a Building Safety Manager?

Learning points

- There's little in the way of prescriptive guidance available, but we found this quite liberating
- We had to learn about new management models
- Adopting a methodology is important, and for us, claimargument-evidence works well
- As a building is a complex system, the safety case can quickly become confusing
- **ASCE** with its graphical interactive flow chart approach help with building understanding
- There's a big difference between a **safety case** and a **safety case report**.



Learning points



- Organisational structure change is necessary e.g. having building safety managers is a big strength
- It will get easier over time
- Building safety resident engagement is different from traditional resident engagement
- The **golden thread** offers opportunities for smarter working
- Working closely with the **HSE** and **MHCLG** has ensured we remained true to the emerging guidance
- The act of building a safety case helped us to identify the gaps and weakness in our systems.



Two quotes to leave you with...





This culture change is needed now, it cannot and must not wait for the regulation to drive it. There's a moral imperative for that change to happen now.'*

"...And the fact that some have already done this, and stepped up, is proof that there are things which can and should be being done now to make buildings safer. If they can do it why do others feel the need to wait until someone tells them?"

* Dame Judith Hackitt, 1 December 2020

Thank you



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