



FAWT — The New Reality

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Jonathan Duler*

Tall Building HRB Fire Safety Conference · London 2026



*FAWT the
new
Reality*





Let's look at America







2-Jun-26

6

2,048 x 1,152



2-Jun-26

7

976 x 549







America

- Guns





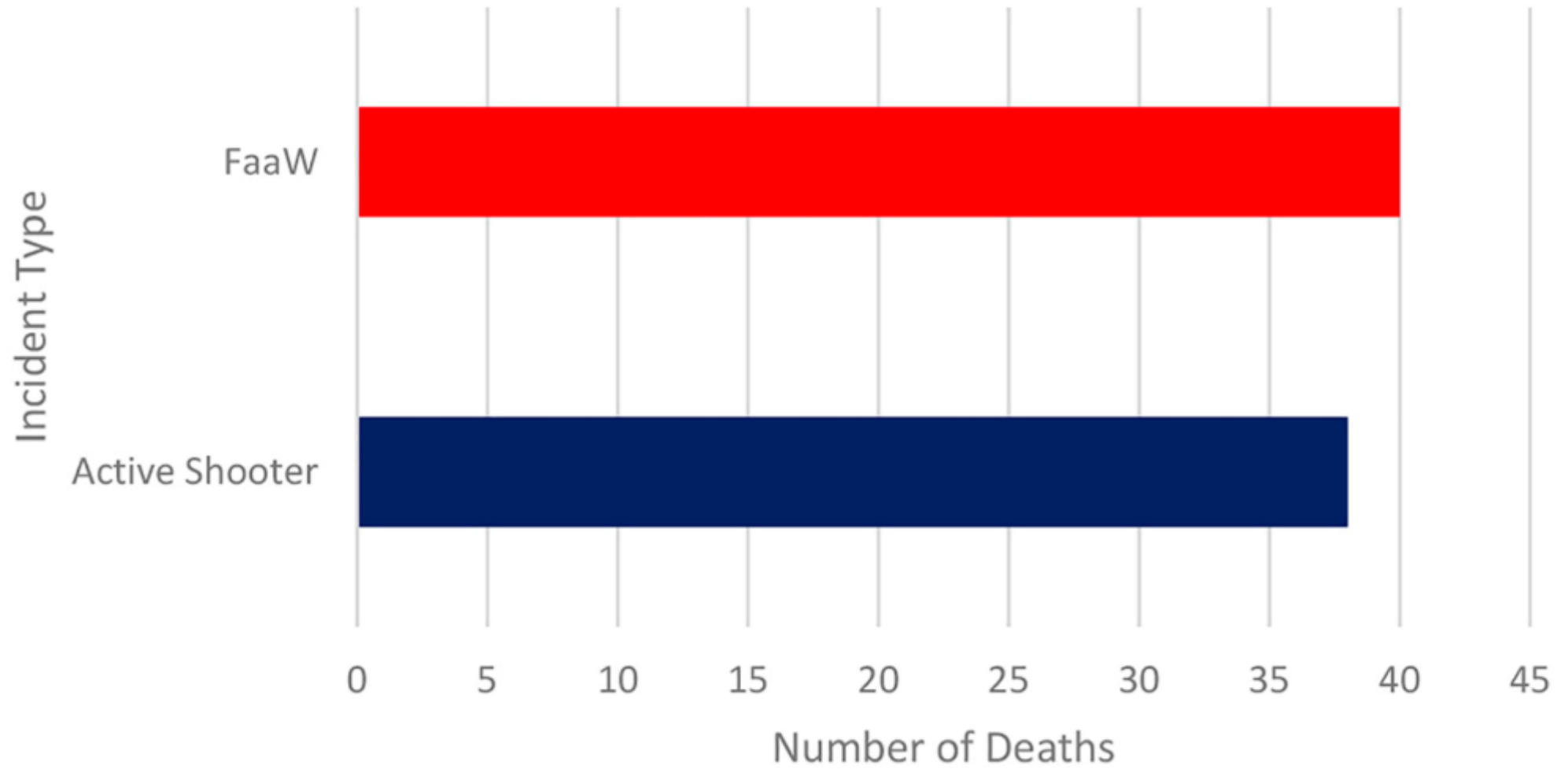
America

- Guns
- Children



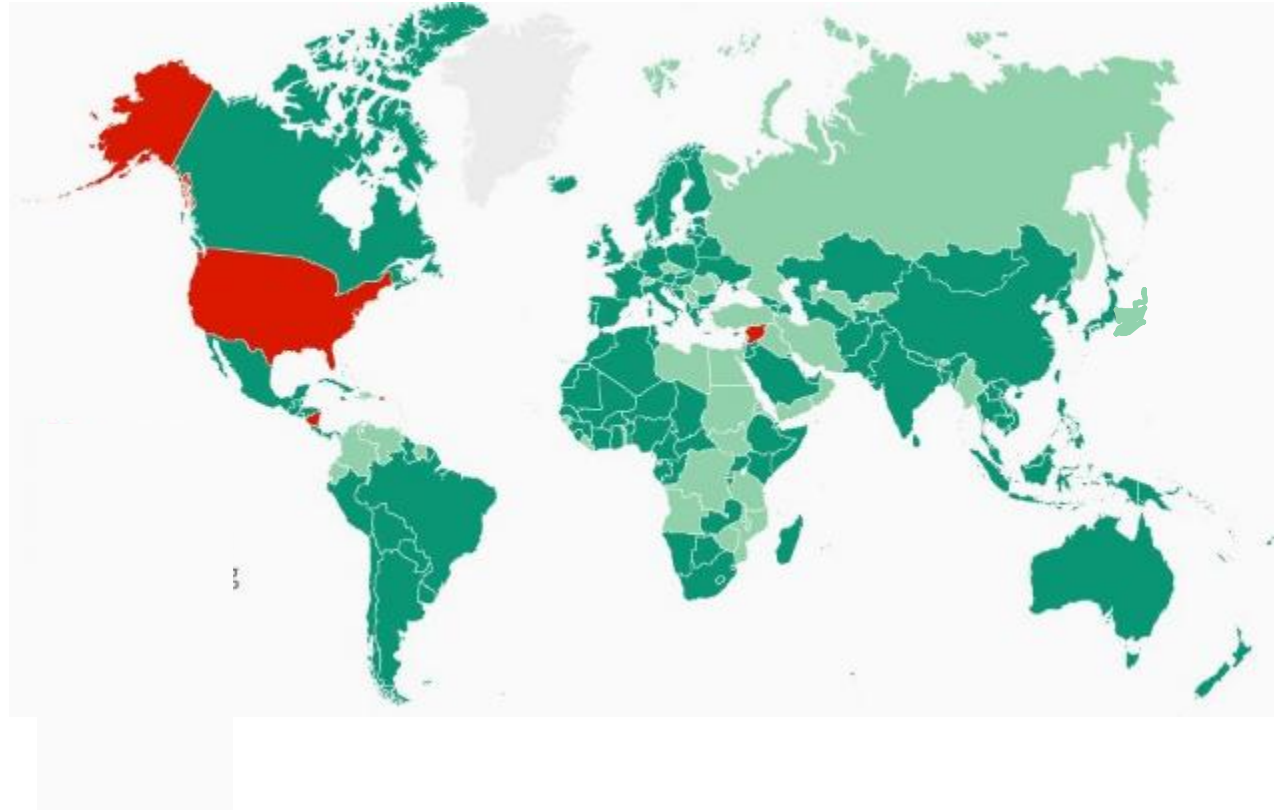


2020 Incident Lethality





Not just America





Glasgow, UK 2007

- Jeep Cherokee loaded with petrol cans and propane driven into the main terminal at Glasgow Airport.
- Vehicle ignited on impact with the entrance doors; one attacker died from his burns.
- Public-area transport hub: deliberate vehicle-borne arson at a building's most accessible point.





Glasgow, UK 2007

- Jeep Cherokee driven into the building
- Vehicle attacked by arsonists
- Public-area at a bus stop



plane driven
rs; one
rne arson





2013 Somali Bravanese community centre





London, UK 2017

- Terrorists in a vehicle in car with petrol bombs, which were not used in the attack (intention not known).





Nairobi, Kenya 2019

- Terrorists attacking hotel complex
- Grenades ignited cars parked at main entrance
- Chaos and confusion and distracting responders.





Christchurch, NZ 2019

- Terrorist attack on two mosques.
- Car had two 5 litre petrol cans to augment the firearms attack.





Liverpool, UK 2021

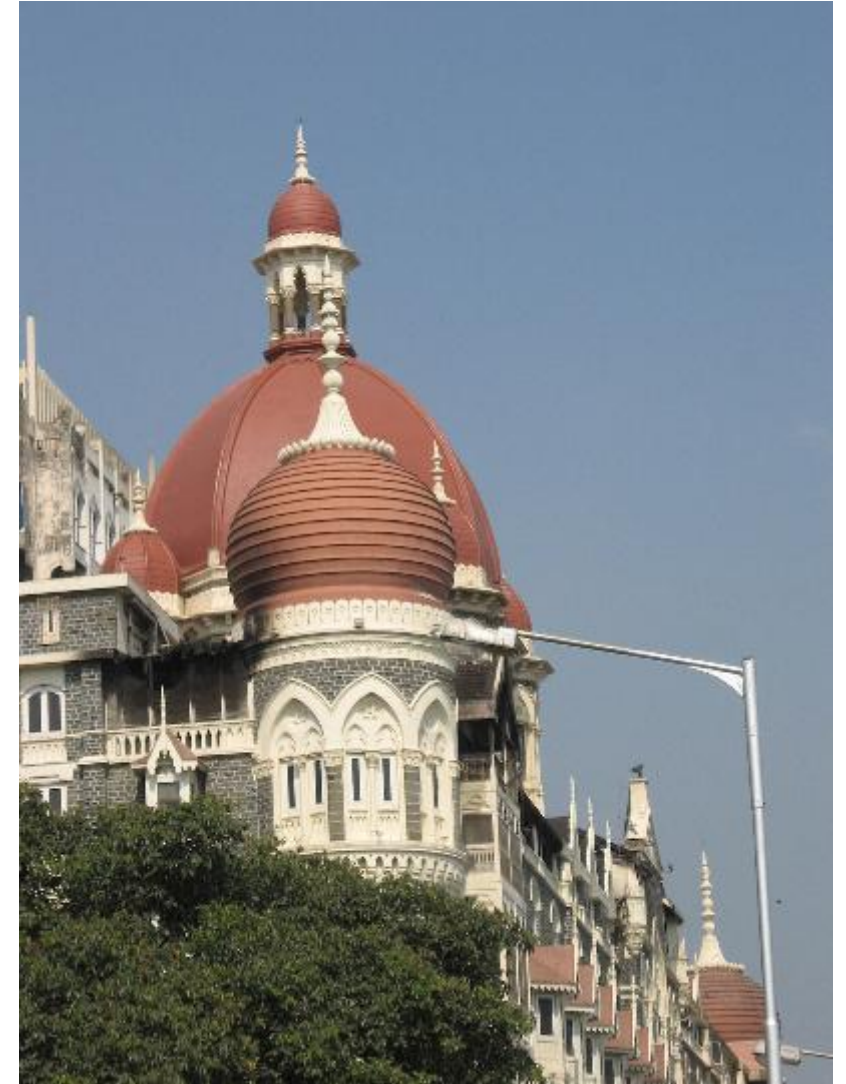
- Taxi-borne IED detonated outside Liverpool Women's Hospital, Remembrance Sunday.
- Device built around a deliberate fuel load; taxi and porch ignited.
- Driver locked the attacker in; mass casualties were averted by chance.





Mumbai, India

- Terrorists started fires within hotel
- Forced evacuation to kill occupants
- Delayed responders





Rotherham, England 2024



- Holiday Inn Express
- External attack by burning bins
- Occupants assisted by police





- The building defended itself



Inside View



Damage at Toowoomba Synagogue.

TOOWOOMBA, October 23.

The Toowoomba police are at present investigating damage which is reported from the Jewish Synagogue in Neil street. This church is not used regularly, and has been closed for some time. It was discovered this week that someone apparently got into the grounds, broke open a door, smashed a clock and lighted the gas which burned for three days before being discovered. The amount of damage caused at the synagogue is said to be considerable, and local police officers are making diligent inquiries.

Toowoomba Synagogue arson
attack (1920)





The Adass fire

A **NOTHER** synagogue in flames; another deliberate act of arson against an Australian house of worship. The relief that the Adass Israel congregation in Melbourne may feel that the damage was confined in the latest blaze and that all of the Sifrei Torah were rescued does not undo the shock and hurt, the anxiety and fear. The *AJN* joins the widespread expressions of sympathy to the congregation.









2025 — *Sussex*



Peacehaven mosque





2026 — London

- Hatzolah ambulance arson attack — Golders Green





2026 — *London*

- Hatzolah ambulance arson attack — Golders Green
- Finchley Reform Synagogue attempted firebombing





2026 continued

- Kenton United Synagogue firebombing — Harrow





2026 continued

- Kenton United Synagogue firebombing — Harrow
- Former synagogue arson attack — Whitechapel





Houses of worship





USA Houses of worship

- ~370,000 in the US (Hartford Institute)
- 1300 fires (USFA)
- 15 % arson = 195
- $1300/370000 \sim 35 \times 10^{-4}$ chance per year
- $195/370000 \sim 5 \times 10^{-4}$ chance per year

(2020-2022 average annual data)





ADB and BR — what is assumed

- B1: Means of escape — assumes occupants can hear, decide and move.
- B2: Internal fire spread (linings) — typical fuel, single ignition.
- B3: Internal fire spread (structure) — single bounding design fire.





ADB — what it assumes

- B4: External fire spread — assumes ignition originates inside, not delivered to the façade.
- B5: Access and facilities for the fire service — assumes responders can approach and operate.
- Across all of B: a single, accidental fire. No coexisting threat.





Assumptions

- Design accounts for escape and firefighter access.
- Risk: from fire mitigated by control measures
- Single fire





Assumptions

- No simultaneous, deliberate, multiple fires
- No other threats to occupants or first responders (terrorists with guns)
- All egress paths available (other than the one)
- No deliberate damage to fire safety systems

NFPA, ADB, BS 9999, NCC (BCA)





Assumptions

- Typical fuels and ignition sources
- Available egress
- No terrorist activities





ADB / BS 9999 / BS 9991 / BS 7974

- INCENDIARY OR ARSON FIRES — outside the scope of every one of these documents.





Why not?

- Frequency
 - Consequence
 - SFAIRP
- Client's knowledge
 - Designer's knowledge
 - Insurer's knowledge
 - Regulator's knowledge





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Leave a positive legacy.





Back to the topic



- Deliberate ignition, arson, or other malicious acts are outside the scope of this strategy.





Architecture as a defense





Architecture as defense.

- Not designing for fire suppression
- Designing for fire inevitability





Architecture as defense.

- Not designing to prevent arson
- Designing for arson's inevitability





Architecture as defense.

- Never assume outside help.
- The system must be self-reliant.





Architecture as defense.

- Inward, layered resilience:
Inside, no exposed risks.





Architecture as defense.

- Thoughtful

- A collaboration where engineers, architects, landscape designers, and conservators aligned on one truth: The building must outlast the emergency.





The Getty Center





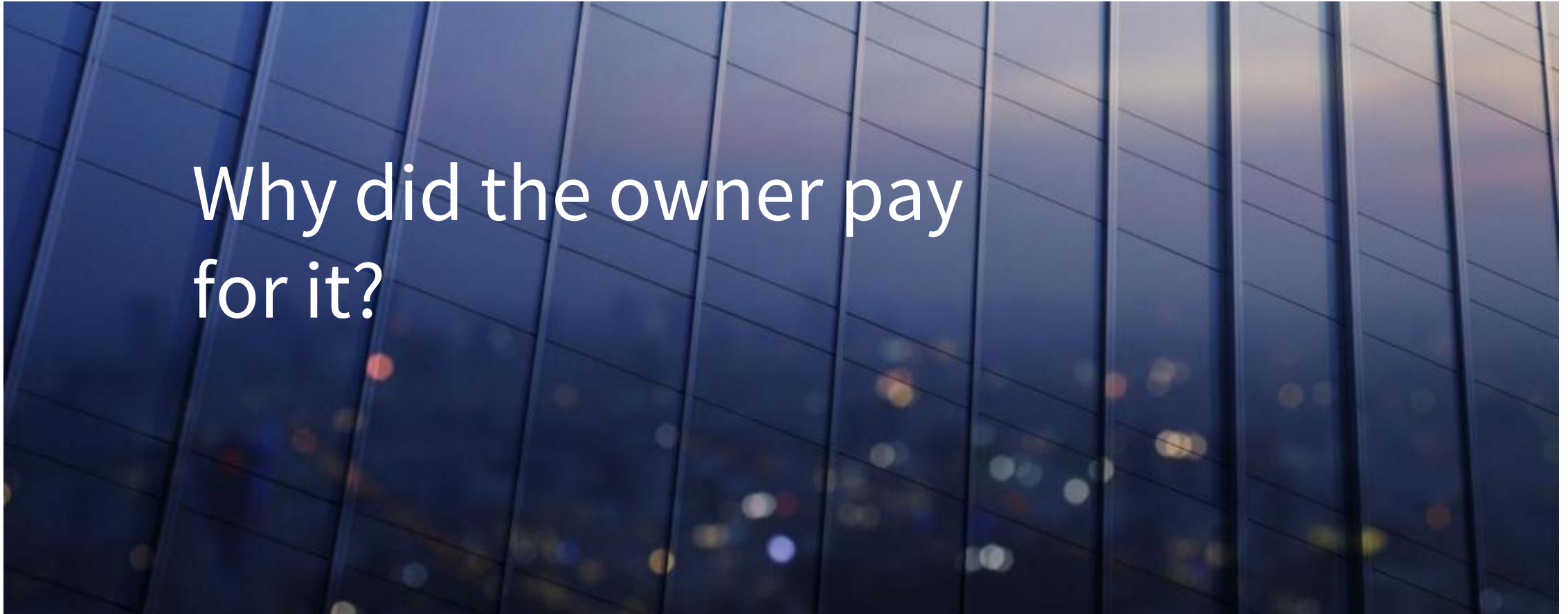
The Getty Center

- Defensible perimeter
- Water supply
- VESDA
- Compartmentation





This protection was not required by the building code



Why did the owner pay for it?





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Back to the topic

- This Fire Strategy is based on compliance with the Building Regulations 2010 (as amended), Approved Document B, BS 9999 and BS 9991.
- It addresses fire safety provisions for accidental fire scenarios consistent with the design fires assumed by those documents.





- If you have a building which is a likely target for a terrorist attack, can you still ignore arson, or other malicious acts?

- Should you?





Now you have a statutory hook

- Terrorism (Protection of Premises) Act 2025 — "Martyn's Law".
- Royal Assent April 2025; in implementation now.
- Standard tier (200+ capacity) and Enhanced tier (800+ capacity).
- Statutory duty to consider terrorism risk at qualifying premises.
- It does not tell you what fire-as-weapon mitigations to adopt — it puts the question on the duty holder.





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Cost, amenity

- Do we need blast resistant walls/doors/windows on every building?
- Do we need to meet separation requirements for every building?
- What tools are in our basket?













What guidance is there?





OFFICIAL

FIRE AS A WEAPON

**GUIDANCE ON THE MITIGATION
OF THE RISKS ASSOCIATED
WITH TERRORIST USE OF FIRE**

CPNI
Centre for the Protection
of National Infrastructure

EDITION 2
MAY 2022

OFFICIAL





Building Terrorism Mitigation – Building Design

Course No: F04-001

Credit: 4 PDH

Gilbert Gedeon, P.E.



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SOURCE: U.S. AIR FORCE, INSTALLATION FORCE PROTECTION GUIDE

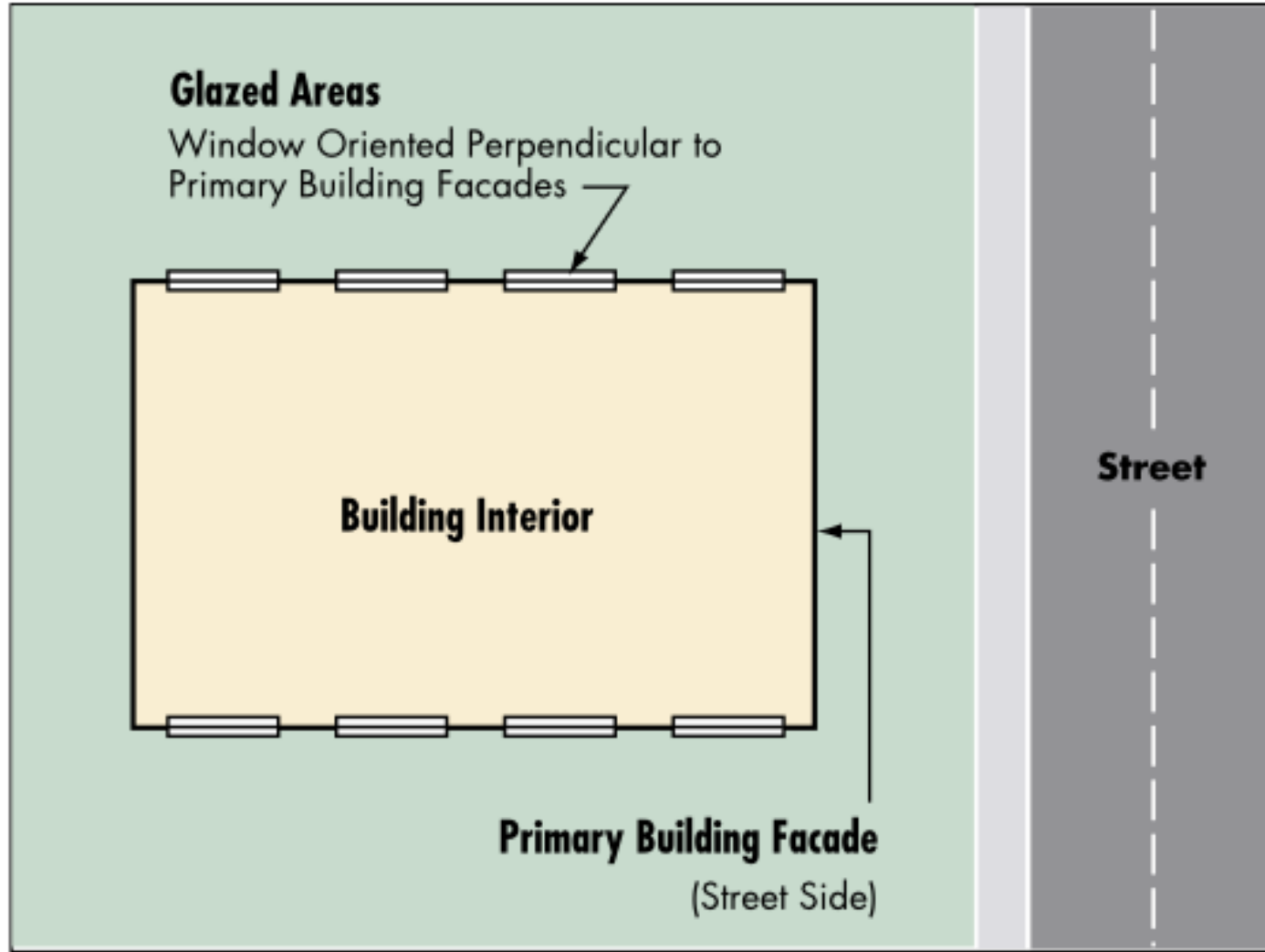


Figure 3-1 Glazed areas perpendicularly oriented away from streets





Easy Design elements

- Sloped versus flat roofs
- No re-entrant corners facing road
- Isolate public access (mail rooms, lobbies)
- Structural redundancy (moment resistant frames for example)





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The ABCs of Fire as a Weapon and Australia's Experience

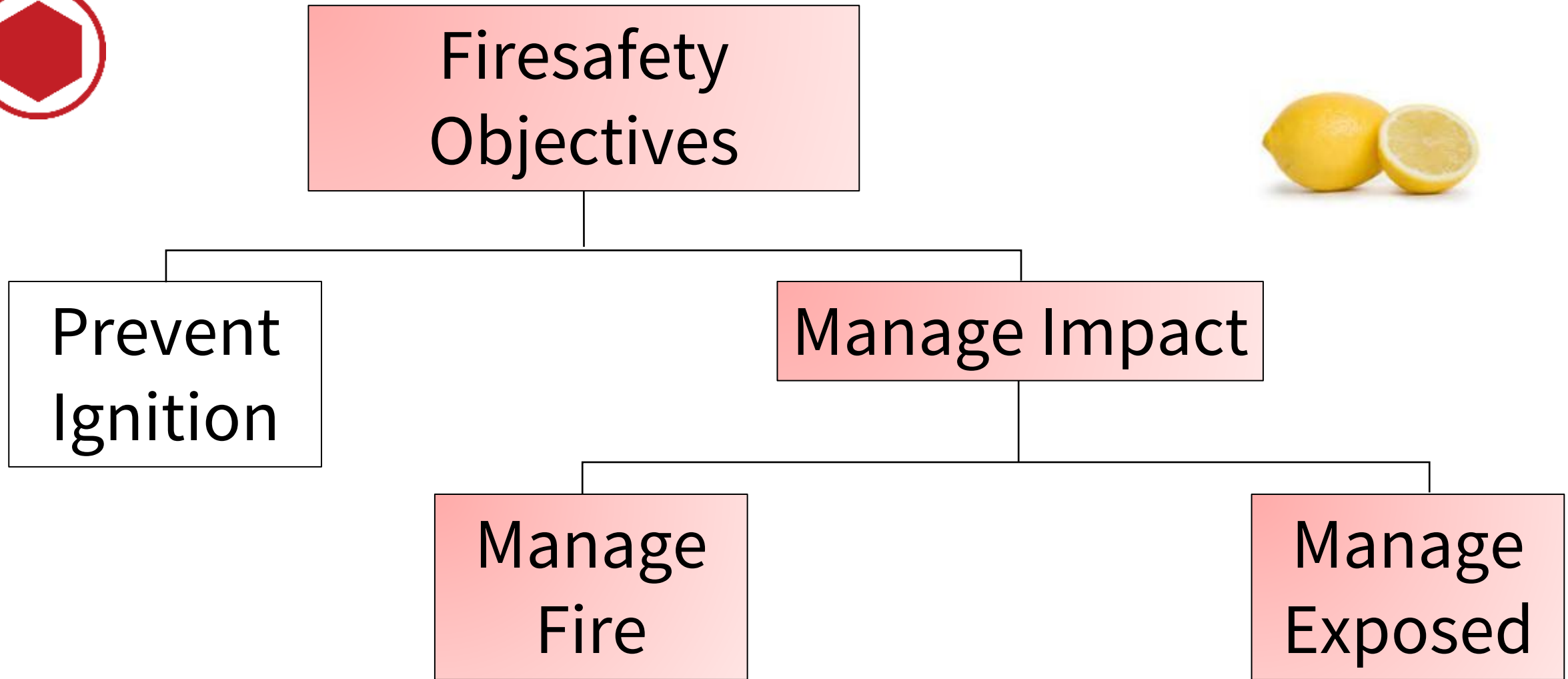
Sam Miletta

Professional Insight



Is There a Structured Approach?





NFPA 550 – Guide to the Fire Safety Concepts Tree.





Manage
Fire

Control
Combustion
Process

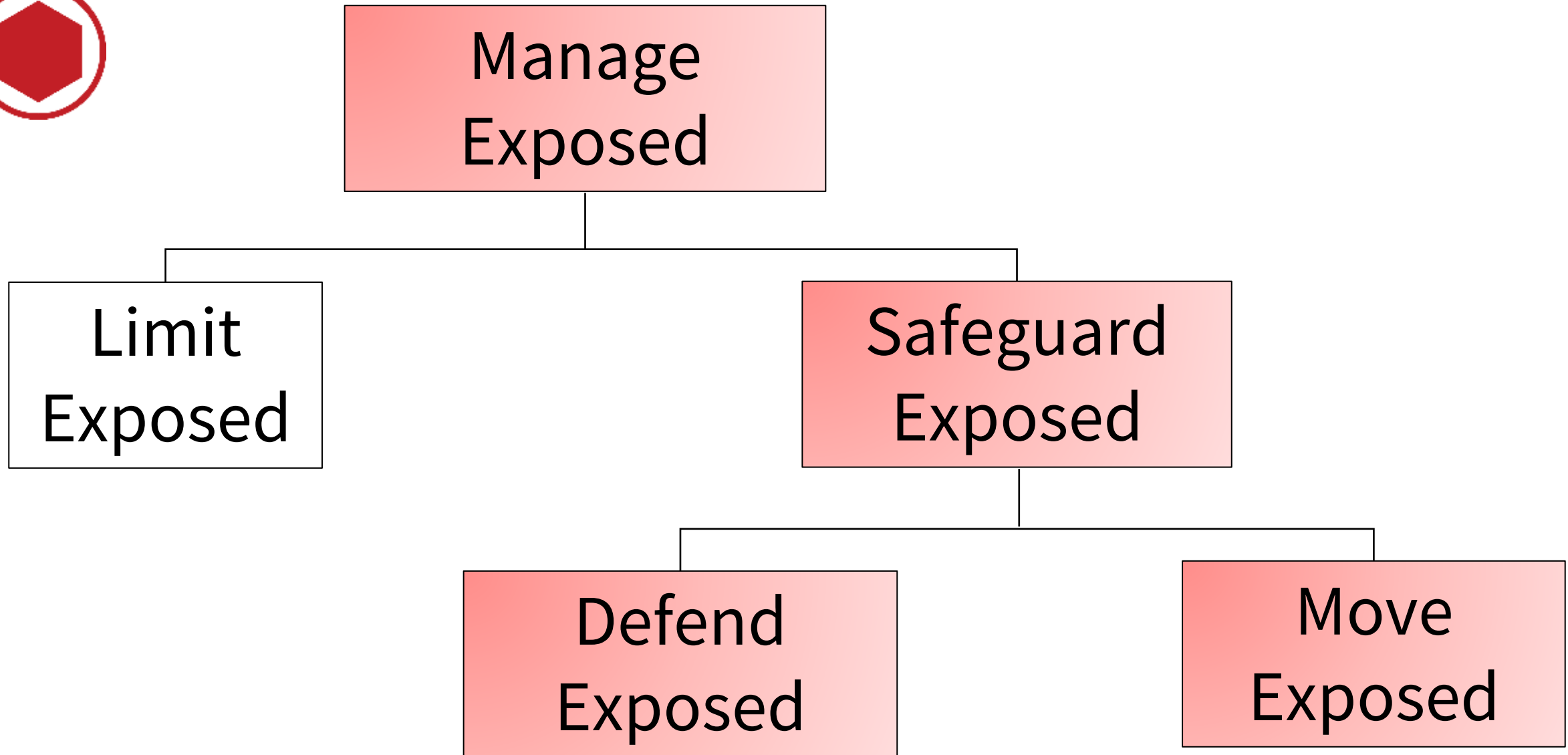
Suppress
Fire

Control Fire by
Construction

Automatically
Suppress

Manually
Suppress







Move Exposed

Cause
Movement

Provide
Movement
Means

Provide
Safe
Destination





Defend Exposed in Place

Restrict
Movement

Defend the
Place

Maintain
Essential
Environment

Defend
Against Fire

Provide
Structural
Stability





Control by Construction

Control Movement of Fire

Provide Structural Integrity

Vent Fire

Confine/ Contain Fire





Automatically Suppress

- Protected Sprinkler system
 - Hazard
 - Piping — Zoning (valves), pipes in walls versus ceiling/floor
 - Pumps — Access
 - Booster — Access





Layout — Center Ceiling/sidewall





Missile attack

“Fires ignited by the hit were instantly put out by automatic water sprinklers”



THE WALL STREET JOURNAL.

Politics Economy Tech Markets & Finance Opinion Arts Lifestyle Real Estate Personal Fir

4 months ago

Central Tel Aviv Building Next Door to Defense Headquarters Takes Hit

By [Shayndi Raice](#)

Onlookers gathered on Saturday at a central Tel Aviv residential building next door to Israel's defense headquarters that was damaged after it took a hit from what appeared to be shrapnel from an overnight missile barrage from Iran. People came from nearby neighborhoods to view the damage, some relaxing in lawn chairs in the entryway garden of the building until workmen shooed them away because of danger from hanging debris.

The side of the building facing the headquarters, known as the Kiriya, had many of its windows and walls blown out, but most of the building appeared intact. Fires ignited by the hit were instantly put out by automatic water sprinklers, according to Noam Menczel, 74, the owner of one of the units that sustained damage. Seven Israeli soldiers were lightly injured nearby.

Menczel said he felt safe buying the unit in the building because he assumed the Kiriya had extensive aerial defense systems in place.





Construction

- Compartmentation
- Compartmentation at openings
- Limit access to the building's interior spaces





Fire resistance add ons

- Solid walls, doors (FR preferred) near front entrances/lobbies
- Separation of places of public assembly from the entrance





Incendiary protection

- Can the building be self reliant?





Incendiary protection

- Can the building be self reliant?
- It's up to you!





When in doubt, take a holistic approach and engage an engineer.