Technical Update

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Technical Consultant

STA | STRUCTURAL TIMBER ASSOCIATION

Agenda

Forward thinking for Technical

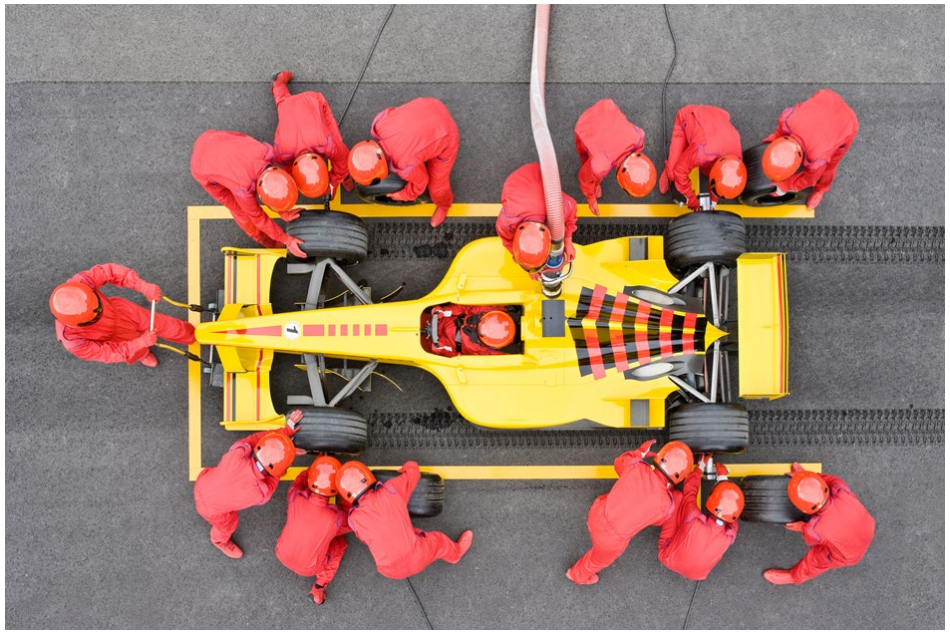
Can we get to where we want to be if we don't look where are going?


5367
5367
BNSF

Change

- Lorem ipsum dolor sit amet,

Nor is there anyone who loves or pursues or desires to obtain pain of itself,because it is pain

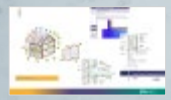


Technical change

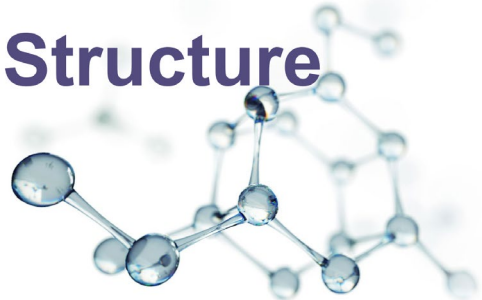
Carbon

Insurance

Fire Safety



Structure

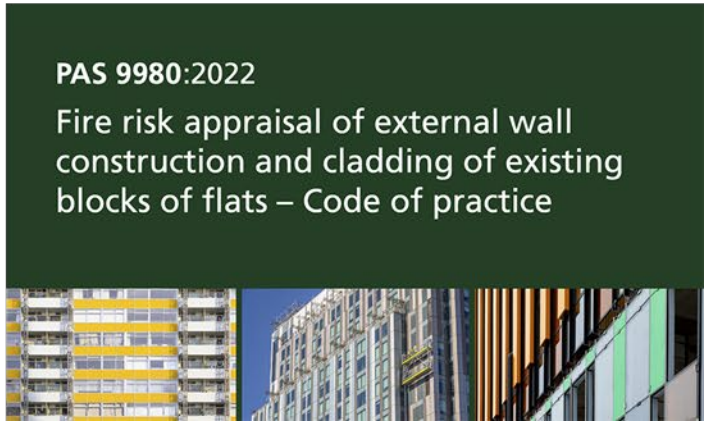


Project Questionnaire for Builder's Risk Insurance

Building Safety Act 2022

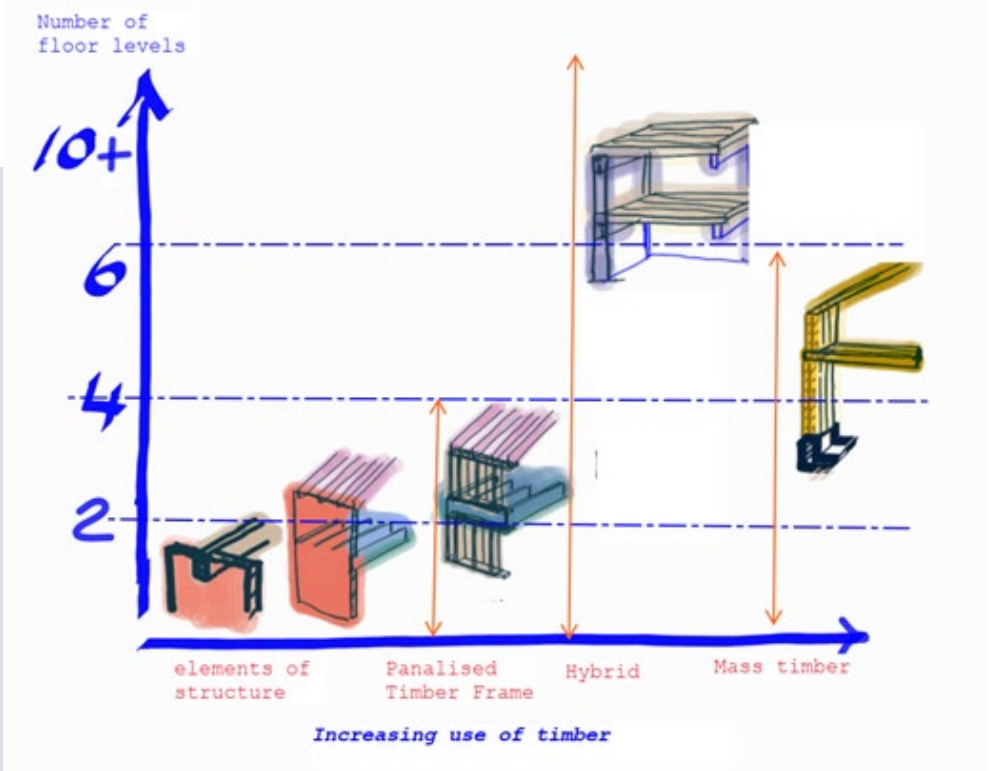
CHAPTER 30

- Building Safety Regulator
- HSE – BUILDING REGULATIONS FOR FIRE
- BUILDINGS IN SCOPE



Structural timber buildings fire safety in use guidance Volume 5 - Timber frame structures; Building Regulation compliance B3(1)

bsi.

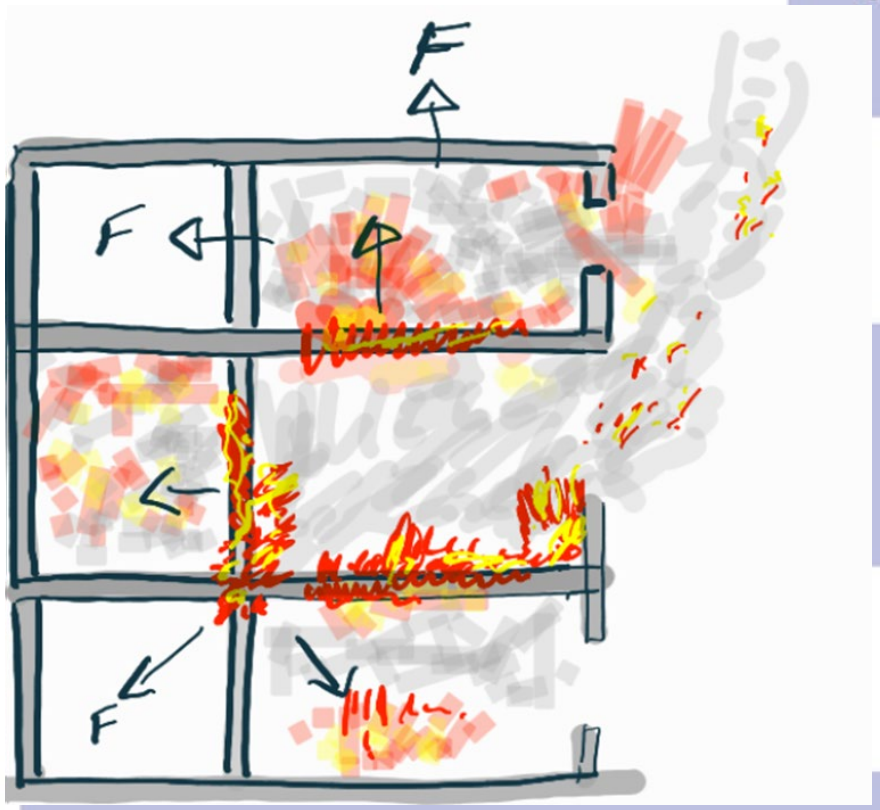


Structural timber buildings fire safety in use guidance
Volume 6 - Mass timber structures;
Building Regulation compliance B3(1)

STA fire safety research and guidance project
Version 2.0 - April 2023

B3 (1) Internal fire spread (structure)

The building shall be designed and constructed so that, in the event of fire, its stability will be maintained for a reasonable period



Structural (fire) safety objective

Provision of adequate time cognisant of building size and use

Adequate likelihood of surviving burn-out

What is the use of the building

Single dwelling	Multi occupancy - Below 11m upper floor level	Multi occupancy but no greater than 18m upper floor level	Multi occupancy
			
Prescriptive approach	Prescriptive approach **likely** to be acceptable	Prescriptive approach **may not** be suitable and is to be checked against user and escape strategy	Not suitable for external walls Performance design for internal elements

STA STRATEGY STEPS IN LINE WITH RIBA PLAN OF WORK

KEY PROJECT OUTPUTS; THE 7 STEPS	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7
	Outline responsibility matrix	Outline moisture management strategy	Updated stage 3 moisture strategy document including 'what if' list of issues and risk mitigation	Updated stage 4 moisture strategy document and risk mitigation check list	Manual for moisture management; audit trail and remedial action recorded	Carepoint document tor handover to in use customer plus maintenance schedule hand over	Care points on condition maintained

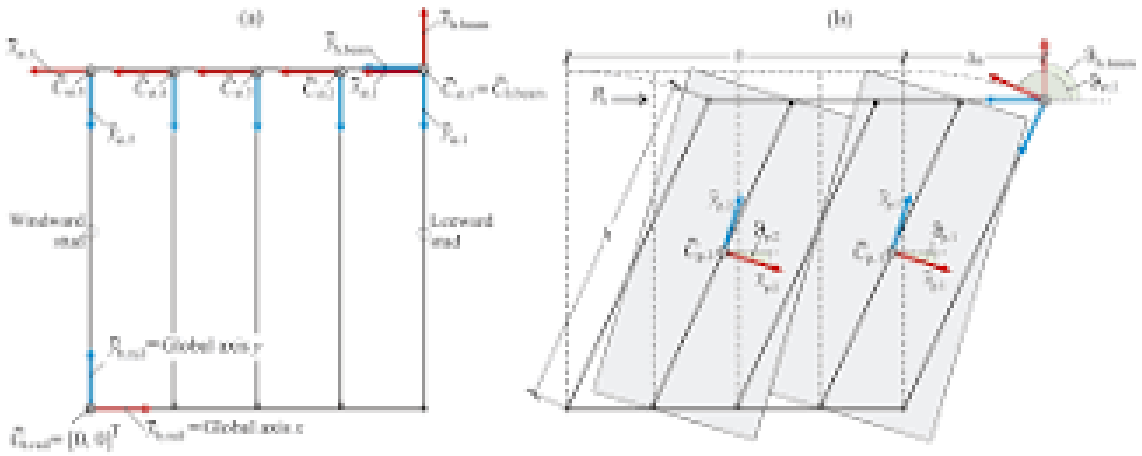
Part 4 - Responsible for durability

Each project will have a different make up of professional designers, managers, quantity surveyors, buyers, constructors, material supply chain, specialists and building facilities management.

PERIOD	CLIENT	DESIGNER	MATERIAL/ PRODUCT SUPPLY CHAIN	FABRICATION SUPPLY CHAIN	CONSTRUCTION	BUILDING FACILITY MANAGERS
APPOINTING A COMPETENT PROFESSIONAL DESIGN TEAM	✓	✋ Duty to warn				✓ In use
APPOINTING A COMPETENT TEAM FOR FABRICATION AND CONSTRUCTION	✓			✋ Duty to warn	✋ Duty to warn	✓ In use
DESIGNING FOR DURABILITY		✓	✋ Duty to warn	✋ Duty to warn	✋ Duty to warn	
SPECIFICATION OF MATERIALS FOR DURABILITY		✓	✓	✋ Duty to warn		
TECHNICAL SUPPORT ON DURABILITY			✓			
DUTY TO WARN OF VULNERABILITY AND LIMITATIONS		✓ ✋ Duty to warn	✓ ✋ Duty to warn	✓ ✋ Duty to warn	✓ ✋ Duty to warn	
QUALITY OF BUILD SPECIFICATION/ DETAIL		👍 Check			✓	
HANDOVER OF ELEMENT TO WHICH YOU'RE RESPONSIBLE		✓	✓	✓	✓	
MAINTENANCE SCHEDULE		📖 Specify				✓
UNDERTAKE MAINTENANCE						✓

Structure

BS EN 1995-1-1:2004+A2:2014



Eurocode 5: Design of timber structures General.
Common rules and rules for buildings

Project number and title:

ISO/CD 24323 - Design methods for vibrational serviceability of timber floors

PD 6693-1:2019 Recommendations for the design of timber structures to Eurocode 5: Design of timber structures. General - common rules and rules for building

bsi.

...making excellence a habit.™

Scotland Section 6 Energy

Future Homes Hub

HM Government

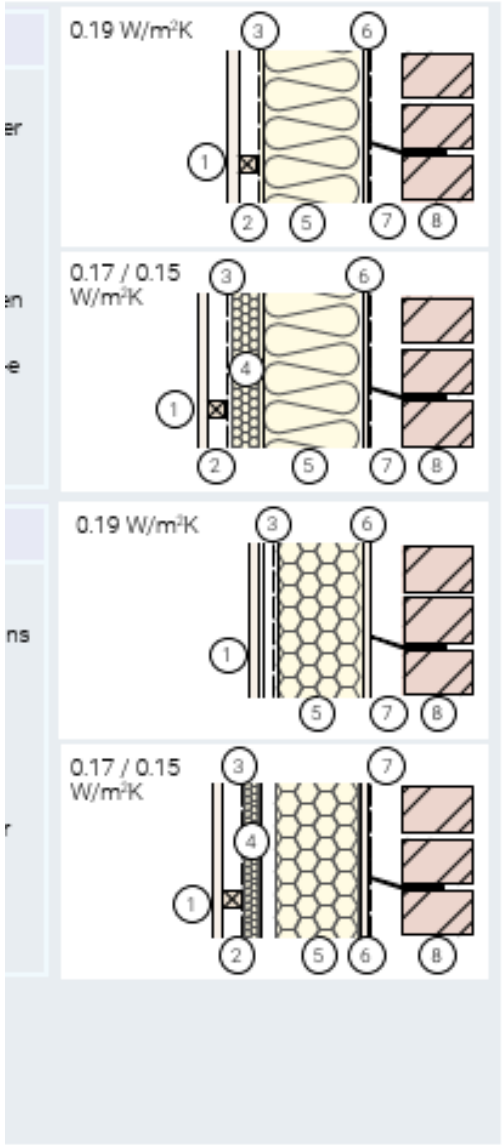
The Building Regulations 2010

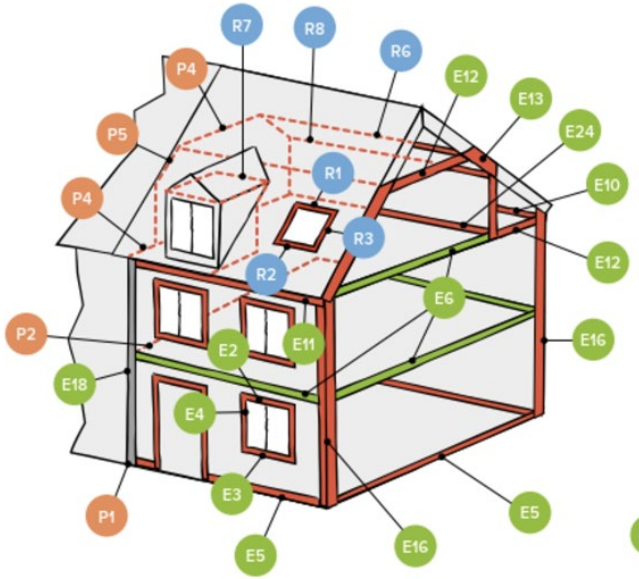
Conservation of fuel and power

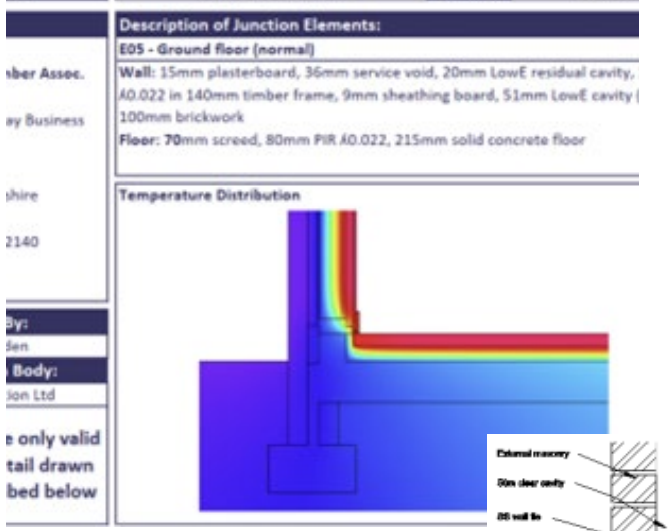
APPROVED DOCUMENT

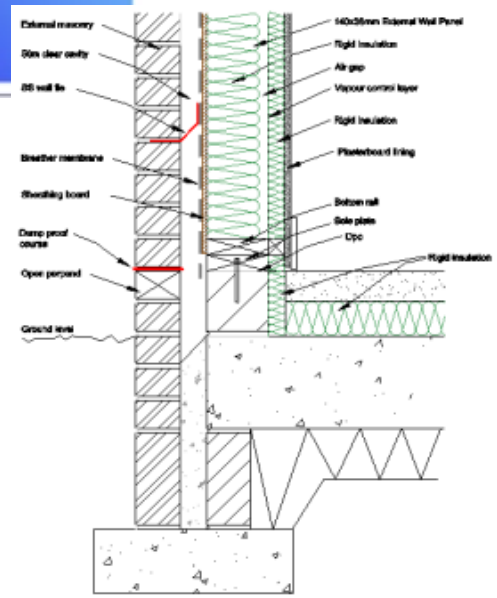
L1A

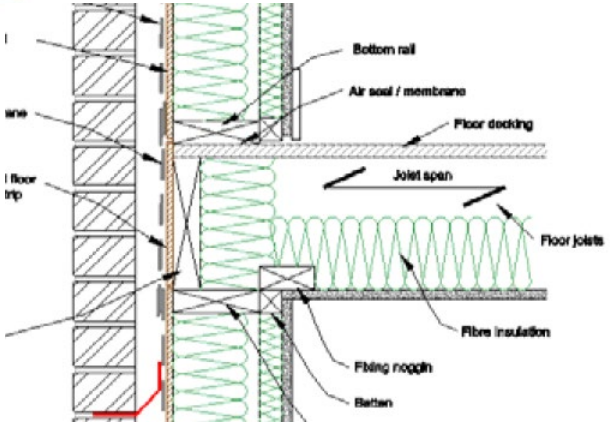
L1A Conservation of fuel and power in new dwellings











Linear Thermal Transmittance (W/mK)	
Ψ =	0.094

Advice Note 6.2

Carbon

Wall type 1

Carbon (A1-A3): 24.287 $kgCO_2e/m^2$

Cond			Density	Thickness
x	Membranes	Reflective Breather Membrane		
x	Boards	OSB/3	640kg/m³	9.0mm
x	SW Studs	38mm Studs @600c/c	27kg/m³	140mm
x	Insulation	PIR	30kg/m³	100mm
x	Insulation	PIR	30kg/m³	25mm
x	Membranes	Vapour Control Layer		
x	SW Lumber	38mm Battens @600 c/c	27kg/m³	25mm
x	Boards	Plasterboard	750kg/m³	15.0mm
				Total

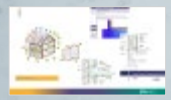
Carbon

A1-A3		A4	A5w	Sequestration
0.5	national	0.0	0.0	0.0
2.6	national	0.2	1.1	-9.4
1.0	national	0.1	0.1	-6.1
12.0	national	0.1	1.3	0.0
3.2	national	0.0	0.3	0.0
0.4			0.0	0.0
0.2	national	0.0	0.2	-1.1
4.4	national	0.4	1.4	0.0
24.3		**0.8**	**4.5**	**-16.6** $kgCO_2e/m^2$

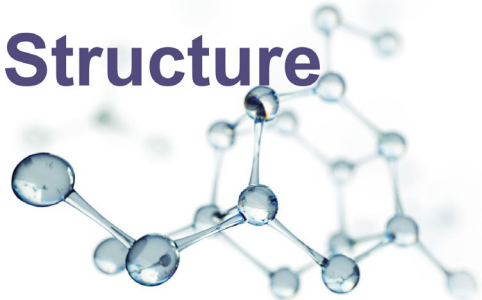
Carbon

Insurance

Fire Safety



Structure



STA members need to be aware

Members are recommended to provide appropriate information for their project relevant and in proportion to the scale and type of building..

What members are advised to consider

sign off for the completed build will require a *“golden thread”* technical trail of what was built.

digital records of assembly and a digital technical trail of design to installation.

Insight – Members Documents

- Insite to know what cladding is being proposed for the building
- Be aware of the STA technical documents eg Cavity barriers
- Know the limits of responsibility for fire safety, structure and thermal
- Provide the project design team information for the Principal Designer

Thanks

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