

BUILDING REGULATION UPDATE

May 2024

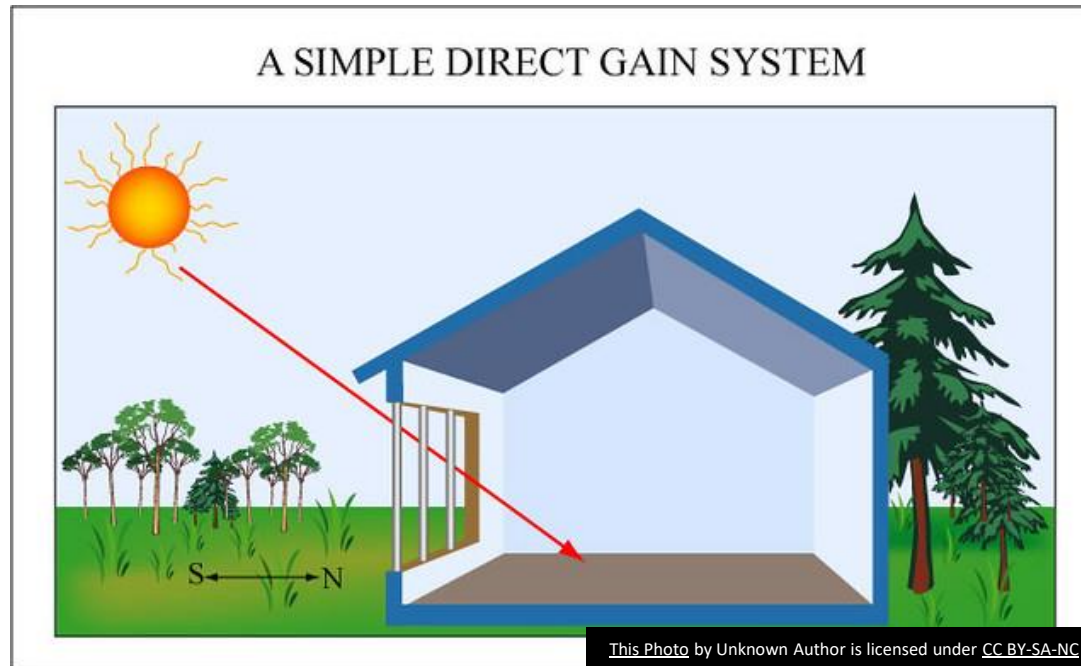


AGENDA

1. Part O Overheating
2. Fire Safety – what to be careful about
3. Building Work to High Risk Buildings
4. Q&A



WHAT IS APPROVED DOCUMENT O ALL ABOUT?



Overheating

- Limiting unwanted solar gains in summer
- Provide adequate means to remove heat from the indoor environment
- Improves occupants' health and wellbeing
- Applies to residential buildings only

OVERHEATING REQUIREMENTS

Compliance can be demonstrated by:

- Simplified Method
- Dynamic Thermal Modelling

Requirement

Requirement

Limits on application

O1 Overheating mitigation

- (1) Reasonable provision must be made in respect of a dwelling, institution or any other building containing one or more rooms for residential purposes, other than a room in a hotel ("residences") to—
 - (a) limit unwanted solar gains in summer;
 - (b) provide an adequate means to remove heat from the indoor environment.
- (2) In meeting the obligations in paragraph (1)—
 - (a) account must be taken of the safety of any occupant, and their reasonable enjoyment of the residence; and
 - (b) mechanical cooling may only be used where insufficient heat is capable of being removed from the indoor environment without it.



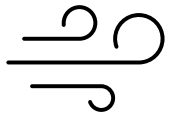


SIMPLIFIED METHOD

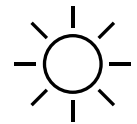
- Tables within Approved Document
- Maximum areas of glazing for each elevation; North, South, East & West
- Based on percentage of floor areas for each dwelling and most heavily glazed room
- Minimum Areas of openable windows for whole dwelling and all bedrooms
- Based on percentage of floor areas for whole dwelling and each bedroom

SIMPLIFIED METHOD

Factors affecting over heating:



Cross ventilation – openings on opposite facades (multi occupancy buildings, each residential unit, shared communal room must be categorised separately)



Risk category/geographical location –

Moderate Risk - England excluding high risk London.

High Risk - Urban and some suburban parts of London (See Part O - appendix C).

RESIDENTIAL BUILDINGS IN HIGH RISK LOCATIONS

In addition to the tables:

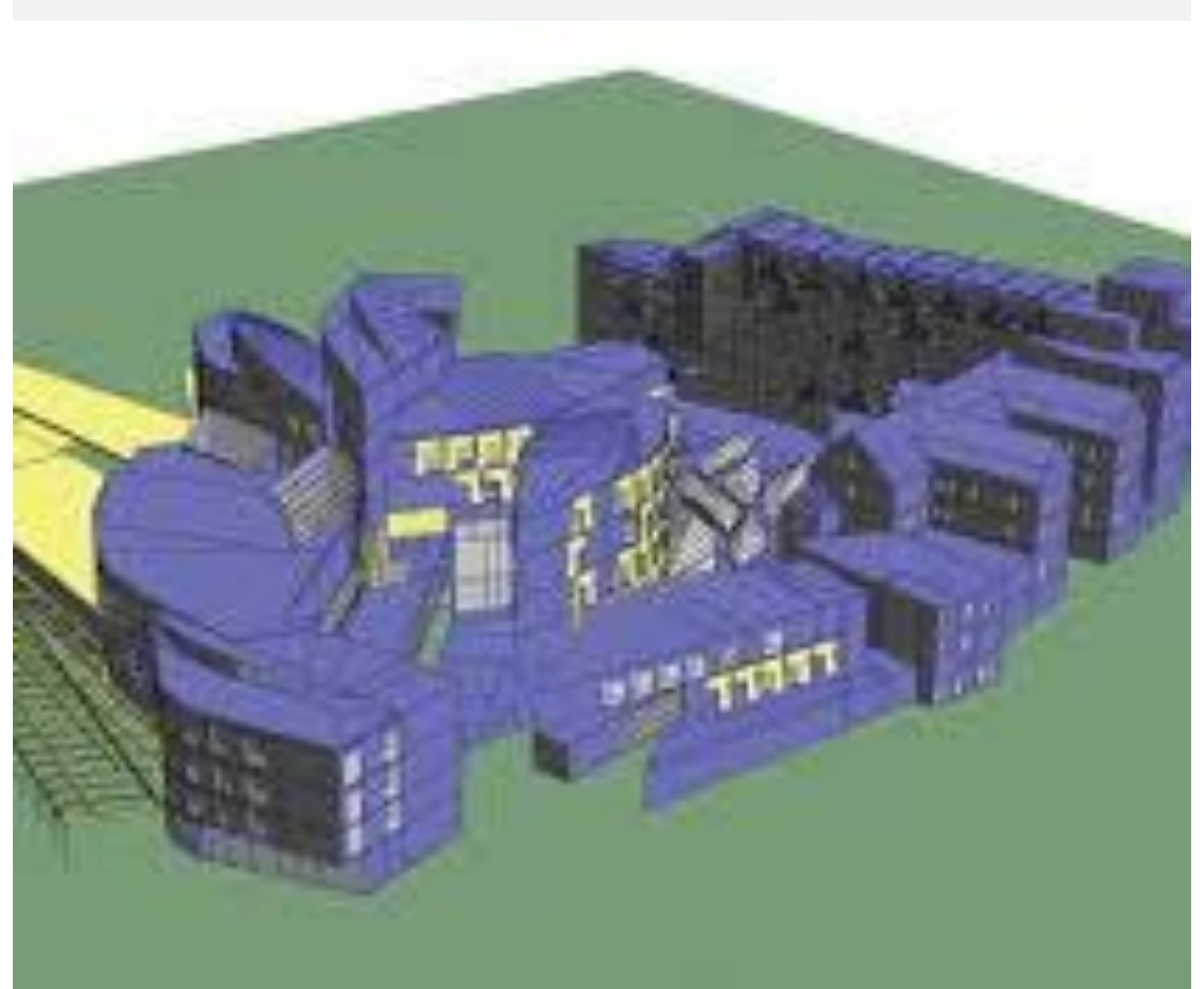
Provide shading for glazed areas between compass points north-east and north-west via the south using one of the following:

- External shutters with means of ventilation
- Glazing with a maximum g-value of 0.4 and a minimum light transmittance of 0.7
- Overhangs with 50 degree altitude cut-off on due south-facing facades only



DYNAMIC THERMAL MODELLING

- CIBSE's TM59 modelling
- TAS/IES Software
- Same software that does Part L
- Allows overhangs, solar shading, solar control glass, adjacent buildings to be assessed
- Gives better results
- Best option for blocks of flats



PART B – FIRE SAFETY

- Regulation 7(a)
- Applies to Relevant Buildings over 18m
- New build and conversions
- Any building that contains a dwellings; or
- Contains a residential room; or
- Contains an institution such as school, care homes, hospitals, student accommodation
- Does NOT include hotels hostels and boarding houses
- External walls to be non-combustible



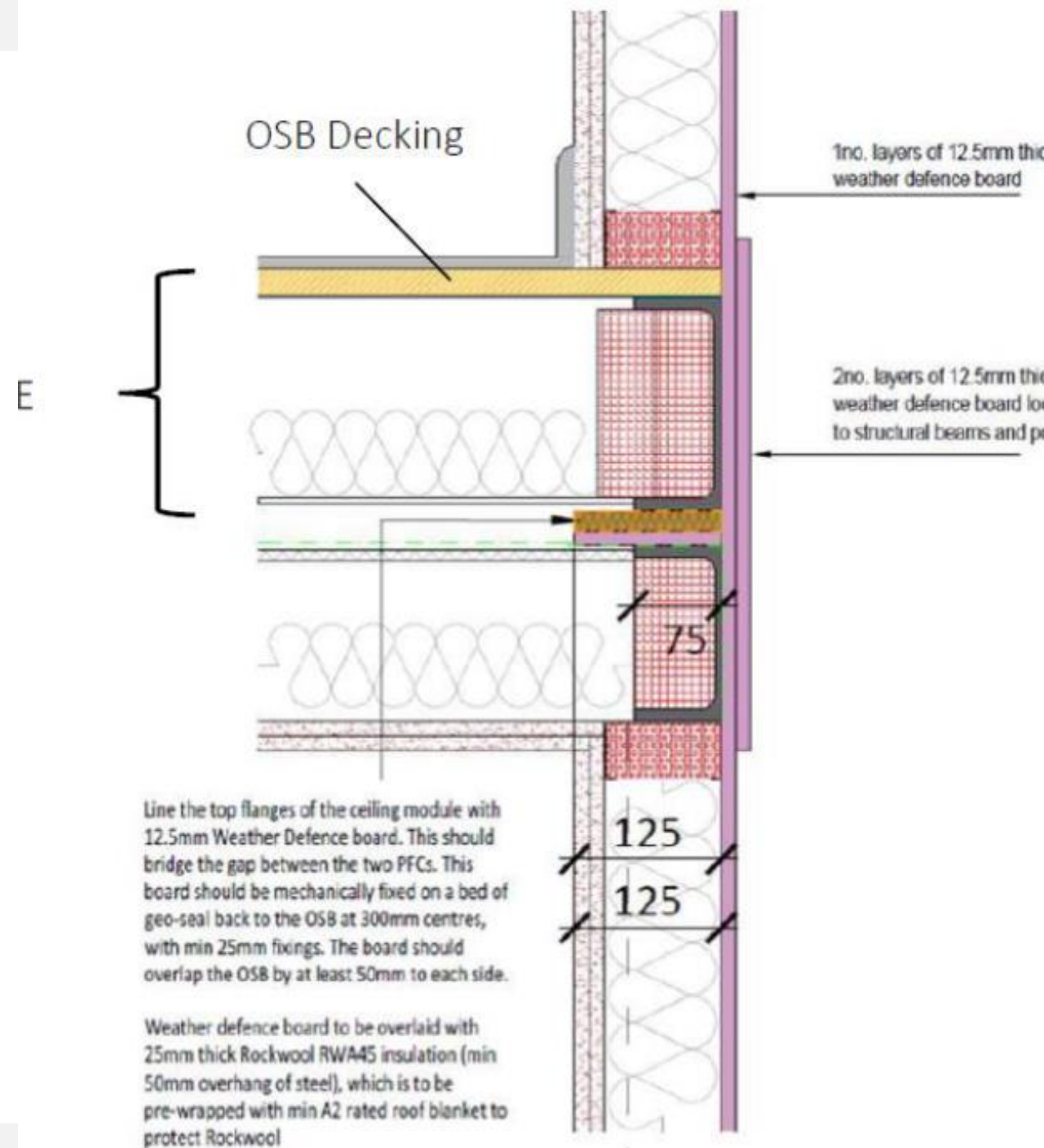
EXTERNAL WALL CONSTRUCTION

- Anything forming a barrier between internal and external areas
- Anything within any space forming part of the wall
- Includes insulation behind rain screen cladding
- Specific attachment such as balcony, solar shading, solar panels
- European Standard Class A2-s1, d0 - (BS EN 13501-1:2007)



THINGS TO WATCH FOR

- Vapour Check Membranes – Must still achieve Class B-s3, d0
- Spandrel panels and infill panels must achieve Class A2-s1, d0
- Cavity Barriers around all openings including service penetrations & perimeter of flats
- Watch cassette floors with timber decking
- Patressing on external walls
- Cavity trays above openings
- Includes insulated plasterboard



SPRINKERS

- All residential flats over 11m require sprinklers
- Including non-domestic areas at any floors
- BS 9251: 2021 for Residential areas
- BS EN 12845: 2015 for Commercial areas



FLATS OVER 11M

- Following timber balcony fire in Barking - Part B was Revised in 2022
- Combustible insulation and fillers not permitted in external wall
- Includes PIR insulation and composites within other products
- Composite cladding panels included within restrictions



STRUCTURAL FIRE PROTECTION

- All loadbearing walls are loadbearing elements
- 60 Minutes Fire Resistance required or 90m if over 18m
- Fire protection from floor to floor
- Services, sockets, penetrations all to be fire stopped
- Fire stopping around ventilation penetrations, window and door openings
- Take care behind bathroom pods



HRB Classification criteria:

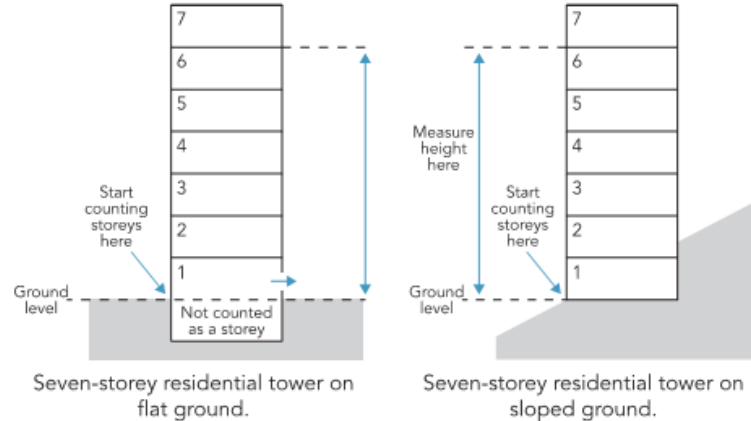


Over seven storeys or over 18m with two or more dwellings.



Hospital or Care home over seven storeys or over 18m.

Measuring your HRB:



Higher Risk Buildings

From 1st October Approved Inspectors and LABC can no longer control High Risk Buildings or HRBs.

The default Regulatory Service will become the HSE Building Safety Regulator.

A HRB's are defined as:

- “Buildings with Seven or more storeys” or at least one storey with a finished floor height more than 18m above ground level and contain two or more residential units.
- Hospitals and care homes meeting the same height thresholds are also considered as HRBs during the initial design and construction phase only.”

ANY QUESTIONS?

