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Sent: 17 December 2024 16:22:46 UTC+00:00
To: "Halima.Chowdhury" <Halima.Chowdhury@horsham.gov.uk>
Subject: DC/24/1545 HDC Internal Consultation

Hi Halima,

Thank you for your patience, depending on scope there are various implications/requirements that could be triggered. Hopefully most of the bases have been covered below.

1. Fire Safety (Approved Document B)

Combustible Materials Ban: The use of non-combustible materials, such as aluminium cladding and insulation, ensures compliance with the Building (Amendment) Regulations 2018.

These regulations mandate that external walls and specified attachments (e.g., cladding, render, window units, roof insulation) of buildings over **18 meters in height** must meet Class A2-s1, d0 or Class A1 (non-combustible) under European fire classification standards.

Even for buildings below 18 meters, fire spread must be managed through careful material selection. Non-combustible materials improve safety and reduce liability.

Wall and Window Units: Replacement of timber cladding and insulation within window units with aluminium and non-combustible materials significantly reduces fire risk and aligns with fire safety guidelines.

Roofing Materials: The replacement of the aluminium roof with a similar non-combustible material and insulation ensures that fire safety is upheld. Roofs must comply with Approved Document B, which outlines the performance requirements for materials used in roofing systems.

2. Structural Safety (Approved Document A)

Support and Fixing: New materials, such as aluminium cladding and non-combustible insulation, must be properly supported and fixed to ensure structural stability. Approved Document A specifies load-bearing requirements and the importance of appropriate fixings to handle wind loads, dead loads, and any imposed loads.

A structural engineer may need to confirm the adequacy of the wall system to support the replacement materials.

Weight of Replacement Materials: Replacing lightweight timber cladding with aluminium and non-combustible insulation may increase the overall load on the structure. Compliance checks are necessary to ensure the existing structure can safely support the weight.

3. Thermal Performance (Approved Document L)

Energy Efficiency: Under Part L (Conservation of Fuel and Power) of the Building Regulations, the thermal performance of the building envelope must meet minimum U-value requirements when replacing cladding, insulation, or roofing:

External Walls: The U-value must not exceed 0.30 W/m²K.

Pitched Roofs: The U-value must not exceed 0.18 W/m²K.

Flat Roofs: The U-value must not exceed 0.18 W/m²K.

Non-combustible insulation must therefore achieve the required thermal performance. Upgrading insulation in rendered walls and the roof presents an opportunity to enhance energy efficiency.

Renovation Trigger: If more than 50% of a thermal element (e.g., external wall, roof) is being replaced, it must comply with current thermal performance standards.

4. Ventilation and Condensation Risk (Approved Document C and F)

Condensation Control: The new cladding and roof systems must prevent interstitial condensation. Non-combustible insulation materials should be vapour-permeable or incorporate vapour barriers as required. Compliance with Approved Document C (Site Preparation and Resistance to Contaminants and Moisture) is necessary.

Ventilation: Ensure sufficient ventilation behind the cladding to prevent moisture buildup. This is critical when replacing rendered walls or timber cladding with aluminium.

5. Weatherproofing (Approved Document C)

The replacement materials must adequately protect the building from rain penetration and weather conditions. Proper detailing, including joints, fixings, and seals, is essential to maintain the building’s envelope integrity.

6. Workmanship and Material Standards

Compliance with Standards: Materials must comply with relevant British Standards (e.g., BS EN 13501 for fire performance, BS 8110 for structural safety). Proper installation is critical to achieving compliance.

Aluminium cladding and insulation should be installed following the manufacturer’s specifications.

Competent Professionals: Work must be carried out by competent contractors and designers, ensuring compliance with the Building Regulations.

7. Building Control and Approvals

Building Notice or Full Plans Application: For replacement works involving external cladding, rendered walls, or roofs, a Building Control application must be submitted to demonstrate compliance.

The Building Control Body (BCB) will assess the plans, inspect the works, and issue a completion certificate if all requirements are met.

Fire Risk Assessments: Post-replacement, a fire risk assessment (under the Regulatory Reform (Fire Safety) Order 2005) may be required, particularly for multi-occupancy residential buildings.

Best regards

James

James Rennie

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