

Climate & Sustainability Statement: 138 Woodside, Crosland Moor, Huddersfield

Proposal: Erection of a rear dormer and single-storey rear extension, featuring comprehensive thermal envelope retrofitting, ground floor insulation, smart lighting, and high-efficiency water management.

Energy Efficiency & Fabric-First Approach

The proposed rear dormer and single-storey rear extension incorporate a "fabric-first" approach, voluntarily upgrading the thermal performance of both the new and existing building fabric:

Attic & Rear Dormer Insulation Upgrade: To accommodate the new rear dormer, the existing first-floor attic space will be stripped back and retrofitted with high-performance insulation. The new dormer roof and cheek walls will be constructed using modern, low-U-value thermal materials exceeding standard building regulations, significantly reducing top-down heat loss.

Ground Floor Extension Insulation: The new single-storey rear extension will feature modern, high-grade ground floor insulation integrated into the slab detail. Additional floor insulation will also be retrofitted into the adjoining existing ground floor to eliminate cold bridging and maintain consistent internal temperatures across the ground level.

Smart Lighting & Energy Mitigation

Occupancy-Based Lighting: To reduce energy consumption in high-traffic transition spaces, Passive Infrared (PIR) sensor lighting will be installed in the main hallway. This prevents accidental energy waste by ensuring lights operate only when needed.

Water Conservation & Resource Efficiency

Water Efficiency Fixtures: High-pressure, low-flow water taps will be installed throughout the property, including the extended spaces. These fixtures minimize domestic water demand while maintaining optimal pressure, reducing both overall water consumption and the carbon footprint associated with heating domestic hot water.