

1 Low Level Roof
Roof structure to be comprised 50mm x 200mm C24 softwood common rafters @ 400mm ctrs, doubled up around all openings.
18mm plywood fixed completely over roof area either above or below, to building control offices recommendation.
All rafter feet fixed to Steel beam top flange plate via Bat Angle Brackets fixed in pairs provided at eaves, All rafter feet fixed to 100mm x 75mm softwood wall plates via Bat Truss Clips TCS50 provided at eaves, with wall plate strapped to block-work with galvanised straps at maximum 2m centres.
Head of common rafters to be fixed to a 50mm x 175mm sw C16 pitch plate via Expanet Framing Anchors type MFC in turn fixed via M12 frame anchors 150mm long into external face brick.
High level bracing if required to be 50mm x 175mm C16 softwood joists @400mm ctrs, fixed to common rafters via M10 nut and bolt set with 50mm plate washers.
Lateral restraint to common rafters parallel to gable wall by 30 x 5mm galvanised MS straps to fast three rafters parallel to wall screw fixed @ maximum 2000mm centres fixed to inner leaf of cavity wall.
Roof to be finished with 18mm thick 1250 x 2500mm OSB board fixed to rafters with 30 x 5mm galvanised MS screws @ 300mm centres.
Phenolic insulation or similar between all rafters fixed with lower edge of rafter and underlaid with 37.5mm Kingspan K18 insulated dry lining board to achieve maximum 'U' value of 0.18W/m²K, all fixed in accordance with manufacturers instructions. Fasteners overlaid with Tyce SUPRO breather membrane with joints lapped and taped.
Roof to be finally covered with Manley Wessex Roof Tile, laid to gauge and laid on 50mm x 25mm tanalised softwood battens. Incorporate 25mm wide continuous permanent fly screen vent at eaves level, so as to create natural free cross flow of ventilation through the roof void.

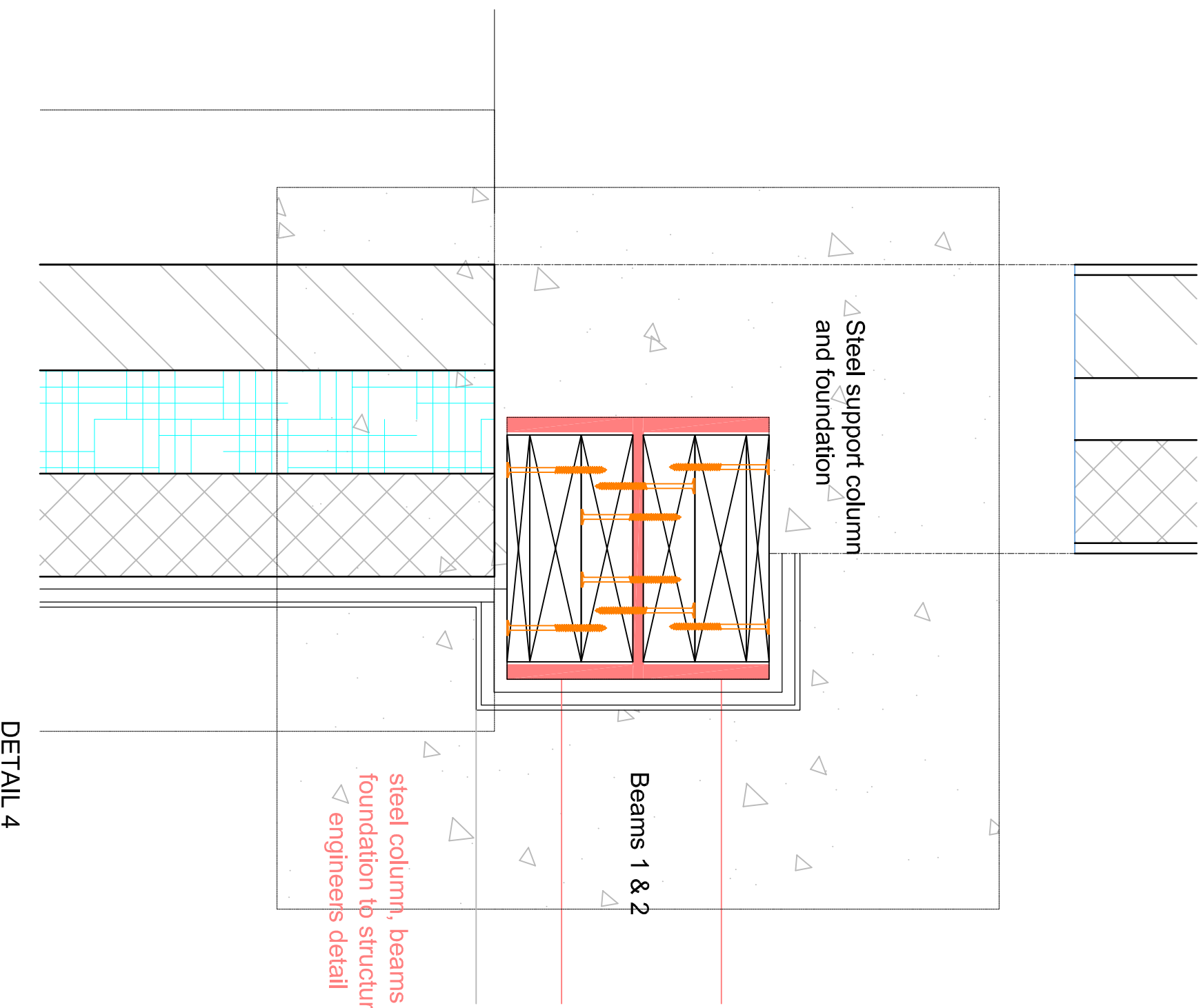
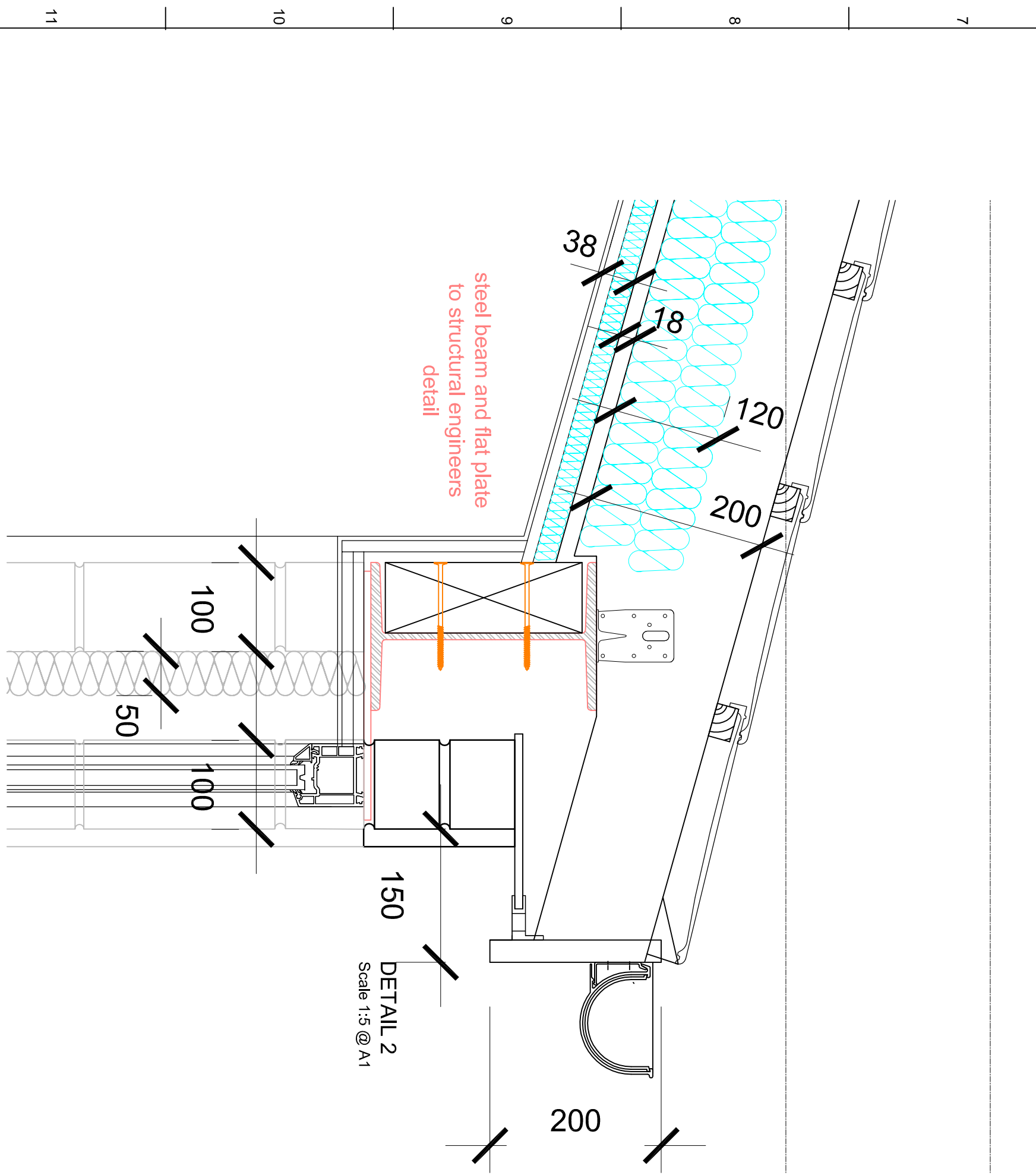
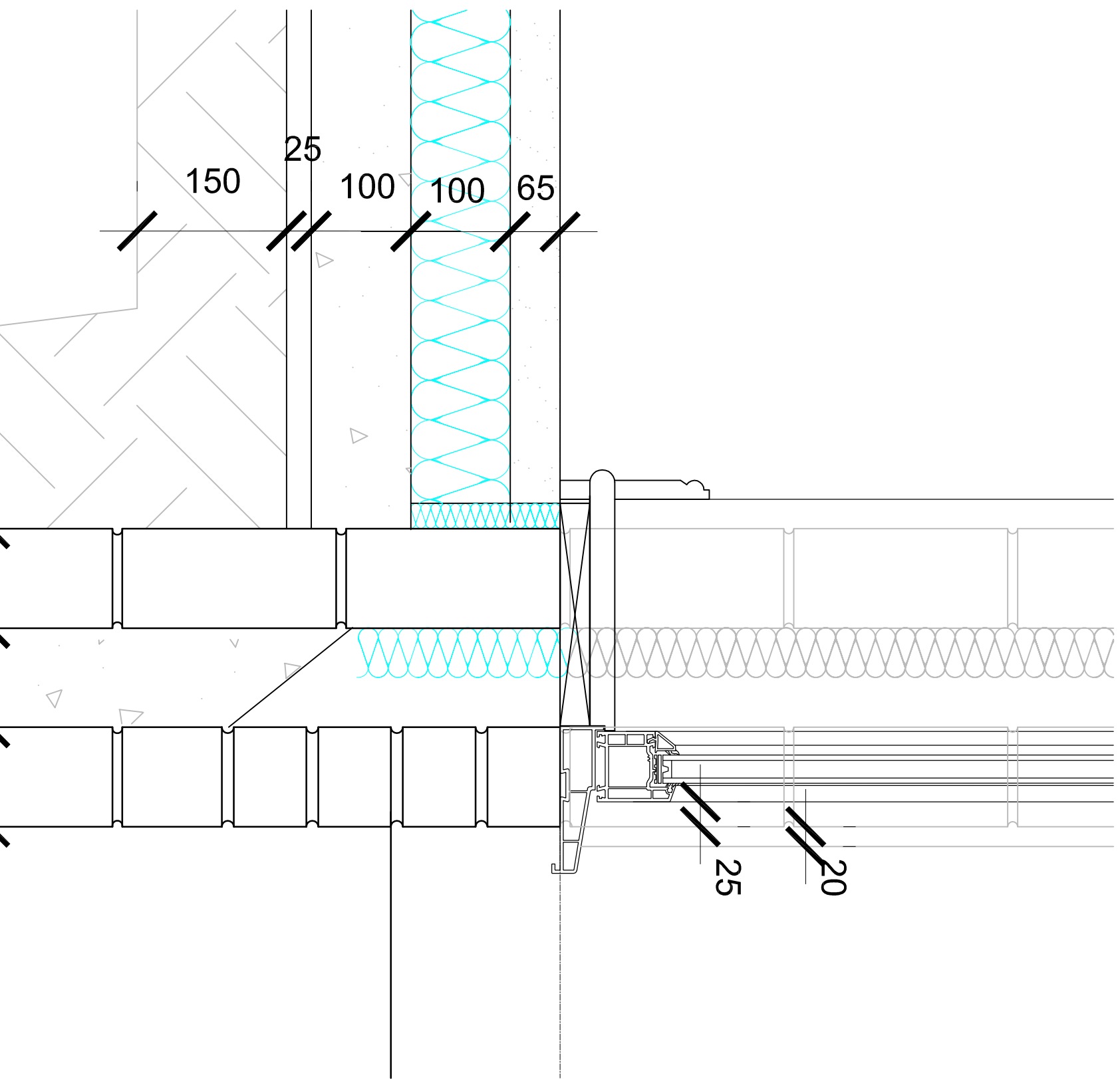
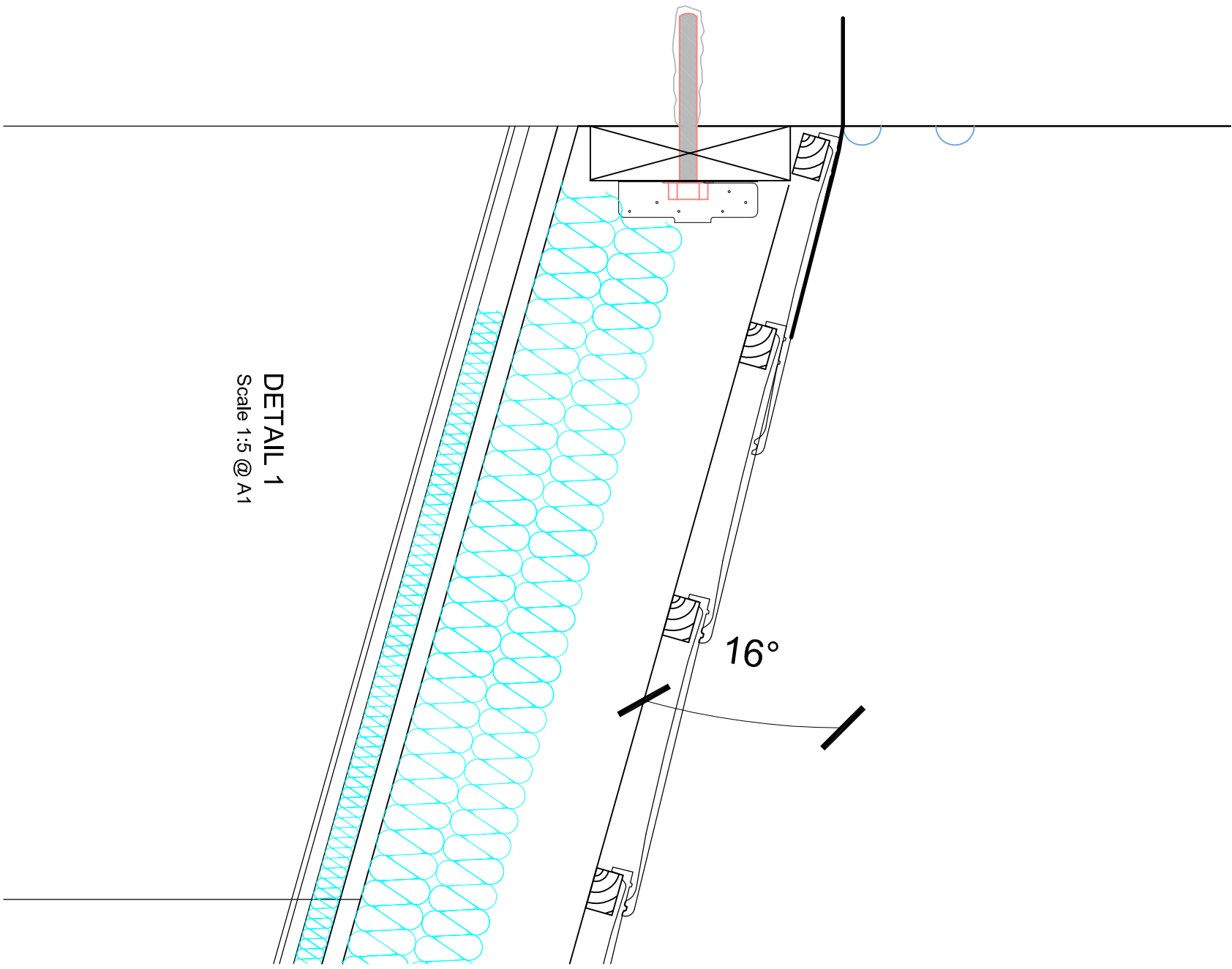
2 **Windows & Doors**
New windows to be Aluminium/UPVC with minimum 20mm kryolan filled gap double glazing, soft coated to achieve maximum 'U' value of 1.5 W/m²C with fully draught stripped operable light equivalent to minimum 1/20th floor area for purge ventilation and including minimum 8,000mm² trickle vents per habitable rooms for background ventilation.
Frame to be lapped minimum 30mm across cavity closer in accordance with Part L1A paragraph 52 and Robust detail 4, 12 of Limiting Thermal Bridging and air leakage Robust Construction details for dwellings similar buildings amendment 1 TSO 2002.
Safety glazing is required in all critical locations i.e. between finished floor level and 800 mm above that level in internal and external walls and partitions and between finished floor level and 1500 mm above that level in a door or in a side panel within 500 mm to either edge of the door, safety glass to comply with BS6206.

3 **Heating**
Supply pressed steel radiators, all with thermostatic valve controls in accordance with Part L1B of Building Regulations (2006 edition) . Pipework to be insulated in accordance with Part L1B of Building Regulations Heating and Hot & Cold water system to be issued with a commissioning certificate in accordance with Part L1 part 1.50 & 1.51 Building Regulations 2006.

4 **Electrical Fittings**
All sockets to be positioned above 450mm from floor level, and all switches to be positioned below 1200mm from finished floor level to comply with Part M of the Building Regulations.
Minimum 2Wb light fittings to incorporate only fitting with compact fluorescent lamps - luminous efficiency greater than 40 lumens/circul-watt. In accordance with Part L1B paragraphs 43-46 Building Regulations (2006 Edition)
Electrical installation to be designed and installed and tested on completion by an NICEIC registered contractor in accordance with BS 7671:2001 to comply with Part P of the Building Regulations.

5 **Smoke Detectors**
Install independent Smoke detectors (inclosures shown (heat detector in kitchen)) units to be mains powered and interconnected when triggered. Units to be mounted at ceiling level, 300mm from any wall and light fitting. Smoke alarms to BSS5446, Part 1.

6 **Ventilation**
Provide mechanical ventilation to utility/ground floor wc/denk & first floor bathroom by Xpelair DX100 wall mounted extractors capable of minimum 30l/s extraction complete with 15 minute over run timer, extracted through external wall.
Install mechanical ventilation incorporated in the cooker hood in the Kitchen (min. 30 l/s). Kitchen to be extracted through external wall.
Roof lights to be 1340 mm X 1400 mm UK08 GGU-0060 Valux roof windows all with 'U' value of 1.4 W/m²K, installed in accordance with manufactures instructions.



Issue	Date	By	Chkd	Appd
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Client
MR & MRS P GRANBY
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Job Title
**62 DUNBABIN ROAD
CHILDWALL
LIVERPOOL
L16 7HQ**

Drawing Title
**PROPOSED SINGLE STOREY REAR
EXTENSION & NEW FRONT DROP
CROSSING, BUILDING REGS & DETAILS**

Scale at A1 1:5

Plot ID

Drawing Status
PLANNING + BUILDING REGULATION APPROVAL

Job No	Drawing No	Issue
PG 001	PG-003	Rev *