

Construction Notes.

All dimensions to be checked on site. All details and dimensions relating the sub-contractors or suppliers work must be checked and agreed between the subcontractors or supplier and the general contractor.

This drawing is to be read in conjunction with all relevant architect's and engineer's drawings and the specification.

Works to comply with current Codes of Practice, British Standards and Building Regulations.

Contractor to provide all necessary vertical and lateral restraint strapping in order to comply with The Building Regulations.

Fire Protection - All internal steelwork to have 2no. layers of 12.5mm plasterboard with staggered joints to comply with Building Regulations Part B.

Dry Packing - Steel beams to be dry packed up to existing masonry over to ensure full load take-up.

Existing Structure - Existing walling and foundations to be exposed and confirmed as adequate prior to works taking place.

Existing Structure - Assumed spans of existing joists, rafters etc. to be confirmed as correct. Structural Engineer to be consulted if any differences are found prior to works taking place

Temporary Stability - Contractor to provide all necessary temporary propping to safely undertake the works.

Steelwork Connections - All steelwork connections are to be detailed by the fabricator taking into account the loadings outlined in the calculations.

Strapping - Strapping to be introduced to maintain lateral stability of addition once walls are removed in accordance with a structural engineers details. Lateral and vertical strapping to comply with Building Regulations is to be provided.

Steelwork Connections - All final steelwork connections are to be detailed by the fabricator taking into account the loadings outlined in the calculations.

Steelwork - Steelwork fabricator/contractor is to undertake their own site survey to determine final dimensions for all new steelwork fabrication. The survey should highlight any obstructions/services/etc., that need altering/relocating to avoid clashes.

Steelwork grade - All steelwork to be high yield (S355) unless noted otherwise.

Bathrooms and Kitchens to be fitted with mechanical vents with 15 minute over run. Kitchen and Utility rooms to have min 60litres/sec extraction. Bathrooms, shower rooms and toilets to have min 30litres/sec extraction.

External walls to be of 300mm overall structural thickness, cavity construction, consisting of 100mm external blockwork, with 50mm air gap and Celotex CW4000 50mm thick insulation. Insulation to provide a min. 'U' value of 0.25W/m²K fixed strictly in accordance with the manufacturer's instructions, on restraining, double drip type wall ties, from 75mm below dpc to closed cavity at wall plate level or 100mm above the level of the roof insulation at gables, wall ties at the base of the insulation are to be @ 600mm max. centres. 100mm blockwork to BS6073 with 10mm mortar joints, or as specified by the Struct. Eng. inner leaf, finished internally with 13mm plasterboard and skim, on mortar dabs, drying, with all joints sealed. Provide brickwork outer leaf with style and colour to match existing. Timber cladding to be provided to client specification where detailed.

The cavities are to be closed, at all door and window jambs and sills and at the top with proprietary insulated cavity closers/dpc.

The two leaves of the cavity wall are to be tied together with stainless steel wall ties, to BS1243 at 450mm vertical and 750mm horizontal, staggered centres, and 150mm horizontally from all jambs and 225 mm vertically, bedded 50mm min. into each leaf.

All masonry movement joints are to be provided, where specified by the Struct. Eng., with full half brick vertical lines, debonded on one side, 16mm side filled, with approved polysulphide joint filler to BS5628, and finished with 2 parts silicone pointed mastic to match mortar colour.

Electrical - The electrical installation is to be designed, carried out, inspected and tested by a competent person in accordance with Pt. P of the current Building Regulations. All light switches, sockets etc. to be positioned within a zone 450mm, to the bottom and 1200mm to the top of the switch/socket all in accordance with Pt. M of the current Building Regulations.

A min. of 3 in 4 light fittings or 1 per 25m² of floor area are to be energy efficient light fittings (eg compact fluorescent's) located in locations of principal use (ie not cupboards, cloakrooms etc, or 3 per 4 fixed lighting fittings whichever is the greater. Note Hall stairs and landing count as 1 room.

Steelwork Protection - All steelwork to be blast cleaned to Sa 21/2 in accordance with BS EN ISO 12944. Internal Specification - coat with a Zinc phosphate epoxy primer to 80µm in accordance with BS EN ISO 12944. External Specification - hot dip galvanised to 140µm in accordance with BS EN ISO 1461 and 14713

Masonry Strength - Contractor to confirm strength of existing brick/blockwork and mortar class is in accordance with assumptions prior to commencing or ordering materials. Refer to Structural Engineer if found to be different for revised pier/padstone calculations.

Walls below DPC level
Walls below DPC level are to be constructed in type a, 7.0 N/mm² dense aggregate concrete blockwork or class b engineering brickwork in 1:3 mortar, subject to ground conditions. 'Trench' blocks may only be used if approved by the Structural Engineer.
Cavities below DPC to be filled to within 225mm of the lowest horizontal DPC, with 1:8 lean mix concrete with the top splayed down towards the outer leaf of the cavity wall. 'weep holes' are to be formed in the outer leaf of the cavity wall at the lower level of the concrete cavity fill, @ 900mm max. centres.
100mm x 65mm precast concrete lintels are to be provided where services pass through all loadbearing walls below DPC level.

New external walls to be bonded to the existing structure with 'fir-fix' profiles or equal approved fixed in accordance with the manufacturer's instructions.

Flat roof (max 0.18w/m²k u-value)
Flat roof joists to be OSB decked, with DPM and high performance elastomeric roof covering, with solar reflective paint over, and suitable edge trimming details. Joists to be insulated with Celotex XR4000 150mm thick insulation between the joists, with a min 50mm air cavity to outside face of joist. Underside of roof to be finished with 12mm thick of Celotex TB4000 and 12.5mm thick skim finished plasterboard. Flat roof finishes to have a minimum AA, AB or AC rating in accordance with Approved Document B1 of current Building Regulations.

Damp proof course
A high performance polythene dpc, 112mm wide, for 103mm bwk and 225mm wide for 215mm bwk, is to be installed 150mm min. above finished ext. ground level, linked to all other DPC's and DPM's.

Where roofs abut cavity walls the junction is to be protected by a code 4 lead flashing and soakers , to BS1178, with a 150mm min. upstand linked to a min. 2 course deep cavity tray, stepped for pitched roofs, with 'weep holes' in the external leaf of the cavity walls at 900mm max. cts. All leadwork is to be to the lead sheet association recommendations. All leadwork is to be finished with one coat of patination treatment.

All ventilation ducting, via 'slimvents' or equal approved, directly to the external air, condensation traps to be provided as necessary in accordance with the manufacturers instructions.
electrical installation - the electrical installation is to be designed, carried out, inspected and tested by a competent person in accordance with Part P of the current Building Regulations.

Ventilation - All habitable rooms to have operable windows equal to 1/20th of the floor area of the room.
Boiler and heating - Existing central heating boiler to be inspected and assessed for extra capacity and the existing central heating network to be extended to provide suitable radiator heating to each of the new rooms. Should boiler require replacement a new system is to be designed and installed by specialist, in conjunction with clients wishes, to meet current Building Regulations and British Standards. New radiators to be provided with thermostatic room valves.

Glazing - Windows and ext. doors to be glazed with 24mm (4/16/4) argon filled, sealed, double glazed units with Pilkington 'K' glass to both leaves to achieve a min. 'U' value of 1.6 W/m²K. The maximum window opening to be 25% max. of the total floor area. All glazing within 'critical' areas to be in toughened or laminated glass to BS6206 in accordance with Pt.N1 of the current Building Regulations.

Hot Water Supply - Unvented hot water systems shall incorporate precautions to prevent the temperature of the water stored in the vessel exceeding 100°C, and ensure safe visible discharge.
A Water Efficiency Calculation is to be provided within 5 days of completion of works.

Showers L6959AA 6l/min
Bathroom taps (type 1) L6982NU 5l/min
WC taps (type 33) E6937NU 2l/min
Kitchen taps L6963NU 4l/min
WC's to be dual flush 4/2.6 litre
Bath capacity Max 130 litres
White goods to achieve:
Washing Machine 42 litres (AEG L63742VI)
Dishwasher 10 litres (AEG F99000P)
Appliances and fittings to be specified in accordance with Water Efficiency Calculations to ensure maximum 125l per person per day consumption.

External lighting designed to extinguish automatically when there is enough daylight and when not required at night or have sockets that can only be used with lamps having a min. efficiency of 40 lumens per circuit Watt.
All new 'down lighter' installations are to incorporate energy efficient light fittings and fire retardant enclosures to the units. 75% of new lighting circuits to be energy efficient, with a luminous efficacy of 45 lumens per circuit watt.

Plumbing - All waste pipes shall be formed in PVC with 75mm deep seal anti-vac. traps to CP304 and BS5572. WC pans to be fitted with multi quick outlets.
Waste pipe sizes WC = 100mm dia, baths, sinks, bidets = 40mm dia, shower = 50mm dia, basin = 32mm dia.
SVP's to be 100mm dia. uPVC to terminate 900mm min. above the head of any opening window within 3000mm, to open air at the head of the drain run to BS5572. Alternatively, SVPs can terminate with an air admittance valve (AAV), 900mm min. above the trap level of the highest fitting to BS5572, providing the manhole to which the SVP is connected is otherwise ventilated.
SVP's are to be encased in 2 layers of 13mm plasterboard faced ducts formed from 63mm x 38mm SW framing with access panels at all connections, the voids are to be filled with a min. of 25mm mineral wool sound deadening quilt. Stub stacks are to be formed from 100mm pvc pipework and to terminate above the spill over level of the highest connection with an 'air admittance' valve.
Provide anti-syphon traps to appliances as follows:
Where bath waste exceeds 3000mm
Where basin waste exceeds 1700mm.
All new baths are to be fitted with 'anti-scold' valves

Boiler and heating - Existing central heating boiler to be inspected and assessed for extra capacity and the existing central heating network to be extended to provide suitable radiator heating to each of the new rooms. Should boiler require replacement a new system is to be designed and installed by specialist, in conjunction with clients wishes, to meet current Building Regulations and British Standards. New radiators to be provided with thermostatic room valves. Conventional heating systems and hot water service systems are to comply with Approved Document Part L of the Building Regulations, as outlined in The Domestic Heating Compliance Guide. An EPC certificate is to be provided on completion of works.

All structural timbers are to be stress graded in accordance with details are to be 'protimised' or similarly treated.

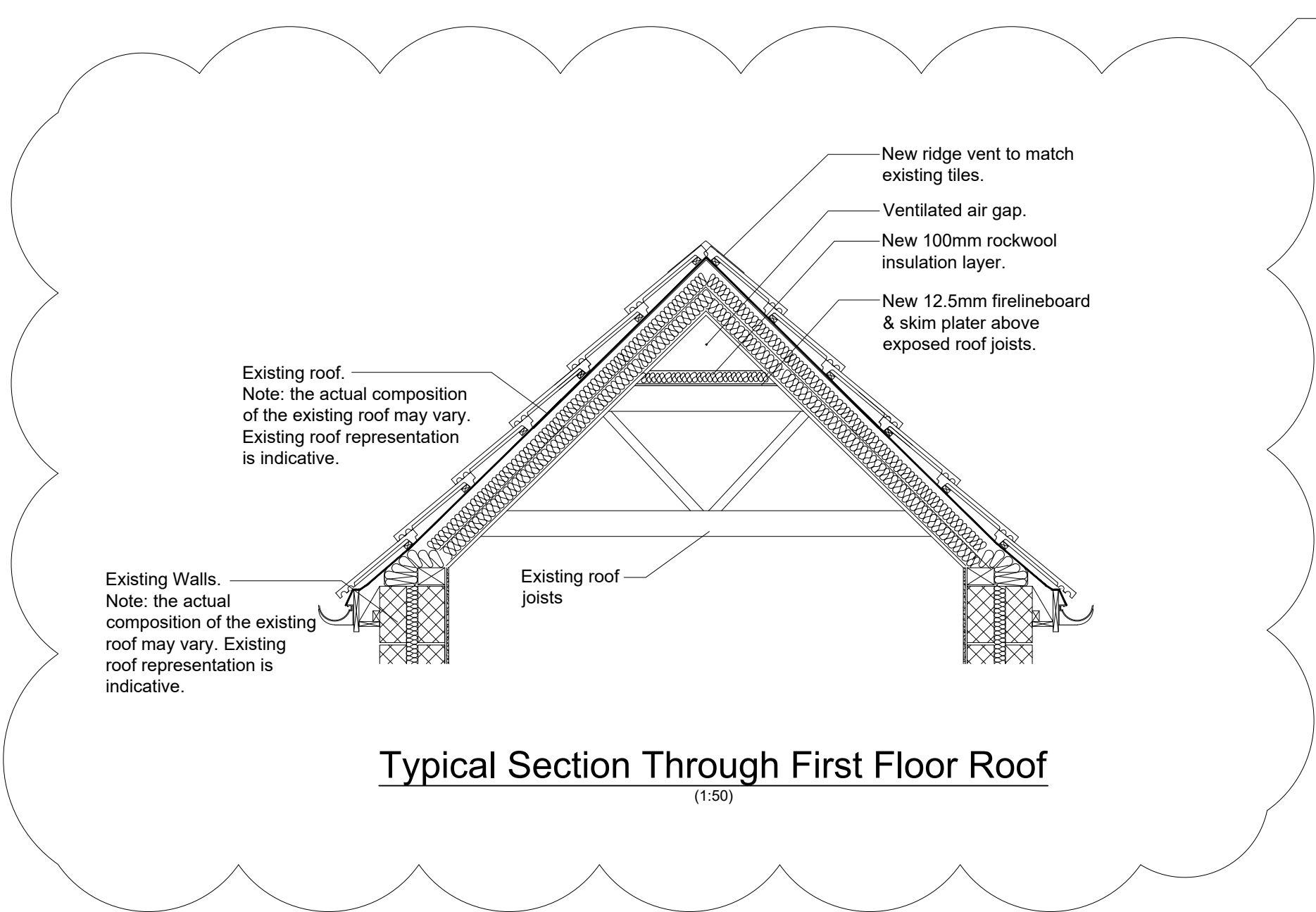
All light switches, sockets etc. to be positioned within a zone 450mm, to the bottom and 1200mm to the top of the switch/socket all in accordance with Part M of the current Building Regulations.

Smoke detection - Mains fed ionisation type smoke detectors, designed and installed in accordance with BS5839 Pt 6, with audible warning and battery backup to min. hall and landing ceilings, interconnected with each other and wired to a separate fuse to BS5446. Smoke detectors located within 7m of doors to rooms where fire is likely to start and within 3m of bedroom doors.

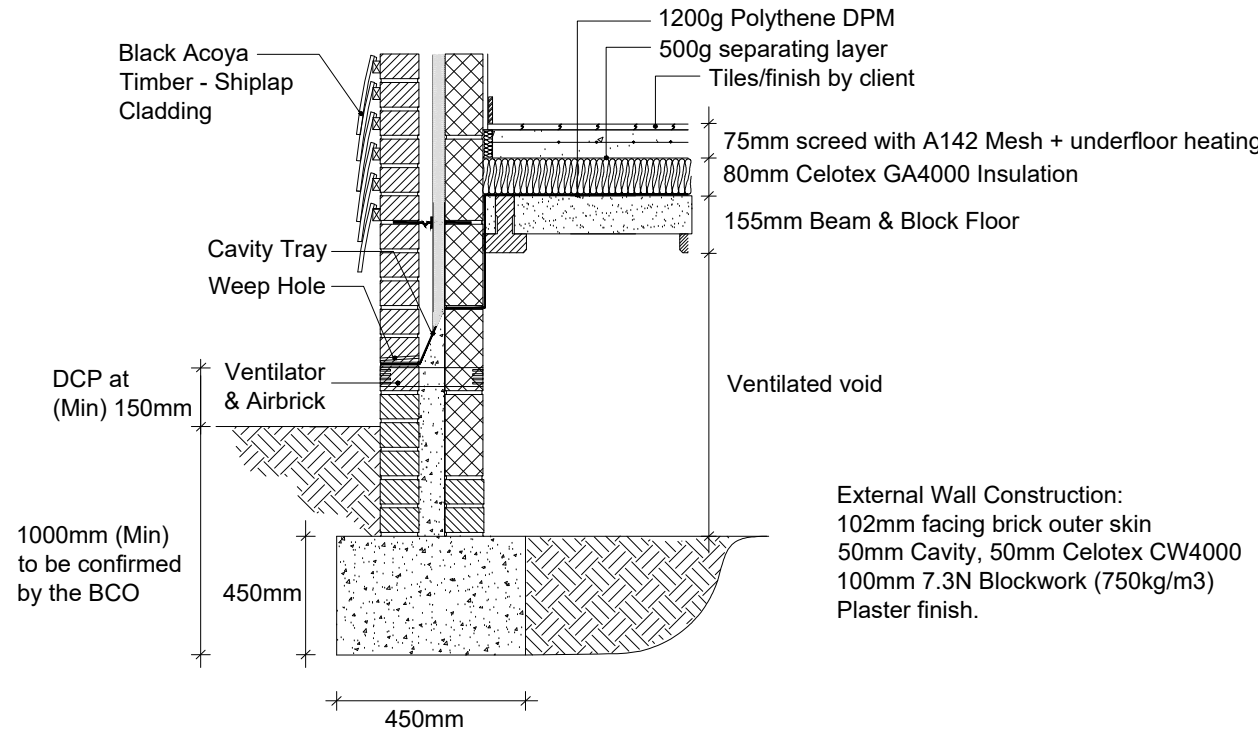
Drainage - Drainage to BS8301 1985
Foul drainage - SVP's etc. connected to the new foul water drainage system, via 100mm flexi-jointed stoneware or uPVC pipework laid to fall generally 1 in 40 on and surrounded in 150mm pea shingle or where within 600mm of finished external ground level, 100mm concrete, with a reinforced concrete slab over, with flexible filler and 75mm min. granular material between the top of the pipe and the underside of the concrete slab.
New inspection chambers are to be in upvc up to 900mm deep and brick built manholes constructed in 215mm bwk on a 150mm thick concrete base, reinforced where necessary, with concrete benching, where over 900mm deep.
All inspection chambers and manholes are to have appropriate duty covers.
All drains passing through loadbearing walls are to be protected by reinforced concrete lintels.
New foul water drainage system connecting to an existing, the size, condition and adequacy of which is to be assessed and confirmed, prior to carrying out the works.

Surface water drainage - uPVC rainwater gutters and down pipes are to be connected via 100mm dia. underground pipework etc. all as before described.

Combustion Appliances - Details of the proposed installation of combustion appliances shall accord with the guidance in the Approved Document Part J of the Building Regulations. Alternatively, installations may be covered by certification through an appropriate Competent Person Scheme.

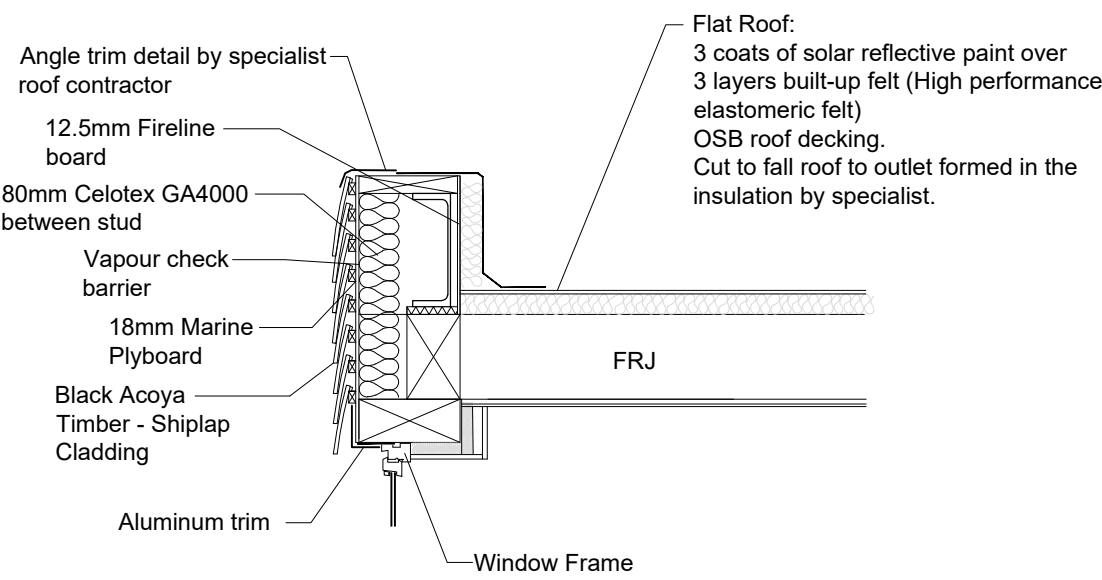


Typical Section Through First Floor Roof (1:50)

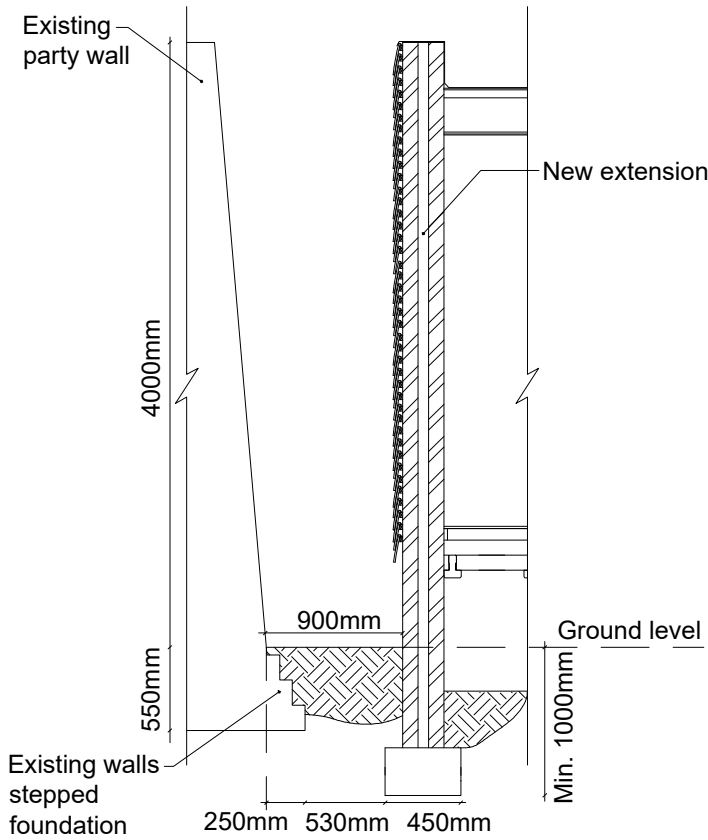


Typical Section Through New Trench Foundation & Ground Floor (1:20)

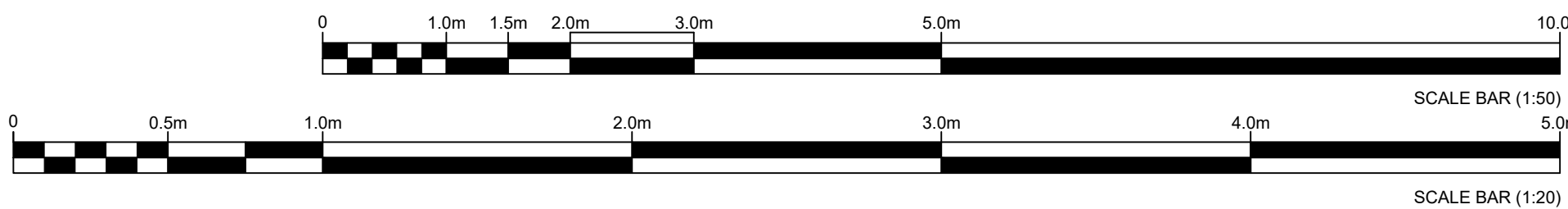
On hold



Typical Section Through New Flat Roof Over Bi-Fold (1:20)



Section E (Section Through Part Wall and the New Extension) (1:50)



Revision: Date: Description:

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PROPOSED DETAILS

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