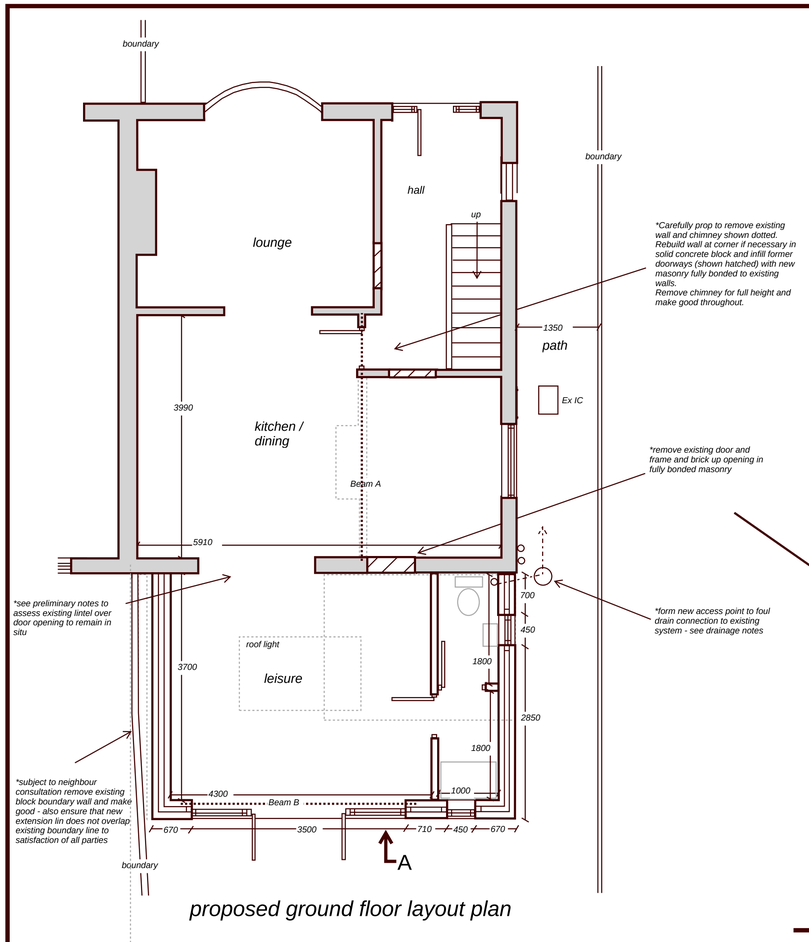
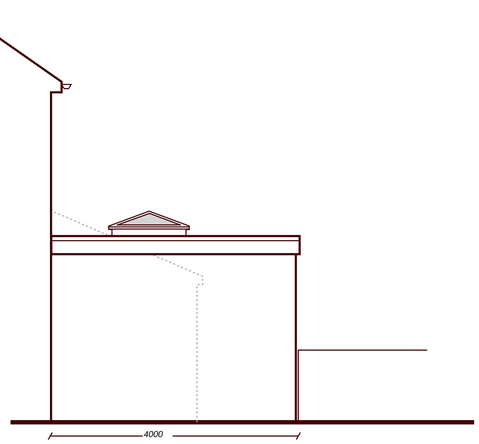


proposed ground floor layout plan



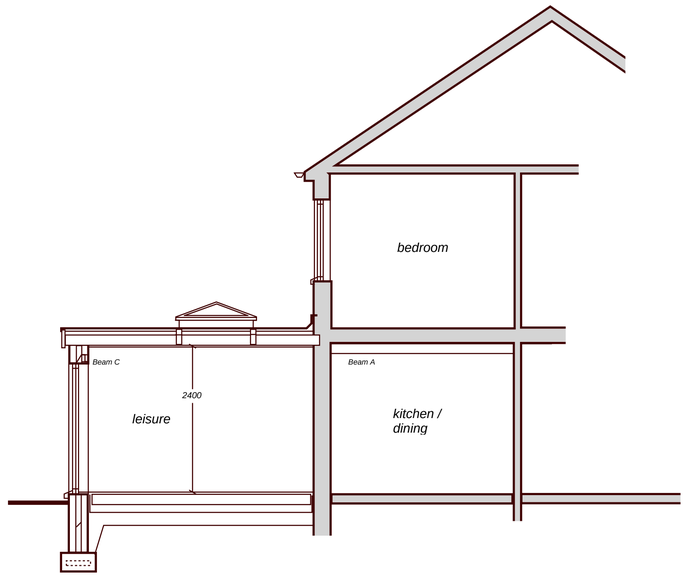
proposed side elevation at rear



proposed rear elevation



proposed side elevation



section view at A

***Important Note:**
This drawing has been prepared for submission to the Inspecting Authorities for necessary Statutory Approvals. Nominated contractor to verify all dimensions either written or scaled together with drainage lines and inverts etc. prior to commencement of formal construction work on this site and any discrepancies to be referred to the Client and Agent. All works to be carried out with full agreement of client and adjoining neighbour and any disturbance to existing structures to be made good to satisfaction of all parties.
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Proposed Single Storey Rear Extension at 50 Tean Road Cheadle Staffs. ST10 1LY

Scale 1-50 (A1) - proposed layout Dwg ref TR2d July 2023

Geoff Rouane C.Build.E, MCABE, MRICS.
Chartered Surveyor Chartered Engineer
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***General Specification:**

***Preliminary Works:**
*Carefully demolish existing single storey outbuilding at rear and prepare existing rear patio area to accommodate extension footprint.
Plan extension programme to ensure minimum disturbance and exposure to rear living space. remove all rubble from site to approved tip facility. Expose existing house foundation to assess type of base and ground conditions prior to commencement of construction works. Any variance from the strip foundation specified below to be referred to a specialist engineer for redesign.
Examine and expose as necessary existing drainage lines and inverts etc to assess location and prepare for extension excavation work.
Assess existing lintel over rear doors to ensure it is fit for purpose to receive new flat roof joist loads and to satisfaction of inspecting authority surveyor.*

***Walls (External):**
*Selected monococuche or similar waterproof render system over 100mm concrete block external leaf (Note engineering brick external leaf below dpc to match house colour) with min 100mm cavity enclosing Dritherm 32 insulation fill to manufacturer specification and internal leaf of approved 100mm load bearing thermal block work (maximum 0.15W/mK) faced internally with 52.2mm PIR plasterboard finish (40mm PIR+12.5mm plasterboard) on treated battens or cement dabs.This or similar construction to achieve max 0.18W/m2 k U-Value
Install Thermabate or similar insulated cavity closures at all opening jambs.
Note: new walling to be effectively bonded to existing structure to satisfaction of inspecting authority surveyor and wall ties to be stainless steel suitable for 100mm cavity width and compliant with DD140. set at 5 per m2 and at each block course at jambs.

***Internal Walls (non load bearing):**
100x47 sw timber stud faced on 100x75mm sole plate and dpc faced with plasterboard incorporating vapour check and enclosing 100mm rockwool acoustic grade insulation.

***Foundation Detail:**
*Subject to prior exposure of existing house foundation lay 600x300mm deep concrete strip foundations to new walls at depth to to suit site conditions and to satisfactory bearing strata to approval of inspecting authority. Reinforce throughout with 2 no layers B503 steel mesh.
*New foundation to create no surcharge on drainage lines at any point.
All works to be carried out with full agreement of client and adjoining neighbours and any disturbance to existing structures to be made good to satisfaction of all parties.*

***Ground Floor Slab:**
*Extension floor slab to comprise floor finish to client requirement on min 60mm screed or power float finish to 100mm concrete slab on 1200g dpm over Celotex GA 4000 (100mm) or similar approved insulation board turned up in 25mm thickness at floor perimeter to avoid cold bridge. Lay further dpm over well blinded 150mm min. compacted natural stone sulphate free hardcore. *U-Value max 0.18W/m2k*

***Flat Roof:**
*Approved AA rated single ply membrane by specialist contractor on min 18mm ext ply deck over Celotex GA4000 (150mm) or similar approved insulation board and composite deck incorporating vapour control layer and bonded 5mm deck ply face. Ensure all joints are tight with vapour sealant to manufacturer spec. Secure TD4000 with helical fixings to correct spec. and lay to fall 1:60 across 195x47mm sw C24 joists at 450mm max centres built in to walls to 90mm end bearings or supported off heavy duty steel joist hangers to manufacturer spec. Form aperture to receive lantern frames with double 195x75mm C24 grade trimmer arrangement bolted together with dog tooth washers at 600mm centres. Joists to be anchored to external supporting walls with galvanised ms straps at 1500mm max centres.
This or similar construction to achieve max 0.15W/m2K U-Value

***Lintels:**
Install Catnic or similar combined steel lintel over new small window openings with minimum 150mm end bearings to manufacturer spec. See Engineer's design sheet for details of new support beam over rear door feature.

***Drainage:**
*Lay new 100mm pvc drains on granular bed at min 1:40 falls to connect to existing system on site.
Ensure adequate support and protection to all drains passing through walls and building footprint.
Upvc rainwater goods to match existing carried to existing system as required.
Internal waste plumbing to satisfy BS5572 with 75mm deep seal traps as required. Wastes to discharge to 100mm stub stack fitted with Durgo or similar air admittance valve positioned above flood level of fittings to full satisfaction of inspecting authority surveyor.*

***Fenestration:**
*Install high performance double glazed windows and combination doors as shown and to client requirements with max 1.40 w/m2 k U-Value
Total window and door opening casements to represent minimum 5% of new floor area + adjacent kitchen etc. floor area as natural vent plus min 8000mm2 trickle ventilators to head of frames.
Ensure that all doors and critical window areas are fitted with laminated or toughened safety glazing compliant with current BS:EN:12150.
Install double hip type lantern light (2000x1200mm) in aluminium frame by specialists to client requirements with thermally broken frame arrangement and double glazed safety glass as general spec. above. Form aperture to receive lantern frames with C24 grade timber trimmer arrangement as specified in roof detail above. Follow manufacturer spec. for installation and weathering to up-stand from roof membrane.

***Heating:**
Any extended space heating to be to the full requirements of a suitably qualified heating engineer and assessment of existing heating system plus compliant with current Part J Building Regulations. Install thermostatic control valves as necessary throughout.

***Electrical Work:**
*All notifiable electrical work to be carried out by a suitably qualified contractor registered with an approved national body. A formal completion certificate to be issued in compliance with current Part P building regulations and to satisfaction of inspecting authority surveyor
Note: all new lighting to be low energy type to client spec.*

***Structural Works:**
*See Engineer's design sheets for all structural beam etc information.
Note Contractor to assess bearing capacity of existing retained masonry to receive ends of new Beams and if necessary rebuild in bonded 7N/mm2 engineering quality concrete brick/ block to required bearing capacity beneath spreader pad stones to full satisfaction of inspecting authority.

Beam Schedule

Beam A : 203 x 133 x 30 UB S355

Beam B : 178 x 102 x 19 UB S355 (270x8mm steel plate welded to bottom flange)