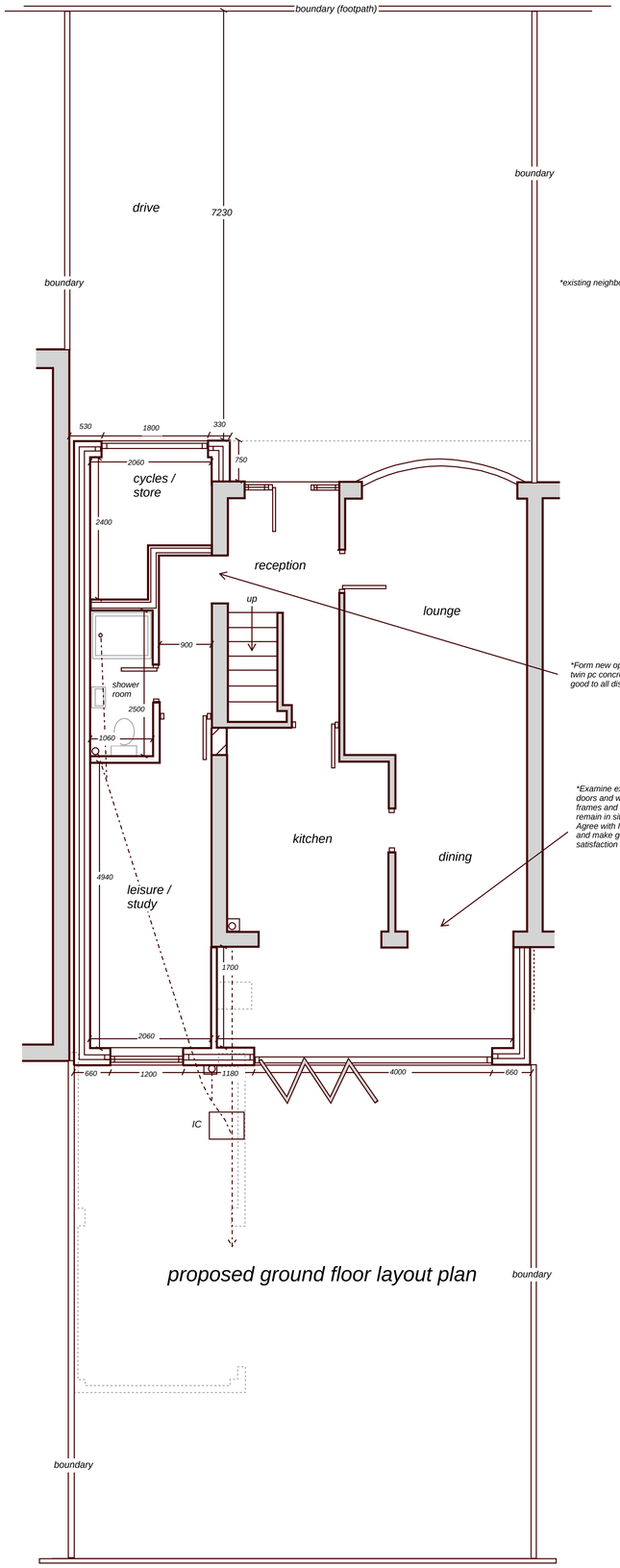
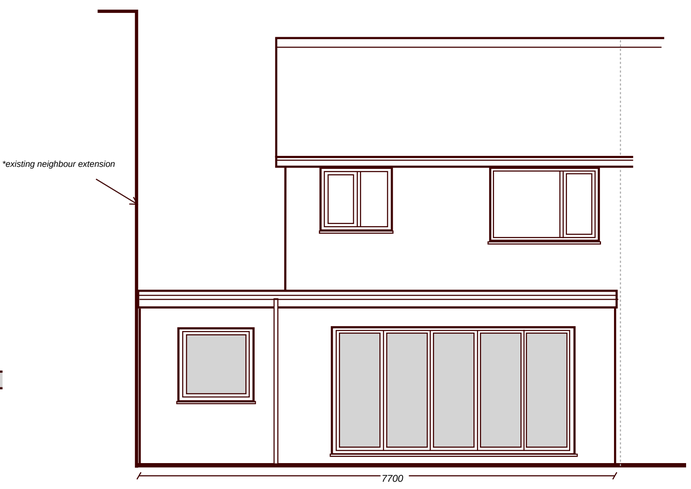


*Form new opening in to extension with twin pc concrete lintels over and make good to all disturbance.

*Examine existing lintels over both rear doors and windows prior to removal of frames and verify as fit for purpose to remain in situ as retained openings. Agree with Inspecting Authority Surveyor and make good to all disturbance to satisfaction of client.

proposed ground floor layout plan



proposed rear elevation



proposed front elevation

section view to drive

proposed side elevation at rear

****General Specification:**

***Preliminary Works:**
Client and nominated contractor to agree remedial work to adjacent gable wall with neighbour to remove overflow pipes and boiler flue outlet etc which will be obstructed by the proposed extension work.
Carefully demolish existing garage (shown dotted) at rear following health and safety guidelines and best practice and grub up floor and foundation etc. to reinstate garden area.
Make good to any boundary features and reinstate fencing etc with agreement of client and neighbour.
Examine existing drainage system and identify invert levels and flow direction etc.
Arrange to remove all rubble from site to approved tip facility.

***Walls (Extension):**
Maintain 50mm clear gap to boundary wall of neighbour extension
Selected faced brick to match existing (Exposed walls only - neighbour facing to be 100mm concrete block) 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.
Cavity walls to be closed at periphery with Thermabate or similar approved cavity closures to avoid cold bridging. 2000g horizontal and vertical dpc.
*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.

***Foundation to New Walls:**
Note - Ensure that excavation works do not undermine existing boundary gable wall and base of neighbour extension and if necessary carry out excavation in alternate bays of 1000mm length with continuous steel mesh as construction joint between pours allowing for trench filled concrete strip to full approval of inspecting authority surveyor.
Subject to prior exposure of existing house foundation and assuming traditional strip concrete base lay new 600x300mm concrete strip foundation at depth to suit sub soil bearing capacity and reinforced with 2 layers B503 steel mesh to full satisfaction of inspecting authority.
*New foundation to create no surcharge on drainage lines or existing foundations at any point.

***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.

***Wall between Cycle Store and Dwelling:**
This wall to achieve 30 minutes fire resistance plus max. 0.18 w/m2 U value viz:-
100mm block wall to store side with internal room lining wall of 100x50mm timber stud frame enclosing 100mm GA4000 between studs + 50 mm GA4000 lining and 12.5mm plasterboard finish (or similar approved insulation board to manufacturer specification).
*Extend partition wall up to underside of new roof deck over with tight dense rockwool packing to maintain fire break and thermal performance.

***Floor :**
Floor finish to client requirements (with under floor heating system to manufacturer spec. if required) with min 60mm screed or power float finish to 100mm concrete slab reinforced with A193 steel mesh 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 0.18 w/m2k

***New 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 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 Td 4000 with helical fixings to correct spec. and lay to fall 1:60 across 170x50mm sw C16 joists at 400mm max centres. Joists to be secured at wall with min 90mm bearing and anchored to external wall by approved galvanised restraint straps at maximum 1500mm centres. Ensure continuous up-stand (min 150mm) between flat roof membrane and adjoining walls to maintain weatherproof break to complete satisfaction of inspecting authority.
*Ensure that flat roof finish membrane is carried behind new front canopy tiles minimum 400mm on ply deck for secure weathering.
*This or similar construction to achieve max 0.15 w/m2K U-Value
*Note install built up fascia shown in pvc cladding.

***Feature Tiled Roof to Front:**
Profiled concrete single lap tiles to match existing fixed in place in accord with manufacturer specification and BS5534 on treated 25mm deep battens on approved breathable membrane over 150x47mm sw C16 rafters at 450mm centres birds-mouthed and screwed through truss type steel clips to continuous 100x75mm sw wall plate anchored to front supporting wall by galvanised ms straps at max.1500mm centres. Rear rafters to be secured to doubled flat roof joists bolted together at maximum 600mm centres using dog tooth steel washers.
Flat roof insulation to carry through new ceiling void.
Extend tiled roof over existing bay to replace existing flat roof finish and incorporate insulation as for main roof spec throughout.
Replace existing gallows bracket supports as necessary to each side of existing bay window.
*Ensure that flat roof finish membrane is carried behind new tiles minimum 400mm on ply deck for secure weathering.

***Fenestration:**
Install high performance double glazed upvc units to match existing style and to client requirements using Pilkington Low E 'k' glass and min 25mm cavity – max 1.60 w/m2 k U-Value
Opening casements to represent minimum 5% of adjacent floor as natural vent plus min 10000mm2 trickle ventilators to head of frame. (Note floor area to include existing dining room)
Ensure that all doors and critical window areas are fitted with laminated or toughened safety glazing compliant with current BS:EN:12150.

***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 local authority surveyor
*Note: all lighting to be low energy type to client spec.
*Install sockets to extension area to requirements of client and provide co-axial and satellite ports if needed.
*Install a mains operated inter-linked smoke alarm system with battery back up to circulation areas and critical locations in compliance with BS5839 and to satisfaction of inspecting authority surveyor

***Heating:**
Any extended space heating to be to the full requirements of manufacturer and Building Regulations and subject to installation by a suitably qualified heating engineer following assessment of existing heating etc system. Install thermostatic control valves as necessary. Reposition boiler and flue to utility area in full compliance with GasSafe standards and Building Regulations Part J etc.

***Ventilation:**
Natural ventilation from opening casements plus install mechanical extract fan to new kitchen etc area set to achieve min 60 litres/sec extract rate (30 litres/sec if over cooker hood). Similarly provide mechanical air exchange ventilation to new shower room set to achieve 15 litres/sec rate operated by light switch with override in conjunction with 25mm gap under door to provide replenishment air.

***Drainage:**
Provide new drainage layout to service the new shower room area with 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 highest fittings to full satisfaction of inspecting authority surveyor.
Shower waste to discharge to accessible 100mm running trap with branch connection to main drain run as shown.
Lay new 100mm pvc drains under new extension directly to repositioned external inspection chamber at rear as shown 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.

***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 neighbours and any disturbance to existing structures to be made good to satisfaction of all parties.
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Proposed Single Storey Side and Rear Extension at 18, Mill Close, Caverswall, Staffs. ST11 9HA

Scale 1-50 (A1) - proposed layout Dwg ref MC2c May 2022

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