General notes

Windows.
Upvc double glazed 22mm gap K-glass giving 1.4 U-value.
Habitable room windows (living rooms and bedrooms) to provide 1/20th floor area ventilation and 8,000sq.mm trickle vent.
Kitchen/ living area to have at least three 8,000sq.mm trickle vents.
Bathroom window to have some part openable and 8,000sq.mm trickle vent.
Glazing in doors, adjacent panels and elsewhere within 800mm of floor to be marked safety glass.

Water supply.
Blending valves to be provided to ensure that water temperature at taps does not exceed 48degC. Hot taps on left.

Mechanical ventilation.
Kitchen fan capacity 30 litres per second housed in hood over hob.
Utility fan capacity 30 litres per second with facility for 15 minute overrun after light switched off.
Bathroom fan capacity 15 litres per second.
All ducted to grilles externally.

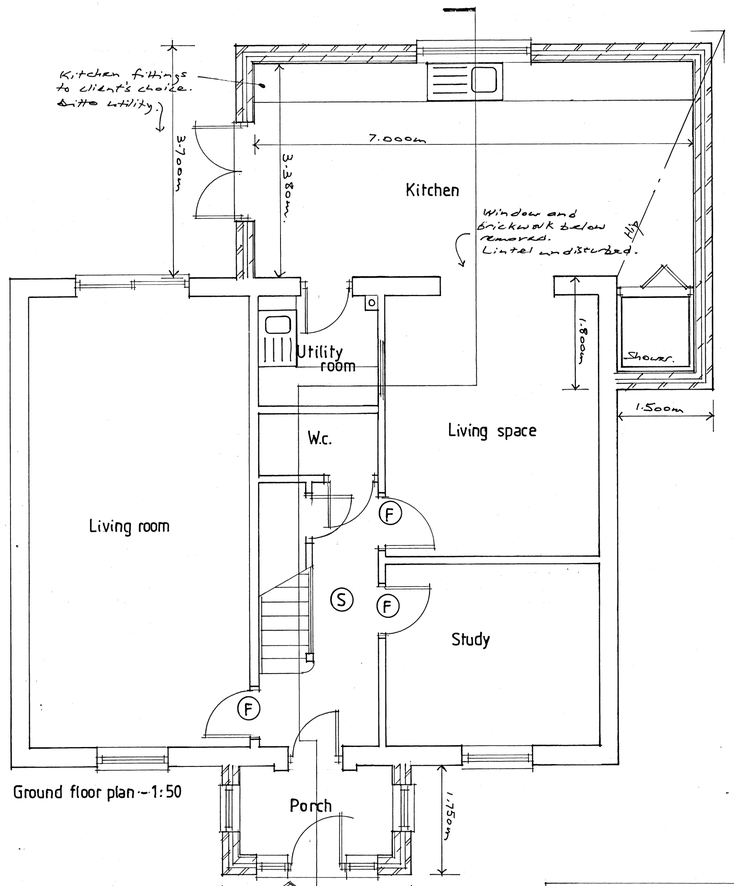
Above ground drainage.
100mm wc branch, 32mm whb waste and 38mm shower waste all connected to svp raised in height and fitted with balloon cage terminal min 900mm above highest openable window within 3m horizontally.

Below ground drainage.
Full investigation of existing drainage arrangements is required before or as work is beginning.
New drainage to be 100mm dia flexibly jointed plastic pipes at 1:60 fall and bedded in pea gravel.
Any drains under building to be suitably protected and lintelled over where passing through walls.
Rodding access points and inspection chambers to be provided as necessary.

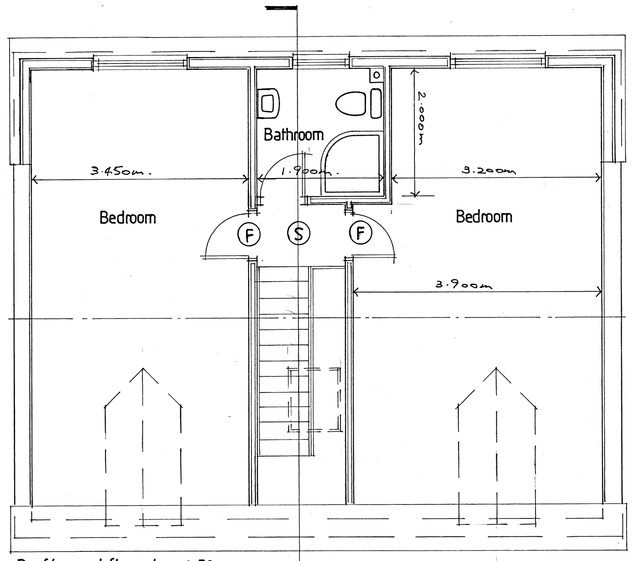
(S) Indicates interconnected mains powered smoke alarms.

(F) Indicates 20 minute fire resisting doors, or existing doors upgraded if deemed appropriate by use of Antifire intumescent paint applied in accordance with manufacturer's specification, plus upgrading of architraves if necessary.

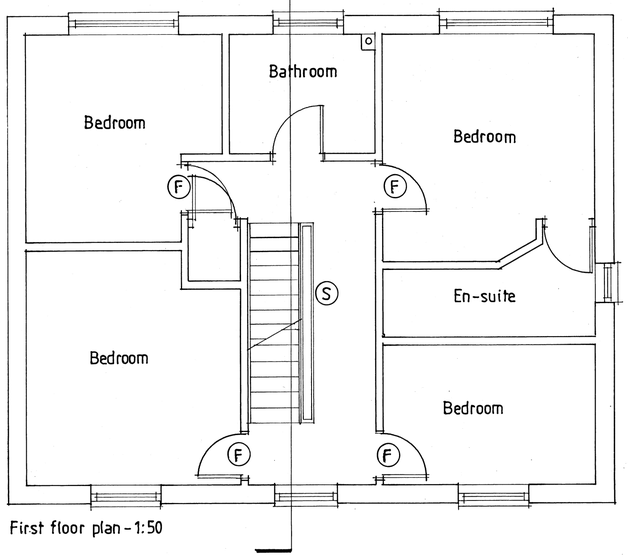
Electrical work.
Full installation to be by Part P qualified electrician.



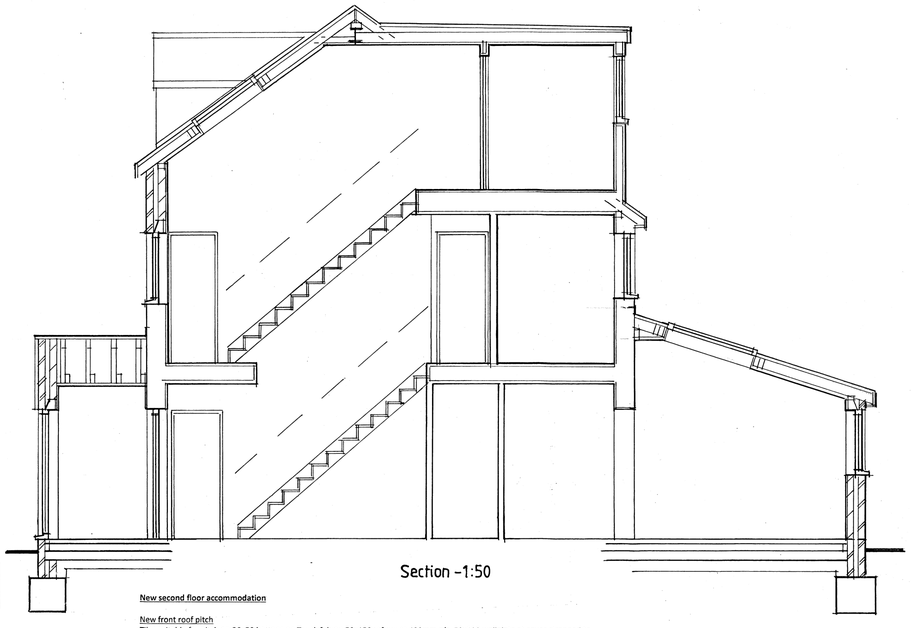
Ground floor plan - 1:50



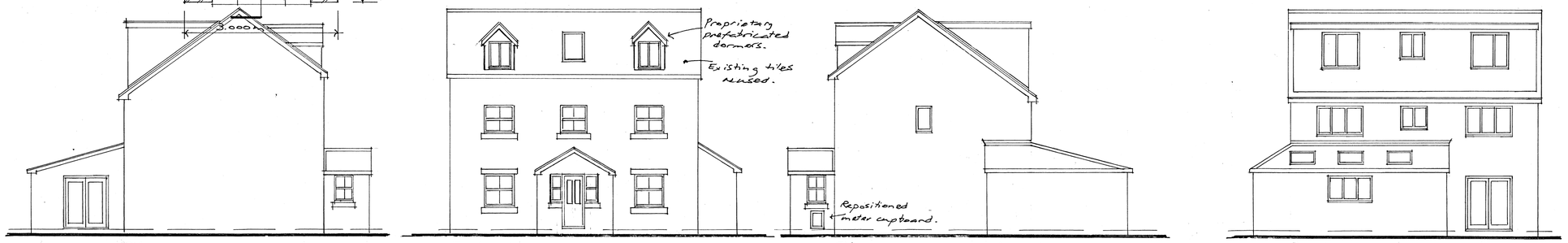
Roof/second floor plan - 1:50



First floor plan - 1:50



Section - 1:50



Side Front Side Rear

Elevations - 1:100

Scale bar - 1:100.

Scale bar - 1:50

New second floor accommodation

New front roof pitch
Tiles suitable for pitch on 38x50 battens on Tyvek felt on 50x150 rafters at 400mm c/c. 50x100 wallplate at eaves strapped to walls at 2m max c/c using proprietary lateral restraint straps. End three rafters bolted to gables ditto.
Double rafters and trimmers to form structural opening for Velux rooflight and prefabricated dormers.
125mm Kingspan Kooltherm K107 Pitched Roof Board infill, 13mm ply diaphragm under, screwed to rafters, with 52.5mm Kingspan Kooltherm K118 insulated plasterboard and skim finish.

Rear dormer walls
50x100 timber studding with vapour barrier and 12.5mm plasterboard and skim internally.
100mm Kingspan insulation infill.
Vertical tile hanging externally on 38x50 horizontal battens on 38x50 vertical battens on Tyvek felt on 18mm exterior quality ply screwed to timber studding.
12.5mm Fireline board to dormer cheek facing boundary.

Raising of front and part gable walls
Facing brick outer leaf and 100mm thermal block internally with cavity to match existing, and Dritherm cavity insulation infill.
Cavity ties at 750mm c/c horizontally and 450 vertically and at every course adjacent window opening.
12.5mm plasterboard and skim internal lining, or, if necessary to achieve suitable additional insulation, 50x75 battens plugged and screwed to wall internally on Hy-load dpc, 75mm Kingspan insulation infill, 12.5mm plasterboard and skim.

Internal partition walls.
50x100 timber studding with 50mm mineral wool quilt infill and 12.5mm plasterboard and skim both sides.

New second floor.
19mm t&g boards on new floor structure to be considered further by structural engineer.
100mm Rockwool quilt supported by chicken wire nailed to sides of joists. Rockwool to extend over existing ceiling tight to wallplate.

Staircase.
Total rise = 2.75m (check during construction) / 13 risers of 212mm x 235mm going. Min 2m vertical headroom above pitch line. Balustrade 900mm high above pitch line and landing, with vertical balusters spaced to prevent the passage of a 100mm diameter sphere.

Rear extension

Pitched vaulted roof.
Tiles suitable for pitch on 38x50 battens on Tyvek felt on 50x150 rafters at 400mm c/c. 50x75 wallplate at top of pitch bolted to house wall. 50x100 wallplate at eaves strapped to walls at 2m max c/c using proprietary lateral restraint straps. End three rafters bolted to gables ditto.
Double rafters and trimmers to form structural opening for Velux rooflights to client's choice.
125mm Kingspan Kooltherm K107 Pitched Roof Board infill, 13mm ply diaphragm under, screwed to rafters, with 52.5mm Kingspan Kooltherm K118 insulated plasterboard and skim finish.

External walls.
100mm thermal block inner leaf with 12.5mm plasterboard and skim dry lining/ 100mm cavity with 90mm Kingspan Kooltherm K106 cavity insulation board with 10mm residual cavity to outer leaf/ facing brick outer leaf to match existing.
Alternatively 150mm cavity with 150mm Dritherm insulation full fill.
Cavity ties at 750mm c/c horizontally, 450 vertically and at every course adjacent windows.
Insulated Catnic or other approved lintels over windows.

Ground floor.
Finish to clients' choice on 50mm sand/ cement screed on 100mm concrete slab on 1200gauge polythene membrane on 100mm Kingspan Kooltherm 103 floor insulation, including 50mm perimeter upstand, on a further membrane, this turned up walls and lapped into new and existing dpc's, on 100mm well consolidated sand blinded hardcore.

Foundation.
Two leaves of brickwork or foundation blockwork below dpc with weak mix cavity fill to within 225mm of dpc.
600mm wide mass fill concrete min 1m below ground but final depth and design to be determined on site by agreement with BCO after full consideration of ground conditions, existing and new drainage, proximity of trees etc.

Client: Dr.Tarek Elmagarbi.

Job: **Loft conversion & enlargement of roof structure. Rear/side extension and porch.**

Address: 2 Bryn Coch, Wrexham, LL11 3DN

Drawing: 5802/2 As proposed

Date: 17th February, 2025

Scale: As stated @ A1

Drawn by: CWJ

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