WARM PITCHED ROOF
Pitch 22-45° (imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²)
To achieve min U-value required of 0.15 W/m²K
Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1:2004 Eurocode 5: Design of timber structures (+A2:2014). Roofing tiles to match existing fixed to tile battens secured over breathable felt to relevant BBA Certificate allowing the breather felt to sag at least 10mm over preservative-treated counter battens (min 38mm x 50mm). Provide 100mm Celotex GA4000 insulation boards under the counter battens and 40mm Celotex TB4000 between 47 x 150mm timber rafters strength class C24 at 400 c/c – to give a max 3.47m span. A vapour control layer should be provided to the underside of the rafters. Finish with 12.5mm plasterboard and skim. Provide cavity tray where roof meets existing wall. Restraint strapping - Ceiling joists tied to rafters (if raised collar roof consult Structural Engineer). 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1200 x 30 x 5mm galvanized straps or other approved to BS EN 845-1 (+A1:2016) at 2m centres.

WARM FLAT ROOF
(imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²)
To achieve U value 0.15 W/m²K
Flat roof covering to be single ply roofing membrane with BROOF(t4) fire rating in accordance with BS EN 13501-1:2018 and with a current BBA or other approved accreditation. Roof covering to be laid in compliance with manufacturer's details by flat roofing specialist. Single ply membrane to be fixed to 18mm exterior quality plywood (if required by manufacturer) over 150mm Unilin FR/MG insulation. Insulation bonded to vcl on 18mm external quality plywood decking or similar approved on sw firings to minimum 1 in 40 fall on sw treated 47 x 145mm flat roof C24 timber joists at 400mm ctrs to give a max span of 3.22m or as Structural Engineer's details and calculations. Fix 12.5mm plasterboard over vapour barrier to underside of joists, finish a with plaster skim. Provide cavity tray where new roof abuts existing house. Provide restraint to flat roof by fixing of 30 x 5 x 1200mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.

PITCHED ROOF VENTILATION
Maintain a 50mm air gap above insulation in the roof pitch to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation.

FLAT ROOF VENTILATION
Cross-ventilation to be provided on opposing sides by a proprietary eaves ventilation strip equivalent to 25mm continuous with fly proof screen. Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a 50mm air gap above the insulation for ventilation.

LEAD WORK AND FLASHINGS
All lead flashings, any valleys or soakers to be Code 5 lead and laid in accordance with BS 5534 and BS EN 12588. Flashings to be provided to all jambs and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc.

LEAD VALLEYS
Lead-lined valleys to be formed using Code 5 lead sheet. Valley lead and two tiling fillets to be supported on min 19mm thick and 225mm wide marine ply valley boards on either side of the rafters. Lead to be laid in lengths not exceeding 1.5m with min 150mm lap joints and be dressed 200mm under the tiles. Roofing tiles to be bedded in mortar placed on a tile slip to prevent direct contact. Valley to have a minimum 100mm wide channel (125mm minimum for pitches below 30°). All work to be in accordance with the roof cladding manufacturer's details and BS 5534 and BS EN 12588.

ROOF LIGHTS
Min U-value of 2.2 W/m²K.
Roof-lights to be double glazed with16mm argon gap and soft low-E glass. Roof lights to be fitted in accordance with manufacturer's instructions, with rafters doubled up to sides and suitable flashings provided.

RAINWATER DRAINAGE
New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill.
SOAKAWAY USING CRATES
Trench of soakaway to be provided slightly largely than designed depth after porosity test (if required), but a minimum of just over 1 cubic metres from invert level of pipe. Line the trench with suitable geotextile and provide a compacted bed of coarse sand to base. Install AquaCell crate units or equivalent as manufacturer `s details. Geotextile to be wrapped around crates. Provide 100mm of coarse sand between the trench walls and over the AquaCell structure. Backfill with suitable material.

UNDERGROUND FOUL DRAINAGE
Underground drainage to consist of 100mm diameter UPVC proprietary pipework to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1 (+A1:2023).

INSPECTION CHAMBERS
Underground quality proprietary UPVC 450mm diameter inspection chambers to be provided at all connections, changes of level, changes in direction, and every 45m in straight runs. Inspection chambers to have bolt down double sealed covers in buildings and be adequate for vehicle loads in driveways.

ABOVE GROUND DRAINAGE
All new above ground drainage and plumbing to comply with BS EN 12056-2 for sanitary pipework. All drainage to be in accordance with Part H of the Building Regulations.
Wastes to have 75mm deep anti-vac bottle traps and rodding eyes to be provided at changes of direction. Size of wastes pipes and max length of branch connections (if max length is exceeded then anti-vac traps to be used).
Wash basin - 1.7m for 32mm pipe 3m for 40mm pipe.
Bath/shower - 3m for 40mm pipe 4m for 50mm pipe.
WC - 6m for 100mm pipe for single WC.
All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m.
Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.
Waste pipes not to connect on to SVP within 200mm of the WC connection.
Supply hot and cold water to all fittings as appropriate.

EXTERNAL SURFACE WATER DRAINAGE
Drainage of paving areas to be carried out in accordance with BS EN 12056-3:2000 and Approved Document H.
Hard surfaces around the building should be provided with a proprietary non slip permeable surface laid to manufacturer's details and in compliance with BS EN 1338:2003, to allow adequate drainage.
or be provided with a non slip surface and cross fall of 1:40 – 1:60 draining away from the building (for a minimum of 500mm) to a suitable soakaway.
Paths, driveways and other narrow areas of paving should be free draining away from any buildings to a pervious area such as grasslands or to a suitable soakaway.

SOIL AND VENT PIPE
Svp to be extended up in 110mm dia UPVC and to terminate min 900mm above any openings within 3m. Provide a long radius bend at foot of SVP.

ROOF SPECIFICATION



8.1.01
Marley Hawkins Clay Plain Roof Tiles Staffordshire Blue



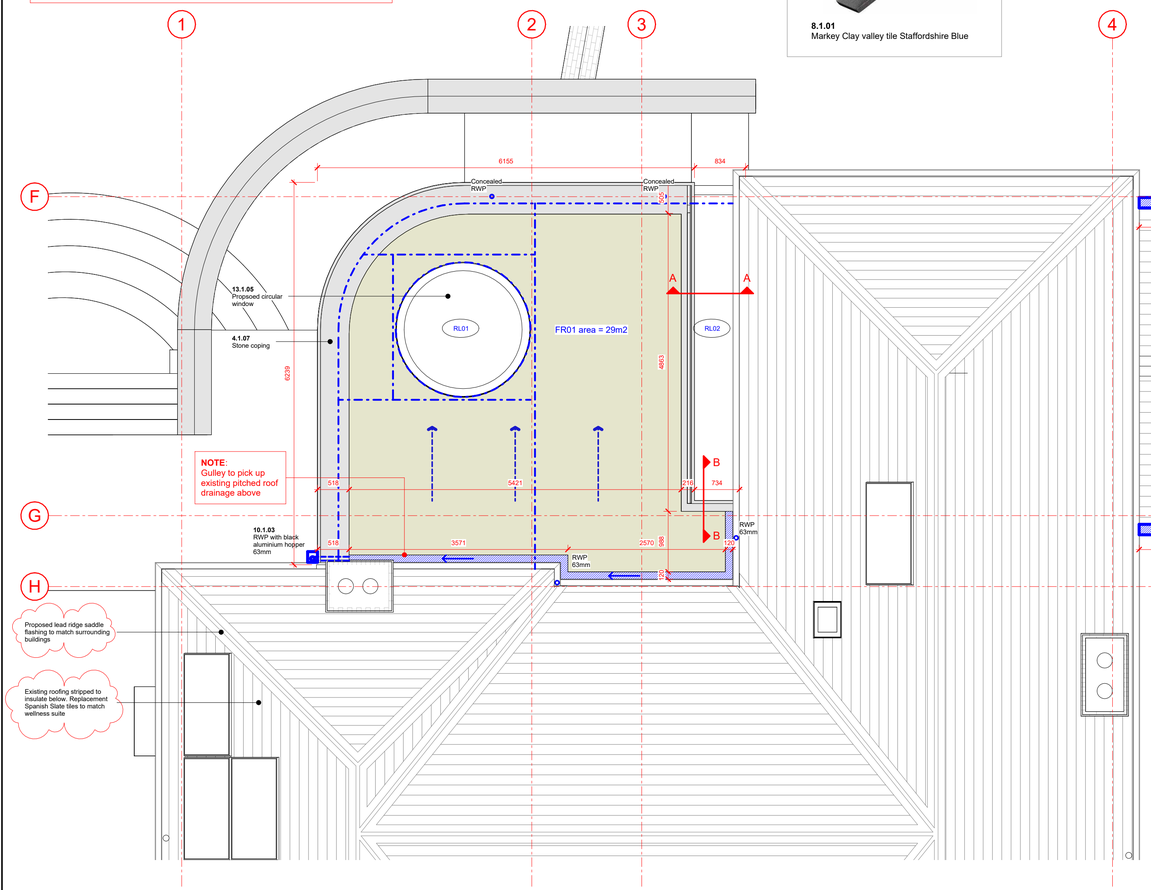
8.1.01
Marley Clay 450mm Capped Angle Ridge Staffordshire Blue



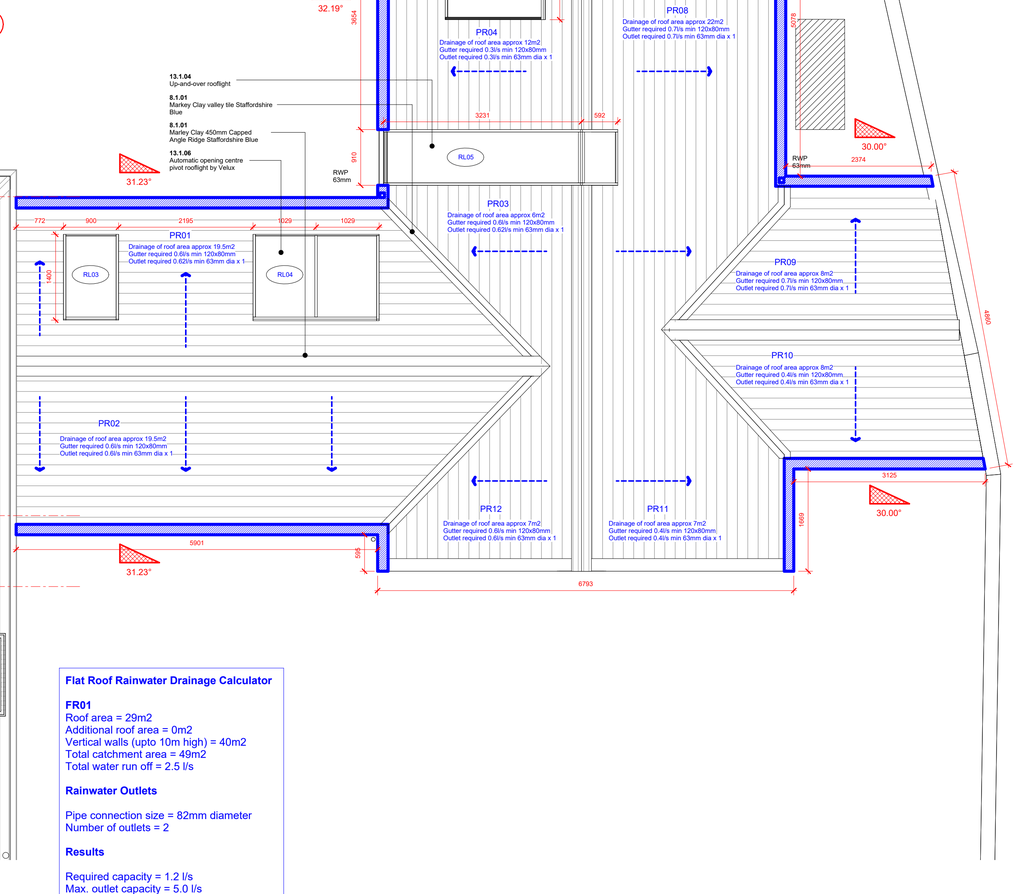
8.1.01
Marley Clay Arris Hip Tiles Staffordshire Blue



8.1.01
Markey Clay valley tile Staffordshire Blue



1 PROPOSED ROOF PLAN
1 : 50



Flat Roof Rainwater Drainage Calculator

FR01
Roof area = 29m2
Additional roof area = 0m2
Vertical walls (upto 10m high) = 40m2
Total catchment area = 49m2
Total water run off = 2.5 l/s

Rainwater Outlets

Pipe connection size = 82mm diameter
Number of outlets = 2

Results

Required capacity = 1.2 l/s
Max. outlet capacity = 5.0 l/s
Max. drainage area per outlet (m2) = 98.0m2
Additional safety margin = 75%

© COPYRIGHT

The copyright in this drawing is vested in Space AP and no license or assignment of any kind has been, or is, granted to any third party whether by provision of copies or oginals of the drawings or otherwise unless otherwise agreed in writing.

DO NOT SCALE FROM THIS DRAWING

The contractor shall check and verify all dimensions on the site and report any discrepancies iwriting to Space AP before proceeding with work.

FOR ELECTRONIC DATA ISSUE

Electronic data / drawings are issued as "read only" and should not be interrogated for easurement. All dimensions and levels should be read, only from those values stated n text, on the drawing.

AREA MEASUREMENT

The areas are approximate and can only be verified by a detailed dimensional survey of th completed building. Any decisions to be made on the basis of these predictions, whether as to project viability, pre-letting, lease agreements or the like, should include due allowance for the increases and decreases inherent in the design development and building processes. Figures relate to the likely areas at the building at the current state of the design and using the Gross External Area (GEA) / Gross Internal Area (GIA) / Net Internal Area (NIA) method of measurement from the Code of Measuring Practice, 5th Edition (RICS Code of Practice). All areas are subject to Town Planning and Conservation Area Consent, and detailed Rights to Light analysis.

A1

Key:

Site boundary	
Direction of roof fall	
10.1.01 Black aluminium gutter	
10.1.03 RWP with black aluminium hopper	
Rainwater pipe	
SVP	

NOTE:
Drawing to be read in conjunction with structural engineer's drawings

REV	DATE	AMENDMENT
A	04.06.25	PLANNING AMENDMENT TO ROOF TILES
-	08.04.25	CONSTRUCTION ISSUE

KEY PLAN

TITLE
STENNER BROW
STENNER LANE, DIDSBURY,
M20 2RQ

LOGO

SPACE | ARCHITECTURE+PLANNING
THE OLD TOWN HALL | LAPWING LANE | DIDSBURY

LOCATION M20 2NR
PHONE +44 (0) 161 713 2718
WEBSITE www.spaceap.com
E-MAIL info@spaceap.com

DRAWING
PROPOSED ROOF PLAN

SCALE@A1	DATE	ORIGINATOR	CHECKED	AUTHORISED
1 : 50	230926	Author	Checker	SPT

STATUS
CONSTRUCTION

DRAWING NO.
0206_ 20_202

REV
A