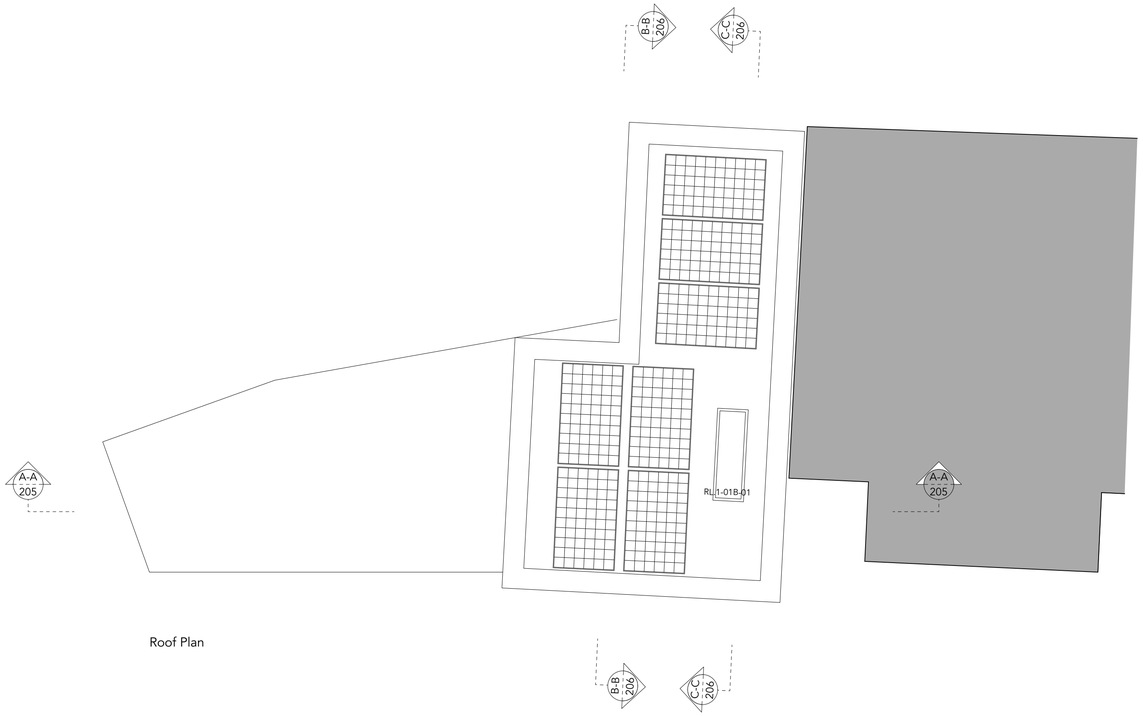

Roof Plan

2.0 External Walls to New House:

2.1
At ground floor, all new external walls are to be constructed using cavity walls, with a different external finish as shown on the plans and elevations.

Wall Type 01:
Walls to have 100mm Masterdenz, medium density (7.3 N/mm^2) medium density concrete blocks from Aggregate Industries outer leaf, with Blue engineering bricks below DPC. to have Trespa Meteon Cladding panel, cut from 3050 x 1530mm panels, with timber veneer finish, colour / type to be confirmed, secretly fixed on aluminum support system as recommended by Trespa. Form 125mm full fill cavity as PIR thermal insulation board 115mm thick Eco-Cavity Board by EcoThem with all joints taped leaving a 10mm wide clear cavity, to be installed in accordance with manufacturer's information. Inner leaf formed using 100mm thick H & H Celcon 'Standard' grade (7.3 N/mm^2) aircrete blocks unless otherwise specified by the Structural Engineer. Density range = 600 - 800kg/m^3. To be finished with 15mm hardwall plaster with 2.5mm Thistle multi-finish, finish to Client's specification. Bathrooms and Shower rooms are to receive a 9mm sand and cement render to the inside face where they have a tiled finish.

Wall Type 02:
Walls to have Blue engineering bricks with coloured mortar externally. Form 125mm full fill cavity as PIR thermal insulation board 115mm thick Eco-Cavity Board by EcoThem with all joints taped leaving a 10mm wide clear cavity, to be installed in accordance with manufacturer's information. Inner leaf formed using 100mm thick H & H Celcon 'Standard' grade (7.3 N/mm^2) aircrete blocks unless otherwise specified by the Structural Engineer. Density range = 600 - 800kg/m^3. To be finished with 15mm hardwall plaster with 2.5mm Thistle multi-finish, finish to Client's specification. Bathrooms and Shower rooms are to receive a 9mm sand and cement render to the inside face where they have a tiled finish

2.2
Dpc's to be leadcore and built in 150mm above finished ground level where possible. Where doors are flush with ground, build in additional dpc and cavity tray as detailed to prevent the ingress of water or damp. Cavities to be closed at reveals using Thermobate cavity closers, type to suit cavity width. At specific junctions an insulated dpc will be more appropriate, please refer to the detailed drawings for further information.

2.3
Contractor to build-in movement joints into wall constructions with maximum lengths of blockwork to be 6.0m and maximum lengths of brickwork to be 12.0m. Joints in cavity wall construction must not be in line, with minimum offset of 450mm. Build in as expansion joint where new walls join to existing. Use Grace Aerofil 1 low density, compressible, closed cell polyethylene filler for the joint, installed in accordance with the manufacturers instruction. Outer waterproofing of joint to be through using Grace Vertiseal two part cold applied polysulphide sealant as recommended by the manufacturer. Colour to be agreed.

2.4
Contractor to use Eurocode 6 - BS EN 845-1:2013 as Ancon Staifix RT2 wall tie. Use the 275mm long tie which is suitable for 126-150mm cavities (125mm here).

2.5
Contractor to use steel lintels from Steelway / Catnic Lintels or as directed by the Structural Engineer for each location. Each will vary due to size of opening and load over. Dress dpc / cavity tray over all lintels in cavity walls.

2.6
Use Ryton Rytweep weepholes at 900mm centres over lintels, cavity trays and dpcs where linked to trays. Colour to be agreed and to have 10x10mm outlet and not a full perp.

2.7
Build in all windows and doors as works progress. Types to comply with Building Regs and necessary U-Values for specified. To include all necessary vapour checks and dpcs to prevent ingress of water and to ensure air leakage for the new dwelling complies with the current Building Regulations.

2.8
At first floor wall type 02 is also used in places, but note that the blue engineering bricks may be swapped with Masterdenz blocks where tight to the adjoining building in areas that can not be seen. The main wall at first floor to be as:

Wall Type 03:
Walls to have internal lining of 52.5mm insulated plasterboard with integral vapour check built in. To be secured to 12mm WBP plywood lining on the inside of 150mm stud wall, with studs at max 400mm centres and Ecotherm insulation between. 22mm external sheathing using external quality WBP plywood, with Tyvec Breather membrane for rain screen applications applied. Fix 32x50mm vertical impregnated battens at max 600mm centers with same battens horizontal at max 400mm centres and secret fix Millboard 181mm wide Envelo Cladding boards fixed vertically, secretly fixed in accordance with the manufacturers instructions. Fix Millboard 50x32mm Flexible Edging / batten fixed over cladding boards at approx. 90.5mm C/C to cover joints plus one central in cladding board. All Secretly fixed in accordance with the manufacturers instructions.

Please refer to Structural Engineer's Foundation Plan and related drawings for the New House

2.10
We have indicated the use of Smart Systems powder coated aluminium windows, doors and entrance door system, but contractor may put forward preferred supplier of aluminium windows for consideration as part of the tender process.

3.0 Internal Walls:

3.1
New internal walls to be formed in metal or timber stud construction. Drawings show 70mm Steel studs, please use 89x44mm studs if timber, at 400mm centres. To have Rockwool sound deadening quilt between studs as shown. Either side of wall, clad with 12mm plywood, 12.5mm wall board (moisture resistant on any 'wet' room side) and 2.5mm skim coat Thistle Multi Finish. Where wall is to be tiled, the skim coat will not be required. Studs to have head and sole plates together with mid point bracing to make walls as rigid as possible.

3.2
Contractor to build block walls at ground floor to be supporting and built off new foundations as shown. All to be in accordance with the engineers specifications. Walls to receive 2 coat plaster finish.

3.3
Contractor to build in new skirtings to all rooms without tiled walls and install internal doors with linings and architraves as illustrated in the door schedule, with skirtings and architraves in matching style, all as shown on the 300 series drawings. All new doors to be solid core and where shown on the schedule to have fire rating stated.

4.0 Ground Floor Construction to New House

4.1
Ground conditions will need to be assessed once the contractor is on site, but at this stage it is assumed that the new ground floor can be ground bearing construction rather than suspended.

4.2
Form new ground floor slab using 225mm well compacted hardcore with a 50mm sand blinding over. 150mm concrete slab reinforced with A142 mesh or as otherwise directed by the structural engineer and built in accordance with the architects details.

4.3
Install min. 80mm reinforced sand and cement screed in accordance with the suppliers instructions. Lay in underfloor heating system to the areas indicated on the services drawings.

4.4
Under this will be 120mm Kingspan Kooltherm K3 Floor insulation with perimeter insulation upstand against wall construction around top screed layer as shown. Insulation is to be laid over 1200 gauge polythene DPM on the concrete floor and lapped & taped or linked to the dpc's in the walls. Build dpc's under all new internal partitions with the DPM under and / or continuous.

4.5
Floor finishes vary so please refer to finishes drawings. Screed levels may therefore need to vary between rooms to account for the variation in thickness of each floor finish, so that all floors are flat and level once installed.

5.0 First Floor Construction to New House

5.1
As above, the floor finishes vary depending on location with tiling to Bathroom Engineered wood floor to most other areas, max. 15mm thick. All final selections to Clients finishes Information. Allow expansion zone under skirting for timber floors.

5.2
Lay Nu Heat Lo-Pro Max refurbishment type under floor heating to all areas not covered with built in furniture or sanitaryware, linking back to manifold in an agreed location.

5.3
Decking over joists to be formed using 22mm Impregnated flooring, suitable for wet areas, which is to be separated from the joists using self adhesive Regupol 3912 Isolation Strips fixed to top of joists to provide acoustic separation.

5.4
Build in 100mm Rockwool Flexi Sound insulation tight under plywood decking and between joists as shown with 25x32mm impregnated battens fixed to hold the insulation in place.

5.5
New floor to be formed using 47x195 impregnated joists as specified by the structural engineer, at max 400mm centres

5.6
50x50mm impregnated battens to be fixed to underside of joists at max 400mm centres to form cable routes and allow service void for lighting etc. with ceiling formed using 12.5mm plasterboard with skim coat finish.

6.0 Works to Roof of New House

6.1
Flat roof areas to each level to be formed slightly differently, with a green roof over the ground floor roof and a standard flat roof over first floor to allow for Photovoltaic panels to be fitted. to be formed using.

Roof Finish Type 01 (First Floor):
Use Sika Therm PIR Tapered insulation, pre-cut if possible to form min 1:80 falls on roof, with min depth at gutter being 50mm. Roof covering to be Sarnafil Single Ply membrane roofing fixed to receive min 15 year guarantee, by specialist contractor, in accordance with the manufacturers recommendations. Final colour of the Sika finish to be agreed with the client prior to installation.

Roof Finish Type 02 (Ground Floor):
Use Sika Therm PIR Tapered insulation, pre-cut if possible to form min 1:80 falls on roof, with min depth at gutter being 50mm. Use SikaBit Pro T240-RT torch on root resistant cap sheet, over Pro SA-940 Torch on Self Adhesive Mineral Cap sheet over SikaBit Pro SA-730 Self adhesive underlay, with all installed strictly in accordance with the manufacturers instructions. On top use SikaRoof P-225 Protection Fleece installed strictly in accordance with the manufacturers instructions and SikaRoof rigid drainage layer 20 with integral 2mm thick filtration layer. Fix SikaRoof 50mm deep Extensive Growing Medium / substrate and install SikaRoof Sedum Blanket. To edges and gutter areas use SikaRoof River Stone 20/40 nominal 300mm wide ballast border.

Gutter behind parapet to be formed at 1:120 falls towards hopper outlets - min depth 50mm.

Final colour of the Sika finish to be agreed with the client prior to installation.

Green Roof as specified for the Construction of this project

Roof Structure to both levels:

Build on 22mm external quality WBP plywood decking over 47x195 impregnated joists as specified by the structural engineer, at max 400mm centres, with edge joist bolted to wall and solid noggins between as shown at max 400mm centers. Fit 120mm Ecotherm insulation tight under plywood decking and between joists with 25x32mm impregnated battens fixed to hold the boards in place. To underside of joists build in Tyvec vapour check and 12.5mm plasterboard to form ceiling with tapered, taped and scrimmed joints, all with skim coat plaster finish.

6.2
Build in sloping and opening glass roof light in the new flat roof above the staircase as indicated on the drawings. This is to be double glazed as a minimum and to be as specified and detailed on the Architects 300 Series drawings. Rooflights to be installed in accordance with the manufacturers instructions. Rooflight to have electronic opening, electronic blinds and a rain sensor to close if needed during heavy rainfall.

6.3
Roof finishes to be turned up rooflight kerb and parapet walls to all edges by min 150mm, with code 4 lead flashing over, all tucked under copings. Copings to edge of roof to be as produced by Alumasc powder coated to the same colour as the new window and door frames and installed over DPC and Ecotherm insulation in accordance with the manufacturer's instructions and the architects 300 series drawings.

6.4
Where photovoltaic panels are fixed, including cable connections through structure, contractor to ensure that all areas remain watertight.

7.0 Joinery and Fit Out items

7.1
All internal doors are to be solid core, and to be as detailed on the door schedule. Final selection of style and finish to be agreed with client. Doors to habitable rooms and kitchen / dining leading to stairs or hall are to be 30/30 fire doors.

7.2
All rooms (unless tiled) are to be finished with softwood skirtings and door architraves with the same profile, all as Architects 300 series drawings. Exceptions will be in wet rooms where floors are tiled as these should have a tiled skirting. Window boards generally to be 22mm softwood, but to be tiled in bathrooms.

7.3
Build ducting and false walls as shown on the plans, mainly in bathrooms. In bathrooms, ducts to be finished to match walls. Tops on half height ducts to be tiled. Allow for access to wc cisterns and rodding points etc.

7.4
All new bathroom appliances / sanitaryware to be installed in accordance with the manufacturers instructions. Choice of items all as shown on the Architects 500 Series drawings or otherwise agreed with client.

7.5
Build in kitchens and appliances in accordance with the manufacturers instructions. Choice of items and final kitchen designs are shown on the Architects 500 Series drawings. Contractor to liaise with Kitchen supplier to finalise all preparation and service supplies etc.

8.0 Miscellaneous Specification items

8.1
Build in Hepworth slot drain or similar with link to the surface water system across the rear door openings to help take water away from building.

8.2
Build cycle store in rear garden as shown, with cladding to match the ground floor of the new house and a green roof to match the new garden room described elsewhere.

8.3
Build new refuse and recycling store within entrance porch as shown on the drawings and details produced and full compliance with the planning permission granted.

8.4
Build in timber staircase between floors as detailed on the Architects 400 Series drawings and in full compliance with Part K of the Building Regulations.

8.5
Allow for hanging rails and 2 no: full width shelves to stores on First Floor and 2 No: shelves for that at Ground Floor.

8.6
Allow for new services to have external meters, hidden in bin stores if possible and for bringing the services into the new home. Contractor to help liaise with the service providers - electric, gas, telephone, cable and water.

General Notes:

Do not scale from this drawing.

All dimensions are to be checked on site by the contractor prior to preparation of shop drawings, fabrication of parts, ordering materials or commencing the works.

This drawing is to be read in conjunction with all other consultants and specialist suppliers drawings, specifications and schedules.

If the project is deemed notifiable for CDM, work must not start on site before a construction phase health and safety plan is in place and the HSE have been notified.

Asbestos based materials: Report immediately to the Architect any suspected asbestos materials discovered during demolition / refurbishment work to enable identification by a specialist to be carried out. Avoid disturbing such materials and stop work until material has been identified and removed or encapsulation has been carried out by a licensed contractor.

No.	Date	Issue Notes	Drawn/Checked

42 Bancroft Avenue, Hornsey, London, N2 0AS

Working Drawing

SM12 ARCHITECTS
W: www.sm12architects.uk I E: mail@sm12architects.uk I T: 02071832900

Drawing title:	Date:	Scale:
(House) Roof Plan	November 2022	1:50 @ A1 1:100 @ A3
	Drawn by: gg / Checked by: mb	Purpose: Preliminary
	Drawing Number: A503 / WD / 203	Revision: 1