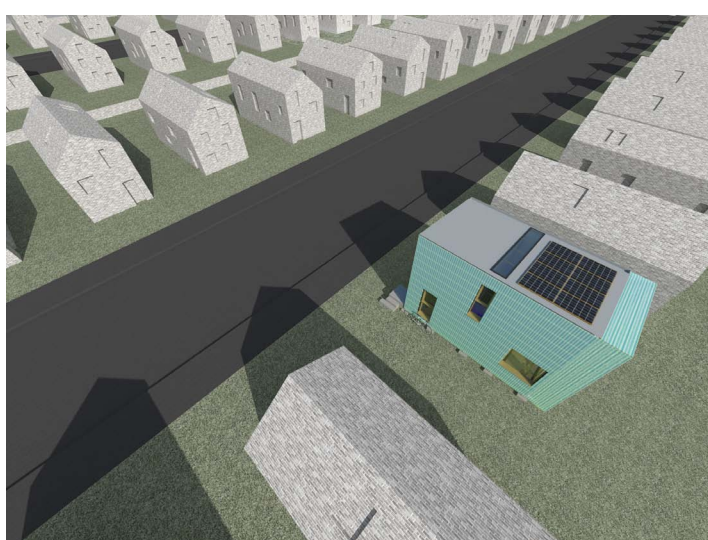
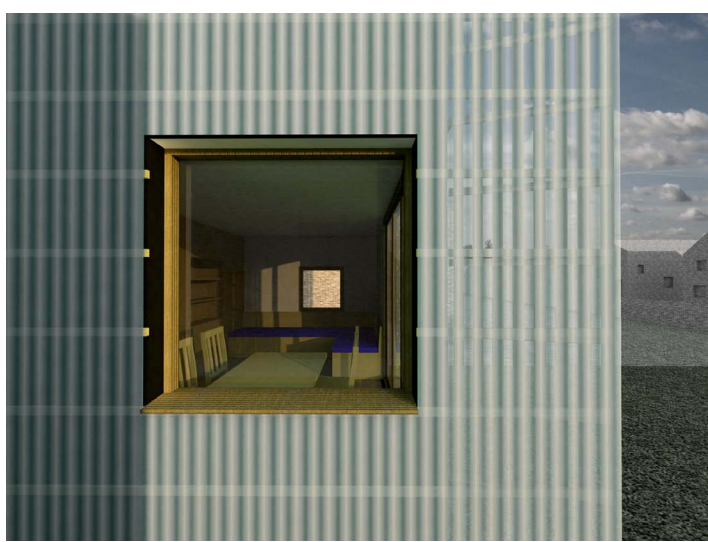
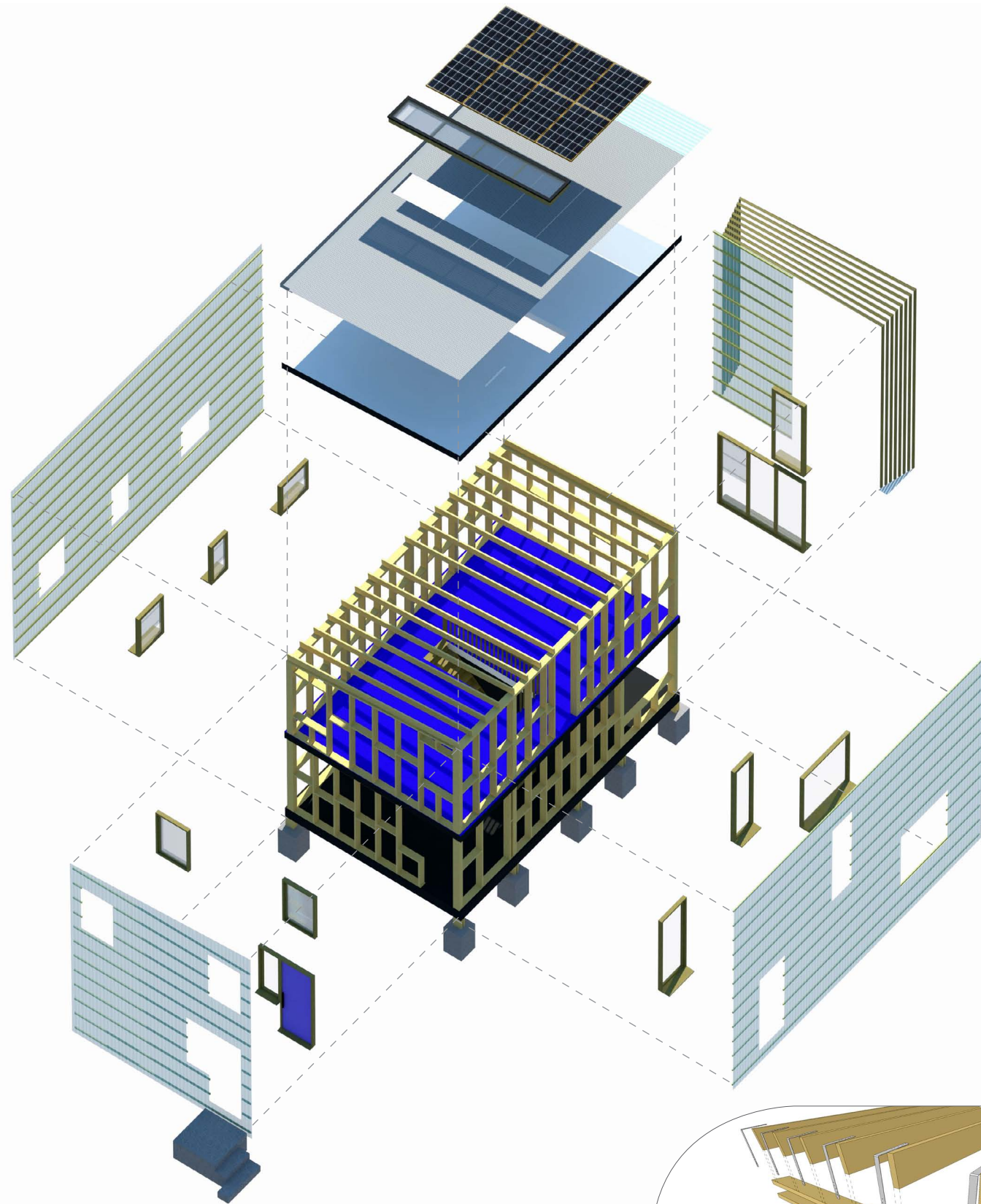


The 45k BLUE

The house is a double storey three bedroom micro-house, ideally suited to a family of four. Built around a compact essential services module, containing entry, kitchen, toilet, laundry, storage and vertical circulation, the house is expandable and adaptable to accommodate up to two extra bedrooms, an expanded living/dining and a roof terrace, including the possibility of a ground floor bedroom at the front, for lifelong living. Under the standard layout, the first floor contains a large bedroom with double bed and two smaller bedrooms, each containing a built in bunk bed with storage below and an attached desk. The ground floor includes built in seating and extensive storage. As the essential structure is in the external envelope, internal configurations can be adjusted to suit individual sites and projects. The supply cost of the materials and labour would be £44 970.



STRUCTURE

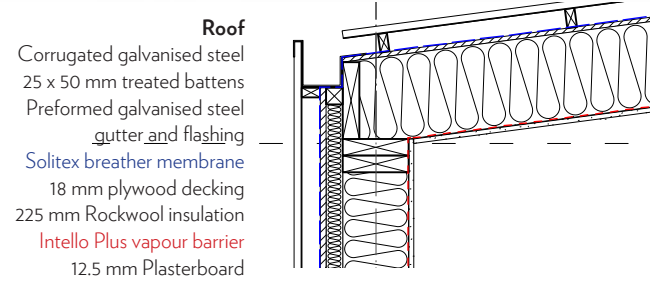
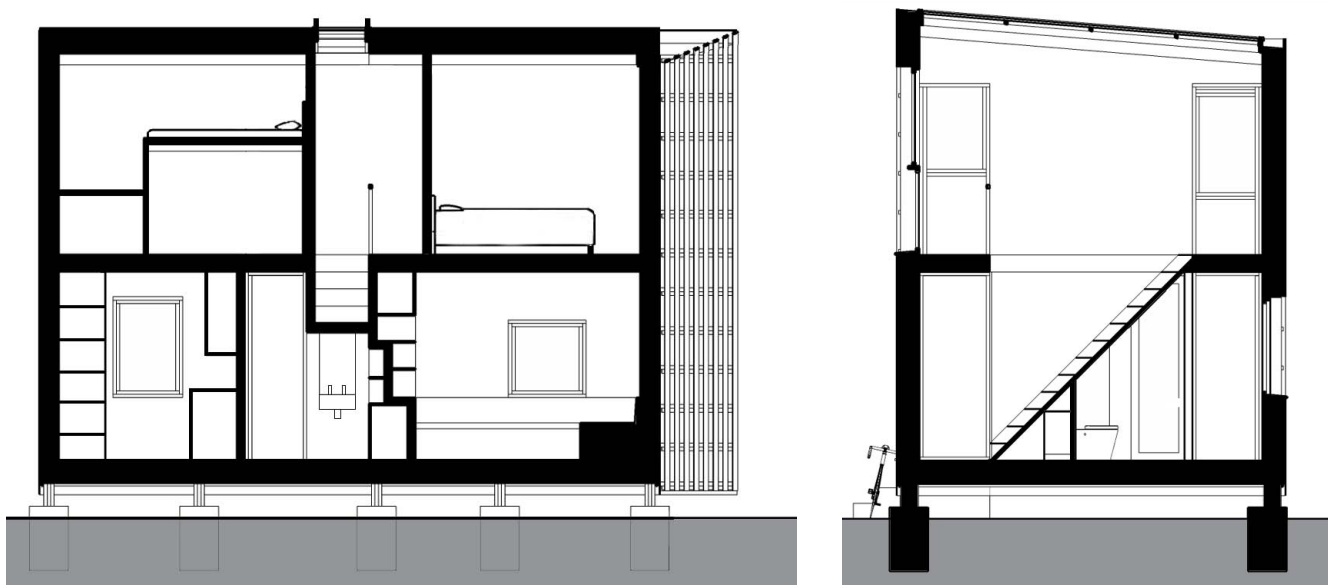
The structural concept is for a timber frame, on mass concrete pad footings. The frame is made up of a series of identical trusses, assembled from components using bolted connections. These would be made up on the ground and erected in a barn raising style, using ropes and ladders. All components and processes are designed to be able to be undertaken by a maximum of two people, with all but the specialist trades, being easily self-taught and self-buildable.

ECOLOGY

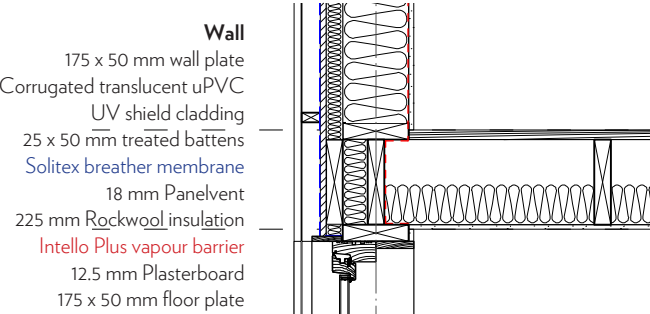
The house comes fully equipped to be self-sustaining, with 1000L of rainwater storage, a 2.0 kW photovoltaic system and the capacity for a greywater/blackwater reedbed recycling system, where the house is to be built off the grid or if mains connections are uneconomical. The thermal performance of the house considerably exceeds Part L requirements and is heated using affordable electric radiators, powered by energy produced on site. The compact nature of the house, even leaves plenty of space left over in the south lit garden for a sizeable vegetable, fruit and herb allotment and a generous compost heap (or chickens if that is your thing).

MATERIALS

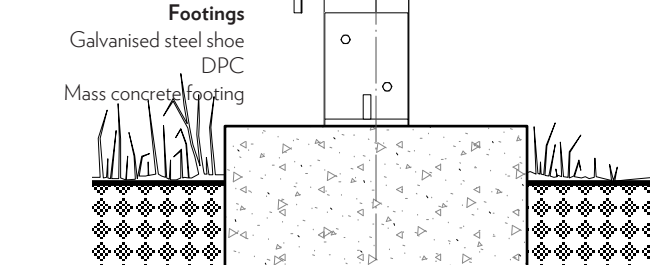
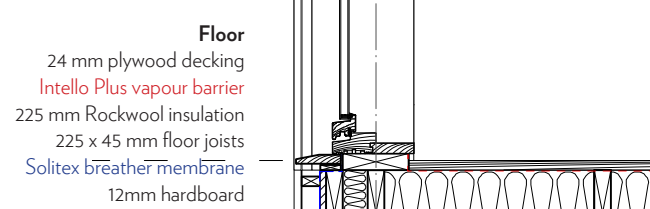
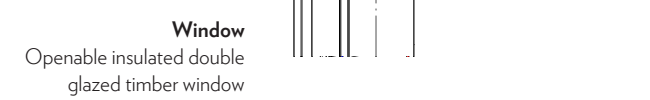
Materials used are all simple and readily available in the United Kingdom, with the cladding, insulation and internal lining able to be substituted with whatever is cheap, locally available, or recycled. Window and door openings have been sized and located to maximise amenity of the standard layout, however these are flexible and could be substituted with alternatives in size, construction or configuration.



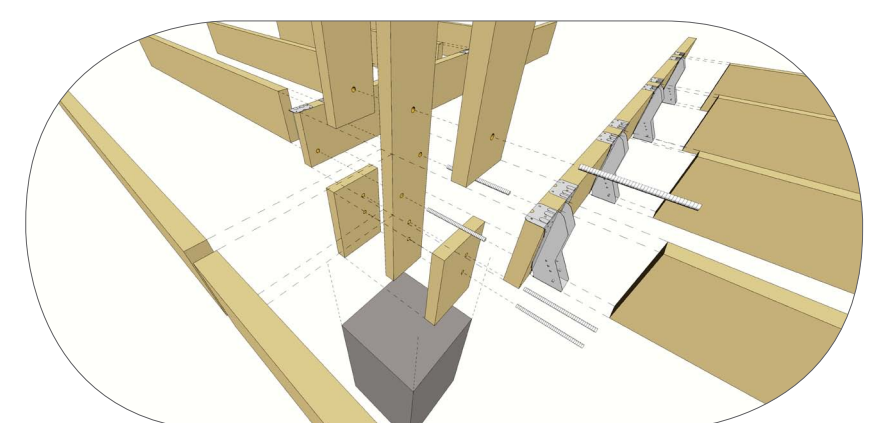
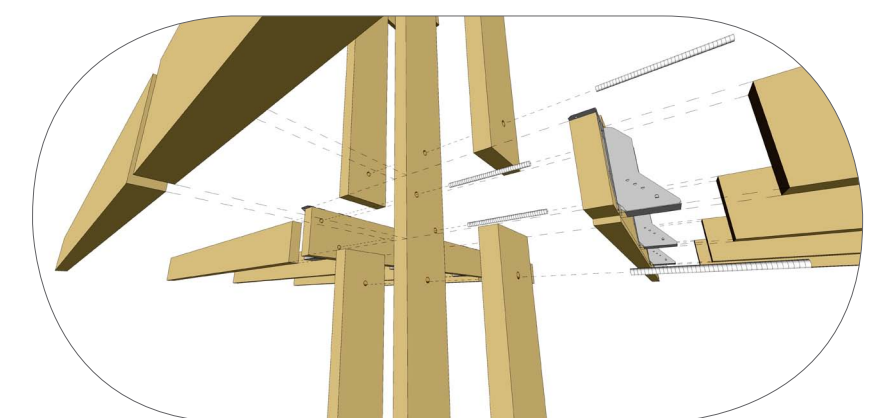
ROOF-WALL JUNCTION



WALL-FLOOR JUNCTION



FOOTING-FLOOR JUNCTION



Works Package	Construction Element	sqm	£/sqm	Materials	Labour	Total
Works Package 1	Set up, Clearance, Demolitions....			£ -	£ -	£ -
Works Package 2	Foundations (<i>up to DPC</i>)			£ 1,130.00	£ -	£ 1,130.00
Works Package 3	Ground Floor Slab or Suspended Floor			£ 1,386.00	£ -	£ 1,386.00
Works Package 4	Drainage & Service Trenchwork			£ 685.00	£ -	£ 685.00
Works Package 5	Specialist Building System (<i>eg timber frame</i>)			£ 3,394.57	£ -	£ 3,394.57
Works Package 6	External & Internal Walls			£ 11,097.80	£ -	£ 11,097.80
Works Package 7	Intermediate Floor Zone (if applicable)			£ 360.00	£ -	£ 360.00
Works Package 8	Fireplace & Chimney (if applicable)			£ -	£ -	£ -
Works Package 9	Roof Structure, Insulation & Covering			£ 2,533.50	£ -	£ 2,533.50
Works Package 10	Joinery (<i>Windows, doors, stairs, skirtings...</i>)			£ 13,960.00	£ -	£ 13,960.00
Works Package 11	Specialist Products (<i>eg; Eco products...</i>)			£ 3,329.16	£ -	£ 3,329.16
Works Package 12	Electrical Installation			£ 650.00	£ -	£ 650.00
Works Package 13	Plumbing Installation			£ 1,085.00	£ -	£ 1,085.00
Works Package 14	Heating Installation			£ -	£ -	£ -
Works Package 15	Plastering (<i>or dry-lining</i>)			£ 120.00	£ -	£ 120.00
Works Package 16	Kitchen and Utility Units (<i>+ appliances</i>)			£ 1,650.00	£ -	£ 1,650.00
Works Package 17	Decorations & Wall Ceramics			£ 1,466.50	£ -	£ 1,466.50
Works Package 18	Floor Finishes			£ 2,125.00	£ -	£ 2,125.00
	TOTAL			£ 44,972.53	£ -	£ 44,972.53

Except where listed as an allowance, estimate or quote, all supply costs have been sourced from local builders merchants, readily available online suppliers or similar sources, such as Wickes, Screwfix, Jeld-wen, and Ideal Standard. Kitchen prices are from IKEA and appliances are from Argos.

Quotes have been directly sourced from Rationel Windows, Ridgeons and a local timber supply company. Estimates are based on known supply costs of items, experience with subcontractors, discussions with builders and estimated man hours.

Quantities and size of timber or sheet materials have been calculated based measurements and data taken from full scale detailed computer modelling of components. Sensible allowances have been made for wastage, overlapping and coverages rates.

It is expected that the homeowner would seek competitive quotes on all sub-contracted work, as well as maximising the amount of preparation and assistance provided to specialists to minimise overall cost.

Works Package 1	Set up, Clearance, Demolitions....				£	-	£	-	£	-
	None									
Works Package 2	Foundations (up to DPC)				£	1,130.00	£	-	£	1,130.00
	Hand mixed concrete footings (m3)	20	£40.00	£800.00						
	Hand mixed concrete steps (m3)	2	£40.00	£80.00						
Estimate	Galvanised shoes			£250.00						
						£1,130.00				
Works Package 3	Suspended Floor	35			£	1,386.00	£	-	£	1,386.00
	Breather membrane- Solitex	35	£2.00	£70.00						
	Vapour Barrier - Intello plus	35	£2.10	£73.50						
	Insulation - 225mm Rockwool	35	£28.00	£980.00						
	Hardboard	35	£7.50	£262.50						
						£1,386.00				
Works Package 4	Drainage & Service Trenchwork				£	685.00	£	-	£	685.00
Estimate	Trenching for service connections (man & machine/ 1 day)	1	£225.00	£225.00						
	Rainwater collection tank			£300.00						
	Rainwater pipework			£160.00						
						£685.00				
Works Package 5	Specialist Building System (eg timber frame)				£	3,394.57	£	-	£	3,394.57
Quote	Timber frame			£2,144.57						
Estimate	Fixings (Screws, bolts, nails, joist hangers & wall straps)			£1,250.00						
						£3,394.57				
Works Package 6	External & Internal Walls				£	11,097.80	£	-	£	11,097.80
	External Walls	138								
	Cladding - Corrugated uPVC	138	£9.00	£1,242.00						
	Breather Membrane- Solitex plus	138	£2.00	£276.00						
	Panelvent	138	£21.00	£2,898.00						
	Insulation - 175mm Rockwool	138	£28.00	£3,864.00						
	Vapour Barrier - Intello plus	138	£2.10	£289.80						
	Lining - 18mm Plywood	60	£19.00	£1,140.00						
	Lining - Plasterboard	78	£5.50	£429.00						
	Internal Walls	44								
	Insulation - 100mm Rockwool	44	£12.00	£528.00						
	Lining - Plasterboard	30	£5.50	£165.00						
	Lining - 18mm Plywood	14	£19.00	£266.00						
						£11,097.80				

The concrete rate is for separate supplies of sand, cement and aggregate. As the footings are twice as deep as they are wide, they do not require reinforcement. The concrete steps would use plywood offcuts for shuttering.

Specified insulation and hardboard lining could be substituted with whatever is able to be sourced locally and cheaply.

The estimate for connection is based on a specialist sub-contractor undertaking the work using his own equipment @ a rate of £225 per day.

Based on a quote received for a detailed cutting list (including battens). The fixings estimate is for the entire project based on selected fixings.

Specified cladding & insulation could be substituted with whatever is able to be sourced locally and cheaply. Except where required for racking, the internal lining could be whatever is available locally, including offcuts, scrap metal and recycled items.

The internal lining could be substituted with whatever is available locally, including offcuts, scrap metal, timber or plastics, recycled items or whatever can be sourced locally and cheaply.

Works Package 7	Intermediate Floor Zone (if applicable)	30			£ 360.00	£ -	£ 360.00
	Insulation - 100mm Rockwool	30	£12.00	£360.00			
				£360.00	Specified insulation could be substituted with whatever is able to be sourced locally and cheaply.		
Works Package 8	Fireplace & Chimney (if applicable)				£ -	£ -	£ -
	None						
Works Package 9	Roof Structure, Insulation & Covering	35			£ 2,533.50	£ -	£ 2,533.50
	Cladding - Corrugated Steel	35	£5.00	£175.00			
	Breather Membrane- Solitex plus	35	£2.00	£70.00			
	Insulation - 225mm Rockwool	35	£32.00	£1,120.00			
	Vapour Barrier - Intello plus	35	£2.10	£73.50			
	Lining - 18mm Plywood	35	£17.00	£595.00			
	Gutter & Flashings			£500.00			
				£2,533.50	Specified cladding & insulation could be substituted with whatever is able to be sourced locally and cheaply. Gutters and flashing trim could be off the shelf products, or simple fabricated items from a local steel fabricator.		
Works Package 10	Joinery (Windows, doors, stairs, skirtings...)				£ 13,960.00	£ -	£ 13,960.00
	Stair			£450.00			
Quote	Windows	14	£500.00	£5,441.00			
Quote	External Doors			£5,174.00			
	Internal Doors	4	£100.00	£400.00			
	Internal Glazed Door	1	£150.00	£150.00			
Estimate	Rooflight			£980.00			
Estimate	Built in joinery (Plywood)			£1,365.00			
				£13,960.00	A window and door schedule of measured openings was submitted for a supply quote, including a large glazed tri fold door. The rooflight cost is based on the supply of a double glazed unit with a steel frame and flashing kit made up by a local steel fabricator. Built in joinery price is an allowance for self built finished plywood, oiled laminated timber benchtops, fixings and ironmongery.		
Works Package 11	Specialist Products (eg; Eco products...)				£ 3,329.16	£ -	£ 3,329.16
Quote	Photovoltaic System - 2.0 kW capacity			£3,329.16			
Works Package 12	Electrical Installation				£ 650.00	£ 1,200.00	£ 1,850.00
Estimate	Specialist subcontractor allowance			see labour			
	Fittings, ventilation, boards and wiring			£650.00			
	Electric Radiators	6	£150.00	£900.00			
				£1,550.00	First fix to be self build, with inspection, second fix and certification done by specialist qualified electrician. (10 days @ £120 per day)		
Works Package 13	Plumbing Installation				£ 1,085.00	£ 600.00	£ 1,685.00
Estimate	Specialist subcontractor allowance			see labour			
	Sanitary fittings			£300.00			
	Electric Boiler			£575.00			
	Pipework			£210.00			
				£1,085.00	First fix to be self build, with inspection, second fix and commissioning done by specialist plumber. (4 days @ £150 per day)		

Works Package 14	Heating Installation				£	-	£	-	£	-
	See Electric & Plumbing									
Works Package 15	Plastering (or dry-lining)				£	120.00	£	720.00	£	840.00
Estimate	Specialist sub-contractor (2 plasterers/3 days)	6	£120.00	£720.00						
	Plaster & Beads			£120.00						
Works Package 16	Kitchen and Utility Units (+ appliances)				£	1,650.00	£	-	£	1,650.00
	Kitchen units			£500.00						
	Sink & Taps			£80.00						
	Cooktop			£230.00						
	Oven			£150.00						
	Fridge			£240.00						
	Washer/Dryer			£450.00						
				£1,650.00						
Works Package 17	Decorations & Wall Ceramics				£	1,466.50	£	-	£	1,466.50
	Bathroom tiling	10	£34.00	£340.00						
	Watproof wetroom lining	10	£16.00	£160.00						
	Painting - White (5L tins)	3	£30.00	£90.00						
	Painting - Coloured (2L tin)	1	£20.00	£20.00						
Quote	Hardwood timber trim			£856.50						
				£1,466.50						
Works Package 18	Floor Finishes				£	2,125.00	£	-	£	2,125.00
	Lining - 24mm Plywood	65	£25.00	£1,625.00						
	Lining - Sisal	30	£14.00	£420.00						
	Floor wax - Osmo Polyx Oil (5L tin)	1	£80.00	£80.00						
				£2,125.00						

Kitchen units to be off the shelf carcassing, finished with plywood.
Appliances to be self fitted then connected and commissioned by electrician/plumber.

Bathroom to be finished in simple mosaic tiles. Painting estimate based on 2 coats, coverage rate of 108 sqm @ coverage rate of 16 sqm/litre

Plywood floor to be finished with floor wax on the ground floor and hardwearing sisal carpets on the top floor. Floor wax quantity based on 2 coats, coverage rate of