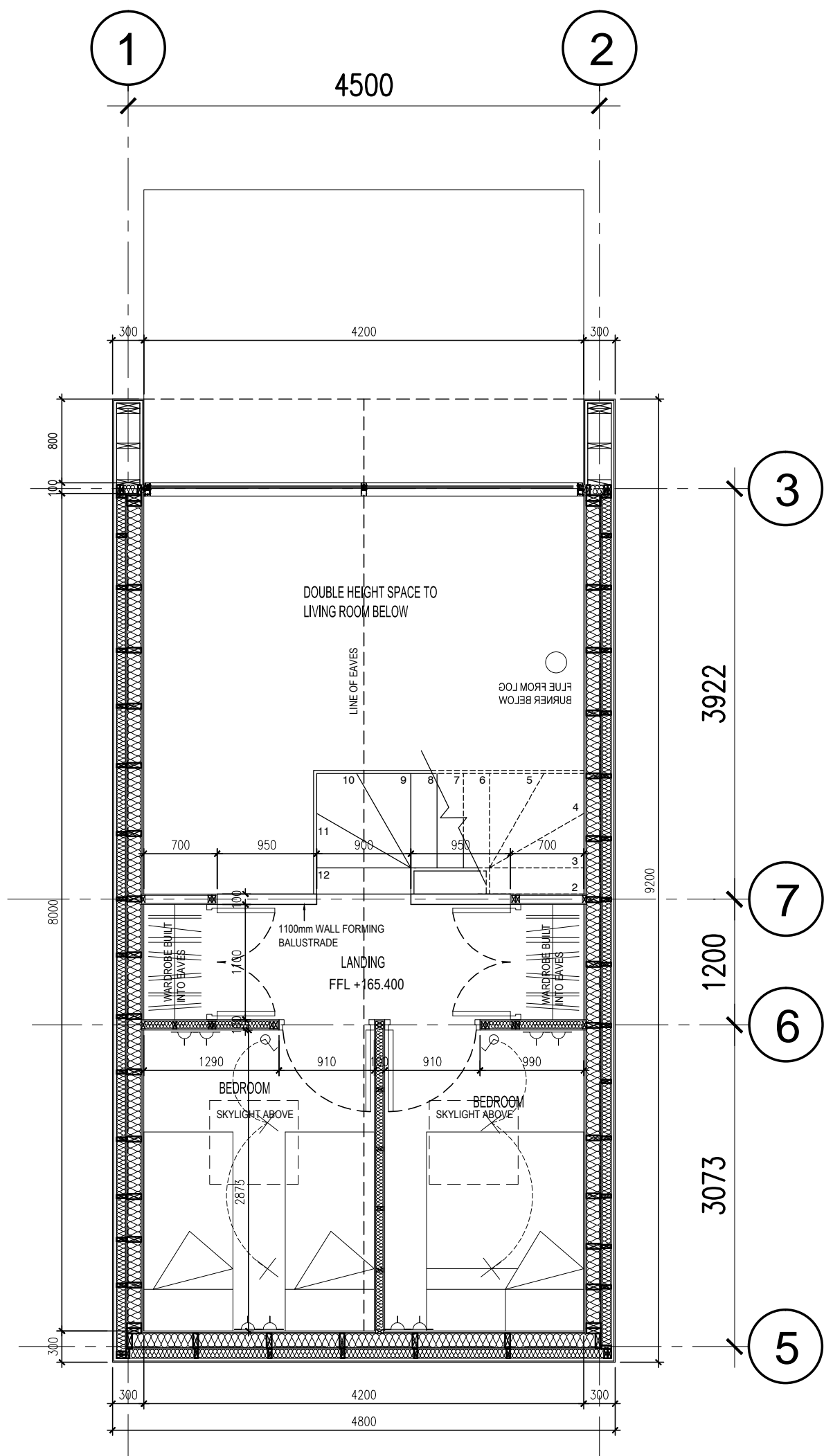
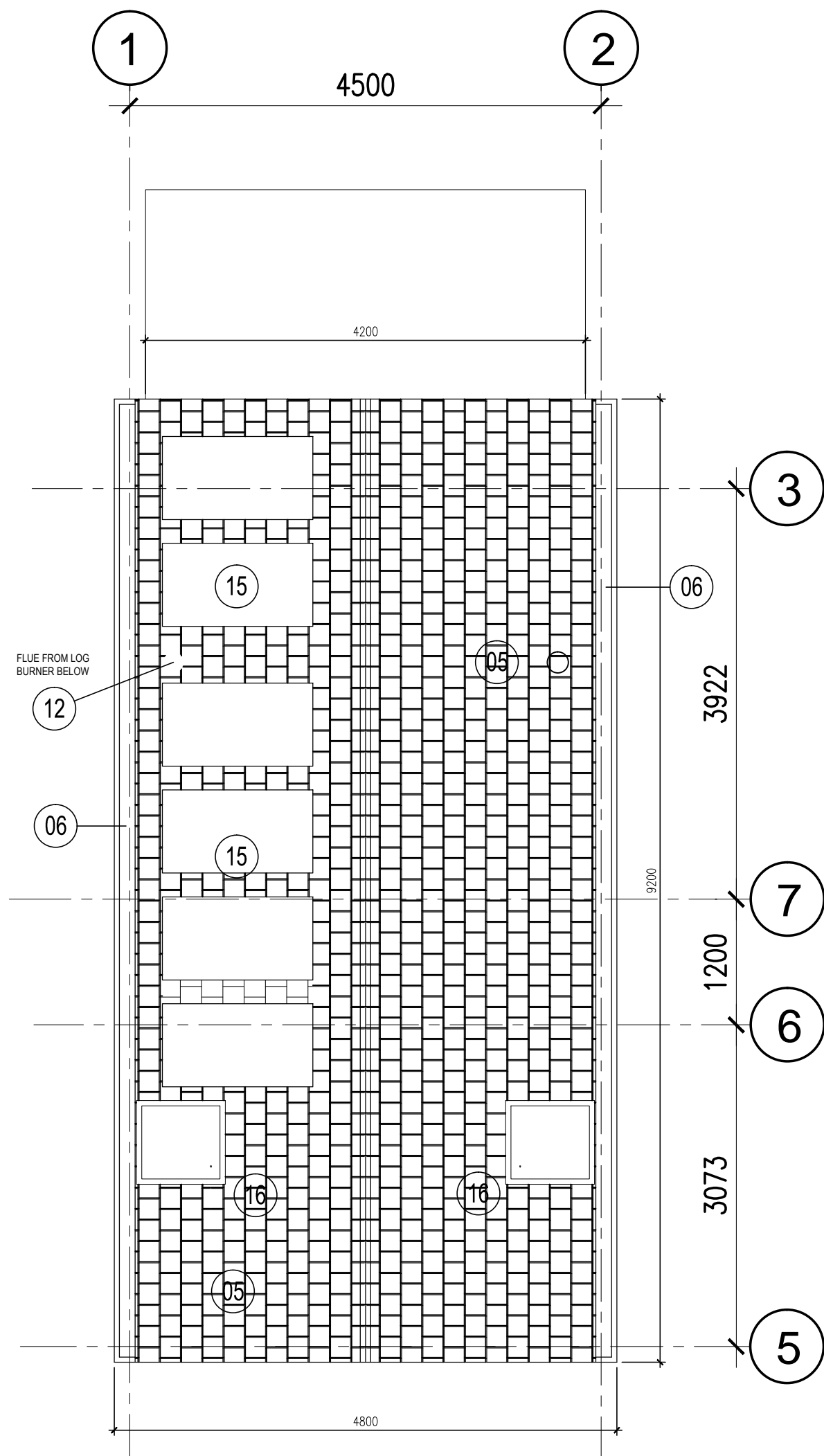


GROUND FLOOR PLAN SCALE 1:50



FIRST FLOOR PLAN SCALE 1:50



ROOF PLAN SCALE 1:50

PROPOSED BOTHIE AREA:  
GROSS EXTERNAL AREA (GEA)  
44 m<sup>2</sup>/ 473R<sup>2</sup>

NO.	MATERIAL LEGEND
01	WESTER RED CEDAR TONGUE AND GROOVE V-JOINT BOARDS, VERTICAL
02	WESTER RED CEDAR TONGUE AND GROOVE V-JOINT BOARDS, HORIZONTAL
03	DOUBLE GLAZED ALUMINIUM WINDOWS, RAL- 7043 CHARCOAL GREY
04	DOUBLE GLAZED ALUMINIUM DOUBLE DOORS, RAL- 7043 CHARCOAL GREY
05	NATURAL SLATE TILE ROOF
06	GALVANISED STEEL CONCEALED GUTTER
07	GALVANISED STEEL WINDOW SURROUND
08	ALUMINIUM FRAMED FULLY GLAZED DOOR, RAL - 7043
09	GABION NATURAL STONE WALL NORTHUMBERLAND STONE
10	WESTER RED CEDAR OPEN JOINTED DECKING TO MATCH WALLS.
11	WESTER RED CEDAR OPEN JOINTED STEPS TO MATCH WALLS.
12	GALVANISED STEEL FLU
13	GRAVEL FOOTPATH
14	CEDAR LOUVRES
15	PHOTOVOLTAIC PANELS
16	VELUX ROOF LIGHT

## Non-Material Amendment

Project:	GREYSTONES, LANEHEAD, TARSET	Job No:	
Title:	NE48 INT		
PROPOSED NEW DEVELOPMENT			
BOTHIES GROUND AND FIRST FLOOR PLAN			
Scale:		Drawn by:	
1:50		AJT	
Date:		Checked by:	
JUNE' 2011		~	
Drawing No:		Revision No:	
(11)001		REV_A_2016_04_20	

## BUILDING CONTROL NOTES PAGE 1

<div>(A).The builder</div> <div>The Builder shall ensure that the work complies with the Technical requirements-</div> <div>R1 STATUTORY REQUIREMENTS Work shall comply with all relevant Building Regulations and other statutory requirements relating to the completed construction work</div> <div>R2 DESIGN REQUIREMENT Design and specification shall provide satisfactory performance</div> <div>R3 MATERIALS REQUIREMENT All materials, products and building systems shall be suitable for their intended purpose</div> <div>R4 WORKMANSHIP REQUIREMENT All work shall be carried out in a proper, neat and workmanlike manner</div> <div>R5 STRUCTURAL DESIGN REQUIREMENT Structural design shall be carried out by suitably qualified persons in accordance with British Standards and Codes of Practice</div>	<div>(B).Foundations and Substructure Specification's</div> <div>Ground Floor construction</div> <div>Suspended timber frame floor, raised off the ground by 100mm to avoid cold bridging, and aid air circulation. All timber joists and raised piles to be specified by Structural Engineer. ( ) mm of rigid insulation beneath floor joists. (50mm zone allowed for). Up to 250mm zone between floor joists to house thermal insulation (insulation returned vertical at wall junctions, to reduce thermal bridge); (thickness and U Value to be calculated/advised by OCEA accredited assessor.).</div> <div>Earth beneath Bothies to be excavated to a suitable level (see drawings for FFL), top soil removed. 25mm of blinding (sand) (make sure this is compacted well with vibrating plate and free of humus type material). Filter layer applied to prevent weed penetration.Layers of 150mm max of stone fill material (make sure this is well compacted and free from any air pockets).</div> <div>Final finishing layer of stone washed gravel, to be specified by client.</div> <div>Foundation Design.</div> <div>It is paramount that due care is taken on the execution of the foundations as this is the most import structural element of the bothies.</div>	<div>To be determined on site and checked/advised by building control/structural engineer. All foundations must be brought down to suitable bearing strata to give a clean firm and adequate bearing strata for the design loads away from humus type material. The foundations should be of sufficient width throughout to avoid overstressing the ground, especially where the foundation is required to support piers or columns (see section 3 "loadbearing column"). Foundation should be either continuous and monolithic, or caps to support floor equally spaced over the length of the floor. Se plan for intentions). To be specified and designed by structural engineer depending on ground conditions.</div> <div>All load bearing elements shall be adequately supported by foundations. Foundation design shall make allowance for drainage and other Services. Concrete shall be of a mix design which is suitable for the intended use. Items to be taken into account including: strength to safely transmit loads and durability against chemical or frost action. For guidance on the specification and use of concrete, particularly in relation to the choice of mix to resist deterioration due to ground conditions, reference should be made to NHBC Chapter 2.1 'Concrete and its reinforcement</div> <div>Design of substructure and ground bearing floors shall ensure that loads are supported and transferred to foundations, or to the ground, without undue movement.</div> <div>Effect of sloping ground on depth of Infill- Sloping ground may require steps in the substructure and possibly different floor levels. Where more than 600mm of infill is required at any point in a self-contained area, the floor over the whole of that area must be of suspended construction.</div> <div>Unforeseen ground conditions- on site will require the expertise of a certified engineer to design the foundations, to be checked by building control. These foundations will need to be overseen on site by that engineer.</div> <div>Drainage</div> <div>Foul and surface water disposal-(Refer to Drainage table for fall details).</div> <div>Connection to a main foul sewer- All connections to a public sewer will require the agreement of the responsible authority. They should be consulted as to the type and position of the connection to be made. All connections to a private sewer will require the agreement of the owners of the sewer. This should be obtained as part of the design process. If the main private sewer discharges into a public sewer the local sewerage undertaker should be notified of the proposal.</div> <div>Design gradients- should be as even as practicable (self cleansing gradients), depending on the number of WCs being served (1 no. Toilets in each bothie) (5 no. bothies); (minimum one for 100mm pipes, five for 150mm pipes, with peak flows greater than 1 L/sec.</div> <div>Where flows are 1.0 L/second or less, gradients for 100mm diameter pipes should not be flatter than 1:40.</div> <div>Pipes passing through substructure walls- Pipes passing through substructure walls should accommodate movement. This may be achieved by: a 50mm clearance all round, or a sleeve, with 50mm clearance all round and suitably sealed if built in, connecting on both sides of the wall to pipes with flexible joints located not more than 150mm from the face of the wall. Flexible joints should be made in accordance with the pipe manufacturer's recommendations.</div> <div>Soakaways- shall be sited and constructed to provide adequate short term storage for surface water and adequate percolation into the surrounding ground.</div> <div>Location-Where possible soakaways should be built on land lower than, or sloping away from, buildings. Soakaways should be sited at least 5m from the foundations of a building. If the ground is free draining and granular, a test may not be necessary. However, if there is any doubt about the ground, or if there is a large quantity of run-off into the soakaway which may swamp the ground, a percolation test may be required.</div> <div>All toilets, connected directly to a manhole, keep sink, shower and bath appliances separate of the toilet connection. All appliances should be assessable for "rodding"/cleaning. Sink, bath and shower to have "back inlet gullies" B.I.G. for rodding/cleaning.</div>	<div>DPC's and DPW's</div> <div>Damp-proof courses shall be installed to prevent moisture entering the building. A dpc should be provided below all loadbearing walls built off foundation walls. The dpc should be linked with any adjoining dpm. The dpm may be either continuous or formed by two separate overlapping pieces. Dpcs should be provided below timber partitions where directly fixed to floor slabs, even if there is a dpm beneath the slab. This is to prevent residual moisture in the concrete affecting the timber. A dpc should be provided below all internal walls where the dpm is applied to the top surface of the slab. The dpcs should be at least the width of the partition. Where dpcs join, the lap should be at least 100mm.</div> <div>(B).Superstructure Specification's</div> <div>"U" Values-</div> <div>(EPC) (SAP) calculations on separate documentation, prepared by OCEA accredited assessor. (Client to decide against budget if they would like to exceed the recommended "U" Values by the OCEA accredited assessor).</div> <div>Timber frame-</div> <div>All calculations of timber frame to be submitted and approved by building control before manufacture/erection on site.</div> <div>For dwellings of timber frame construction, the designer should ensure stability in accordance with BS 5268.</div> <div>The roof- it is paramount that the roof is constructed as to resist uplift and the appropriate metal straps used. It is envisaged that the timber frame ground floor will create a monolithic connection with the roof.</div> <div>Loadbearing timber framed walls- shall be designed to support and transfer loads to foundations safely and without undue movement. Structural design of loadbearing timber framed walls should be in accordance with BS 5268 - Parts 2 and 6. The design should take into account, wind loads, roof loads and floor loads.</div> <div>Structural elements- All structural timber should be: of a suitable grade in accordance with BS 5268, dry graded and marked in accordance with BS 4978.</div> <div>Sheathing- and its associated fixings should be structurally adequate to resist racking due to wind and other forces. Individual studs should be not less than 37mm wide, at maximum 600mm centres, unless other adequate support is provided for wall boards and fixings. A lintel and cripple studs should be provided to any opening in loadbearing panels except when the opening does not affect the stud spacing or where the supported loads are carried by a rim beam or perimeter joist.</div>	<div>Anchoring the frame- Wall panels should be adequately fixed to the sole plate which in turn should be anchored to the piles, and down to the foundations to resist all the lateral and vertical forces acting at these junctions.</div> <div>Joints between panels and other elements- Wall panels should be securely fixed together and fixed to floor and roof framing where appropriate. Appropriate measures should be taken to prevent buckling. If head binders are not provided joists and roof trusses, including girder trusses and other similar loads, should bear directly over studs.</div> <div>At joints between wall panels, sole plates and head binders should be provided to bind panels together. Joints in sole plates and head binder should not coincide with those between panels. Joints in head binders should occur over a stud.</div> <div>Moisture control and insulation- The design shall ensure that the structure is adequately protected from the effects of moisture Provision of dpcs and dpm's- Dpcs should be installed below the sole plates of all ground floor walls, including internal partitions, to protect timber from rising damp and residual construction moisture. Dpcs and trays should be fitted at openings where needed to prevent rain penetration. cont'd next page</div>
<div>timber notes cont'd from page 1</div> <div>Vapour control layers for walls- A vapour control layer should be fixed on the warm side of the wall insulation. The vapour control layer should cover the external wall including bottom rails, head rails, studs, lintels and window reveals. Vapour control layers should be of 500 gauge (120 micron) polyethylene or vapour control plasterboard. All joints in sheet vapour control layers should have at least 100mm laps and be located on studs or noggings and</div> <div>Membranes- Breather membranes should be lapped so that each joint is protected and moisture drains outwards and downwards</div>	<div>External Internal Windows and doors</div> <div>Client to decide with builder on specification of windows and external/internal doors. Aluminium specified on Planning drawings.</div> <div>Glazing- all glazing below 800mm to be safety glass. (EPC) (SAP) calculations on separate documentation, prepared by OCEA accredited assessor. Refer to manufacturers recommendations and specifications for cavity between glazing .</div> <div>Manifestation- the design of the sliding glass doors will dictate whether the door will need manifestation. Refer to manufacturers recommendations and specifications.</div> <div>Timber staircase - 12 open risers @ 200mm, 250mm going. Handrail to be between 900mm and 1100mm, on both sides. Generally stairs to comply with BS 5395: Parts 1 &amp; 2</div> <div>Fixings- by Ancon to be stainless steel. Where possible fixing back to the timber frame should allow for shrinkage of the frame. Refer to manufacturers recommendations and specifications.</div> <div>Bespoke Gutter- concealed galvanised gutter, complete with galvanised overflow as a backup.</div> <div>DownPipe - concealed within wall buildup, galvanised steel, and insulated.</div> <div>Natural Slate - to client specification. (roof loadings to take account of slate thickness)</div>	<div>Rainwater goods- soil stacks that terminate at roof level should project at least 900mm above a velux within 3m of the stack. Stack to have covering cap and collar above roof level in grade 316 stainless steel.</div> <div>Roof lights - velux, equal or approved</div> <div>Photovoltaic Panels - to south side of the roof. By others.</div> <div>Chimney and flue- stainless steel grade 316. Refer to section E for fire details.</div> <div>(C).Interior Specification's</div> <div>Skirting and Architrave- all skirting and architrave to be MDF. (Size to be agreed between client and builder).</div> <div>Kitchens- to be agreed between client and builder.</div> <div>Bathroom- to be agreed between client and builder.</div> <div>Tiling- tiling in kitchen and bathrooms to be agreed by client and builder</div> <div>Cooking- AGA stove to client specification</div> <div>Sockets- all sockets and light switches to be standard white plastic</div> <div>Heating- wood pellet boiler, wet system with radiators. To be designed, and installed by specialist sub-contractor.</div> <div>(D).External Works Specification's</div> <div>Driveway- Tarmac by sub-contractors specification and detail. Carpark- Tarmac to sub-contractors specification and detail. (Finished Levels stated on Landscaping Plan)</div> <div>All falls and drainage to be specified by sub-contractor.</div> <div>Footpath- pavers/ gravel to client's specification.</div> <div>Gabion Walls- Hand drawn steel wire frame, approx 1m<sup>2</sup> formed in bi-axial mesh grid. Wire to BS EN 10244-2:2001.</div> <div>Fill shall be hard durable non frost susceptible rock having min. dimension not less than mesh opening. Locally supplied rock where appropriate. Client to specify. Height and depth of walls to be specified and constructed by specialist sub-contractor.</div> <div>(E).Fire Specification's</div> <div>Horizontal cavity barriers (except under eaves) should be protected with a dpc tray. The tray should have a minimum upstand of 100mm. Alternatively polyethylene encased cavity barriers providing a minimum upstand of 100mm should be used. Dpcs should be used to cover horizontal and vertical cavity barriers and to shed moisture away from the sheathing. Vertical timber cavity barriers should be protected from penetrating moisture by a dpc. Cavity barrier place around all windows' and doors.</div> <div>Fire resistance of internal walls - The following walls should be fire-resisting:</div> <div>Loadbearing walls (half-hour minimum)</div> <div>Internal walls (half-hour minimum)</div> <div>De-mountable walls - Internal bedroom rooms (as highlighted on plans). To be detailed in such a way that they maintain half-hour fire resistance when in place. Large tongue &amp; groove system of panels adopted to prevent direct passage for sound and fire penetration.</div> <div>Fire-resisting walls- should be fire-stopped or constructed to resist fire spread: at their perimeter, at junctions with other fire-resisting walls, floors and roofs where openings are formed for doors, pipes, etc.</div> <div>When fire-stopping against timber construction, it is important to specify compressible material, such as mineral wool, to allow timber shrinkage to take place without affecting the fire-stopping.</div> <div>Fire alarms- Smoke alarms are to be self contained mains operated with DC battery back up and to comply with BS 5446 Pt1. Refer to approved document B.</div> <div>(F).Sound Specification's</div> <div>Noise transmission- Precautions should be taken to limit noise transmission from rooms containing WCs, for example: soil pipes passing through dwellings should be encased and insulated; the insulation should be continued through the thickness of any sound-insulating floor. (See internal wall construction).</div> <div>(G).Ventilation Specification's</div> <div>Ventilation- naturally ventilated bunkhouse with mechanical extract in bathrooms and over cooker. Trickle ventilation to windows. Refer to ventilation table for details.</div> <div>All ventilation to cedar cladding to have insect mesh. And vermin mesh to low level.</div>	<div>Extract fan systems- should be designed in accordance with the manufacturer's unheated spaces, such as a roof void to the outside air should be insulated to prevent condensation affecting the operation of the fan.</div> <div>Internal soil and waste systems - shall be adequate disposal of effluent from the building. Soil and waste systems should comply with any specific requirements from the water supplier. Guidance and recommendations for building drainage and sanitation are in BS EN 752 and BS EN 12056.</div> <div>Roof construction -Roof construction (through Natural slate)</div> <div>Natural slates, on, 25 mm by 38 mm treated sw battens, on, Tyvek or equal approved to BS 747, on, 19 mm T &amp; G Sarking boards (Screw fixed), on, 50mm ventilated cavity, within, Notional 250 mm rafters containing insulation to be calculated by OCEA assessor (to timber frame manufacture's calculations), on, Vapour control layer, on, Notional 2 layers of 12.5mm fireline board by British Gypsum or equal approved (plasterboard internal linings are subject to the loading of the timber frame and must be checked with manufacture); (refer to manufacture recommendation and specifications for installation), on, 2-3 Skimcoat plaster.</div>	<div>Heating System</div> <div>Stainless steel log / pellet burning fire to living room, flu extends up through roof.</div> <div>Electric radiators to upstairs bedrooms as a backup. To be powered by photovoltaic cells. And additional electricity to be fed back to the grid.</div> <div>Solar powered hot water system.</div>