

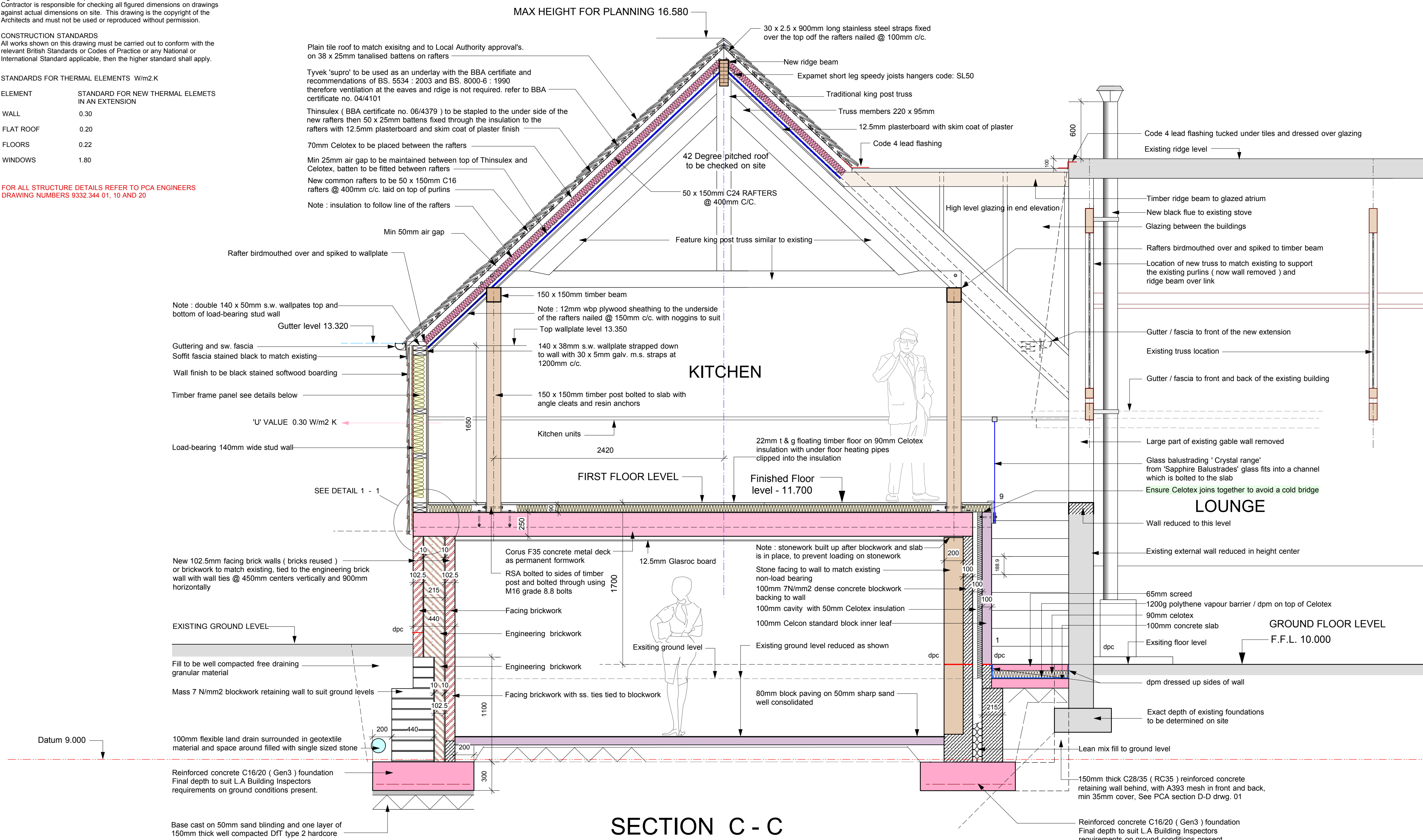
Dimensions to take preference over scaled dimensions. The Contractor is responsible for checking all figured dimensions on drawings against actual dimensions on site. This drawing is the copyright of the Architects and must not be used or reproduced without permission.

**CONSTRUCTION STANDARDS**  
All works shown on this drawing must be carried out to conform with the relevant British Standards or Codes of Practice or any National or International Standard applicable, then the higher standard shall apply.

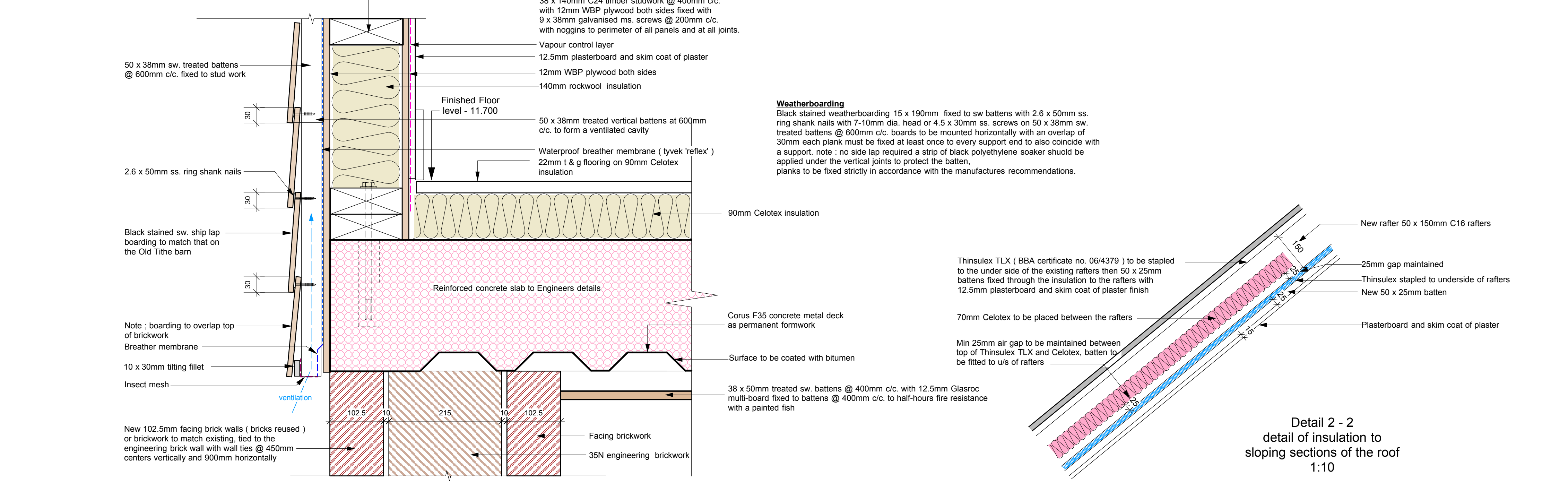
**STANDARDS FOR THERMAL ELEMENTS W/m<sup>2</sup>K**

ELEMENT	STANDARD FOR NEW THERMAL ELEMENTS IN AN EXTENSION
WALL	0.30
FLAT ROOF	0.20
FLOORS	0.22
WINDOWS	1.80

FOR ALL STRUCTURE DETAILS REFER TO PCA ENGINEERS  
DRAWING NUMBERS 9332-344 01, 10 AND 20



**SECTION C - C**  
1 : 25



Timber frame external wall detail 1 - 1  
1 : 5

**GENERAL NOTES:**  
**Legislation, Standards, Materials, Workmanship and Health & Safety**  
All construction work to be in accordance with current Building Regulations, relevant British Standards and all other relevant legislation. Materials should comply with the appropriate British Standard or British Board Agreement Certificate. Materials should be marked, stamped, independently certified or otherwise justified by test or calculation to show their suitability. Workmanship should generally be in accordance with the BS 8000 series of documents and other accepted good practice (e.g. quality assured to ISO 9001). The work must include the co-ordination and management of all health and safety issues during the construction work and the fulfilment of all duties required of a Contractor under the CDM Regulations. Figured dimensions to take preference over scaled dimensions. The Contractor is responsible for checking all figured dimensions on drawings against actual dimensions on site. This drawing is the copyright of the Architects and must not be used or reproduced without permission.

**Demolition**  
Carry out all demolitions, stripping out and site preparations as necessary to allow for the construction of the proposed works. Install suitable temporary structure and propping prior to demolition of structural elements. Make good to existing structure to remain following stripping out and demolition and remove all redundant material from site. Strip out all existing and redundant services as necessary to allow for proposed services installations. Take care to protect existing services that are to remain and be re-used with newly adapted systems.

**Foundations**  
Excavate as necessary to achieve reduced levels required and remove surplus excavated materials from site. Form new strip foundations for new walls, using C16/20 Gen 3 concrete designated mix to BS 5328 ( non-aggressive soils ), to a depth required by the Local Authority Building Inspectors requirements and to suit ground conditions present. Also refer to Paul Carpenters Associates drawings 9332.344 01 for details.

**External Walls below ground**  
To be 7N dense concrete blocks below dpc to BS. 6073, plus semi engineering bricks, refer to PCA drawing 9332.344 01 for details

**Damp Proof Course to New Walls**  
In new walls a damp proof course is to be provided min. 150mm. above adjoining ground level to all external walls. DPCs to be Hyolad manufactured by Ruberoid Building Products Ltd. Min.125mm wide.

**New External Walls**  
External walls to be mass dense concrete blockwork / semi engineering brickwork and reinforced concrete retaining walls below ground. See PCA drawings for details, to a depth required by the Local Authority Building Inspectors requirements and to suit ground conditions present. Also refer to Paul Carpenters Associates drawings 9332.344 01 for details.

**External Walls above ground**  
External walls to be mass dense concrete blockwork / semi engineering brickwork and reinforced concrete retaining walls below ground. See PCA drawings for details, to a depth required by the Local Authority Building Inspectors requirements and to suit ground conditions present. Also refer to Paul Carpenters Associates drawings 9332.344 01 for details.

**Ground Floor Construction to Car Port**  
To be a 85mm thick block paving laid to fall on well compacted sand 50mm thick on 150mm consolidated hardcore.

**First Floor Construction.**  
22mm t & g floating floor, moisture restraint to BS 5669 on a 500g polythene vapour barrier on 90mm rigid Celotex insulation with under floor heating pipes clipped into the insulation on a reinforced two way spanning concrete slab on a Corus F35 permanent deck formwork. Note the under side of the Corus deck to be painted with bitumen for weather protection and finished with 38 x 50mm sw. treated battens and timber boarding.

**Timber Framed External Walls.**  
Load-bearing timber framed walls designed to Structural Engineer or timber frame specialist's specification. Studs to be 38x140mm CLS at 400mm centers with double head and sole plates, lined externally with waterproof breather membrane on 12mm WBP plywood nailed at 200mm centers with noggins at all edges, internally to be also lined with 12mm WBP plywood. External finish to be black stained weatherboarding 15 x 190mm fixed to sw treated battens with 2.6 x 50mm ss. ring shank nails with 7-10mm dia. head or 4.5 x 30mm ss screws on 38 x 50mm sw treated vertical battens (fixed through to studs) to form a ventilated cavity in front of timber framed wall. 140mm thick Rockwool insulation to be fixed in the cavity between studs. Wall to be lined internally with 12.5mm thick plasterboard on a vapour control layer. Overall wall construction to achieve a U value of 0.30 W/m<sup>2</sup>K or better.

**Roof Construction**  
Plain tile roof to match existing and to Local Authority approval's, on 38 x 25mm treated sw. battens on common rafters, see section for sizes. On Tyvek 'supro' to be used as an underlay with the BBA certificate and recommendations of BS. 5534 : 2003 and BS. 8000-6 : 1990 therefore ventilation at the eaves and ridge is not required, refer to BBA certificate no. 0414101.  
For insulation between rafters see detail 2-2.  
Valleys to be proprietary code 4 lead lining to LSA. recommendations.

**Flat Roof to Kitchen Entrance**  
Flat roof waterproofing to be one layer of Sarnafil polymeric sheet roof covering on 12mm WBP plywood decking laid to fall of 1:80 on softwood firings on 47 x 147mm (Strength Class C16) timber flat roof joists at 400mm centres. Insulation to be installed in accordance with manufacturers instructions to be a cold roof construction with 100mm Celotex between the joists and 40mm Celotex insulation under as a continuous sheathing. Ventilation to be provided at the eaves equal to a continuous strip 25mm wide. Sarnafil installed strictly in accordance with roof covering manufacturers instructions. Include all lead flashings, fixings and all other items and accessories as necessary and as shown on the drawings. Overall flat roof construction to achieve a U-value of 0.16 W/m<sup>2</sup>K or better.  
Alternative to be Code 5 lead covered roof.

**Rainwater goods**  
Install new PVCu rainwater gutters and downpipes to match existing to drain rainwater from new roof. Install gullies and underground drainage as necessary to drain surface water away to soakaway drainage system.

**Foul Drainage above Ground.**  
To be plastic soil vent pipework and WC Branches. Pipes, fittings and accessories to BS 4514 Kitemark certified. Method of fixing stacks to be steel brackets at 1800 mm c/c. Plastic branch pipework in MUPVC ABS polypropylene or polyethylene up to 30mm diameter for pipes, fittings and accessories to BS 5255.  
Sink to have 38mm diameter waste, all appliances are to be fitted with 76mm deep seal traps.

**Natural Light & Ventilation.**  
Windows to provide 1/10th floor area for natural light and min. 1/20th for natural ventilation. Windows to be restricted so as not to open over footpaths.

**Windows.**  
Windows to be good quality timber windows to match existing with sealed double glazed units with a min.16mm air space filled with Argon gas, with Pilkington Low E glass as the inner pane. Windows to achieve a U value of 1.8 W/m<sup>2</sup>K or better. All opening windows and doors to be draught stripped and all windows and doors to be sealed at perimeter in accordance with diagram 4 of approved documents L.

All glazing in critical locations to be safety glazing with any low levels acting as guarding being suitably robust in accordance with BS 6399.

**Ventilation of Rooms Containing Openable Windows.**  
Habitable rooms to have rapid ventilation min. 1/20th of the floor area with background ventilation area of 5000 mm<sup>2</sup>. to be in the form of trickle vents.  
Kitchen to have rapid ventilation in the form of an openable window and background ventilation area of 4000 mm<sup>2</sup>. Extract ventilation to be 30 litres/second.  
Note: For rapid ventilation some openings to be at high level (1.75m above the floor). Background ventilation can be in the form of trickle vents.

**Ventilation**  
Ventilation system to be background ventilators and intermittent extract fans in accordance with part F1 2006.

**Intermittent Extract Rates**  
Extract ventilation rates to be as table 1.1a  
WC to have min. mechanical ventilation at the rate of 6 litres/sec.  
Bathrooms to have min. mechanical ventilation at the rate of 15 litres/sec.  
Kitchen to have mechanical ventilation at the rate of 30 litres/sec adjacent to the hob.  
Note : 10mm gap to be provided under the doors to these rooms.

**Background Ventilation**  
Background ventilation to be provided in the form of trickle vents incorporated in the frames of new windows. Ventilation opening sizes to be as follows: Kitchen and New Bathrooms 2500 mm<sup>2</sup> & Other New Habitable Rooms 5000 mm<sup>2</sup>

**Electrical Installation**  
All new electrical works will be designed, inspected and tested in accordance with BS 7671 (IEE wiring regulations 17th edition ). The works to be carried out either by an installer registered under a suitable self certification scheme or a suitably qualified person with a certificate of compliance by that person to the building control surveyor on completion of the works.

**Lighting**  
One in four new light fittings throughout the dwellings must be designed to accept only low energy lamps (luminous efficacy greater than 40 lumens/ circuit watt ) and be located in areas of greatest use e.g. Kitchen, Living Room etc.

**Smoke Alarms**  
To be provided with mains operated smoke alarms, wired to a separately fixed circuit at the distribution board to IEE Regulations. The smoke alarms shall be fitted in accordance with BS 5839-6:2004 'FIRE DETECTION AND ALARM SYSTEMS FOR BUILDINGS' Code of practice for system design, installation, commissioning and maintenance.

**Heating**  
Hot water for heating to be provided by the new gas fired grade A condensing boiler which serves a wet radiator system with thermostatic valves, to specialist design with heated towel rails.

**Completion Certificates**  
On completion of the electrical installation and the boiler, certificates to be issued to the Building Inspector to show compliance.

**MTA architects**  
MTA Architects Ltd. tel 01803 851010  
52 Fore Street Brixham Devon TQ5 8DZ tel 01803 854807  
e-mail enquiries@mtaarchitects.co.uk fax 01803 856632

client	date

project	scale

drawing	drawn

drawing no.	rev.

also at: the boat house 1 admiralty cottages fort road gosport hamphire PO12 2AP  
tel 023 9268999 fax 023 92520322 e-mail mta@mta.co.uk