

BUILDING REGULATIONS NOTES

PLANNING NOTE

A loft conversion for your house is considered to be permitted development and not requiring an application for planning permission, subject to the following limits and conditions:

- A volume allowance of 50 cubic metres additional roof space for semi-detached houses.
- No extension beyond the plane of the existing roof slope of the principal elevation that fronts the highway.
- No extension to be higher than the highest part of the roof.
- Materials to be similar in appearance to the existing house.
- No verandas, balconies or raised platforms.
- Side-facing windows to be obscure-glazed; any opening to be 1.7m above the floor.
- Roof extensions not to be permitted development in designated areas.
- Roof extensions, apart from hip to gable ones, to be set back, as far as practicable, at least 20cm from the eaves.

PARTY WALL ACT

The owner should they need to do so under the requirements of the Party Wall Act 1996 has a duty to serve a Party Structure Notice on any adjoining owner if the building work involves works on or to an existing Party Wall including:

- Support of beam
- Insertion of DPC through wall
- Raising of wall or cutting of projections
- Demolition and rebuilding
- Underpinning
- Insertion of lead flashings
- Excavations within 3 metres of an existing structure where the new foundations will go deeper than adjoining foundations, or within 6 metres of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.

A Party wall agreement is to be in place prior to start of works on site.

THERMAL BRIDGING

Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings).

BEAMS AND STRUCTURE

Engineer's Structural calculations and details are to be provided for all beams, roof, lintels, joists, bearings, padstones and any other load bearing elements before works commence on site. New steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

TIMBER FRAME WALL

To achieve minimum U Value of 0.28W/m²K
Tiles hung vertically on 25 x 38mm preservative-treated battens (provide counter battens to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick WBP external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 150mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm ctrs or to s/engineer's details & calculations. Insulation to be 100mm Celotex GA4000 plus 12.5mm Knauf wall board with VCL over. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. (An additional 15mm pur insulation to be provided over studs to prevent thermal bridging if required)

DORMER CONSTRUCTION

To achieve minimum U Value of 0.28W/m²K
Structure to engineer's details and calculations. Tiles hung vertically on 25 x 38mm preservative treated battens (vertical counter battens to be provided to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick W.B.P external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 100mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm centres or to structural engineer's details and calculations. Insulation to be 100mm Celotex GA4000 between studs plus 37.5mm Celotex PL4000 over. Provide a vapour control layer fixed to internal face of insulation and finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. Dormer walls built off existing masonry walls to have galvanised mild steel straps placed at 900 centres. Dormer cheeks within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides.

DORMER FLAT ROOF

(imposed load max 1.0 kN/m² – dead load max 0.75 kN/m²)
To achieve U value of 0.18 W/m²K
To Structural Engineer's details. Ventilated flat roof construction comprising; 12.5mm spa solar reflective chippings to achieve aa designated fire rating for surface spread of flame bedded in bitumen on three layer felt to BS 6229:2003 on 22mm exterior grade plywood, laid on firrings to give a 1:40 fall fixed to 47 x 195mm grade C24 joists at 400 centres. 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. Insulation to be 120mm Celotex XR4120 between joists and 40mm PL4000 Celotex under joists.
Ceilings to be 12.5mm plasterboard over vapour barrier with skim plaster finish.
Provide restraint to flat roof by fixing using of 30 x 5 x 1000mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall. Workmanship to comply to BS 8000:4.

STUD ASHLAR/DWARF WALL

To achieve minimum U Value of 0.28W/m²K
Construct stud wall using 100mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm centres or to structural engineer's details and calculations. Insulation between and over studs; 60mm Celotex GA4000 between plus 37.5mm Celotex PL4000 insulated plasterboard with VCL.
Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.

UPGRADING CAVITY PARTY WALL (cold adjoining space)

The existing party walls must be checked for stability and be free from defects as required by the Building Control Officer. Provide a scratch coat render to existing wall. Provide 67.5mm Celotex PL4000 insulated dry lining board manufactured to EN ISO 9001:2000 with 3mm skim plaster.
Plasterboard to be bonded using dot and dab method to the existing construction with proprietary adhesive at 300mm centres vertically/horizontally and in accordance with manufactures instructions. Tape joints and seal perimeter edges with mastic, to provide a vapour control layer (VCL). All work in accordance with BS 8212: 1995 (Code of practice for dry lining).

INSULATION AT CEILING LEVEL

To achieve U value of 0.16 W/m²K
Insulation at ceiling level to be 150mm XR4000 Celotex between ceiling joists with a further 25mm over joists.
Construct ceiling using sw joists at 400mm centres, finished internally with 12.5mm plasterboard and min 3mm thistle multi-finish plaster. Provide polythene vapour barrier between insulation and plasterboard. Provide opening at eaves level at least equal to continuous strip 25mm wide in two opposite sides to promote cross ventilation. Allow for all structure as designed by a Structural Engineer.

UPGRADE OF PITCHED ROOF

(imposed load max 0.75 kN/m² – dead load max 0.75 kN/m²)
Vented roof – pitch 22-45°
To achieve U-value 0.18 W/m²K
Existing roof structure to be assessed by a structural engineer and any alterations to be carried out in strict accordance with structural engineers details and calculations which must be approved by building control before works commence on site. The existing roof condition must be checked and be free from defects as required by the Building Control Officer any defective coverings or felt to be replaced in accordance with manufacturer's details.
Roof construction – 47 x 125mm Grade C24 rafters at max 400mm centres. Insulation to be 50mm Celotex GA4000 between rafters and 70mm under rafters. Fix 12.5mm foil backed plasterboard (joints staggered) and 5mm skim coat of finishing plaster to the underside of all ceilings using galvanized plasterboard nails.
Provide a cavity of 25mm by fixing battens between plasterboard and under rafter insulation (recommended where insulation under rafters exceeds 50mm).
Maintain a 50mm air gap above insulation 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 or provide equivalent high and low level tile vents in accordance with manufactures details.

UPGRADE OF EXISTING FLOORS

Ensure first floor achieves modified half-hour fire resistance.
New second floor –Joists to be 50mm minimum from chimney breasts. (Joist size to structural engineer's details and calculations)
Provide min 20mm t and g chipboard or timber board flooring. In areas such as kitchens, utility rooms and bathrooms flooring to be moisture resistant grade in accordance with BS EN 312:2010). Identification marking must be laid upper most to allow easy identification. To upgrade to half hour fire resistance and provide adequate sound insulation lay minimum 150mm Rockwool insulating material or equivalent on chicken wire between joists and extended to eaves. Chicken wire to be fixed to the joists with nails or staples these should penetrate the joists side to a minimum depth of 20mm, in accordance with BRE-Digest 208 1988. Joists spans over 2.5m to be strutted at mid span use 38 x 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). Provide lateral restraint where joists run parallel to walls. Floors are to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x ¾ depth solid noggins between joists at strap positions.

INTERNAL STUD PARTITIONS

100mm x 50mm softwood treated timbers studs at 400mm cts with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm c/cs. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles. Walls faced

throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

NEW STAIRCASE

Dimensions to be checked and measured on site prior to fabrication of stairs. Timber stairs to comply with BS585 and with Part K of the Building Regulations. Max rise 220mm, min going 220mm. Two risers plus one going should be between 550 and 700mm. Tapered treads to have going in centre of tread at least the same as the going on the straight. Min 50mm going of tapered treads measured at narrow end. Pitch not to exceed 42 degrees. The width and length of every landing should be at least as great as the smallest width of the flight. Doors which swing across a landing at the bottom of a flight should leave a clear space of at least 400mm across the full width of the flight. Min 2.0m headroom measured vertically above pitch line of stairs and landings. However, if there is not enough space to achieve this height the headroom will be satisfactory if the height measured at the centre of the stair width is 1.9 m reducing to 1.8m at one side of the stair. Handrail on staircase to be 900mm above the pitchline, handrail to be at least one side if stairs are less than 1m wide and on both sides if they are wider. Ensure a clear width between handrails of minimum 600mm. Balustrading designed to be unclimbable and should contain no space through which a 100mm sphere could pass. Allow for all structure as designed by a Structural Engineer.

ELECTRICAL WORKS

All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to the Council.

INTERNAL LIGHTING

Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations.

HEATING

Extend all heating and hot water services from existing and provide new TVRs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities by laws, Gas safety requirements and IEEE regulations.

BACKGROUND AND PURGE VENTILATION

Background ventilation – Controllable background ventilation via trickle vents to BS EN 13141-3 within the window frame to be provided to new habitable rooms at a rate of min 5000mm²; and to kitchens, bathrooms, WCs and utility rooms at a rate of 2500mm²
Purge ventilation – New windows/rooflights to have openable area in excess of 1/20th of the floor area, if the window opens more than 30° or 1/10th of the floor area if the window opens less than 30°
Internal doors should be provided with a 10mm gap below the door to aid air circulation.
Ventilation provision in accordance with the Domestic Ventilation Compliance Guide.

EXTRACT FOR SHOWER ROOM

Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 litres per second. Vent to be connected to light switch and to have 15 minute over run if no window in the room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

RAINWATER DRAINAGE

New rainwater goods to be new 110mm upvc half round gutters taken to and connected into 68mm dia upvc downpipes

ABOVE GROUND DRAINAGE

All new above ground drainage and plumbing to comply with BS EN 12056-2:2000 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 vacuum 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
W/c – 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 within 200mm of the WC connection. Supply hot and cold water to all fittings as appropriate.

ROOF LIGHTS

Min U-value of 1.6 W/m²K.
Roof-lights to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufactures instructions with rafters doubled up to sides and suitable flashings etc.

NEW WINDOWS

New windows to be double glazed with 16mm argon gap and soft coat low-E glass. Window Energy Rating to be Band C or better and to achieve U-value of 1.6 W/m²K.

MEANS OF ESCAPE – Door upgrade

Doors marked  to be either upgraded or replaced with fd20 doors. Form a protected escape stairway by providing half hour fire resistance to all partitions as well as floors and ceilings above and below rooms. Stairway to be protected at all levels – from the loft room/rooms then leading directly to an external door at ground level (no inner rooms allowed). Existing doors on to protected route to be upgraded with proprietary intumescent paint/paper products with relevant BBA certificate applied as manufacturer's details to achieve 20 minutes fire resistance (check suitability of doors as agreed with building control before works commence on site). A copy of the purchase invoice will be required by building control on completion to confirm product used and manufacture to confirm fire resistance achieved. Doors to be fitted with intumescent strips rebated around sides & top of door or frame if required by BCO. Where applicable, any glazing in fire doors to be half hour fire resisting and glazing in the walls forming the escape route enclosure to have 30 minutes fire resistance and be at least 1.1m above the floor level or stair pitch line.

SMOKE DETECTION

 denotes mains operated linked smoke alarm detection system to BS EN 14604 and BS5839-6:2013 to at least a Grade D category LD3 standard to be mains powered with battery back up to be placed on each storey with an additional interlinked heat detector at ceiling level in kitchens if required by BCO. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ storeys and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

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 continuous 50mm air gap above the insulation for ventilation.

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ROOF LIGHTS

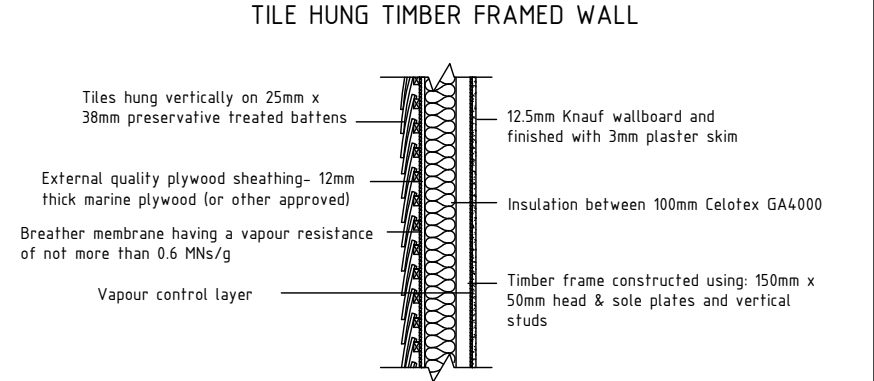
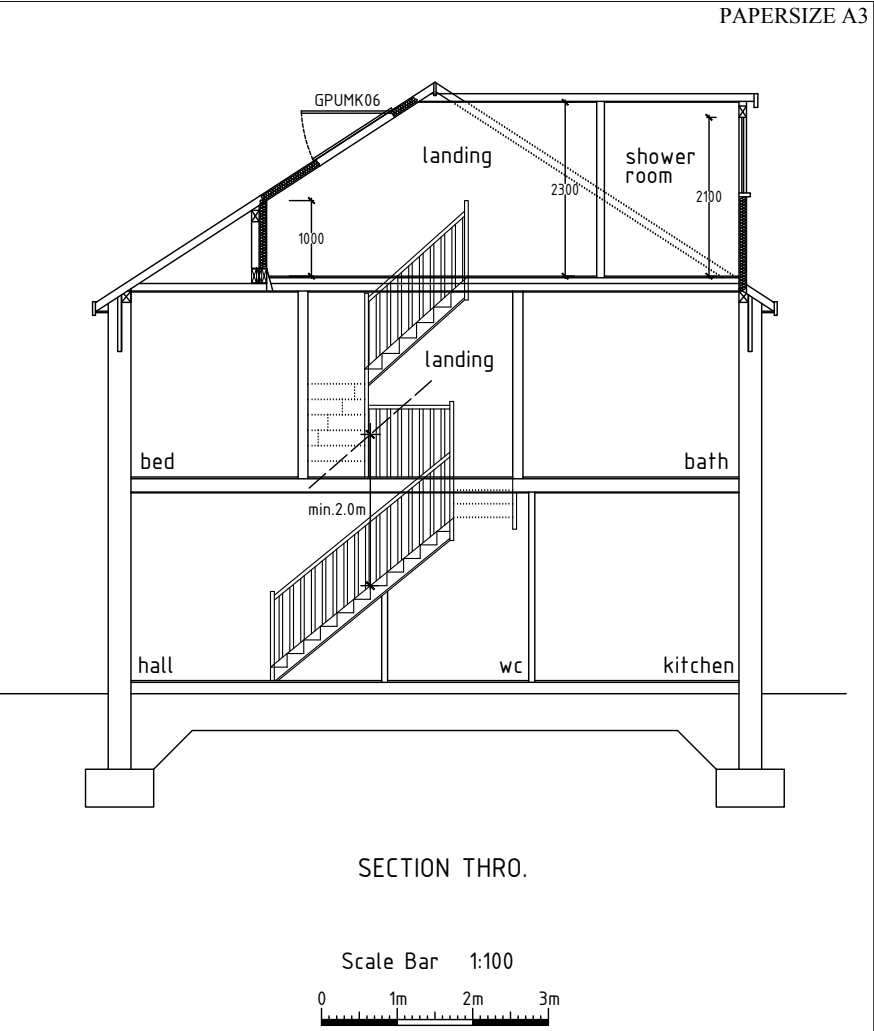
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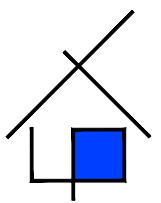
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TRADITIONAL BALUSTRADES

Provide balustrades to balcony min 1100mm in height and capable of resisting at least the horizontal force given in BS 6180:2011. No openings in any balustrading should allow the passage of a 100mm sphere and children should not readily be able to climb the guarding.



TITLE: BUILDING REGULATIONS	
CLIENT: MR BROOKS	
ADDRESS: 225 HEMDEAN ROAD CAVERSHAM RG4 7QX	
DATE: OCT 2018	DRWG.NO: s4607/05
SCALE: 1:100 @ A3	
	
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