

Construction Specification & Mode of Construction

For a Two New Two Storey Houses at

Land Adjacent to 26 Woods Road RG4 6NA

Generally

Prior to construction the site is to be secured within security fencing. The debris on site to be removed. and the site to be levelled., any surplus to be removed from site. A hardcore delivery entrance to be formed with an adjacent tap and hose to facilitate wheel wash facilities.

The works comprise the construction of two New Houses

1. All SW timbers to be tanalised.
2. **External Walls** :To comply with BS 5628 Part 1, 2 and 3. Brickwork to BS 3921 Blockwork to BS 6078 Part 1 1981
3. **External Cavity Walls** : Unless otherwise shown on drawings walls to comprise of 102 min face brickwork - 100mm cavity with an inner leaf of 100mm thermal blockwork - Celcon Hi 7 blocks (or similar and approved) with 100mm cavity insulation batts Rockwool/Crown Dritherin or similar
4. **Blocks If Used Below DPC**: To be dense concrete block (7N/mm min) suitable for use in this location. Cavity to be filled with lean mix concrete up to 75mm below ground level. Precast lintels to be included over openings in external wall below DPC for drainage pipes and service ducts where they pass through.
5. **Horizontal DPC**: DPC of appropriate widths with a minimum lap of 150mm adjoining d.p.m. DPC to be built into load bearing partitions. DPC to be provided below floor beams to ground floor construction. DPC required to inner and outer leaf to be 150mm minimum above external ground level and stepped where necessary at doorways to meet with this requirement.
6. **DPM**: DPM to be either 1200 gauge polythene and folded up to the DPC height with a lap of 150mm. to run under the DPC.
7. **Openings**: Door and window openings in external walls to have catnic cougar type or similar combined lintels over (unless stated vertical and horizontal D.P.C.'s at otherwise with Hyload cavity trays over. Lintels to have 150mm minimum end bearing External walls to be provided with head jamb and cills of all openings. Insulated cavity closers by York Building Services (Whitewell) Ltd - therm-close general purpose cavity closure, or similar.
8. **Wall Ties**: To cavity walls to be generally to BS 1243 (1978). Spacing of wall ties to be not greater than 900mm horizontally and 450mm vertically and at jambs 225 min vertically and 450mm horizontally. S/S wall ties to be used.
9. **Flashing Abutments**: To facework to have DPC/cavity tray (stepped where required) with weepholes. Flashing to give a minimum 75mm upstand from abutment, in min Code 4 lead.
10. **Electrical Installation** : Shall be provided to the standard of The Electricity Board and latest IEE Regulations. All to BS 5839 Part II (L3 standard) and BS 5466 Part 1. All new

areas are to receive energy efficient light fittings (type and location to be confirmed by electrician).

11. **Cavity Walls:** Cavity walls to be fire stopped at eaves with 9trun Supalux or brickwork
12. **Foundations :** Foundations are to be machine dug with clean sides and bottom. Traditional strip 600 x 500 or trench fill footings taken down to suitable load bearing strata min. 600mm. deep. Size subject to bearing capacity as found on site and to Local Authority and or NHBC approval.
13. **Ground Floor :** Construction to be as follows - sub soil is presumed to be clay, this is to be levelled 500mm. below the existing DPC. And made up with scalpins (well consolidated) topped with a 25mm sand blinding to within 225 mm of the existing floor level overlaid with a polythene DPM membrane with min 300mm laps, a min 75mm thick Celotex Tuff-R GA3050Z insulation is to be laid over the DPM (the perimeter of the slab is to receive insulation to the u/s of the skirting) DPM is to be contiguous with the DPC, next an anti-crack mesh (B 113 1) is laid down on Chairs, Upnor Unipipe underfloor heating pipe is to be fix to the mesh with cable ties at 100 mm centres for the for the area within 600 mm from external walls and 200 mm centres within this area. NOTE: no Pipe length shall exceed 120 meters. The end of each pipe length shall be connected to manifolds and run back to the gas fired boiler in the utility room the heating to the 1st floor to be by radiators (detailed drawing to follow from the heating Engineer) finally a 150mm concrete slab is laid over and is to receive a trowel finish.
14. **Wall Restraint:** Where restraint straps are provided noggins are to be installed between the joists or rafters at the strap positions. Noggins should be at least 38mm wide and half the depth of the joist. Packings to be provided between the wall and first joist or rafter. Restraint straps at max 2m centres. Mild steel galvanised holding down straps are to be provided at 1.2m centres and at corners (max). Lateral restraint straps are to be turned 150mm into cavity and fixed across min 3no joists.
15. **Finishes:** Min 13mm, vapour cheek plasterboard (Gyproc Duplex) with skim coat plaster finish to all "wet' areas and any sloping ceiling/stud wall areas and ceilings generally. Block walls generally to receive min 13mm plasterboard on dabs with skim coat plaster finish. Boxings/castings etc to receive min 13mm vapour check plasterboard with skim coat plaster finish. Fibre glass insulation to be provided around pipework within ducts. Access panels to be provided where necessary. All with paint finish.
16. **Surface water drains** laid to min fall 1:60 to soakaway and encased in pea shingle. Surface water drainage 1/2 round style UPVC gutters with min 68mm round rainwater pipes connecting to underground drainage via rainwater shoes with gully and grated access covers/rodding eyes etc. Gutters to be fixed in accordance with manufacturers instructions. Surface water drainage is to discharge into soakaways (min 1500 Dia - positioned a min 4.5m from building and 1.5m from boundaries).
17. **Doors and Ventilation:** The patio door. To be weather tested and part L Building Regulation compliant. 1.5Wm2K thermal efficiency. Double glazed in toughened glass. Timber used in subframes is to be treated with Vac Vac preservative process and supplied pre-finished. Windows and doors are to achieve an average whole window 'U' value of 0.8 W/m sq *K or less to be clear or as indicated. Double glazed sealed units to be a min 30mm o/a thickness Glazed units to have low 'E' glass. Window and door weather strips to be included as required. Trickle vents to all windows, providing a min 8000 sq.mm of available

air opening to habitable rooms and a min 4000 sq.mm of available air opening to all other rooms. Patio door to be of toughened safety glass to BS6206 Clause 5.3.

18. **Doors/Architraves/Skirtings:** Internal door openings shall be to the size indicated on drawings. Architraves to be hardwood/softwood/mdf style to be agreed. Skirtings to be hardwood/softwood/mdf style - to be agreed -all with stained/painted finish.
19. **Roof Construction:** Generally roof timbers to be min 150 x 50mm at max 400mm centres, Roof design shown on Drawings and attached hereto Wall plate to be 100x50mm (all SC3 grade timber unless otherwise specified) bedded in cement mortar and securely fixed to walls and/or beams by galvanised straps and bolts at max 1800 centres. Roof timbers to comply with BS5628 Part 3. Rafters and timbers secured to wall plate on external wall with galvanised clips or anchor straps Provide 32 x 6mm galvanised ms holding down straps at rafter and ceiling levels at 1800 max centres, fixed to the first two rafters and ceiling joists. Roof timbers to have preservative treatment Vac Vac or similar to BS4072..
20. **Facia/Soffit/Barge Boards :** Min 250 x 19mm UPVC fascia board fixed to rafter feet. Pre-finished in white. Soffits to be of similar material and ventilated. Fascias and soffits to be maintenance free.
21. **Fire Resistance:** All steel beams are to be protected from fire by being coated with intumescent paint (Quelfire or similar and approved), or encased in 12.7mm foil back plasterboard with a skim coat plaster finish. All insulation to elements of structure (including walls, floors, roofs, etc) is to be fire resistant (Rockwool or similar and approved). All elements of structure that are penetrated by service pipes, ducts or cables are to receive the appropriate fire seal/barrier to maintain compartmentation (Quelfire or similar and approved), as required. All recessed lighting is to be enclosed in fire resisting intumescent covers by Fire Retard (or similar and approved).
22. **Tiles:** as agreed by Planning Authority . Roof pitch as indicated on drawing to be laid strictly in accordance with BS 5534 and manufacturers instructions on 50 x 25mm preservative treated battens, on reinforced non-tearable lapped roofing felt to BS 747/IF (Tyvek, Permo, Roofshield, Monoperm 450 Kingspan Nilvent or similar).
23. **Ridges/Hips:** Ridge tile and hip tiles are to be bedded and pointed in colour cement mortar to match.
24. **Eaves :** Eaves are to be constructed in accordance with the tile Manufacturer's details. The eaves course tiles should overhang the fascia board by an amount sufficient to ensure that water discharges into the centre of the gutter.
25. **Verges:** To be pointed in coloured cement mortar -formed in accordance with manufacturer's details.
26. **Ventilation :** To be minimum of 0.3% of roof plan area through eaves. Provide 50mm ventilation duct to retain insulation and ensure ventilation

Heating/Plumbing: Hot water/heating to be by gas fired boilers

Sanitary Pipework and Drainage Plans to follow.

Electrical Safety: Certificate to be provided on completion