

Pitched Roof Construction: U value for Roof Construction 0.16/0.2 W/m2c. Roof tiles to be concrete interlocking pantiles to match existing to L.P.A. Approval. Clay plain tiles and fittings to BS.402:Part 1:1990, concrete plain and interlocking tiles and fittings to BS.473/550:1990. Roof tiles to be laid strictly in accordance with manufacturers instructions and details and in accordance with BS.473/550:1990 and BS.5534:Part 1 and 2. Due regard to be taken of site location and exposure. Where tiles to be nailed, aluminium nails are to be used. 38x 25mm. treated sw. battens fixed at required gauge with min. 60mm. galvanised nails on one layer reinforced bituminous roofing felt to BS.747 type 1F weighing 1.13kg./m2. fixed with galvanised clout nails and laid with min. 150mm. laps. on marine ply. Trussed rafters where specified to be designed and detailed by specialist in accordance with BS.5268:Part 3:1985. Truss rafters to be fixed to 100x 50mm. sw. wallplate using proprietary galvanised ms. truss clpis and galvanised nails, wallplate to be preservative treated and on a 10mm. mortar bed.

Traditional roof construction where specified to be as shown on drawings. All timber to be preservative treated and with preservative to be applied to all cut ends on site. No notches or holes should be cut in any rafter other than at supports. Birdsmouth depth not to exceed 0.33x rafter depth. Access into roof void to be not less than 550x 550mm. Gangway boarding from access to tank to be at least 1m2. Cold water storage tanks supported at node points of trussed rafters in accordance with BS.5268:Part 3 with 19mm. WBP ply decking. Ventilation to pitched roof with insulation at joist level, eaves ventilators to be provided on opposite sides of roof to provide ventilation at least equal to a continuous strip 10mm. wide running the full length of the eaves. Insulation retainers to be provided between rafters to maintain minimum 50mm. air gap between top of insulation and to underside of roof felt. Lean to Roof with insulation at joist level. Eaves ventilators to be provided to provide ventilation at least equal to a continuous strip 10mm. wide running the full length of the eaves. Insulation retainers to be provided between rafters to maintain minimum 50mm. air gap between top of insulation and underside of roof felt. Ventilation to be provided at head of roof at least equal to a continuous strip 5mm. wide. Pitched Roof with insulation at rafter level. Eaves ventilators to be provided on opposite sides of roof to provide ventilation at least equal to a continuous strip 25mm. wide running the full length of the eaves. A min. 50mm. air gap to be maintained between top of roof insulation and underside of roof felt. Ventilation to be provided at ridge at least equal to continuous strip 5mm. wide running the full length of the ridge. Flat Roof eaves ventilators to be provided on opposite sides of roof to provide ventilation at least equal to continuous strip 25mm. wide running the full length of the eaves. A min. 50mm. air gap to be maintained between top of insulation and underside of roof decking. Roof insulation at ceiling joist level to be 150mm. between joists and 60mm. over joists laid in opposite direction of mineral wool quilt with thermal conductivity 0.04 W/mc. Roof insulation at rafter level to be 100mm, between rafters and 200mm. to underside of rafters of Celotex Double R Thermal sheathing TS2 with thermal conductivity value of 0.02 W/mc. and fixed in accordance with manufacturers recommendations. Ceilings to underside of ceiling joists and/or rafters fix 12.7mm. Gyproc

plasterboard with all joints prepared and finished as manufacturers recommendations to receive either 3mm. plaster skim coat finish or artex finish. Duplex boards to be installed to bathroom and kitchen. Edges of boards to be supported with sw. noggins. Plasterboard to be installed in accordance with manufacturers instructions.

Below Ground Drainage: New drain runs to positions as shown on G.F.Plan to be in 100mm. Hepworth supersleve clay pipes and fittings or Hepworth Plastidrain plastic pipes or equal approved to be laid strictly in accordance with the manufacturers instructions and to the complete satisfaction of the L.A. Building Control Dept. Supporting lintols to be provided over drain where it passes through walls. Drainage trenches near foundations to be filled with concrete upto same level as foundation soffit. Manholes to be constructed using proprietary polypropylene units installed in accordance with manufacturers instructions. New drainage system to be connected to existing manhole/foul drain/septic tank/cesspit. Septic tanks with land drainage systems are subject to NRA/Environment Agency approval.

Above Ground Drainage(Plumbing): Toilet: basin 32mm. dia. waste to B.I.G. or SVP. wc. 100mm. dia. waste to new manhole or SVP. Utility Room: sink 40mm. dia. to B.I.G. washing machine 40mm. dia. waste to B.I.G. Kitchen: 40mm. dia. waste to B.I.G. or SVP. dishwasher waste connected to sink waste. Bathroom: basin 32mm. dia. waste to SVP. shower 40mm. dia. waste to SVP. bath 40mm. dia. waste to SVP. toilet 100mm. dia. waste to SVP. All the above fittings to be provided with 75mm. deep seal traps and cleaning access points to be provided at all changes of direction. Svp's. and stub stacks to be 100mm. dia. svp. to be taken up above roof to a height of 900mm. above head of any opening within 3000mm. of pipe and terminate with cage/perforated cover. Stub stack to be fitted with approved type auto-air admittance valve installed in accordance with manufacturers instructions and Agremont Certificate.

Stair: to be designed to BS.5395:Part 1:1984 and to comply with Building Regulations Part K 1992 edition. Pitch of staircase max. 42 deg. Risers 220mm max. Going 220mm. min. Min. going of tapered treads to be 50mm. The going of any tapered treads must not be less than the going of the straight flight. Min. headroom to be 2000mm. measured vertically above pitch line. Continuous handrail to be provided to stairs at height of 900mm. above pitch line and landing where appropriate. Balustrading where applicable, to have vertical balusters at max. 100mm. centres or other unclimbable infill panel with no gaps greater than 95mm. The guarding should be able to resist a horizontal force at top of balustrade of 0.36KN for each metre of its length. All dimensions to be comfirmed on site prior to manufacture.

Rainwater Drainage: All new rainwater goods to be coloured plastic to L.P.A. Approval with gutter and downpipe profile to match existing manufacturer/type to be agreed and to positions shown. All to be installed in accordance with manufacturers instructions. Downpipes to be fixed at 2000mm. centres max. and to discharge into B.I.G. at finished G.L. Stormwater below ground to be either taken to stormwater drainage system or soakaways positioned a min. of 5000mm. from any building. Size of soakaway to be determined in each particular application.

Space Heating Performance Specification: The space heating system to be designed and installed to achieve the following comfort levels: Living room 21 deg.c. Study 21 deg.c. Dining room 21 deg.c. Bathroom 22 deg.c. Bedrooms 18 deg.c. Circulation 18 deg.c. Central Heating System: Combination wall mounted gas/oil fired, instantaneous boiler with fan assisted balanced flue. Boiler to be of adequate BTU rating to suit the size of the dwelling. Boiler to be fitted with programmer for central heating with a roomstat in suitable position. Radiators to be fitted with thermostatic radiator valves.

Mechanical Ventilation: Kitchen to be provided with an extract fan to give ventilation of not less than 60litres/sec. or if incorporated within a cooker hood 30litres/sec. Utility room to be provided with extract fan to give ventilation of not less than 30litres/sec. Bathrooms to be provided with extract fan to give ventilation of not less than 15litres/sec. Toilets/cloaks without window to be provided with extract fan to give ventilation of not less than 6litres/sec. Where above rooms are not provided with a window then the extract fan is to have a 15 minute overrun and be controlled by the operation of the light switch. Air inlet should also be provided 10mm. gap in door. Ducts passing through unheated roof voids to be insulated to minimise the formation of condensation and must include a condensation trap and means of running off condensate. Horizontal ducts to fall away from the fan units. All fans to be installed strictly inaccordance with manufacturers instructions and recommendations.

Smoke Detectors: Provide mains operated self contained smoke detector alarms to be positioned in circulation areas in accordance with Building Regulations Part B1 1991 and the manufacturers instructions. Where there is more than one alarm fitted within a dwelling the alarms should be interlinked. The alarms should be permanently wired to a separately fused circuit at the distribution board. Information onthe use and maintenance of the equipment should be provided for the future occupants.

Electrical Installation: All work to be carried out in accordance with the latest edition of the Institute of Electrical Engineers regulations and the NHBC requirements. An NICEIC. electrical inspection certificate is to be provided at the handover of the property. Electrical fittings to be MK. Logic Plus or equal approved. Generally the lights, switches, sockets, meter boxes and consumer units will be provided as shown on Electrical Drawing and in accordance with NHBC requirements.

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| Drawing: SPECIFICATION 3.                                                                             |             |                    | HANA & COMPANY LIMITED.<br>DEMENTIA SPACES AND ARCHITECTURE.<br>16 BELVOIR ROAD, BOTTESFORD,<br>NOTTINGHAM. NG13 0BG.<br>TEL. 01949 843287. E.MAIL HANA.CO@BTINTERNET.COM |
| Client: MR. C. GILL.                                                                                  |             |                    |                                                                                                                                                                           |
| Project: PROPOSED REPLACEMENT DWELLINGS,<br>GROVE BAY, GROVE LANE, HILLINGDON,<br>MIDDLESEX. UB8 3RG. |             |                    |                                                                                                                                                                           |
| Scale: —                                                                                              | Drawn by:   | File name: HN/083. | Drawing Number:<br>HN/083/III.                                                                                                                                            |
| Set up size: A3.                                                                                      | Checked by: | Date: 05.02.18.    |                                                                                                                                                                           |