

## **PROPOSED DEVELOPMENT AT 7 ALLEYNE WAY ELMER SANDS.**

**Foundations:** Trench fill, 600x700mm, 1:3:6 concrete, minimum depth 1000mm, or to suit site conditions. Depth to be below invert level of any adjacent drains. Foundation depths to be in accordance with NHBC guidance note 4.2 in respect of any trees in the vicinity. A safe GBP of 100KN/M2 has been assumed in the foundation design.

**Ground Floor:** Selected finish on 75mm reinforced sand and cement screed on insulation laid below underfloor heating on Tetris insulation flooring blocks on Bison precast concrete beams by specialist with 150mm void below ventilated with periscopic air bricks at 1800mm centres and within 900mm of corners. Penetrations of wall to be in accordance with Nudura standard details. Hyload DPC below beam bearings.

**External walls:** Reinforced concrete with insulated EPS forms by Nudura Ltd. All to be in accordance with manufacturer's details. Support over structural openings in external walls to be in accordance with structural calculations or designed by Nudura. External wall finish to be water proof render on EML or cladding on counter battens. Lead flashing at junction with pitched roof. Reinforcement to walls in accordance with Nudura standard structural design tables.

**Partitions:** Ground floor, 100mm lightweight block, plastered both sides, first floor to be 12.5mm plasterboard and skim either side of 47x97mm stud, with acoustic quilt infill of minimum density 10KG/m<sup>3</sup>, unless otherwise stated. 215mm concrete blockwork below floor where supporting 2 spans of block and beam floor.

**First Floor:** 21mm flooring grade chipboard on joists as calculated with 12.5mm plasterboard and skim ceiling. Provide solid noggins at 1/3 and 2/3 span. Infill between joists with acoustic quilt of minimum density 10KG/m<sup>3</sup>.

**Ventilation:** Windows, rooflights and external doors double glazed, with opening areas equal to at least 1/20th of room's floor area, and trickle vents of unobstructed area minimum 5000mm<sup>2</sup> to each habitable room, and 2500mm<sup>2</sup> to wet rooms. Total background ventilation to be at least 40000mm<sup>2</sup>. Low emissivity glass, minimum 16mm argon-filled units, max "U" value 1.6 W/sq.m. Glass to doors to be in accordance with BS 6206 in respect of safe breakage. Kitchen to be mechanically ventilated, with minimum extraction rate 60 Litres per second, or 30 Litres per second if via cooker hood, bathroom mechanical ventilation at minimum rate of 15 Litres per second, and ground floor utility/ cloakroom minimum 30 Litres per second. Bathroom and cloakroom doors to be hung 10mm above finished floor level. If extraction via cooker hood, it is to be sited 650-750mm above hob, elsewhere extractor fans to be within 400mm of ceiling. Extractor fans to be subjected to flow tests prior to occupation of building. Egress windows to

bedrooms to provide clear opening area of at least 0.33m<sup>2</sup>, with neither horizontal nor vertical dimension less than 450mm, opening situated between 800 and 1100mm above finished floor.

**Pitched roof:** Catnic pre-finished standing seam roof covering on Thermorooft system on 50x75mm timber purlins on roof timbers as calculated. Timbers strapped to walls at maximum 1800mm spacing. All installed in accordance with manufacturer's details. Provide insulate trap hatch for access to loft.

**Flat Roof:** Kingspan or Celotex 127mm warm deck laid on firrings to fall at 1 in 60 on joists as calculated. Junctions with pitched roof in accordance with Thermorooft specialist details.

**Staircase:** 14 equal risers of rise 215 mm, min going 239mm, with pitch not exceeding 42 degrees. Clear headroom minimum 2000mm measured vertically above pitch line. Clear width 800mm. Handrail height 900mm above pitch line, with no gap in treads or balustrading more than 100mm Balustrading to be unclimbable.

**Rainwater goods:** 100mm half round guttering and 63mm diameter RWP.

**Surface water drains:** 100 mm flexibly jointed pipes at 1 in 80 gradient, bedded and surrounded in peashingle to Geocellular soakaways designed to BRE Digest 365, situated at least 5000mm from any building. Concrete cover to soakaway and drains where less than 450mm deep.

**Foul Drainage:** 100mm diameter plastic pipes and fittings, drains laid at 1 in 80 minimum gradient, all to BS EN 752. Protect with prestressed concrete lintels and compressible sleeve where passing through walls. Concrete cover where less than 450mm deep.

**Above Ground Drainage:** To BS EN 12056. 40mm diameter kitchen sink and shower wastes, 32mm diameter WHB wastes, 100mm diameter wc outlet. 100mm diameter SVP to terminate 900mm above window heads within 3 metres, and with slow radius bend at base. 75mm deep seal or anti-syphonic traps to all appliances. Wholesome water supply to be provided to all waste and sanitary appliances, and any place where drinking water is drawn. Any hot water storage system to be designed in accordance with BS:6700:2006 +A1 2009. Indirectly heated unvented storage system to be installed and commissioned in accordance with the Domestic Heating Compliance Guide and should comply with BS EN 12897:2006.

**Steelwork:** In accordance with structural calculations, encase to 30 Minutes' Fire Resistance with 12.5mm plasterboard and skim.

**Heating:** By means of condensing boiler, minimum 89.5% efficient to SEDBUK 2009, fan assisted balanced flue, thermostat controlled with separate time control for heating and hot water supply. All pipework to be adequately lagged, each radiator to be fitted with TRV.

**Smoke Detection:** Mains operated, interwired smoke detectors to BS 5446 to be provided in hall and on first floor landing, within 3 metres of bedroom doors and within 7 metres of kitchen or lounge doors. Design and installation of system to be LD3 to BS 5839. Heat detector to be installed in kitchen.

**Electrical:** Upon completion, a certificate is to be issued by a competent person to confirm that the design, workmanship and testing of the electrical installation is to BS 7671, and thereby complies with Part P of the Building Regulations. 75% of all new light fittings to be rated energy efficient.

### **CDM Regulations 2015**

Unless otherwise stipulated by the Client, the Client's duties are to be assumed by the Contractor, or Principal Contractor if more than one contractor.

Contractor to prepare Construction Phase Plan to incorporate:

Commencement and anticipated finish dates;

Estimated dates of various build stages;

Anticipated dates of disconnection and re-connection of services;

Information obtained by liaison with client in respect of:

Position and isolation points of services;

Measures needed to restrict unauthorised site access;

Presence on site of asbestos or other hazardous substance.

Toilet, washing and rest facilities are to be made available to those working on site.

All due precautions are to be taken to prevent injury from:

Falls from height;

Collapse of excavations;

Collapse of structures;

Exposure to, and inhalation of dust and hazardous substances;

Use of electricity;

Unauthorised access to working areas.

The Contractor is to arrange for any necessary training/induction for those working on site.

The project will be notifiable to HSE if the duration exceeds 500 person days or if 20 or more persons are working on site simultaneously for 30 days.