

**RECOMMENDATIONS: THE OWNER MAY NEED TO OBTAIN CONSENT FROM LOCAL WATER AUTHORITY TO BUILD OVER OR NEAR ANY SEWERS WITHIN THEIR PROPERTY.**

**ALL WORKS CARRIED OUT IN ACCORDANCE WITH SECTIONS AND NOTES. COPYRIGHT RESERVED. ALL DIMENSIONS TAKEN AS APPROVED BY CLIENT. DRAWING TAKEN AS APPROVED BY CLIENT ANY EXISTING STRUCTURE EXPECTED TO SUSTAIN ADDITIONAL LOADS OR CHANGE IN LOAD CONDITIONS TO BE EXPOSED AND ASSESSED FOR ADEQUACY AND REPAIRED OR REPLACED AS NECESSARY.**

**IF APPLICABLE UNDERSIDE OF NEW FOUNDATIONS TO BE A MIN 1.00M FROM GROUND LEVEL AND SIZES ARE BASED UPON A GROUND BEARING PRESSURE OF 105KN M<sup>2</sup>. BOTH THE GROUND BEARING PRESSURE AND DEPTH OF NEW FOUNDATIONS ARE TO BE AGREED WITH B/I ON SITE BEFORE FOUNDATIONS CAST.**

**PLEASE BE AWARE THAT ANY TREES WITHIN 25M OF THE EXTENSION MAY REQUIRE A DESIGNED FOUNDATION.**

**ALL ITEMS, NOTES, DIMENSIONS AND GENERAL DESIGN CONTAINED ON THIS DRAWING ARE FOR GUIDANCE PURPOSES ONLY.**

**NOMINATED BUILDER OR PERSON RESPONSIBLE FOR THE PROJECT SHOULD MAKE A THOROUGH CHECK PRIOR TO COMMENCEMENT OF WORKS AGAINST SITE, DRAINAGE SERVICE DRAWINGS, CURRENT BUILDING REGULATIONS, BRITISH STANDARDS AND CODES OF PRACTICE**

**STRUCTURAL ENGINEERS CALCULATIONS TO BE CHECKED BY CLIENT/BUILDER BEFORE WORK COMMENCES AND TO TAKE PRECEDENCE OVER INFORMATION ON DRAWING ALSO BE ADVISED WHERE A 203MM WIDE BEAM ( OR SIMILAR) IS SUPPORTING A CAVITY WALL ABOVE IT WILL BE NECESSARY TO PROVIDE A 10MM PLATE (THE WIDTH OF THE WALL ABOVE) WELDED TO THE TOP OF THE BEAM.**

**PERMISSIBLE STRESS ON OLD MASONRY TO BE AGREED WITH BUILDING INSPECTOR ON SITE. (BRICKWORK TO BE 15Nmm<sup>2</sup> IN 1:1:6 MORTAR)**

**THE ORIGNATOR (WESTLEIGH DESIGN) WILL NOT ACCEPT ANY LIABILITY FOR MISTAKES THAT COULD OCCUR**

**NOTE 1: YOUR ATTENTION IS DRAWN TO THE PARTY WALL ETC. ACT 1996, WHICH REQUIRES YOU TO SERVE NOTICE ON YOUR NEIGHBOUR IF YOU INTEND TO ALTER, AFFECT OR WORK IN CLOSE PROXIMITY TO A PARTY WALL OR BOUNDARY.**

**NOTE 2: ALL ELECTRICAL WORK REQUIRED TO MEET THE REQUIREMENTS OF PART P (ELECTRICAL SAFETY) MUST BE DESIGNED, INSTALLED, INSPECTED AND TESTED BY A PERSON COMPETENT TO DO SO. PRIOR TO COMPLETION THE LOCAL COUNCIL NEEDS TO BE SATISFIED THAT PART P HAS BEEN COMPLETED WITH. THIS WILL REQUIRE AN APPROPRIATE BS761 ELECTRICAL INSTALLATION CERTIFICATE TO BE ISSUED FOR THE WORK BY A PERSON COMPETENT TO DO SO.**

**FOUNDATIONS: Foundations to be of size and depth to suit site conditions. FOUNDATION DEPTHS SUBJECT TO ANY TREES WITHIN THEIR LOCATION AND DEPTHS TO BE TO BUILDING INSPECTOR'S SATISFACTION.**

Minimum 600mm wide and taken down to a minimum depth of 1m with 600mm minimum depth of concrete. Foundations to be taken down to invert level of any adjacent drains and within 1m of such drain runs. Foundation concrete should be composed of cement to BS 12:1978 and fine/coarse aggregate conforming to BS 882:1983 in proportions of 50kg of cement to not more than 0.1m of fine aggregate and 0.2m of coarse aggregate. Concrete Grade C35.

**SOLID FLOORS:** Solid ground floor slab to consist of 150mm well consolidated hardcore, 50mm blinding, 150mm concrete slab with layer of A192 mesh, . 1200 gauge damp proof membrane (to be contiguous with new damp proof course), 85mm or equivalent celotex floor insulation laid to manufacturers specification. 75mm sand cement screed. U value 0.22w/m<sup>2</sup>K. A 25mm upstand of insulation must be provided around the perimeter of floors, including where the floor slab touches outside wall (usually at door thresholds). Provide air ducts to ventilate any suspended floors via air bricks at external walls.

**CAVITY WALL:** Walls (cavity) below dpc level to be two leaves of semi-engineering bricks with 100mm cavity between, as shown on drawing (cavity not to be filled with concrete above 225mm below dpc). Above dpc level to be 112mm brickwork outer leaf and then 100mm thermolite shield block inner leaf with 100mm cavity between both. Cavity filled with 100mm drytherm 34 rigid board, all to achieve U value of 0.28 w/m<sup>2</sup>k. The cavity wall insulation must be taken down below damp course level, finishing at the same level as the underside of the floor slab insulation. The cavity wall insulation and roof insulation must meet at the top of the wall (the detail used must also allow ventilation to be maintained if appropriate). Cavity wall insulation must be carried up to the full extent of gable walls. Where the cavity to the masonry walling is between 76mm and 100mm the wall ties must be spaced not less than 750mm horizontally and 450mm vertically. Two leaves tied together with patient stainless steel cavity wall vertical twist type ties or equivalent must be used in cavities 76mm or greater. All wall ties should comply with BS1243:1978. Tray dpc to be provided over lintels. Blocks laid 1:1:6 mortar mix with brick-tor or similar mild steel reinforcement to every third course of block work. Provide proprietary movement joints at max 6m distance. Walls to have a 12mm lightweight plaster internally. All cavity closures to reveals and cills must be insulated.

**FINISHES:** Materials used in the construction of the proposed extension will match those of the main dwelling

**NEW WALLS:** Damp proof courses to be lead core or other similar approved, lapped to a minimum 150mm at all joints and to be contiguous with dpm at 150mm above external ground level. Lintels (unless otherwise stated) to be Catnic steel lintels with 90mm mineral fibre insulation to inner void giving U-value of at least 0.28 W/m<sup>2</sup>k. Catnic lintels to have minimum 150mm end bearings. All wall and ceiling linings to be plasterboard and plastered to give Class A of surface spread of flame. Lead flashing to be provided at all roof and wall abutments. Lead to be let into mortar course a minimum 150mm above roof level. New walls secured to existing with furfix or similar connector. The strapping should be of a galvanised mild steel or similar and have a minimum cross section of 30mm x 5mm. Straps should be a minimum of 1m long and be spaced at not more than 2m centres. Suitable noggings must be used to support the entire length of the strap. Tray dpc provided to any cavity wall/roof abutment.

**STRUCTURAL TIMBERS:** to be treated with approved timber preservatives and to be grade C24. Floor joists etc. must be set on joist hangers (and not built into the wall itself).

**WINDOWS:** All windows to be double-glazed and of a size not less than 10% of the floor area of each room. Window openings to provide a minimum of 1/20<sup>th</sup> of the floor area of each room. Ensure rooms have purge ventilation in accordance with Approved Document F(1/20<sup>th</sup> of the floor area for windows opening 30° or more, otherwise 1/10<sup>th</sup> of floor area). Glazing in timber or plastic frames – double glazing with 16mm gap and a 'soft' low E coating or double glazing with 16mm air gap. Argon filled and soft low E coating. (U value 1.6w/m<sup>2</sup>k.) Trickle vents should be located a minimum of 1.7m above finish floor level.

**POSITION AND HEIGHT OF ALL WINDOWS TO BE CHECKED BY CLIENT/BUILDER BEFORE CONSTRUCTION COMMENCES.**

**EXTERNAL DOORS** should achieve the required area weighted average U-values specified in Table 2 of Approved Document L1b (2006). Doors (50% glass) – U-value=1.8 W/m<sup>2</sup>K or, centre pane U-value = 1.2 W/m<sup>2</sup>K. Glazing in relevant positions should comply with the requirements of Approved Document i.e safety glass.

**DRAINAGE:** All underground drains to be of underground quality PVC pipes (e.g. Hunter-Marley etc) bedded and surrounded in 150mm peashingle to manufacturers recommendations. Large radius bend at base of S&VP's. Drains passing through walls/foundations to be bridged with precast RC lintels. Manholes to have a minimum internal size of 600mm x 450mm with 150mm thick concrete base (concrete mix 1:2:4) Walls to be 225mm thick class B semi-engineering bricks (mortar mix 1:3) with fair faced brick-work internally and flush pointed. Vitrified clay main straight channel and branches benched in sand /cement 1:3 trowelled smooth (external manholes to have galvanised mild steel cover and frames). Fall of drains to be min. 1:40. All new drainage and sanitary pipework, including layout, materials, bedding/surround etc. must be discussed and approved on site by a Building Control Surveyor prior to installation. Air and running tests will be required on completion of works.

**ABOVE GROUND DRAINAGE:** Plumbing 100mm dia PVC S&VP with 100mm dia. branch to WC pan, 38mm dia. waste to bath/shower, kitchen sink and 32mm dia. waste to wash hand basin. Wastes greater than 2.5m in length to be increased to 50mm dia. Appliances to have 75mm deep seal traps. S&VP to terminate 900mm above top of nearest adjacent window with balloon guard. Wastes from ground floor appliances (except WC) to discharge to back inlet gully with pipes discharging below grating level but above water level. All waste pipes to be connected to S&VP on vertical section and below swan-neck to meet Approved Document H1. S&VP should be extended 900mm above the top of the top floor windows within 3 metres.

**RAINWATER** disposal to be by 100mm half round PVC gutter with 75mm dia. PVC down pipes connected to 100mm dia. Hepsleeve or similar drain run, bedded and surrounded in 100mm of peashingle discharging into soakaway sited at least 7m from any building. Soakaway to be size and depth to suit ground conditions. Soakaway construction to be 100mm concrete base with honeycomb brick walls (no gap greater than 25mm) with 150mm reinforced concrete lid.

**CEILINGS** – 12.5mm foil backed plasterboard to be provided to ceilings with 7mm plaster skim.

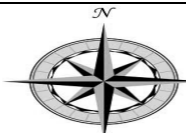
**BACKGROUND VENTILATION** to the new room(s) is required to comply with Table 1.2a of Approved Document F1 (2006) (equivalent areas) and provided to habitable rooms by means of controllable and secure ventilation opening having a total area of not less than 8,000 mm<sup>2</sup> located to avoid drafts (trickle ventilator) hit or miss ventilator. Background ventilation to bathroom to give 4000 mm<sup>2</sup> as above.

**VENTILATION:** Mechanical ventilation to be provided to bathroom/shower room having an output of at least 15 litres/second ducted direct to external air. Mechanical ventilation to be provided to kitchen and utility room having an output of at least 60 litres/second ducted direct to external air.

Mechanical ventilation to be provided to kitchen incorporated in cooker hood having an output of at least 30 litres second ducted to external air. Mechanical ventilation to be provided to WC compartment having an output equivalent to 3 air changes per hour with 15min. overrun connected to light switch and ducted direct to external air.

Suitable background ventilation must be provided to all new rooms. Background ventilators must be reasonably secure, adjustable and be a high level, typically being at least 1.7m above the floor level. All new habitable rooms must be provided with background ventilation with a minimum equivalent area of 500mm<sup>2</sup> and all other rooms 2500mm<sup>2</sup> equivalent area.

**WESTLEIGH DESIGN**



**PROPOSED SINGLE STOREY REAR AND SIDE EXTENSION  
MR H SIVARAJ 20 ST. JOHN'S ROAD WELLING DA16 2F  
REF:230821/NOTES SPECIFICATION**

**STEEL WORK:** Steel work to structural calculations. Steel beams to be encased with two layers of 12.5mm plasterboard fixed to 50mm x 25mm timber cradle with 7mm of gypsum plaster. Steel beams to rest on concrete padstones minimum end bearing of 225mm Twin beams to be diaphragm bolted together with spacers at 900mm centres. Steel Grade 43. All steel beam bottom flanges bolted to top of padstones using 2No. M12 dia. bolts each end. Where the Engineer designs a single steel beam to support a 225mm or 300mm wall a 20mm steel plate to be bolted or welded to either the top flange (internal beam) or bottom flange (external beam) where picking up outer masonry brick or block skin.

**GLAZING:** In critical locations i.e. below 800mm height to be safety glass – **See Window Note**

**NEW PITCH ROOF ABUTTING EXISTING ROOF** – Layboards provided to existing roof to pick up new rafter feet. Wall plates to be bolted down at least 600mm. New rafters to have galvanised restraint straps fixed to every other rafter and secured back along or across adjacent ceiling joists. **ALL LOW PITCH ROOFS LESS THAN 12½° TO BE PROVIDED WITH PROPRIETRY UNDER TILE COVERING I.E 'UNDUTILE' OR SIMILAR**

**NEW SINGLE STOREY PITCH ROOF TO EXTENSION** – Please note to obtain a 15 degree pitch on a single storey roof may impact on a first floor window which then may need raising or replacing with a smaller one.

**LOW PITCH TILING** Use Centuarion low pitch tiles suitable for pitch of 10 degrees.

**TILING:** Roof tiling on 58mm by 25mm treated soft wood battens on Tyveck Breathable Felt onto rafters, (size as indicated on plans). Ceiling joists (size as indicated on plans) secured to rafters and wall plates. (except vaulted ceiling – see separate note). Ventilation to be provided at the top and bottom of the roof slope to ensure full cross ventilation. Allow for 25mm air space behind fascia. (U value 0.15w/m²K).

**COMBINED ROOF INSULATION** – Cold bridging dealt with at abutment of steel beam and flat roof by attaching the steel beam with 100mm celotex. Warm roofing is to be taken down to meet cold roof insulation but not to interfere with cross ventilation.

**ROOF INSULATION** – Main Roof 270mm insulation.

**ROOF TIMBERS** - to be strapped down to masonry. All to B I satisfaction.

**WARM ROOF:** (U value 0.18w/m²k) Roof to be covered with 3 layers glass fibre paint incorp. mesh on 12mm board on Kingspan Thermaroof TR27 120mm thick. Provide vapour control barrier to flat roof. Furring pieces giving a fall of 1:60 nailed to joists size as indicated on plans. (Minimum size 150mm x 50mm). Underside of joists covered with 12.5mm thick plasterboard and plaster skim. Roof covering to achieve B Roof (t4) within 6 metres from boundaries.

**ALARMS:** A suitable main powered, battery backed-up fire detection and alarm system must be provided to new and existing circulation spaces. If an existing non-mains detection system already exists then this system must be upgraded. All to BS 5839 – Part 6:2020.

The alarm system must be fitted with an audible or visual monitoring device or is connected to the lighting sub-circuit. The reason for this is that if the lighting circuit trips off this will be investigated and repaired quickly, where as if a separate circuit is used for the smoke detection system this may not be noticed and any battery backup may have run down completely thus giving no early warning protection.

Detector heads should normally be positioned in circulation spaces, (at least one) heat detector in the kitchen.

Manufacturers details of the detectors must be provided to clarify the maximum number of detector heads the system can accommodate.

Detectors must be sited: within 7.5m of a room; be ceiling mounted and be at least 300mm from any wall or light fitting unless manufacturers details are provided indicating alternate positioning; the sensor in the detector head is between 25 and 600mm below the ceiling (25 and 150mm for heat detectors).

The detector must be positioned so that it is accessible for routine maintenance. Must not be fitted over / near heaters or air-conditioning outlet, places likely to suffer from steam, condensation, fumes, extremes of heat or cold.

A Part P installation and commissioning certificate must be provided for the detection system prior to the works completion.

Details of the detection system and how it is to be maintained must be included as part of the building maintenance manual.

The occupier should be provided at job completion with written documentation on the use and maintenance of the fire alarm system.

