

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

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DO NOT SCALE OR CONSTRUCT FROM THESE DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED ON SITE

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 M². 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

ANY STEELWORK BELOW DPC LEVEL TO BE PROTECTED AGAINST CORROSION WITH 50MM CONCRETE SURROUND BELOW GROUND LEVEL AND 2 COATS BITUMEN UP TO DPC LEVEL

CE marking to BS EN 1090 is now a legal requirement

Since July 2014, structural steelwork and aluminium fall under the Construction Products Regulation (CPR), which means aluminium or structural steel CE marking must be secured to show compliance with EN 1090-1 (the harmonised European standard that applies to structural metalwork). This covers any structural component that has been designed and fabricated to meet the BS EN 1991 series of standards (Euro code 3 and 9) for steel and aluminium structures in buildings. And you now need to show that they comply with BS EN 1090-1.

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 15Nmm² IN 1:1:6 MORTAR)

THE ORIGINATOR (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.

CAVITY WALL: Above dpc level to be 112mm brickwork outer leaf and then 100mm thermolite shield block inner leaf plus 40mm PIR(Celotex) and 12.5mm plasterboard with 100mm cavity between both. Cavity filled with 100mm drytherm 32 cavity batts, all to achieve U value of U Value 0.18 W/m²k. 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. Cavities should be closed with insulated cavity closures designed for purpose at all openings.

FINISHES: MATERIALS USED IN THE CONSTRUCTION OF THE PROPOSED EXTENSION TO MATCH THOSE OF THE MAIN DWELLING.

NEW WALLS: Lintels (unless otherwise stated) to be Catnic steel lintels with 90mm mineral fibre insulation to inner void giving U-value of at least 0.18 W/m²k. 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.

CAVITY TRAYS to be provided over air bricks venting existing suspended floors and over lintels in external cavity walls with stopped ends and weepholes. Cavity trays at abutment of roofs and adjacent cavity wall also to have lapped and sealed joints stopped ends and weepholes and be linked with the upstands flashing.

CAVITIES being cut continuous at vertical abutment of new and existing cavity walls or a vdpc inserted on the line of the cavity through the full thickness of the existing brickwork. Where the cavities cannot be cut continuous a vdpc should be provided behind the blockwork lapped to two coat bitumen to the existing wall full height and approx. 1m horizontally.

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).

STUD PARTITIONS – Where partitions run parallel to floor joists double up joists and bolt together.

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 1/20th of the floor area of each room. Ensure rooms have purge ventilation in accordance with Approved Document F (1/20th of the floor area for windows opening 30° or more, otherwise 1/10th 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 1.4W/m²k.) Trickle vents should be located a minimum of 1.7m above finish floor level. Means of escape window frame to be minimum 450mm wide by minimum 750mm high. Bottom of window to be no higher than 1100mm above ground level.

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

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. Where drainage passes through sub-structure a 50mm air space to be provided all around the drain in accordance with AD H diagram 7. 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. 32mm basin waste to be increased to 40mm over 1.7m in length up to a maximum of 3m. Combined waste pipes to be 50mm dia. 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 Part F Table 1.7 (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 mm² located to avoid drafts (trickle ventilator) hit or miss ventilator. Open Plan Kitchen/Diners to have minimum of 3 trickle vents in a room (8000mm² each) Part F Table Para.1.52. Background ventilation to bathroom and utility room to give 4000 mm² as above. Existing Home Ventilation Guide required to be given to the homeowner by the builder to explain how to use and ventilate efficiently.

WESTLEIGH DESIGN



PROPOSED FIRST FLOOR CHALET STYLE EXTENSION WITH FRONT AND REAR DORMERS
MR N PHOTAY 14 SUN LANE GRAVESEND DA12 5HG
REF:180423/SPECIFICATION NOOTES

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.

STEEL WORK: Steel work to be encased to provide 30 minute fire resistance in accordance with the Board Manufacturers recommendations to include frame work and boarding. 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.

FLOOR JOISTS supported on external walls and not built in joist hangers to be restraint type. Where walls are parallel to the joist direction suitable 30x5mm galvanised mild steel straps should be provided built in at maximum 2m centres and taken over a minimum of 3No joists with timber noggin support beneath the full length of the strap.

ESCAPE WINDOWS: Provided to all new first floor habitable rooms, being not less than 450mm wide with a minimum area of .33m². Cill height to be not more than 1100mm from finish floor level. All means of escape windows to meet Approved Document B1.

GLAZING: Safety glazing being provided in doors and adjacent side panels to a height of 1500mm in addition to where below 800mm. The glazing in windows within 800mm of the floor where the external ground level is in excess of 600mm below the floor level the glazing should be toughened/laminated and non openable.

SOUND REGS FOR NEW STUD WALLS – To comply with Approved Document E (Sound Insulation) the partitions to bedrooms and bathrooms should be clad with two layers of plasterboard each side of timber or metal studs, each layer of a mass of 10 Kg/m² (wall type A) or, alternatively, (wall type B) a single layer of plasterboard of mass 10 Kg/m² each side with a minimum of 25mm mineral wool (mass 10 Kg/m²) suspended in the cavity. 12.5mm wallboard does not meet a mass of 10 Kg/m². Use 15mm wallboard, gyptic Soundbloc (12.5mm), Gyproc wallboard TEN (12.5mm), Lafarge E check Wallboard (12.5mm), or similar

SOUND REGS RE FLOOR SEPARATION – Floor void infilled with 100mm rockwool 12.5mm Gyproc ‘soundbloc’ plaster board and plaster skimmed. If the existing ceiling consist of a 9.5mm layer of plasterboard and skim a further layer of 9.5mm plasterboard will need to be affixed to the underside to achieve a density of 10 kg/m². In respect of the density of the floor should a 21mm thickness of chipboard not be available then a 5mm layer of dense hardboard fixed over 19mm chipboard will achieve 15 kg/m² minimum mass. The floor in its entirety should extend for the whole area of the first floor ceiling with the void having mineral wool of 100mm in thickness and a density of 10 kg/m³. This will obviate the necessity for having to provide sound insulation to the partitions on the second floor, other than the staircase partitions separating first from second floor.

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 facia. (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 400mm insulation. . Maximum U-value of pitched roof (insulation at ceiling level) to be 0.15W/m²k.

ROOF TIMBERS - to be strapped down to masonry with suitable holding down/vertical with restraint straps 1m in length and at a maximum of 2m centres. All to B I satisfaction. Maximum U-value of pitched roof (insulation at ceiling level) to be 0.16W/m²k

WARM ROOF: (U value 0.15W/m²k) Roof to be covered with fibre glass application to manufacturers recommendations on 18mm board on Kingspan Thermaroom TR27 150mm thick. Provide vapour control barrier to flat roof. Ply/USB boarding over 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. The external surface of the flat roof covering to achieve a half hour fire resistance and a Class O or Class A-A resistance to surface spread of flame.

LOFT FLOORS: To maintain the fire resistance of the ceiling/second floor either the boarding to the floor should be maintained to the eaves or the back side of the dwarf walls, should be upgraded to 30 minutes fire resistance. The first floor ceiling is required to meet Approved Document E for sound insulation.

EXTERNAL DORMER CONTRUCTION: Form timber frame Treated Grade C24 bottom timber sole plate of 150 x 50 bolted with chemical anchors to brickwork outer skin. All vertical timbers posts of 150 x 47 sawn timbers @ 600 crs. with 2 No. at openings reveals and corners bolted together with M10 dia. bolts and connectors @ 400 crs. Horizontal noggins and diagonal cross bracing of 150 x 47 sawn timbers. . For timber / timber connections use propriety gang nail mild steel connectors. Roof joists strapped down to timber stud with propriety galvanized straps. Rafters doubled up to support side of dormer cheeks. Cover externally with 12mm external quality plywood with bitumised breather paper. External frame insulated with 100mm Celotex (GA4000) between studs and overlay with 50mm Celotex (GA 4000) and 12.5mm plaster-board (U Value 0.18W/m²k). Vertical tiling to match existing on 50mm x 25mm tanalised battens. Dormer cheeks within 1m of the boundary to achieve a 30-minute fire resistance. Apply 12mm fireline board/superlux/masterboard to both sides of cheek. Breatherable mmembrane provided. Tiles fitted to dormer cheeks to be plain.

NEW SLOPING SKILLING ROOF - Tiling on battens on breather membrane – air space – 100mm GA 4000 celotex placed between rafters – lined beneath with 45mm GA 4000 celotex across Insulation plus 12.5mm Gyproc Duplex plasterboard to achieve U Value of 0.15 W/m²k. No recessed lighting in sloping ceiling.

NEW INSULATED STUDWORK WALLS - Loft space between flat ceiling, roof lines & studwork wall – 90mm Celotext tuff-R zero ODP insulation placed between studwork timbers – 12.5mm Gyproc Duplex plasterboard. U Value 0.18W/m²k.

FLOOR: To have 25mm tongue and groove soft wood boards secured to floor joists (size as indicated on plans or moisture proof boarding to BS7331.

PROPOSED STAIRCASE: IT IS REALLY IMPORTANT FOR THE STAIRCASE MANUFACTURER TO GO TO SITE TO CHECK OUT ALL DIMENSIONS AND SITE DETAILS BEFORE CONSTRUCTION. Stairscase to be a minimum 750mm clear width with treads and risers as indicated on plans giving a maximum pitch of 42° unless stated otherwise on the plan. Minimum headroom of 2mtres measured vertically from pitch line (joining nosings). Handrail to be provided to one side of staircase securely fixed 900mm above pitch line. Exposed edges of staircase and landings to be protected by balustrading not less than 900mm high. Landings to be minimum 700mm square. No gap in balustrading, treads or risers to be greater than 100mm. Turns to the stairs to maintain a 50mm tread at the inner edge of each step adjacent newel post. **ANY STAIRCASE NOTWITHSTANDING ANY OTHER INFORMATION GIVEN TO BE NO MORE THAN 42° PITCH**

PITCHED DORMER: Roof construction 150mm x 50mm rafters at 400mm ctrs. 100mm x 50mm ceiling joists at 400mm ctrs. Collar ties 100mm x 50mm. Soakers and lead flashings to dormer/roof abutment.

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.



NEW U-VALUES TABLE AS OF JUNE 2022

THERMAL ELEMENT	NEW U-VALUE
New Floor	0.18 W/m²k
New Cavity Walls	0.18 W/m²k
Timber Frame Walls	0.18 W/m²k
Pitched Roof (Flat Ceiling)	0.15 W/m²k
Pitched Roof (Vaulted Ceiling)	0.15 W/m²k
Flat Roof (Cold Deck)	0.15 W/m²k
Flat Roof (Warm Deck)	0.15 W/m²k
Retained roof Up Grades Flat Roof Flat Ceiling Vaulted	0.16 W/m²k 0.16 W/m²k 0.16 W/m²k
Windows	1.4 W/m²k
External Doors > 60% Glazing	1.4 W/m²k Band C
Other External Doors	1.4 W/m²k Band B
Roof Light	2.2 W/m²k

