BUILDING REGULATIONS NOTES

CDM REGULATIONS 2015 THE CLIENT MUST ABIDE BY THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015. THE CLIENT MUST APPOINT A CONTRACTOR, IF MORE THAN ONE CONTRACTOR IS TO BE INVOLVED, THE CLIENT WILL NEED TO APPOINT (IN WRITING) A PRINCIPAL DESIGNER (TO PLAN, MANAGE AND COORDINATE THE PLANNING AND DESIGN WORK) AND A PRINCIPAL CONTRACTOR (TO PLAN, MANAGE AND COORDINATE THE CONSTRUCTION AND ENSURE THERE ARE ARRANGEMENTS IN PLACE FOR MANAGING AND ORGANISING THE PROJECT)

THE DOMESTIC CLIENT IS TO APPOINT A PRINCIPAL DESIGNER AND A PRINCIPAL CONTRACTOR WHEN THERE IS MORE THAN ONE CONTRACTOR, IF NOT YOUR DUTIES WILL AUTOMATICALLY TRANSFERRED TO THE CONTRACTOR

THE DESIGNER CAN TAKE ON THE DUTIES, PROVIDED THERE IS A WRITTEN AGREEMENT BETWEEN YOU AND THE

THE HEALTH AND SAFETY EXECUTIVE IS TO BE NOTIFIED AS SOON AS POSSIBLE BEFORE CONSTRUCTION WORK

LAST LONGER THAN 30 WORKING DAYS AND HAS MORE THAN 20 WORKERS WORKING SIMULTANEOUSLY AT ANY POINT IN THE PROJECT

(b) EXCEEDS 500 PERSON DAYS.

OR PRINCIPAL CONTRACTOR

THE OWNER, SHOULD THEY NEED TO DO SO UNDER THE REQUIREMENTS OF THE PARTY WALL ACT 1996, HAS A DUTY TO SERVE A PARTY STRUCTURE NOTICE ON ANY ADJOINING OWNER IF BUILDING WORK ON, TO OR NEAR AN EXISTING PARTY WALL INVOLVES ANY OF THE FOLLOWING:

INSERTION OF DPC THROUGH WALL RAISING A WALL OR CUTTING OFF PROJECTIONS

DEMOLITION AND REBUILDING

UNDERPINNING INSERTION OF LEAD FLASHINGS

EXCAVATIONS WITHIN 3 METRES OF AN EXISTING STRUCTURE WHERE THE NEW FOUNDATIONS WILL GO DEEPER THAN ADJOINING FOUNDATIONS, OR WITHIN 6 METRES OF AN EXISTING STRUCTURE WHERE THE NEW FOLINDATIONS ARE WITHIN A 45 DEGREE LINE OF THE ADJOINING FOLINDATIONS A PARTY WALL AGREEMENT IS TO BE IN PLACE PRIOR TO START OF WORKS ON SITE

CARE SHALL BE TAKEN TO LIMIT THE OCCURRENCE OF THERMAL BRIDGING IN THE INSULATION LAYERS CAUSED BY GAPS WITHIN THE THERMAL ELEMENT, (I.E. AROUND WINDOWS AND DOOR OPENINGS). REASONABLE PROVISION SHALL ALSO BE MADE TO ENSURE THE DWELLING IS CONSTRUCTED TO MINIMISE UNWANTED AIR LEAKAGE THROUGH THE NEW BUILDING FABRIC.

HEALTH AND SAFETY THE CONTRACTOR IS REMINDED OF THEIR LIABILITY TO ENSURE DUE CARE, ATTENTION AND CONSIDERATION IS GIVEN IN REGARD TO SAFE PRACTICE IN COMPLIANCE WITH THE HEALTH AND SAFETY AT WORK ACT 1974.

ALL WORKS ARE TO BE CARRIED OUT IN A WORKMANLIKE MANNER. ALL MATERIALS AND WORKMANSHIP MUST COMPLY WITH REGULATION 7 OF THE BUILDING REGULATIONS, ALL RELEVANT BRITISH STANDARDS, EUROPEAN STANDARDS, AGREEMENT CERTIFICATES, PRODUCT CERTIFICATION OF SCHEMES (KITE MARKS) ETC. PRODUCTS CONFORMING TO A EUROPEAN TECHNICAL STANDARD OR HARMONISED EUROPEAN PRODUCT SHOULD HAVE A CI

RAINWATER DRAINAGE

Rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm

UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be

1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to

design and depth of soakaway. Paved areas to be suitably drained free from storm water. SUSTAINABLE DRAINAGE PAVING

Day Aggregates is a popular use of permeable paving, formally used for SUDS as this

the layer of material on which the paying units are bedded, facilitating the free passage of water through to the underlying sub-base layers. Materials can be a 2/6mm clean

a 2/6mm clean hard grit or Sharp Washed Sand from Day Aggregates. This

consists of a 3mm grit should be used to infill the gaps between the pavers. This is a typical permeable pavement design recommendation from BS7533-13:2009.

Proposed Sustainable Drainage System (SUDS) from soakaway to

paving. In addition, water flow from green surface. Rainwater flow into

pipes embedded into cavity solid wall. This reduces groundwater recharge

allows rapid surface water runoff, limited infiltration into the ground. This reduces evapotranspiration from vegetation and surface water

TIMBER FRAME WALL

To achieve minimum U Value of 0.28W/m ²K imber cladding fixed to 25 x 38mm preservative-treated battens (provide counter battens to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick WBP external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 100mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm ctrs or to s/engineer's details & calculations Insulation to be 60mm Celotex GA4000 between study plus 37.5mm Celotex PL4000 insulated plasterboard with VCL over. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. Walls within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides. Timber cladding to be treated with Fire Retardant Coating for Timber (ESVFR & QVFR) or

similar paint system to achieve class 0 and 1 EU SBI/B/s1/d0.

he following specification must be read in conjunction with all relevant project drawings, schedules etc. and is applicable whether specifically referred to or not. It is the responsibility of the contractor to ensure that all their work is in compliance with the appropriate requirements of the relevant Building Regulations and other allied legislation.

Trench foundation Concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 600mm wide and 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004:1986 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Please note that should any adverse soil conditions or difference in soil type be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should

The existing ground within the extent of the proposed building construction site shall be cleared of all turf and vegetable matter prior to any further excavation being made. Method of disposal of any contaminated soil to be agreed with the Local Environmental Officer. Foundation trenches shall be clean and true and checked for soft areas, water etc. and left with compacted bottoms. Foundations shall be located centrally under external and load bearing internal walls. All foundations shall be designed with due regard to subsoil conditions, water table, presence of sulphates and previous ground uses etc.

HORIZONTAL/VERTICAL - DAMP PROOF COURSES

ucked under DPC to provide a complete water proof membrane

The horizontal damp proof course shall consist of a layer of 2000 gauge polythene damp course to BS 743/6515 adequately lapped at corners and joints, on a mortar bed maintaining a minimum 150mm above adjacent ground level. All joints to be lapped a minimum 150mm. Ensure that damp proof courses do not project into the cavity.

Where external wall cavity is bridged i.e. air brick/ventilator openings and meter cupboard etc. provide polythene cavity trays complete with stop ends over in the external wall with open proprietary perpends. Cavity trays are to project 150mm beyond either

Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPC 's and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

SOLID GROUND FLOOR CONSTRUCTION Granular material, free from harmful matter, well graded and passing a 75mm BS sieve. Crushed hard rock or quarry waste, not chalk, or crushed concrete, bricks or tiles free from old plaster. Average thickness of hard-core bed to be 150mm, Increase ickness as necessary to make up levels and backfill foundation at trench. Hard-core to be thoroughly compacted in layers not exceeding 150mm. Surfaces of hard-core to have a sufficient consolidated blinding of sand to fill interstices and provide a close smooth surface for 1200 gauge polythene DPM laid with edges lapped not less than 300mm and turned up the perimeter walls and

Concrete to be grade C10P to BS5328 using OPC cement and 20mm nominal maximum size of aggregate. Thickness of concrete

100mm thick Celotex Fast-R FF3000 insulation slabs laid directly on additional 1200 gauge DPM on concrete ground floor slab to achieve a U-Value of 0.22W/m2K. Off cuts of insulation to be placed around perimeter of external walls, beneath skirting, to

65mm thick 1:4 cement:sand screed using OPC cement and fine aggregate to grade limit M, BS882 with light gauge wire mesh reinforcement in centre. Screed to be floated smooth and finished flush with existing floor level unless stated otherwise of the EXTERNAL CAVITY WALL - BLOCKWORK

Outer skin to comprise 103mm thick matching facing brickwork with a 100mm wide cavity and a 100mm thick Thermalite Turbo

Provide cavity trays over openings. All cavities to be closed at eaves and around openings using Thermahate or similar non-combustible insulated cavity closers. Provide vertical DPCs around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres

Cavity to be closed at all window, door junctions and at eaves level with blockwork or a proprietary cavity closure. Skins to be tied together with 225mm long vertical twist wall ties spaced at 900mm centres horizontally and 450mm centres vertically and at 225mm centres at window and door reveals. Provide additional ties within 225mm of side of openings at no more than 300mm centres. Blocks to be laid in a 1:1:6 cement:lime:sand mortar with a struck joints. Ensure that cavities are kept free from debris by employing the use of timber cavity battens pulled up as work proceeds.

All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS 5268-6.1: 1996 and BS EN 845-1: 2003

Vertical damp proof courses to be provided at all un-bonded jambs; (note proprietary cavity closer at all jambs and cills).

At all low roof abutments i.e. porches, conservatories ensure stepped DPC's cavity tray with stop ends are provided and linked to code 4 lead flashing's and soakers. Code 4 lead dressed beneath cavity trays and over roof slopes with alternate perpends left open for weep holes all as necessary to form weather proof junction.

cannot be achieved, where new walls abuts the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

Provide polythene lapped and continuous cavity trays with stop-ends, above all lintels and over short piers between closely spaced openings. Provide open perpends or PVCu proprietary perpends at 300mm centres, minimum 2 no per openings. Bond new blockwork to existing walls with stainless steel masonry connectors and ties rawlbolted to existing walls

The cavity is to be filled with a lean mix concrete up to a level of 225mm below DPC & is to be laid with sulphate resistant mortar. Provide perpends weep holes every fourth vertical joint in the outer leaf at the base of the cavity at 150mm below DPC. Maintain a continuous cavity between new and existing walls.

The cavity is to be closed at openings using proprietary cavity closer 'Thermabate' or equal, installed in accordance with

Walls to be finished internally with an approx. 13mm thick layer of bonding plaster and 2-3mm thick finishing skim plaster floated smooth or 12.5mm plasterboard on plaster dabs with a plaster skim finish. EXTERNAL CAVITY WALL INSULATION

90mm thick full fill Rockwool cavity wall batts, or similar, cavity wall insulation to provide a minimum u-value of 0.30W/m2K. Fix bats securely with tightly butted joints, ensuring that all edges are not damaged and that top edges are covered with a temporary timber batten to ensure that they remain free from mortar droppings and other debris. The cavity wall insulation is to be installed in strict accordance with manufacturers recommendations commencing below the DPC to avoid cold bridging. The cavity insulation is to commence at the same level as the horizontal ground floor insulation. All glass shall be in accordance with BS 6262:1978. Obscure glazing is to be provided to all bathrooms and cloakrooms. All windows and doors are to be weather stripped.

All windows and doors to be double glazed uPVC units.

LINTEL SCHEDULE

Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed oncrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS 8110, with a concrete strength of 50 or 40 N/mm2 and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1.

All lintels to be securely built into masonry walls and be of the appropriate length to ensure a minimum 150mm bearing at each end. Provide Catnic lintels CN7 up to 1800mm span or CN8 over 1800mm span over external openings. Reinforced concrete lintels over internal openings with a minimum bearing of 150mm INTERNAL WALLS - NON LOAD BEARING STUDWORK

75x50mm softwood framing comprising sole and head plates, uprights at 400mm centres and noggins staggered at mid-height Walls to be lined each side with 12.5mm plasterboard, taped, skimmed and set finished. Plasterboard to be plaster skimmed ready for decoration. All studwork walls to be supported on double floor joists or noggins.

Fascia to be 25mm thick PAR softwood to match existing complete with an 12.5mm thick exterior quality plywood soffit fixed to fascia and to wall with softwood battens. Clipped verge detail at gables. Ceiling to be 12.5mm foil backed plasterboard with joints filled and taped to take textured finish. Provide 50 x 38mm noggins to

provide support at joints, edges and light fittings. **ROOF INSULATION - JOISTS** Whole roof area is to be insulated with two layers of Rockwool Rollbatt insulation guilt, total thickness 270mm. The first layer of

Omm insulation quilt to be laid between ceiling joists complete with the second layer of 170mm insulation quilt laid at right angles on top of ceiling joists. Separate but linking quilt is to be laid over the softwood wall plate and wedged into the 75mm cavity top to avoid cold bridging and close the cavity. Pack the space between last rafter and gable wall with insulation. Roof to achieve a u-value (through joists) of at least 0.16 W/m2K.

RAINWATER GOODS

Rainwater Drainage New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill and with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine

PITCHED ROOF INSULATION - RAFTERS

Roof insulation to rafters to be Celotex Tuff-R Zero GA3090Z insulation slabs thickness 90mm between the rafters and GA3050Z 50mm thick slabs fixed to the underside of the rafters with broad headed clout nails. Total construction for new build to achieve a minimum 'U' value of 0.20 W/m2K. Ensure that a minimum 50mm wide air gap is maintained between the insulation and underside of roof covering for free passage of air for ventilation. Use 50x50mm softwood cross battening if necessary to achieve air gap. UNDERGROUND DRAINAGE - ACCESS POINTS

ess points in the form of rodding eyes, access fittings, inspection chambers or manholes to be provided at the following points:

At a bend and at a change of gradient At a change of pipe size At a junction unless each run can be cleared from an access point

450mm diameter plastic inspection chamber on a 100mm thick concrete base and surrounded with 150mm of pea-shingle for

Manhole and/or inspection chambers should have removable non-ventilating covers to be either cast iron or pressed steel and be of suitable strength. Covers inside buildings shall have mechanically fixed airtight covers.

Underground foul drainage deground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea The maximum lengths of waste pipes shall be as follows shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab pressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply

FOUL DRAINAGE All existing foul water drainage to be tested for leakage, exposed for inspection (as required by BCO) and repaired or replaced where necessary. All new above ground drainage and plumbing to comply with BS EN 12056-2:2000 for sanitary pipework. All drainage to be in

accordance with part H of the Building Regulations. Wastes to have 75mm deep an vac bo<le traps and rodding eyes to be provided at changes of direction. Size of wastes pipes and max length of branch ections (if max length is exceeded then an vacuum traps to be used) Wash basin - 1.7m for 32mm pipe 4m for 40mm pipe W/c - 6m for 100mm pipe for single WC

All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m

Or to 110mm upvc soil pipe with accessible internal air admi<ance valve complying with prEN 12380, placed at a height so that the outlet is above the trap of the highest fiGng. Waste pipes not to connect within 200mm of the WC connection. Supply hot and cold water to all fixings as appropriate.

Soil and vent pipe Svp to be extended up in 110mm dia UPVC and to terminate min 900mm above any openings within 3m. Provide a long radius bend at foot of SVP

BACKGROUND AND PURGE VENTILATION Background Ventilation- Controllable background Ventilation via trickle vents to be provided to new habitable rooms at a rate of min 5000mm2; and to kitchens, bathrooms, WCs and ulity rooms at a rate of 2500mm2 Purge Ventilation - Windows/rooflights to have openable area in excess of 1/20th of the floor area, if the window opens more than 30° or 1/10th of the floor area if the window opens less than 30°. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domesc Ventilation compliance guide.

PITCHED ROOF CONSTRUCTION

walls or 75kg/m2 for plasterboard walls

Maintain a 50mm air gap above insulation in the roof pitch to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote Ventilation

Walls should be strapped to roofs at 2m centres. All external walls running parallel to roof rafters to be restrained at roof level using 1000mm x 30mm x 5mm galvanised mild steel horizontal straps or other approved to BSEN 845-1 built into walls at max 2000mm centres and to be taken across minimum 3 rafters and screw fixed. Provide solid noggins between rafters at strap positions. All wall plates to be 100 x 50mm fixed to inner skin of cavity wall using 30mm x 5mm x 1000mm galvanized metal straps or other approved

Softwood rafters as per drawings birds-mouthed over 100x50mm softwood wallplate bedded to top of internal cavity skin wall and tied with ceiling joists as per drawings, held down with 30x5mm mild steel straps @ 1.2m ctrs (1.2m long), bent at right angles to give a min. 75mm fixing to the top of the wall plate. Lateral and vertical restraint straps are to be provided to roof members in accordance with BS 5628 from the roof to adjacent

parallel walls at maximum 2.0m centres using 30 x 5mm galvanised steel straps turned down 150mm minimum over blockwork and fixed over solid blocking, to a minimum of three rafters. PITCHED ROOF ANCILLARY NOTES The roof shall be covered with Forticrete Centurion concrete roof tiles laid at 10 degree low pitch, and matching ridge tiles to be

Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity reinforced roofing felt underlay type 1F to BS747 Pt.2 The roof is to be cross-vented by proprietary eaves ventilator equivalent to a 25mm continuous air gap within eaves. A ridge ventilation system (Redland - Dry vent or equal approved) is also to be installed. To ensure a clear airflow from eaves vents

through into roof space, proprietary ventilation trays are to be fixed between rafters

floor area plus the area of any existing openings covered by the extension

without windows to additionally have 15 minutes over-run. Kitchens:

INTERNAL WALLS - NON-LOAD BEARING BLOCKWORK 100mm aircrete blockwork to be built off horizontal damp proof course and centrally off the concrete foundations / thickened floor

Walls to be finished internally with an approx. 13mm thick layer of bonding plaster and 2-3mm thick finishing skim plaster floated smooth or 12.5mm plasterboard on plaster dabs with a plaster skim finish

 $Minimum\ mass\ square\ meter\ for\ sound\ insulation\ for\ walls\ to\ bedrooms\ and\ rooms\ containing\ WC's\ to\ be\ 90kg/m2\ for\ plastered$

Windows are to provide 4000 sq.mm, minimum of background ventilation via controlled trickle ventilators in kitchen, bathroom cloakroom and utility room window or door and 8000 sq.mm, to all habitable rooms. Alternatively, the sum of all trickle vent areas

in the house must equal or exceed 6000mm2 x those rooms specified in Table 1 of Approved Document F New and replacement windows to be double glazed with 16mm argon gap and soft coat low-E glass. Window Energy Rating to be Band C or better and to achieve U-value of 1.6 W/m2K. The door and window openings should be limited to 25% of the extension

Bathrooms and En-Suite Bathrooms: All bathrooms and en-suites to incorporate a recessed mechanical extract fan (extracting at a rate of 15 litres per second) located in the ceiling or wall, which will be operated intermittently linked to room lighting. Switching to be by means of light switch with isolator switch external to room. External terminal in gable (when possible) with plastic airbrick to match facing brickwork. Rooms

All kitchens (including kitchen/dining rooms) shall be mechanically ventilated by an extracting cooker hood, extracting to external air at a rate of 30 litres per second, operated intermittently. All utility rooms to be mechanically ventilated either by a wall-mounted (or ceiling mounted) fan, , to extract 30 litres per second and controlled by light switch. In rooms without openable windows 15 min over run to be provided. Isolator switch at high level external to room. Any ducting in floor zone not to exceed 6m or less if manufacturer so recommends, terminating in an approved

EFFICIENCY LIGHT FITTINGS Provide lighting fittings as tabled below to be fixed lighting that only accepts lamps having a luminous efficacy greater that 40 lumens per circuit watt. Such fittings would include fluorescent tubes and compact fluorescent lamps but not GLS tungsten lamps

with bayonet cap or Edison screw bases. 1-3 new rooms created 1 no location 4-6 new rooms created 2 no locations

3 no locations 7-9 new rooms created 10-12 new rooms created 4 no locations

Halls, stairs and landings count as one room but may contain more than one fitting. Efficiency light fittings cannot be located in garages, lofts and outhouses. The exact locations of efficiency light fittings to be determined on site

External light fittings to be fitted as calculated in the DER and in compliance with the Domestic Building Services Compliance

lamp capacity not greater than 100 lamp-watts per light fitting and provided with automatic movement detecting devices (PIR) and automatic daylight sensors ensuring lights shut off automatically when not required. lamp efficacy greater than 45 lumens per circuit-watt; fitted with manual controls and automatic day light cut-off sensors so

All habitable rooms to have rapid ventilation via windows/doors of an openable area at least 1/20th of the floor area, part of the ventilation opening must be 1.75m above floor level.

Drains running under a building to be surrounded in 100mm of granular fill. On sites where excessive subsidence is possible additional flexible joints should be provided. Where the top of the pipe is within 300mm of the underside of the slab concrete ncasement shall be used an be integral with the slab. Provide flexible movement joints of compressible board at each pipe junction when encasing in concrete. Where a drain runs through a wall or foundation provide a length of pipe (as short as possible) built with its joints as close a possible to the wall / foundation faces (within at most 150mm) and connected on each side to rocker pipes with a length of at most 600mm and flexible joints. LUMBING INSTALLATION

Complete installation to be subject to and capable of withstanding testing in accordance with BS 5572 :1978. Above ground foul drainage pipe work shall be PVC-u to BS 4514. Pipe work must be designed in accordance with BS 5572 and installed to ensure that appliances drain efficiently without causing prossflow, backfall, leakage or blockage. No air from the drainage system shall enter the building. Provide adequate support to lengths of pipework and at junctions and changes in direction. No branch connection to be within 450 mm above foot of soil pipe.

100 mm dia nom. size WC's, soil pipes Common pipe wastes 50 mm dia nom. size 50mm dia nom. size Bath, sink Handbasin 32 mm dia nom. size 32 mm dia. nom. size

All PVC-u pipe work to be to BS 4514. Minimum pipe sizes for sanitary plumbing to be:

All fittings are to have 75mm deep seal traps. Provide waste for washing machine and dishwashers where applicable. All waste pipes shall be laid to falls (25mm per metre run). All plumbing shall be installed in accordance with manufacturer's instructions.

32mm pipe 1.7m maximum length 40mm pipe 3.0m maximum length 50mm pipe 4.0m maximum length

Soil and ventilating stacks at ' head ' of drain run to be ventilated to the external air via rigid ducting within roof space to terminal via tile or ridge tile ventilator (minimum 900 mm above any window head within 3 metres horizontally). Soil pipes passing through habitable rooms (including kitchens) to be lagged with minimum 50mm sound deadening quilt and with 2 no. layers of 12.5mm plasterboard in 38 x 38mm softwood framing. Access and rodding eye fittings to be provided to ensure all pipework is accessible as required. Pipework laid between joists to be adequately supported. Underground pipes with less than 750mm ground cover hall be insulated. All rising mains to be insulated

All hathrooms, washbasins, baths and showers to be provided with adequate but and cold water supply in accordance with Approved Document G3. A washbasin with hot and cold water supply to be provided in or adjacent to all rooms containing a WC. A sink with hot and cold water also to be provided to any area where food is being prepared.

The installation of the hot water supply to comply with Approved Document G3. All baths and showers are to be fitted with an n-line thermostatic mixing valve to ensure that the temperature of the water delivered to the bath is limited to 48°C.

EXTRACT FOR SHOWER ROOM Provide mechanical extract Ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 litres per second. Vent to be connected to light switch and to have 15 minute over run if no window in the room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domesc entilation compliance guide. Intermi<ent extract fans to BS EN 13141-4. All fixed mechanical Ventilation systems, where they can be tested and adjusted, shall

SPACE HEATING (EXTENSIONS) Existing central heating system to be extended into new rooms in accordance with BS5449. All new radiators to be fitted with thermostatic valves. New / replacement boilers to be condensing boiler with a minimum SEDBUK rating of 86% with appropriate controls with steel panel radiators, fitted with thermostatic radiator valves, via copper distribution pipework. Primary pipework must be copper but flexible pipework may be used for heating distribution, where concealed, but only with prior written approval of the neating designer and the Client

FIRE PROTECTION TO STRUCTURAL STEEL WORK New steelwork as shown on the plans to structural engineers details and calculations. All steelwork to be lined with 2 layers of 12.5mm fireline plasterboard with all joints staggered, sealed and taped. Where it is not possible to encase steelwork with plasterboard they should be coated with intumescent paint to achieve 30 minutes fire resistance.

WINDOWS AND EXTERNAL DOORS Windows are to provide minimum opening lights equal to 1/20 (5%) of the floor area of the room served and provide, minimum ground ventilation via controlled trickle ventilators to achieve 4000sq mm in the kitchen, bathroom, cloakroom and utility room windows and 8000 sq mm to all other habitable rooms.

The windows are to be glazed with 24mm (4:16:4) sealed double glazed (Low-E: emissivity of 0.15) units with a minimum 'U' value of 1.8 W/m sq K or an Energy Rating of Band A. All glass shall be in accordance with BS 6262:1978. Obscure glazing is to be rovided to all bathrooms and cloakrooms. All windows are to be weather stripped.Door more than 50% glazing to have a minimum . U' value of 2.2 W/m sq K all other doors to have a minimum 'U' value of 3.0 $\dot{
m W}$ /m sq K.

Safety glazing in accordance with B.S 6206:1981 shall be fitted in the following critical locations:

be commissioned and a commissioning notice given to the Building Control Body.

(1) All glazed doors (3) Any window within 300mm from a door ppening up to a height of 1500mm

 Any window between finished floor level a and 800mm above that Note all windows provided for emergency egress should have an openable area of at least 0.33m sq. and have an unobstructed dimension of at least 450x450mm. The bottom of the openable area should not be more than 1100mm above finished floor level

Il glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current building regulation, i.e. within

500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows. New windows to be double glazed with 16mm argon gap and soM coat low- E glass. Window Energy Rang to be Band C or be<er Provide mechanical ventilation to give extraction rate of 60 litres per

Where new windows are to be provided; if the area of openings is more than 25 per cent of the total floor area either the area of

opening should be reduced to be not greater than 25 per cent or some compensating feature should be provided as described in

paragraph 4.15 Approved Document L1b and as agreed with Building Control. STRUCTURAL STEELWORK All structural steel and padstones as shown on the drawings to be to structural engineers details and calculations. All steelwork to be lined with 2 layers of 12.5mm fireline plasterboard with all joints staggered, sealed and taped. Where it is not possible to encase steelwork with plasterboard they should be coated with intumescent paint to achieve 30 minutes fire resistance.

Roof to be covered with concrete tiles nailed on 25x38mm treated vertical battens, on sarking felt to BS 747 on 25mm thick exterior quality plywood fixed directly to timber frame. Corners and reveals to openings to consist of special shaped internal and external corner tiles. Windows within tile hanging shall have extended cills, with treated timber cheeks and head to suit.

Code 4 lead flashing together with soakers to be provided between junction of the all new and existing roof and abbuting walls.

l electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certificate scheme such as BRE certificate Ltd, BSI, NICEIC certificate Services or Zurich Ltd. An appropriate BS7671 Electrical Installaon certificate is to be issued for the work by a person competent to do so. A copy of the certificate to be given to Building Control on completion of the work. All electrical installation to be in full accordance with BS 7671: 2008 amendment No.1, 2011and with the latest edition of the IEE wiring regulations, and should be carried out in accordance with current installation techniques applicable to the material and equipment being used. All electrical works shall also comply with the Building Regulations Part P. Note that all cables which are covered or surrounded with thermal nsulation to be de-rated in accordance with Appendix A of BRE 'Thermal Insulation: Avoiding Risks' 2002 edition. All down-lighters in ground floor ceiling voids are to be either boxed in with 12.5mm plasterboard or fitted with an intumescent

where within insulation - all other cable runs to be supported by and clipped to roof timbers and be kept clear of insulatio Any external light fittings should have automatic controls, and/or be capable of only taking lamps having a greater efficacy of greater than 40 lumens per circuit-watt. rovision of additional light fittings, switches and power sockets to be determined on site. Electrical installations should be inspected and tested during at the end of installation, before they are taken into service to verify hat they are safe and that they comply with BS7671 : 2001. This report shall be signed by a competent person who should be a

Corporate Member of the Institution of Electrical Engineers (IEE) or enrolled with the National Inspection Council for Electrical

Services and fittings within the roof space are to be protected from overheating. Lighting circuit cables to be 1.5sqmm minimum

nstallation Contracting or Electrical Contractors Association The report should show that the installation has been: nspected and verified that the works are in compliance with the appropriate British Standards and not visibly damaged or defective

ested to check satisfactory performance in relation to continuity of conductors, insulation resistance, separation of circuits, polarity, earthing and bonding arrangements, earth fault loop impedance and functionality of all protective devices including residual current devices. All light fittings to be within 8m, or 3 times room height, of a **GARAGE NOTES:**

FOUNDATIONS Take all foundation down to below invert level of any drains beneath, or within 1000mm of any building work. Bridge walls over with concrete lintels and compact around with sand.

All new drains to be 100mm diameter vitrified clav pipes in accordance with BS 65,539 and 540 with flexible joist connections laid to falls of 1: 40 and cased in 150 per gravel. All connections to be made obliquely to

Provide a trapped gulley for all storm water drainage connections and a back inlet gulley for all combined and foul water drainage connections. Waste appliances are to be taken to below grid level but discharged above water line.

600mm x 450mm cover and frame bedded on 225mm class B

concrete based with a glazed junction set in and a granolithic benching. with a double seal cover and frame of screw down type. Grease all seals.

engineering quality brickwork in cement mortar built off 150mm 1: 2: 4

70mm granolithic or sand and cement screed on existing floor on I200g damp proof membrane on minimum 150 sand bound, consolidated hardcore. Provide 100mm 'Jablite flooring' as floor insulation below the DPM (BBA80/765) in accordance with Manufacturer's Instructions. Restraint - Provide lateral restraint to all walls by 30mm x 5 mm galvanised mild steel straps at first floor level at 1.2m ctrs.

Provide 75mm Cavity and inner leaf of 100mm thermality shield block

bonded solidly with mortar using non ferrous wall ties at 450mm ctrs vertically and 900mm ctrs horizontally. (in accordance with BS 1243 :1978 with 12mm two-coat plaster finish). Seal head of cavity with orick-on-edge beam fills. Fill cavity below ground level with weak concrete cavity fill.

100mm blocks with 12mm two-coat plaster finish.

block bond if they do not. Bond three courses and miss five for the full All brickwork below damp proof course to two courses below ground level to be Class B engineering and the remaining commons.

Bond all new walls to existing. Tooth bond when bricks sizes match and

DAMP PROOF COURSE Provide Astos d.p.c. complying with BS 743 in all walls, laid in cement mortar not less than 150mm above ground level. Laps to be not less han 150mm and new d.p.c. to be made continuous both with existing house wall d.p.c.

Provide a Hyload d.p.c. to BS 743 to all windows and doorjambs. INTERNAL WALLS

m x 100mm softwood timber frame faced both sides with 9.5mm with 10mm gypsum plaster. Provide continuous head and sole plates Support any first floor partition by 2 No. timber joists, the same thickness as the floor in which they are concealed, bolted together

Support overall openings in cavity walls with Catnic lintels. Provide minimum of 150mm end bearings for span up

Catnic CN92 lintels with 150mm end bearings for span up

GENERAL

For the cavity walls use 75mm thick Drytherm cavity wall insulation. Any habitable room is to have headroom of not less than 2.3m. If possible match that of

Single Wall Support overall openings in single 102mm walls with

Provide ventilation to all rooms by means of an opening light with an area not less than 1/20th of the area of the room served. Provide 225mm x 150mm plastic air brick to give 8000mm2 background

second to be operated intermittently. Provide one 215mm x 215mm airbrick positioned Provide mechanical ventilation to give extraction rate of 15 litres per second to be operated intermittently. Provide night vent in window to

Provide all appliances with a 75mm deep seal bottle trap with 'P' outlet. Fit the following traps: Bath, Shower and Sink unit - 40mm

background

The glass in the door (s) and / or side panels to a horizontal distance of 300mm from the door and to a maximum height of 1500mm above floor level will be laminated or

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glassylazing within 800mm of the floor level will be laminated or

Massminated or toughened glass to comply with BS 6202: 1981. Provide half hour fire resistance to steelwork. Encase steelwork using one layer of 12.5mm fireline board with 1.6mm wire binding at

diameter: Washhand Basin - 32mm diameter: Combined Wastes - 50mm diameter

PITCHED ROOF INSULATION AT CEILING LEVEL

pitch 22-45° (imposed load max 0.75 kn/m² - dead load max 0.75 kn/m²) to achieve u value of 0.16 w/m²k timber roof structures to be designed by an engineer in accordance with on bs en 1995-1-1. suitable roofing tiles on 25 x 38mm tanalised sw reated battens on sarking felt supported on 47 x 150mm grade c24 rafters at max 400mm centres max span 3.47m, rafters supported or 00 x 50mm sw wall plates. insulation at ceiling level to be 150mm rockwool insulation laid between ceiling joists with a further 170mm layer over joists (cross direction).

provide opening at eaves level at least equal to continuous strip 25mm roofs to have ridge/high level ventilation equivalent to a 5mm gap via proprietary tile vents spaced in accordance with manufacturer 's details estraint strapping - 100mm x 50mm wall plate strapped down to walls ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. all straps to be 1000 x 30 x 5mm galvanized straps or other approved to been 845-1 a this is a general guide based on normal loading conditions found in

refer to the trada document - 'span tables for solid timber members in

floors, ceilings and roofs for dwellings' or ask your building control officer

GABLE WALLS SHOULD BE STRAPPED TO ROOFS AT 2M CENTRES. ALL EXTERNAL WALLS RUNNING PARALLEL TO ROOF RAFTERS TO BE RESTRAINED AT ROOF LEVEL USING 1000MM X OTHER APPROVED TO BSEN 845-1 BUILT INTO WALLS AT MAX MM CENTRES AND TO BE TAKEN ACROSS MINIMUM 3 RAFTERS AND SCREW FIXED PROVIDE SOLID NOGGINS. BE 100 X 50MM FIXED TO INNER SKIN OF CAVITY WALL LISING 30MM X 5MM X 1000MM GALVANIZED METAL STRAPS OR OTHER

RAFT FOUNDATION

LEVEL OF ANY DRAINS

THESE DETAILS ARE ONLY SUITABLE FOR SINGLE STOREY EXTENSIONS TO DOMESTIC BUILDINGS. AFT AND FLOOR SLAB DESIGN TO STRUCTURAL ENGINEER'S CALCULATIONS AND DETAILS. STEEL REINFORCEMENT MUST BE LAPPED AT LEAST 450MM FOR BOTH MESH AND MILD STEEL ARS AND PROVIDED WITH 40MM CONCRETE COVER DIG OUT FOR NEW RAFT FOUNDATION DOWN TO FIRM LOAD BEARING STRATA. GROUND TO BE FREE FROM CONTAMINATION, RAFT FOUNDATION TO BE PROVIDED ON 50MM WELL CONSOLIDATED HARDCORE CAPABLE OF SUPPORTING A LOAD OF AT LEAST 50KN/M2. PROVIDE 85MM CELOTEX INSULATION AND 25MM PERIMETER INSULATION ON 1200 GAUGE DPM. DPM TO BE LAID ON A BLINDED REINFORCED CONCRETE SLAB OF RAFT FOUNDATION AS ENGINEERS DETAILS. FLOOR TO BE PROVIDED WITH 75MM SCREED (65MM IF WALL FIXING TO BE SUITABLE FOR THE DIFFERENT SETTLEMENT WHERE THE EXISTING BUILDING ABUTS THE EXTENSION, INTERNAL STIFFENING BEAMS MAY ALSO BE NECESSARY. ALL NEW FOUNDATIONS TO BE BELOW INVERT

Roof angle to be between 22-45° To achieve min U-value required of 0.18 W/m2K Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1. Roofing tiles to match existing fixed to tile attens secured over breathable sarking felt to relevan BBA Certificate allowing the breather felt to sag at least 0mm over preservative-treated counter battens (mir 38mm x 50mm). Provide 60mm Celotex GA4000 insulation boards under the counter battens and 60mm Celotex GA4000 between 47 x 195mm timber rafters strength class C24 at 400 c/c - span to engineer's details. underside of the rafters. Finish with 12.5mm plasterboard Restraint strapping - Ceiling joists tied to rafters (if raised collar roof consult structural engineer). 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. A

straps to be 1000 x 30 x 5mm galvanized straps or other

approved to BSEN 845-1 at 2m centres.

hbbc technical requirement r5 structural design. calculations to be based onstruct ceiling using sw joists at 400mm centres, finished internally with 12.5mm plasterboard and min 3mm thistle multi-finish plaster.

provide polythene vapour barrier between insulation and plasterboard. domestic construction. it is your responsibility to assess your design to ascertain whether engineer's details/calculations are required, please

STRAPPING FOR PITCHED ROOF

BETWEEN RAFTERS AT STRAP POSITIONS. ALL WALL PLATES TO APPROVED TO BSEN 845-1 AT MAXIMUM 2M CENTRES

WeStruct Design and Build

1) THE CONTRACTOR IS TO SET OUT, CHECK

AND CO-ORDINATE ALL DIMENSIONS ON SITE DURING THE COURSE OF THE WORKS. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER PLANS, STRUCTURAL CALCULATIONS AND SPECIFICATIONS.O) 2) PRIOR TO COMMENCEMENT OF ANY WORK ON SITE, LOCAL AUTHORITIES APPROVAL MUST BE ACHIEVED.Ó) 3) WHERE THE WORKS INCLUDE DEMOLITION TO ENSURE THAT ALL ELEMENTS OF THE BUILDING AND ADJOIN STRUCTURES CONSIDERED. ALL TEMPORARY WORK TO BE CLIENT CONTRACTORS RESPONSIBILITY. 4) ALL BLOCK / BRICK WALLS WHICH HAS BEAM RESTING ON MUST HAVE MINIMUM COMPRESSIVE STRENGTH OF 2.8 N/MM² /4.5 N/MM², SITE TO CONFIRM) 5) ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE LATEST APPROPRIATE CODES OF PRACTICE AND TO COMPLY WITH CURRENT BUILDING REGULATION PRIOR TO COMMENCEMENT OF THE BUILDING WORKS THE CONTRACTOR SHOULD. 6) ENSURE THAT ALL DRAWINGS ARE

APPROVED FOR USED BY THE PLANNING DEPARTMENT AND (IF APPLICABLE) BY BUILDING CONTROL 2INFORM THE BUILDING CONTROL DEPARTMENT THAT WORKS HAVE **COMMENCED ON SITE** 7) VERIFY THE BOUNDARY LINES AND GROUND CONDITIONS, INCLUDING CHECKING OF ALL THE SERVICES (GAS, WATER, ELECTRIC, TELECOM AND PRIOR TO ANY **EXCAVATION WORK.** 8) REQUEST A COPY OF THE PARTY WALL AWARD WHERE WORKS AFFECT A PARTY

WALL OR INVOLVE EXCAVATIONS WITH IN 3M

OF ADJOINING BUILDINGS.

9) SETTING OUT OF BRICKWORK/BLOCKWORK ETC TO BE STRICTLY IN ACCORDANCE WITH THE ARCHITECTS DETAIL DRAWING. 10) REQUEST A COPY OF THE PARTY WALL AWARD WHERE WORKS AFFECT A PARTY WALL OR INVOLVE EXCAVATIONS WITH IN 3M OF ADJOINING BUILDINGS. 11) ANY DISCREPANCIES EITHER BETWEEN

THE WRITTEN DIMENSION AND THE SITE

DRAWING AND OTHER CONSULTANTS/

DIMENSIONS OR BETWEEN THE

SUPPLIERS DRAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF THE CLIENT/ENGINEER. UNTIL TECHNICAL APPROVAL HAS BEEN OBTAINED FROM THE RELEVANT LOCAL AUTHORITIES OR STATUTORY BODIES, IT SHOULD BE UNDERSTOOD THAT ALL DRAWINGS ARE ISSUED AS PRELIMINARY AND

NOT FOR CONSTRUCTION. SHOULD THE

COMMENCE WORK PRIOR TO APPROVAL

BEING GIVEN, IT IS ENTIRELY AT THEIR OWN

CONTRACTOR AND / OR EMPLOYER

Date Rev. Description First Issue 21/03/2024

Client

Bakhtiyar Omar Ghafor

Project Site Address

Drawing Title

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General Notes

Project Number: WE-15-03-24-01 Date: 21/03/2024

Drawn by:

Approved by:

Checked by:

Drawing No.: WE-DR-15-03-24-01-08

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