FILE REF :- File Ref

All Work & Materials To Be In Strict Accordance With Building Regulations 1997 & All Subsequent Revisions

GENERAL CONSTRUCTION NOTES:-

GENERAL:
All works are to comply with current British Standards/Eurocodes, Codes of Practice and Irish Building Regulations 1997 (as amended). The Contractor shall verify all information on site and report any discrepancies immediately to the overseeing Building Surveyor. All dimensions are in millimeters unless stated otherwise. Figured dimensions to be taken in preference to scaled dimensions. The Contractor or PSCS shall complete all notices as required under the Building Control Regulations for inspection of work as contract proceeds. For all queries contact us directly on 087-2924047

FOUNDATIONS:
Concrete: Minimum 30N20 Mix. to all foundations with a minimum of one layers of A393 mesh, to bottom of trenches with a min. of 50mm cover and 500mm overlaps

INTERNAL LOAD BEARING WALLS:
All internal solid walls are either 215mm, 150mm or 100mm concrete block (Class B) and plastered with 12mm charlotte browning and 3mm hard wall plaster finish.
All internal masonry walls are to be built off concrete foundations and intermediate hollowcore concrete floor slabs.

GROUND FLOOR:
Excavations and levels to be made up with 150mm layers of compacted Hard-core (max depth 600mm) .
Sand blinding layer on top of which will be a
DPM & Radon Protection Monarflex RMB 400 or similar.
The Ground bearing Floor slab is to be reinforced with B385 mesh as indicated on the drawings and rest on 215mm rising walls.
On top of the floor slab there will be 100mm Kingspan TW50
Provide Min. 25mm Kingspan TW50 vertical edge insulation,with 100 mm (min.) sand & cement screed with an A98(Min.) anti-crack reinforcement (where fill is more than 600m
Joints to dpc's and dpm's to be sealed.

EXTERNAL CAVITY WALLS:
Brick or block outer leaf as indicated. All new walls are to be constructed of 215mm or
100mm dense concrete blocks as indicated, with a crushing strength not less than 7N/sqmm, with a 100mm cavity to contain Kingspan 'Ecobead' or similar blown bonded insulation to be installed to manufacturers instructions. DPC to comply with BS 743 and to be 150mm min above finished ground level bedded under cills, vertically at window and door jambs & stepped over all lintels and air bricks. Wall ties (Ancon 275mm HRT4 ties or similar approved) to be positioned at 750mm ctrs. horizontal, 450mm ctrs. vertically & staggered alternately and 225 cntrs at openings and corners. Provide 40mm rigid polystyrene insulation to backs of all cills and lintels and vertically at window and door reveals. Cavities are to be closed at roof wall plate level and gables with 12.5mm supalux board or a slate. Cavity Closers for Window and Door jambs will be as per details supplied and be insulated to prevent thermal bridges. Metal edging strips to be used internally on all corners and edges to provide 'square' corner for render. 100mm walls to have 215mm substructure walls.

FLUE
Standard 200mm internal dia. fire clay flue liners to B.S. 1181: 1989, within blockwork stack, surrounded by min. 50mm proprietary chimney insulation pellets (vermiculite + s&c). Sockets to flue liners to be supermoist, joints filled with cement mortar, chimney breast built up with concrete block (as per wall specification). No combustible materials to be placed within 38mm of chimney breast except in cases where in excess of 200mm of non combustible material exists between the flue and the proposed combustible member. All structural steel to be min. 50mm clear of stack. no flue shall make an angle of less than 45 degrees with the horizontal All flues to be checked upon completion to ensure they are free from obstruction, satisfactory gas-tight and constructed with materials and components of sizes that suit applications
Chimneys are to be filled with a dry mix of sand, cement, and vermiculite at a ratio of 6 : 3 : 1, or Alternative insulation fill (Perlite) with proper certification.
Provide lead tray dpc at the lowest point of intersection of the roof and stack. The lead tray is to discharge above the lowest stepped lead flashing. Vallies - provide code 4 lead in max lengths of 900mm and with a girth of 450mm laid on BS 747 roofing felt laid on 2no. 225 x 25 layboards, provide 150 x 50 soleplate to support the ends of all intill jack rafters.
All flues to be checked upon completion to ensure they are free from obstruction, satisfactorily gas-tight and constructed with materials and components of sizes that suit application.
On Completion. All fitted appliances shall have a spillage test carried out under fire.

LATERAL SUPPORT
Where walls run parallel with the ceiling / floor joists then lateral restraint must be given as follows:
1200 X 30 X 5 mm galvanised steel catnic type straps with one fixed into cavity and the other end fixed securely across 3 no. rafters / ceiling / first floor joists at 2000mm max. centres provide solid strutting under all straps.

Walls :-
Proposed detail incorporates a combination of 100mm Full Fill Polystyrene Bonded Bead Insulation and a 52.5mm Kingspan TW52 Insulated Plasterboard to achieve a minimum elemental value in All external walls of 0.21 Wm2/K

Floors :-
100mm Kingspan TF70 with min. 100mm sand / cement screed Over To Give minimum elemental value of 0.21 Wm2/K

Ceilings :-
300mm Quilt insulation in 150mm Layers to achieve a minimum of 0.16 Wm2/K

PLASTER:
13mm, 2 Coat gypsum plaster.

TESTING

All underground drains to be tested to B.S.C.P. 310 and 2005 and generally to the satisfaction of the local Building Control Inspector.

CONCRETE CILLS
Unless otherwise shown to be 245x140mm 2 course precast concrete cill with 15mm water drip cast 15mm from leading edge.
Inner leaf blockwork level with top of cill joints plugged with timber grounds for fixing cill board. Dpc dressed under and to back of cill 25mm Foil Backed Polyurethane packed behind dpc between cill and inner leaf.

CAVITY TRAYS.
Proprietary pvc stepped cavity trays shall be provided in all external walls in conjunction with any upstand flashings on outer face of wall or air vents etc. In the wall which bridge the cavity. cavity trays to B.S. 5628: PT3 1985.

WALL TIES.
Wall ties to be stainless steel, rawl tie RT2 with integral insulation retaining clip. All to DD 140, to suit 100mm cavity. Ties to be positioned horizontally every 750mm around openings every 300mm.

LINTELS - REINFORCED CONCRETE.
In accordance with CP 114.PT2: 1969: B.S. 812 & B.S. 882 & B.S. 6744.

End bearing to be equal to depth of lintel. Where lintels are used in external cavity walls, inner lintel to have splayed face to retain dpc in position. 60mm expanded polystyrene insulation between lintels, supported on expanded metal shot-fixed to bottom of inner lintel and extending to close cavity.

FIRST FLOOR.
Timber ceiling joists to be as delineated on the sections with full depth bridging at max=1350c/c. Joists to be built into the walls in the existing building and have a generous coat of preservative applied.

LIGHTING
Energy efficient light fittings to be provided internally as follows:
60% of fittings
Fixed external lighting shall be either,
only capable of accepting lamps having an efficacy greater than 40 lumens per circuit watt or have a maximum output of 150 watt per fitting and automatically switch off when there is adequate daylight and when not required at night.
Building owner to be given sufficient information of specific apparatus/systems installed, including operational and maintenance instructions, to enable the dwelling and its fixed services to be used in an energy efficient manner.

LIMITING AIR INFILTRATION IN BUILDINGS:
To reduce the infiltration of cold air, leakage paths through the building fabric shall be limited by:
(a) sealing gaps between dry lining and masonry walls at the edges of openings such as windows and doors at junctions with walls, floors and ceilings. (see details)
(b) sealing gaps between frames and openings and draught-proofing the openable elements of windows, doors and rooflights
(c) sealing hatches to unheated floor and roof voids
(d) sealing service penetrations and at floor and ceiling junctions where services are not boxed in.
(e) sealing around joist ends/concrete slabs where they are built into the external walls

FIRE ALARM SYSTEM:
An automatic fire detection and alarm system to be provided, to comply with BS 5839-6:2004 of at least Grade B Category LD2 standard with control panel and break glass points and sounders

RENEWABLE ENERGY GENERATION
Heating system to be provided to supply at least 10KWhm2/annum of hot water supply to meet current Building Regulations

INSULATION TO PIPES, DUCT'S & HOT WATER STORAGE VESSEL'S
Primary circulation pipes for heating & hot water circuits should be insulated wherever they pass outside the heated living space
Primary circulation pipes for domestic hot water circuits should be insulated throughout their length only to practical constraints
All pipes to be connected to hot water storage vessels including the vent pipe to be insulated for at least 1m from their points of connection
If any secondary circulation is used , all hot pipes to be insulated.
A mechanical ventilation system is to be supplied & installed in accordance with current Part L Building regulations & the guide- GPG 268, Energy efficient ventilation in dwellings - a guide for specifiers, available from the SEAI. The heat recovery efficiency of the unit must be a minimum of 66%.

DRAINAGE:
All foul and storm water drains are to be separate systems on site and constructed with underground UPVC pipework and fittings. Waste pipes passing under floor slab to be 100mm Dia. Manufacturer to be Wevin or equal and approved and all work shall be to manufacturers instructions. All gullies taking waste to be back inlet trapped gullys B.I.T.G. All waste appliances to be fitted with deep seal traps.Provide removable access panels to waste traps of baths and showers.
All drains are to be 100 mm Dia UPVC and surrounded with 150mm pea gravel.
Where drains pass under the building they are to be wrapped in polythene sheeting to allow for thermal movement and surrounded with 150mm pea gravel. Gullys which have branch connections over 2m to be a roddable type. All waste pipes passing under floor slab to be 100mm Dia.

Where drains pass through the external walls they are to be beamed over at this point with a concrete lintel.
Where drains are laid within 1000 mm of the foundations the trenches are to be filled with weak concrete up to the level of the underside of the foundations.
Drains shall be laid 600mm under vehicle areas and 300mm under other areas.
Fall in drains to be 1.80 maximum. All drains to be laid to the satisfaction of the supervising Building Surveyor.
Where required internal manholes will have a mechanically fixed airtight cover.
All public drains to be located not less than 4 meters from any structure or building.
All drainage to comply with current Irish Building Regulations & Relevant standards.

MANHOLES:
All manholes to be 600 x 600 mm unless other wise stated and constructed as follows:
150mm concrete base (1 : 3 : 6 mix)
215 mm Concrete block (Grade B)
Walls rendered internally with 15 mm waterproof plaster and must be leak proof plaster and not admitting ground water.
Concrete benching around channels 100 mm concrete slab top with opening to take metal frame and cover. Medium duty covers to be used in the vicinity of vehicular traffic and light duty covers to areas only accessible to pedestrians.

STAIRS
Stairway to be not less than 800mm in width between handrails.
Minimum vertical headroom measured from the pitch line to be 2000mm
Provide a continuous handrail to any flight with a rise of more than 600mm. Handrail to be at a height of 900mm and 1000mm above the pitch line.
Provide a handrail to both sides of stair if width exceeds 1000mm
Risers and goings to be as illustrated on plan. Nosing to project 16mm over step below.

GUARDING
To be between 900mm-1100mm in height and to be screwed and glued to manufacturers specification and capable of resisting a horizontal load of at 0.36Kn/m.
Guarding shall be constructed so as to prevent a 100mm sphere passing through any
opening. Balustrade to be designed so as it is not readily climbable.

ROOF:
Cut roof as per sections and details. All timbers to be C16 or 24 grade as indicated on the sections & be treated with an approved timber preservative
All Structural Timbers to be treated against woodworm and fungal attack by double vac-vac process or other equal and approved pressure impregnated preservative.
All cut ends to be re-treated prior to fixing.
Access to roof void to be via a 900mm x 600mm trimmed opening with insulated access panel.
Openings in Roof at chimney stack, dormer windows, rooflights, etc... are to to be formed by a double trimming rafter down each side of the opening and noggins of same dimensions to top and bottom to frame out opening. No timber to be within 40mm of outer face of any chimney stack.

ROOF INSULATION & BUILD UP:
Roof build up is to be 300 mm quilt / mineral wool insulation laid between & over the ceiling joists where indicated on the sections. The roof slope, is to have 120mm Kingspan k 7 pitched roof board' & shall be dry lined with 52.5mm Kingspan K18 kooltherm . For all timber roofed sections, these should be made air tight with additional air tightness membrane being fixed beneath the rafters ceilingjoists as detailed on the drawings.
On top of the rafters there will be a Breathable Sarking membrane fixed with tiling battens to provide a base for slates. A Minimum of 10mm air gap is to be maintained between the membrane and underside of slates (via a drape) so that any water that has penetrated the slates can drain freely away.
All hot water pipes in the roof space to be lagged.
CWS tank to be provided with insulated cover to sides and top.
All pipes, ducts and storage vessels, including heating pipes are to be insulated in accordance with BS 5422:1977.

CEILINGS:
All ceilings except where otherwise stated to be 12.5 mm moisture resistant plasterboard, bonded with skim finish.

STUD PARTITIONS
75 x 50mm sw studs at 400mm centers with 75x50mm top and sole plate. All intermediate noggin bracing at 900mm centers.

TGD Part 'L' - Conservation Of Fuel & Energy 2011 - L1

For New Dwellings - The Requirements Of L1 Shall Be Met By

(a) - Providing that the energy performance of the dwelling is such as to limit the calculated primary energy consumption and related carbon dioxide(CO2) emissions insofar as is reasonably practicable, when both energy consumption and carbon dioxide (CO2) emissions are calculated using the Dwelling Energy Assessment Procedure (DEAP) published by SEAI

(b) Providing that, for new dwellings, a reasonable proportion of the energy consumption is provided by renewable energy sources.

(c) Limiting heat loss, and where appropriate, availing of heat gain through the fabric of the building

(d) Providing and commissioning energy efficient space and water heating systems with efficient heat sources and effective controls

(e) Providing that all oil and gas boilers shall meet a minimum seasonal efficiency of 90%

(f) Providing to the dwelling owner - Sufficient information about the dwelling, the fixed building services and their maintenance requirements so that the building can be operated in such a manner as to use no more fuel and energy than is reasonable.

For renewable energy technologies.....
- 10 kWh/m2/annum contributing to energy used for domestic hot water heating, space heating or cooking or.....
- 4 kWh/m2/annum of electrical energy or ...
- a combination of these which would have an equivalent effect

LATERAL SUPPORT
Where walls run parallel with the ceiling / floor joists then lateral restraint must be given as follows:
1200 X 30 X 5 mm galvanised steel catnic type straps with one fixed into cavity and the other end fixed securely across 3 no. rafters / ceiling / first floor joists at 2000mm max. centres provide solid strutting under all straps.

PASSIVE VENTILATION:
When roof pitch exceeds 35 degrees the equivalent of a 5mm gap must be provided at ridge level. Care must be taken to maintain through ventilation where fibrous insulation meets wallplate. All vents are to have insect mesh and be fitted in accordance with manufacturers instructions
Ventilation openings to habitable rooms to be equal to 1/20th of the floor area of the room.
All window frames to be fitted with trickle ventilators to give 8000mm2 ventilation to each habitable room, 4000mm2 to all kitchens, bathrooms, utility rooms.

STRUCTURAL STEELWORK:
All Steelwork shall be designed by engineer as detailed on drawings.
No steelwork to be installed prior to discussion with Assigned Certifier

PADSTONES:
Padstones to be 450mm (min.) long x 225mm (min.) deep x Wall Width.

HEAT DETECTOR
Provide self contained heat detector system to be installed in the kitchen and to comply with BS 5446: PT 2 2003. Also to provide battery back-up

HEIGHTS OF SWITCHES, SOCKET OUTLETS, ETC.:
Wall mounted socket outlets and switches (other than isolators) in the entrance storey, and
where appropriate the principal storey, shall be located not more than 1200mm or not
less than 450mm above the floor level. The cord of a pull cord switch shall terminate not more than 1200mm above the floor level.

WALLPLATE:
100x75mm BW wallplate at roof level secured to wall by Catnic ms galvanised straps
(30x6mm) at 1500mm max. ctrs along the wall. Alternatively, the walls plate can be bolted down at max 1.2m centres. The Underside of the wall plate is to be treated with timber preservative

SURFACE CLASSIFICATION FOR WALLS AND CEILINGS
Rooms not exceeding 4m2: 3
Other Rooms: 1
All other rooms: 1
Circulation Spaces (within a dwelling): 0

WINDOWS / GLAZING
New windows to be upcvc/ hardwood. Glass to be triple glazed Pilkington glass or equal approved to be K Glass with the U-Value 1.6 W/m2*K or less.
Escape windows to have clear opening of at least 450mm in height and 450mm in width.
The bottom of the opening should be between 800mm and 1100mm above floor level or, in the case of a Rooflights, between 800mm and 1100mm above floor level but not more than 1700mm from eaves to bottom of window.

SAFETY GLAZING
Laminated safety glass to be provided in all critical locations i.e. between finished floor level and.....
(a) 800 mm above that level in walls and partitions (e.g. windows).
(b) 1500 mm above that level in a door or in a side panel close to either edge of a door.

ROOF VALLEYS:
valley boards and lay boards.
Code 5 lead minimum 450mm wide supported on tilting fillets on either.....
(1) Valley boards to be 175 x 38 mm S.W. when used with valley rafters.
(2) 200 x 38 mm softwood lay boards with rafters cut down on to same and valley boards as before.
Roofing tiles / slates laid into valley and cut to rake to achieve an open channel with a min width of 125mm.

All Ventilation shall adhere to the table:

ROOM	RAPID VENTILATION	BACK GROUND	EXTRACT VENT RATE
Habitable	1/20th Floor Area	4500mm²	----------
Kitchen	1/20th Floor Area	4500mm²	60Ltr/sec, 30Ltr/sec or PSV
Utility	1/20th Floor Area	4500mm²	30Ltr/sec or PSV
Bathroom	1/20th Floor Area	-------	15Ltr/sec intermittent or PSV
Sanitary	1/20th Floor Area	-------	15Ltr/sec or PSV

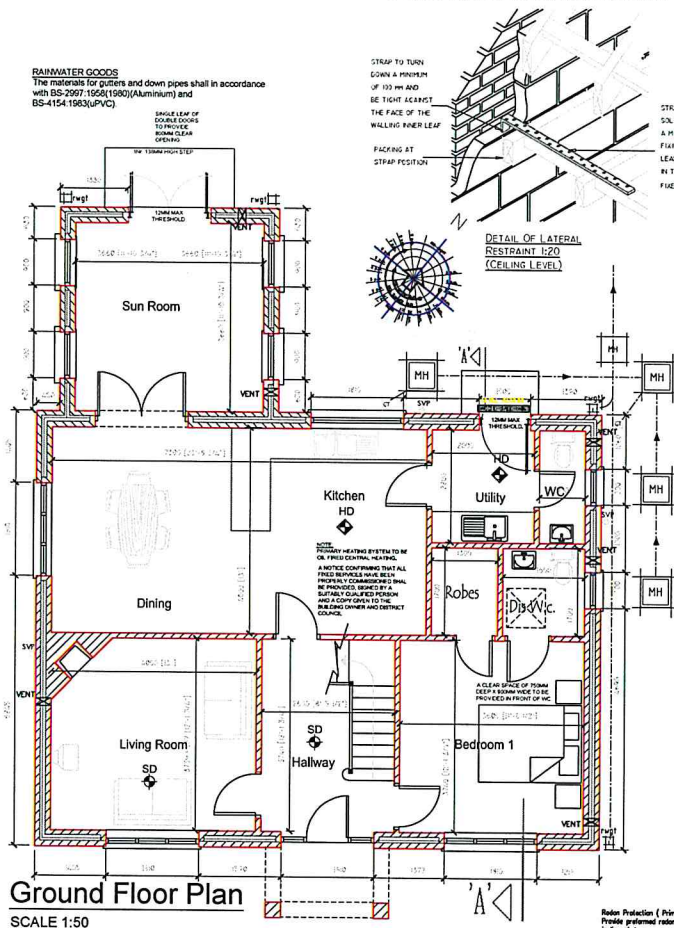
Passive Stack Ventilation (PSV) in accordance with BRE IP/94 incorporating an auto humidity sensitive vent inlet control grille.

Lintel Schedule

SPAN	END BEARING	SIZE/TYPE	REINFORCEMENT: HIGH YIELD BARS TOP	BOTTOM
up to 1000mm	225mm	150 X 100 RC	1 no. 10mm bar	2 no. 10mm bars
1000 - 1200	225mm	150 X 100 RC	1 no. 10mm bar	2 no. 10mm bars
1200 - 1500	225mm	150 X 100 RC	1 no. 12mm bar	2 no. 12mm bars
1500 - 2000	225mm	225 X 100 RC	1 no. 12mm bar	2 no. 12mm bars
2000 - 2500	225mm	225 X 100 RC	1 no. 16mm bar	2 no. 16mm bars
2500 - 3600				

USE KEYSTONE SK/90 LINTELS OVER OPENINGS WITH FACING BRICK AT LINTEL LEVEL AND OVER OPENINGS WIDER THAN 3600mm. 150mm END BEARING UP TO 2000mm SPAN , 175mm THEREAFTER

RAINWATER GOODS
The materials for gutters and down pipes shall in accordance with BS-2997:1958(1980)(Aluminium) and BS-4154:1983(uPVC)



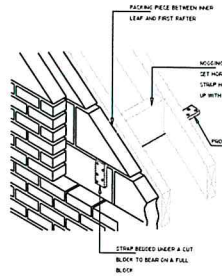
Ground Floor Plan

SCALE 1:50

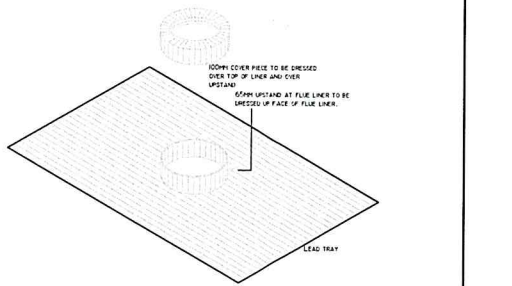
Ground Floor Area : 96.09 m2 (1034.3 sq.ft.)

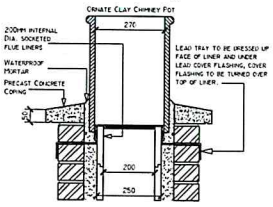
First Floor Area : 81.53 m2 (877.58 sq.ft.)

DETAIL OF LATERAL RESTRAINT 1:20 (CEILING LEVEL)



DETAIL OF LATERAL RESTRAINT 1:20 (GABLES)





CHIMNEY DETAIL 1:10

Radon Protection (Primary)
Provide preformed radon cavity barriers & radon membrane in lieu of dpm.
Where membrane is to be below conc. slab a preformed slab edge barrier is to be used.
Preformed universal corners are to be used where required.
Where service pipes penetrate the membrane provide universal pipe seals. All components are to be sealed together with radon proof butyl tape.

FINISHES
Front Projections :-
Nu Mortagle Sandstone Or Similar Natural Stone
External Paint To Remainder :-
Textured Wet Dash, Cream in Colour
Quoins :-
Raised Plaster Bands As Indicated
Roof :-
Black / Grey Slates Or Tiles

Front Elevation

SCALE 1:100

Rear Elevation

SCALE 1:50

All work to be carried out in strict accordance with current Building Regulations & Building Control Regulations
Encore Consulting is to be contacted prior to the carrying out of certain works as highlighted in the Inspection Notification Framework.
All the ancillary certificates from each subcontractor & trades person are to be compiled by the main contractor / PSCS and supplied to the Assigned Certifier

REVISIONS:-

PROJECT

JOHN PAUL O' HARTE - PROPOSED DORMER STYLE DWELLING AT CARRAMOREEN TD., REDHILLS, CO. CAVAN

DRAWING:- Planning Drawing Only | SCALE:- As Shown | DATE:- June 2016 | DRAWN BY:- J.B. | CHECKED BY:- J.B. | DRAWING NO.:- ENPL022- 01

Joe Beggan
Clonirr, Clones,
Co. Monaghan.
PH: 047-51847 / 087-2924047
E-MAIL: joebeggan@eircom.net
www.encore-consulting.com