INTRODUCTION

The 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. Note: All work to comply with the party wall act 1996.

MATERIALS

All materials are to be used and installed in accordance with the relevant manufacturers instructions and recommendations. The quality of any material shall not be lower than defoned in the relevant British Standard, or that the material has been satisfactorily assessed by an appropriate independent authority.

TIMBER TREATMENT

All softwood timbers to be adequately treated to prevent infestation by the house longhorn beatle in accordance with current Building Regulations . All structural timbers, external frames, window & softwood cladding shall be treated against fungal attack. All structural timber to be marked DRY or KD and to have a stress grade mark.

EXISTING STRUCTURE

Existing foundations to be exposed together with any existing lintels as directed by the Building Control Inspector on site to assess their suitability for extra loading. Extra works that may be necessary to be carried out in compliance with the building inspectors recommendations. Ensure that the existing structure is temporarily supported during construction.

INTERNAL WALLS - NON LOAD BEARING

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.

For studwork partitions to bedrooms and rooms containing WC's studwork to be lined with 12.5mm thick plasterboard (minimum mass 10kg/m2) and void to include a layer of 25mm insulation quilt. All gaps to be well sealed.

RAINWATER GOODS

100mm wide white PVCu semi circular section gutters laid to falls to discharge into 65mm diameter white round rainwater downpipes.

ROOF CONSTRUCTION:

Marley Ashmore (Old English Dark Red) Interlocking Double Plan Roof Tile with Minimum 77mm Headlap, Minimun Pitch 22.5° on 38mm x 25mm Tanalised Batten on 150mm x 50mm (c16) rafters at max 400mm crs with 225x75 SW Purlins. eaves to be fitted with eaves barrier to prevent uv breakdown of membrane.
Rafters are to be supported on 100x65mm wall plates at base and held down by means of galvanised mild steel restaint straps type bat m305 or similar, 30x5mm and 100x650mm twice fixed to top of wall plate using 50mm no.12 gauge countersunk head woodscrews and plugged and screwed to blockwork.
30x5mm galvanised steel restraint straps to be installed at gable wall and 75x38mm sw noggins to be between the rafters at each strap, spacing of straps to be max 1800mm centres.
roof bracing shall be installed horizontally and in strict accordance with BS 5268: part 2 1985.
15mm plasterboard and skim to underside of 150 x 50 sw joists @ 400mm crs approx .

ROOF INSULATION-JOISTS

Whole roof area at perimeter voids is to be insulated with 2 layers of Rockwool Rollbatt insulation quilt, total thickness 300mm. The first layer of 100mm insulation quilt to be laid between ceiling joists complete with a second layer of 200mm insulation laid at right angles on top of the ceiling joists. Separate but linking quilt is to be laid over the softwood wallplate and edged 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/mk.

VENTILATION

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.

WINDOWS AND EXTERNAL DOORS

Windows are to be provided minimum opening lights equal to 1 / 20 (5%) of the floor area of the room served and provided, minimum background ventilation via controlled trickle ventilators to achieve 4000sq mm in the kitchen and Bathroom windows and 8000sq mm to all other habitable rooms.

The windows are to be glazed with 28mm (4:20:4) sealed double glazed (Low-E: emissity of 0.15) units with minimum 'U' value of 2.0 W/m sq K. All glass shall be in accordance with BS 6262:1978. Obscure glazing is to be provided to Bathroom, options to be shown to client prior to ordering. All windows and doors are to be weather stripped.

Safety glazing in accordance with BS 6206:1981 shall be fitted in the following critical locations:

(1) All glazed doors
(2) All full height sidelights
(3) Any window within 300mm from a door opening up to a height of 1500mm.
(4) Any window between finished floor level and 800mm above that level.

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.

HORIZONTAL/VERTICAL - DAMP PROOF COURSES

The horizontal damp proof course shall consist of a layer of 200 gauge polythene damp course to BS 743 / 61515 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 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 to procect 150mm beyond either end of lintel / opening.

FOUNDATIONS

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. Depth of the foundations to suit soil conditions, original and proposed ground levels, drainage trenches and proximity of trees/hedges, all to the satisfaction of the relevant building control authority.

UNDERGROUND DRAINAGE - ACCESS POINTS

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

(a) On or near the head of each drain run
(b) At a bend and at a change of gradient
(c) At a change of pipe size
(d) At a junction unless each run can be cleared from an access point

UNDERGROUND DRAINAGE - DRAIN RUNS

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 encasement shall be used and 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 within its joints as close as 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.

All drainage passing through foundations to have concrete lintol over.

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 hardcore bed to be 150mm. Increase thickness 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 2000 gauge polythene DPM laid with edges lapped not less than 300mm and turned up the perimeter walls and tucked under the DPC to provide a complete water proof membrane.

Concrete to be grade C10p BS5328 using OPC cement and 20mm nominal maximum size of aggregate. Thickness of concrete floor to be 100mm.

250x50 SW C16 grade floor joists at 400mm centres at min 150mm above conrete sub-floor. Crown Rocksilk flexible slab insulation 140mm thickness and a width to suit joist spacings providing min 0.22 w/m2k, supported on polypropylene netting to fit tightly under the floor. polypropylene netting to be draped over and between the joists and stapled to the sides of each joist.
trunked airbricks to allow 150mm min under floor ventilation
22mm thick moisture resistant chipboard floor decking.

EXTERNAL CAVITY WALL - BRICKWORK

Outer skin to comprise 102.5mm brickwork to match existing with a 85mm wide cavity and 100mm thick Thermalite Turbo blockwork inner skin.

Cavity to be closed at all window, door junctions and at eaves level with blockwork or proprietary cavity closure. Skins to be tied together with vertical twist wall ties spaced at 750mm centres horizontally and at 450mm centres vertically and at 225mm centres at window and door reveals. Provide additional ties within 225 of each side of openings at no more than 300mm centres. Blocks to be laid in a 1:1:6 cement:lime:sand mortar with struck joints. Ensure that all cavities are kept free from debris by employing the use of timber cavity battens pulled up as work proceeds.

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.

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 2no. per openings. Bond new blockwork and brickwork to existing walls with galvanised steel steel masonary connectors and ties Rawlbolted to existing walls.

85mm Dritherm with 100mm Thermalite blocks or similar. Cavity wall insulation to provide a minimum of 0.30W/m2K. Fix boards 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 is to be fitted in strict accordance with the manufacturers recommendations commencing below the DPC to avoid cold bridging.

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 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 manufacturers instructions.

Walls to be finished internally with 12.5mm plasterboard on plaster dabs with a plaster skim finish.

SPACE HEATING

Existing central heating system to be extended into new rooms in accordance with BS 5449. All new radiators to be fitted with thermostatic valves.

SMOKE ALARMS

Smoke alarms are to be installed in circulation areas on each storey of the dwelling, as positioned on drawing (large circulation areas may need two units). Smoke alarm unit to BS5446: Pt 1: 1990 and is to be fitted min 300mmm from light fittings and walls. Alarms must be connected to a separately fused mains electricity supply with a transformer (if needed) and where more than one unit is fitted within a dwelling they must be interlinked. The installation must comply with the current IEE regulations.
Heat Detector Required to Kitchen Mains Powered Interlinked with Battery Backup to BS 5446-2.

ELECTRICAL INSTALLATION

All electrical installation to be in full accordance with BS 7671 and with the latest edition of the IEE wiring regulations, and should be carried out in accordance with the current installation techniques applicable to the material and equipment being used.

Note that all cables which are covered or surrounded with thermal insulation 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 cover to maintain half hour fire resistance.

Services and fittings within roof space are to be protected from overheating. Lighting circuit cables 1.5mm sq mm minimum where within roof insulation - all other cable runs to be supported by and to roof timbers and be kept clear of insulation.

All light switches are to be set at 1200mm above finished floor level and all switched socket outlets are to be set at 450mm above finished floor level.

Any external light fittings should have automatic controls, and/or be capable of only taking lamps having a efficiency of greater than 40 lumens per circuit-watt.

Provision of additional light fitting, switches and power sockets to be determined on site.

Efficiency Light Fittings

Provide lighting fittings as tabled below to be fixed lighting that only accepts lamps having a luminous efficiency greater than 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.
25% of new light fittings to be Energy Efficient.

1-3 new rooms created	-	*1 no location*
4-6 new rooms created	-	*2 no location*
7-9 new rooms created	-	*3 no location*
10-12 new rooms created	-	*4 no location*

ADDITIONAL NOTES:

main contractor to agree with client Moving existing Radiator or New Radiator Type required.

Rev -	Revision Note : -
PROPOSED ALTERATIONS TO 23 THE BRIARS CASTLETOWN, SUNDERLAND SR5 3DU	Scale 1:50
	Date 10.01.21
Title PROPOSED SPECIFICATION	Sheet No. 4 of 7