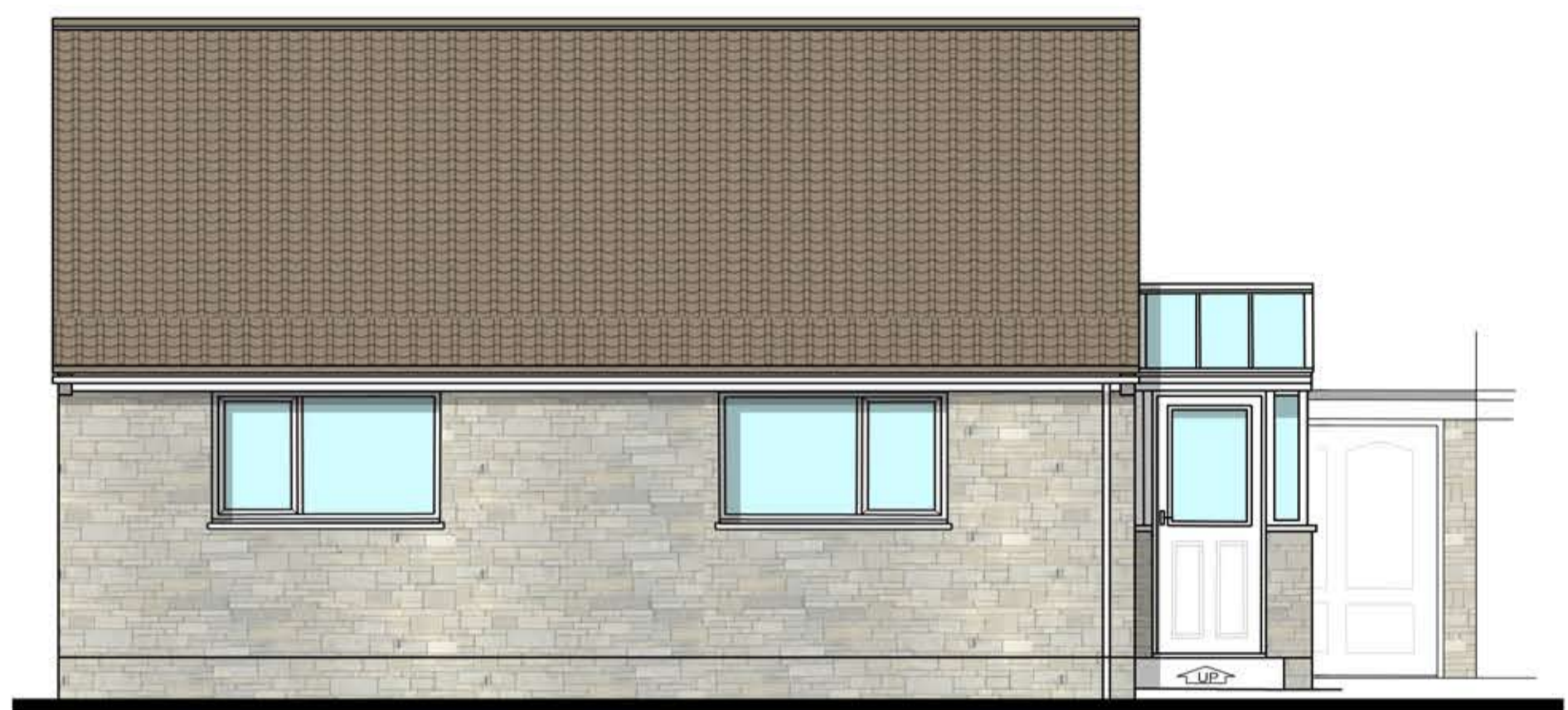


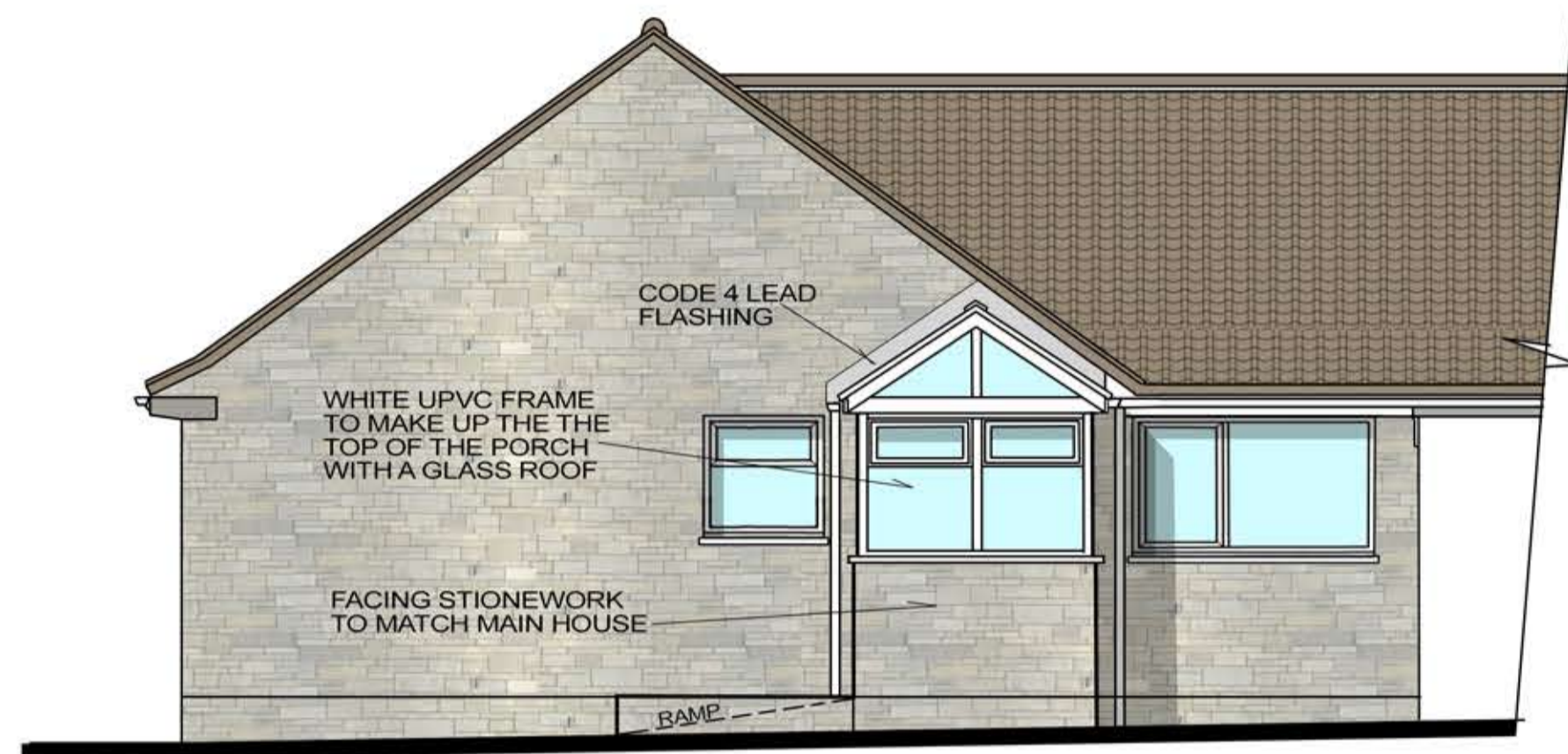
EXISTING FRONT ELEVATION EAST 1:50



EXISTING SIDE ELEVATION NORTH 1:50



PROPOSED FRONT ELEVATION EAST 1:50



PROPOSED SIDE ELEVATION NORTH 1:50



SITE LOCATION 1:1250



EXISTING BLOCK PLAN 1:500



PROPOSED BLOCK PLAN 1:500

Cavity Wall Guidance - Extensions and alterations

**Cavity walls**  
Below are tables of examples of insulation products that can be used to achieve the new U-Values in Approved Document L as of June 2022.  
This is based on a 'standard' cavity construction wall detail with a brick outer leaf and a block inner leaf. In most instances the cavity will now be greater than 100mm unless a suitable PIR cavity insulation board is used.  
Please see key for ease - this includes some but not all products that can be used. Specialist advice from architects, energy assessors and manufacturers may be required.

Table 1 - U-Value now required 0.18W/m<sup>2</sup>K

Cavity width	Detail
100mm	Brickwork, 100mm cavity full fill insulation with an insulation with a thermal conductivity of 0.021 W/mK, 100 blockwork inner leaf with a thermal conductivity of 0.15 W/mK, 12.5mm plasterboard finish.
100mm	Brickwork, 100mm cavity full fill insulation with an insulation with a thermal conductivity of 0.032 W/mK, 100 mm blockwork with a thermal conductivity of 0.15 W/mK and a 52.2 insulated PIR plasterboard finish (40mm PIR + 12.5mm plasterboard).
150mm	Brickwork, 150mm cavity insulated with an insulation of thermal conductivity 0.032 W/mK, 150 mm blockwork with a thermal conductivity of 0.15 W/mK, 12.5mm plasterboard finish.
150mm	Brickwork, 150mm cavity insulated with an insulation of thermal conductivity 0.032 W/mK, 150 mm blockwork with a thermal conductivity of 0.15 W/mK, 12.5mm plasterboard finish.
150 mm	Brickwork, 150mm cavity partial filled with 100mm insulation with an insulation of thermal conductivity 0.022 W/mK, 150 mm blockwork with a thermal conductivity of 0.15 W/mK, 12.5mm plasterboard finish.
175mm	Brickwork, 175 mm cavity insulated with an insulation of thermal conductivity 0.037 W/mK (Knauf/ Dritherm 37), 100 mm blockwork with a thermal conductivity of 0.15 W/mK plasterboard finish.
180mm	Brickwork, 180mm cavity full fill insulation with Rockwool full fill cavity batts 0.037 W/mK, 100mm of blockwork with a thermal conductivity up to 1.130 W/mK (Even dense concrete blocks achieve this).

Table 2 - Key for common construction products used

0.15W/mk blocks or better	Cavity insulation 0.02 W/mk	Cavity insulation 0.032 W/mk	Cavity insulation 0.037 W/mk
Celcon Solar, Celcon Standard, Durox Supablock, Durox Supablock 400, Thermalite Turbo, Topblok supra bloc, Toplite standard	Recticel Euro wall, Celotex CW4000	Dritherm 32 Cavity Batts	Rockwool Cavity Batts, Other Dritherm products
	All will be PIR partial / full fill cavity wall systems and workmanship will need to be impeccable.	Please note most other cavity wall insulations do not achieve the same value as Dritherm 32, even other Dritherm products like 34 etc.	

**Note:** Changing blocks/insulation brands may require a designer's recalculation especially where insulation is specified to offset glazing. Use of denser blocks can have a serious effect on U-value and may require more insulation if they are required for structural stability.

PORCH FRAME TOP

WHITE UPVC DOUBLE GLAZED WINDOWS AND DOOR WITH DOUBLE GLAZED UNITS MIN. 24MM COMPRISING 4MM PILKINGTON K GLASS. ALL GLASS WINDOWS UP TO A HEIGHT OF 800MM ABOVE FLOOR LEVEL AND OR WITHIN 300MM FROM A DOOR AND ALL DOORS UP TO A HEIGHT OF 1500MM ABOVE FLOOR LEVEL TO BE TOUGHENED OR LAMINATED TO B.S.6206. WINDOWS TO HAVE MAX. U VALUE OF 1.4 W/M<sup>2</sup>K. WINDOWS TO PROVIDE DAYLIGHT EQUIVALENT TO 1/10TH FLOOR AREA AND OPENABLE VENTILATION 1/20TH FLOOR AREA. ALL HABITABLE ROOMS TO HAVE FIRE ESCAPE WINDOWS WITH MIN. 450MM WIDE AND 450MM HIGH OPENING AND MIN AREA OF 0.75 M<sup>2</sup>

EXTERNAL WALLS

FACING STONEWORK TO MATCH HOUSE. 100MM CAVITY (SEE NEW BUILDING REGULATIONS ATTACHED FOR INSULATION AND CAVITY WIDTHS. IF UNSURE CHECK WITH BUILDING INSPECTOR). RETAINED AGAINST INNER SKIN WITH RETAINER CLIPS. 100MM THERMALITE (OR SIMILAR) INSULATING BLOCKWORK, DRY LINED WITH 12.5MM PLASTERBOARD & SKIM COAT. INSULATION IN CAVITIES TAKEN DOWN TO FINISH IN LINE WITH THE UNDERSIDE OF THE FLOOR INSULATION. WALL TIES AT 750MM CENTRES HORIZONTALLY AND 450MM CENTRES VERTICALLY. AROUND UNBONDED JAMBS WALL TIES TO BE 450MM HORIZONTALLY AND 225MM VERTICALLY. 150MM VERTICAL DPC AROUND DOOR AND WINDOW OPENINGS AND INSULATED CAVITY CLOSERS AROUND OPENINGS TO ELIMINATE COLD BRIDGING. WALLS TO BE SEALED AT EAVES LEVEL WITH INSULATED CAVITY CLOSERS.

GROUND FLOOR

50MM SAND AND CEMENT SCREED ON 100MM CONCRETE BASE. LAYER OF BUILDING PAPER ON KINGSPAN T/F TO 100MM THERMAL INSULATION ON 1200 GAUGE POLY D.P.M. SHEETING ON 150MM WELL COMPACTED AND CONSOLIDATED HARDWARE FILL (ALLOW FOR COMPACTED SAND ON HARDWARE TO AVOID TEARS IN D.P.M.). PROVIDE 25MM UP STAND OF INSULATION AROUND PERIMETER OF FLOORS

DRAINAGE

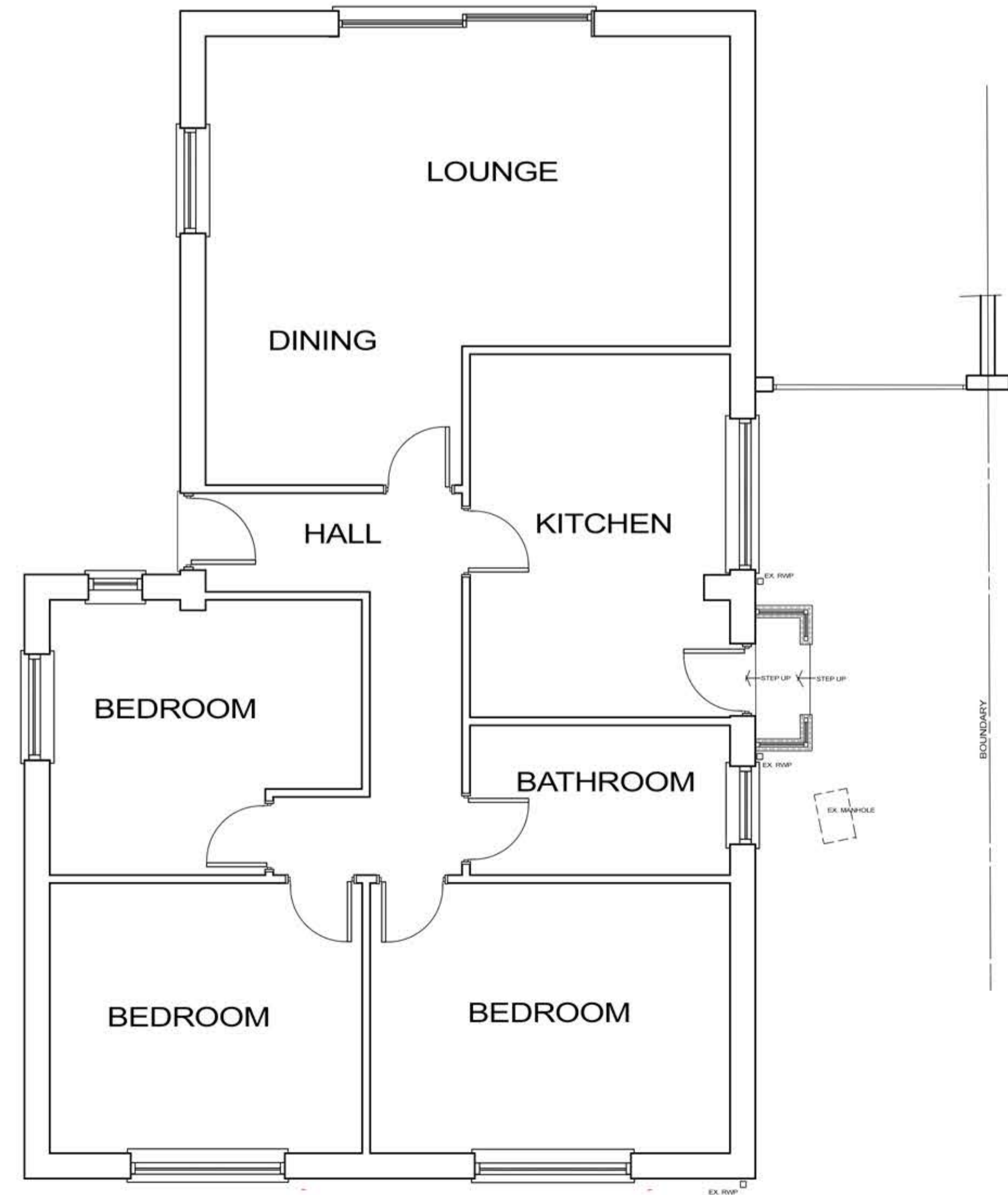
WHERE ANY DRAINS PASS UNDER FLOOR SLABS ENCASE IN MIN. 150MM PEA GRAVEL AND LINTELS INSTALLED WHERE THEY PASS THROUGH WALLS WITH COMPRESSIBLE MATERIAL AROUND HOLE. STORMDRAINS: 63MM DOWNPIPES TO GULLIES WITH COPPER WIRE BALLOONS AT GUTTER JUNCTIONS. GUTTERS 100MM TRUE HALF ROUND LAID TO FALL. FROM GULLIES 100MM SUPERSLEVE DRAINS TO DRAIN AWAY INTO EXISTING DRAINAGE RUN.

SUBSTRUCTURE WALLS

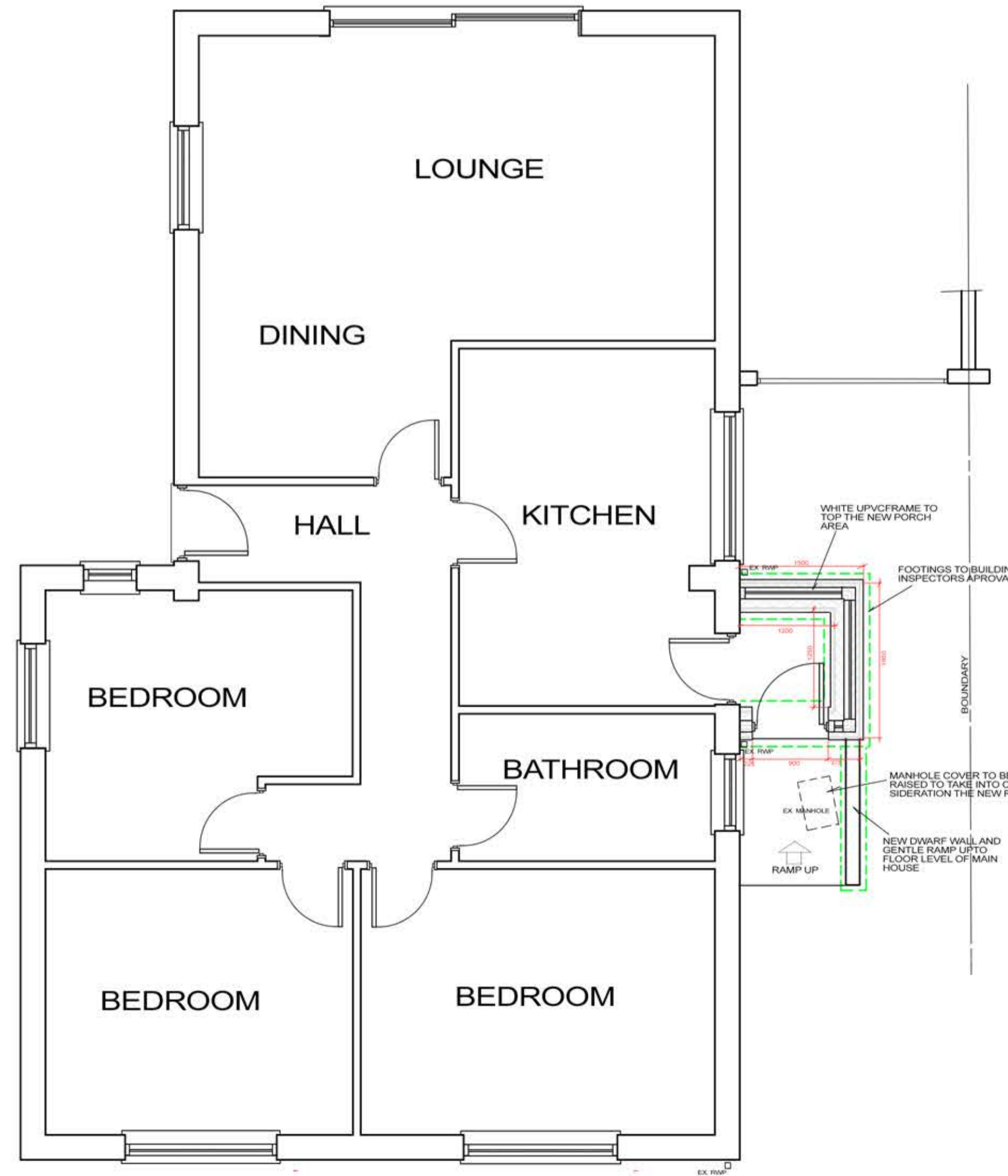
INNER SKIN TO BE 100MM 7N/m<sup>2</sup> CONCRETE BLOCK BELOW D.P.C. LEVEL. USE SAME TO EXTERNAL SKIN BELOW GROUND LEVEL AND FACING BRICK ABOVE GROUND LEVEL UP TO D.P.C. BUILD IN FULL WIDTH D.P.C. AT MINIMUM 150MM ABOVE GROUND LEVEL. LINK TO D.P.M. BUILD IN CAVITY TRAY IMMEDIATELY OVER D.P.C. TO FULL PERIMETER OF BUILDING. BUILD LINTELS WHERE SERVICES/DRAINS PASS THROUGH EXTERNAL WALLS. ENSURE MINIMUM 150MM CLEARANCE AROUND DRAINS WITH FLEXIBLE MATERIAL FILLING TO VOID SPACE. WEAK MIX CONCRETE CAVITY FILL TO BASE OF WALL UP TO 225MM

FOOTINGS

CONCRETE STRIP FOUNDATIONS TO MIN. 1000MM BELOW GROUND LEVEL TO LOCAL AUTHORITY APPROVAL. FOOTINGS TO BE CLEAR OF ROOTS AND DEBRIS PRIOR TO POURING CONCRETE. MASS FILL TO 3 COURSES BELOW LOWEST D.P.C. LEVEL



EXISTING GROUND FLOOR 1:50



PROPOSED GROUND FLOOR 1:50

**NOTE**  
THE CONTRACTOR IS TO CHECK AND VERIFY ALL BUILDINGS AND SITE DIMENSIONS, LEVELS AND SEWER INVERT LEVELS AT CONNECTION POINTS BEFORE WORK STARTS. THE CONTRACTOR IS TO COMPLY IN ALL ASPECTS WITH CURRENT BUILDING LEGISLATION - BRITISH STANDARDS SPECIFICATIONS, BUILDING REGULATIONS ETC. WHETHER OR NOT SPECIALLY STATED ON THIS DRAWING. THIS DRAWING MUST BE READ WITH AND CHECKED AGAINST ANY STRUCTURAL, GEOTECHNICAL OR OTHER SPECIALIST DOCUMENTATION. THIS DRAWING IS NOT INTENDED TO SHOW DETAILS OF FOUNDATIONS, GROUND CONDITIONS OR GROUND CONTAMINANTS. THE CONTRACTOR WILL INVESTIGATE THE BUILDING AREA AND A SUITABLE METHOD OF FOUNDATION FOR THE WHOLE BUILD SHOULD BE PROVIDED ALLOWING FOR EXISTING GROUND CONDITIONS. ANY SUSPECT GROUND CONDITIONS SHOULD BE FURTHER INVESTIGATED BY A SUITABLE EXPERT.

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Client: DAVID CAMM

Job Title: SINGLE STOREY SIDE PORCH TO NO. 10 MARSH LANE, LEONARD STANLEY, STONEHOUSE, GLOUCESTER. GL10 3NJ

Dwg Title: EXISTING AND PROPOSED PLANS AND ELEVATIONS

Scale: 1:50 1:1250 1:500

Date:

Dwg No. DC001