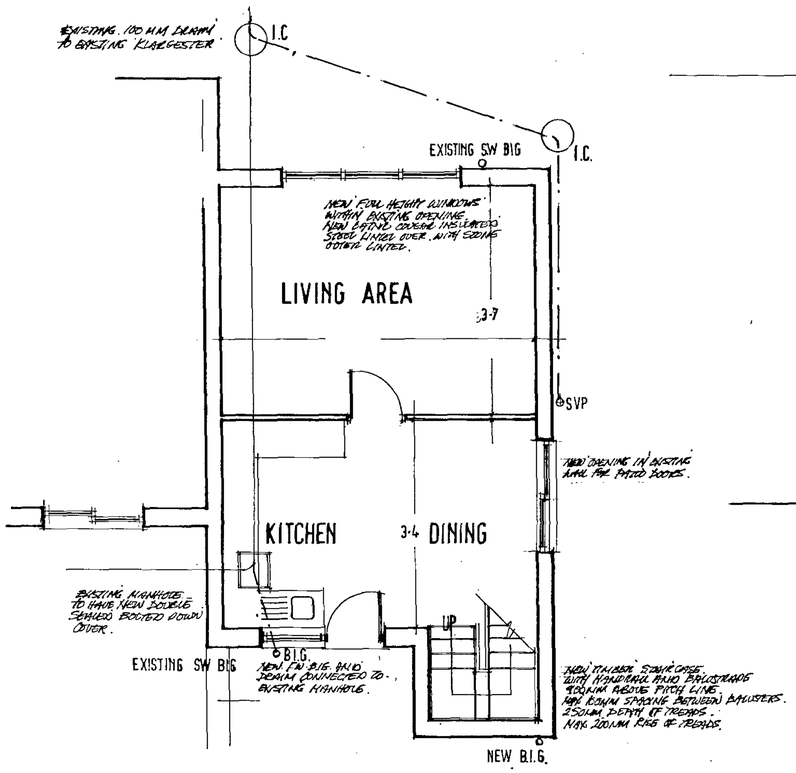
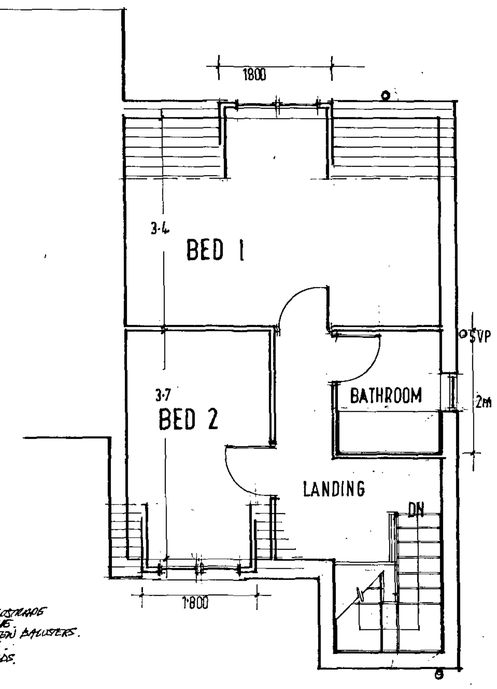


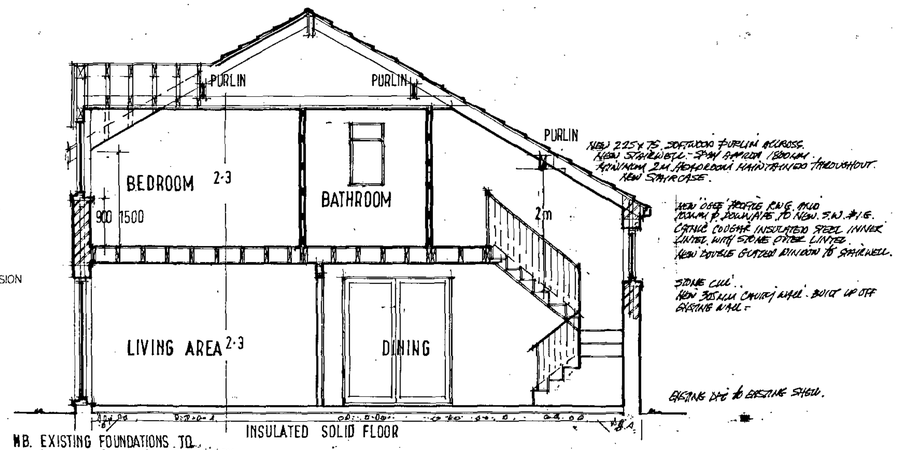
GROUND FLOOR PLAN PROPOSED



FIRST FLOOR PLAN PROPOSED

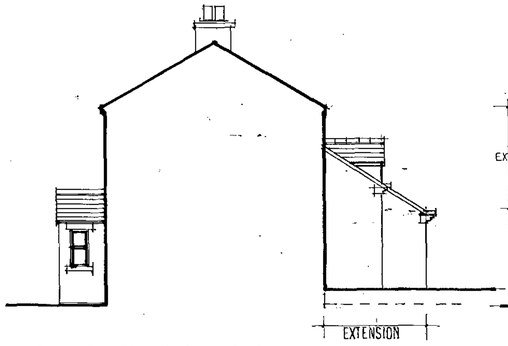
FRONT ELEVATION

REAR ELEVATION

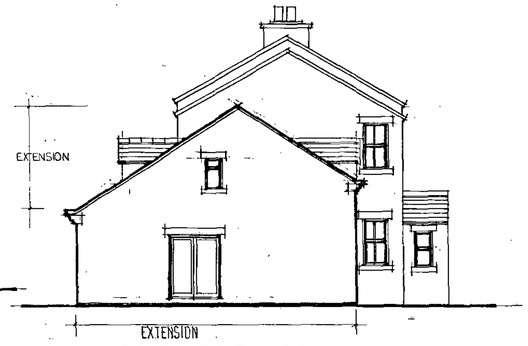


SECTION

NB. EXISTING FOUNDATIONS TO BE EXPOSED FOR EXAMINATION BY BUILDING INSPECTOR PRIOR TO COMMENCEMENT ON SITE



SIDE ELEVATION



SIDE ELEVATION

CALCULATIONS FOR STEEL PURLINS SPAN 5·1m

Loading - Roof 5·1m X 1·75 Kn/m² X 2·25m = 20·08 Kn
Self weight = 5·1m X 0·3 Kn/m² = 1·53 Kn
Total Load W = 21·61 Kn.

$M = \frac{WL}{8} = \frac{21.61 \times 5.1m}{8} = 13.7 Kn/m$

Try 203 X 102 X 25·33 Kg RSJ

$C_{req} = \frac{5.1 \times 10^6}{2.25 \times 165} = 226$ 4½ < 19·5 ∴ OK

$Z\ req = \frac{M}{f_{bc}} = \frac{13.7 \times 10^3 \times 10^3}{84 \times 10^2} = 163 Cm^3 \left(< 225.8 Cm^3\right) \therefore OK$

Deflection $\delta = \frac{5 W_{sg} L^3}{384 E I} = \frac{5 \times 21.61 \times 10^3 \times 5.1^3 \times 10^9}{384 \times 207 \times 10^3 \times 2284 \times 10^4}$

$= \frac{14332 \times 10^5}{1823 \times 10^5} = 7.8mm \left(< 14.1mm \therefore OK\right)$

∴ USE 203 X 102 X 25·33 Kg RSJ. GRADE 43 STEEL, BUILT IN AT ENDS TO PROVIDE ROTATIONAL RESTRAINT AND SUPPORTED ON 150MM THICK CONCRETE PADSTONES.

WALL CONSTRUCTION

EXISTING 305MM THICK CAVITY WALL TO BE RETAINED (NATURAL COURSED STONE OUTER LEAF WITH BRICKWORK INTERNAL LEAF - 11M, 55MM THICK KINGSPAN THERMAWALL TW 52 ZERO ODP. INSULATED PLASTERBOARD WITH PLASTER FINISH.
ALL TO ACHIEVE A MAX U VALUE OF 0·27 W/M²K.

ROOF CONSTRUCTION

EXISTING ROOFING TILES TO BE RE-USED WITH VENTILATED RIDGE TILES AND CONTINUOUS EAVES VENTILATION. ON SOFTWOOD TANALISED ROOFING BATTENS TO SUIT - ON UNDERLAYER FELT TO BS 747 - LAPPED INTO GUTTERS. ON 150 X 50 S/G RAFTERS AND CEILING JOISTS @ 400MM C/E. ON STEEL PURLINS (SEE CALCS).
100 X 75 S/G WALLPLATES. ANCHORED DOWN WITH M.S. ANCHORS.
LATERAL RESTRAINT TIES. - 1 NO 30 X 5MM M.S. BAR. SPANNING MIN 3 NO RAFTERS / JOISTS @ 1m. CENTRES.
LATERAL RESTRAINT TIES TO GABLE / CEILING JOISTS AND TO FIRST FLOOR / FLOOR JOISTS.
100MM THICK KINGSPAN KOOLTHERM K7 RIGID INSULATION BETWEEN RAFTERS. AND 50MM KINGSPAN THERMAWALL TW 50 ZERO ODP TO FACE OF RAFTERS.
NEW 50MM AIR GAP TO BE MAINTAINED.
27MM TIMBER MINERAL FIBRE INSULATION TO FLAT CEILING.
ALL TO ACHIEVE MAX U VALUE OF 0·16 W/M²K.

FLOOR CONSTRUCTION - GROUND.

100MM THICK KINGSPAN THERMAFLOOR T & G 73 ZERO ODP. CHIPBOARD PANELS RIGID FOAM INSULATION, ON LEVELLING SCREED, ON 100MM CONCRETE SLAB, ON DPC BONDED ON 1200 DPM. - RADON BARRIER ON 150MM LAYERS OF CLEAN CLINKSTONE HARDCORE
ALL TO ACHIEVE MAX U VALUE OF 0·20 W/M²K.

FLOOR CONSTRUCTION - FIRST

22MM SOFTWOOD TONGUED AND GROOVED FLOORBOARDS. ON 200 X 75 S/G FLOOR JOISTS @ 400MM CENTRES. WITH HERRINGBONE STRUTTING AT MID SPAN.
150MM THICK MINERAL FIBRE INSULATION 10KG/M³. TO FLOOR VOID - PLASTERBOARD AND SKIM FINISH.

DORMER FRONT AND CHEEKS

HANGING TILES TO MATCH MAIN TILES. - ON 38 BATTENS. ON UNDERLAYER FELT TO BS 747. - ON 12·5MM SHEATHING PLY ON 100 X 50 S/G STANDING AND NOGGINGS @ 600MM C/S. BOTH UP OF DOUBLED UP RAFTERS. - WITH 100 X 100 MM S/G CORNER POSTS AND 150 X 100 S/G HEADS. - WITH 100MM KINGSPAN THERMAWALL R 100 INSULATION AND 50MM POLYETHYLENE U BARRIER WITH 38MM KINGSPAN OSB INSULATED PLASTERBOARD AND SKIM FINISH. - ALL TO ACHIEVE MIN U VALUE OF 0·27 W/M²K.

DRAINS

NEW DRAINS TO BE 100MM Ø VITRIFIED CLAYWARE JOINTED WITH FLEXIBLE COUPLINGS. LAID TO FALLS MIN 1:40. - ENCASED IN 150MM PEA GRAVEL EXTERNALLY AND 150MM CONCRETE UNDER BUILDING.
CONNECTED TO EXISTING DRAINS VIA NEW MANHOLES.
NEW MANHOLES CONSTRUCTED OF 225MM CLASS 'B' ENGINEERING BRICKWORK, BUILT UP OFF 150 CONCRETE BASE.

GENERAL

ALL TIMBER USED TO BE MINIMUM STRESS GRADE SC4
WINDOW AREA OF HABITABLE ROOMS TO BE MIN 1/10TH FLOOR AREA WITH VENTILATED OPENINGS MIN 1/20TH FLOOR AREA. - WITH TRICKLE VENTILATION MIN 8000MM²
ESCAPE WINDOWS TO FIRST FLOOR BEDROOM WINDOWS. MIN 800 X 500MM CLEAR OPENINGS. - WITH MAXIMUM CILL HEIGHT FROM F.F.L. LEVEL.
MECHANICAL EXTRACTION TO KITCHEN AND BATHROOM. 60 LITRES PER SECOND TO KITCHEN AND 30 LITRES TO BATHROOM.
ALL GLAZING TO COMPLY WITH NEW APPROVED DOCUMENT PART 'K'
RISING PILKINGTONS 'K' GLASS WITH LOW E SOFT COATING TO ARGON CAVITY. - ALL GLAZING TO BE SAFETY GLAZING TO B.S. 6206.
SMOKE ALARMS / DETECTORS TO BE PROVIDED TO GROUND FLOOR AND FIRST FLOOR LANDING. - TO BE INTERLINKED AND WIRED BACK TO A SUPERVISED FUSED CIRCUIT ON THE CONSUMER UNIT - PLUS A BATTERY BACK UP.
ALL ELECTRICAL WORK TO COMPLY WITH APPROVED DOCUMENT 'P' AND INSTALLED BY A COMPETENT DOMESTIC INSTALLER AND A COMPLETION CERTIFICATE TO BE PROVIDED UPON COMPLETION.
A SATISFACTORY S.A.P. CALCULATION TO BE SUBMITTED TO THE COUNCIL PRIOR TO BUILDING REGULATIONS APPROVAL BEING GRANTED.
NEW SOCKETS TO BE 450MM MINIMUM ABOVE G.F. LEVEL AND NEW SWITCHES 1200 MM FROM G.F. LEVEL. - ALL LIGHTING TO BE ENERGY EFFICIENT
ANY NEW CENTRAL HEATING BOILER TO HAVE A SEDBUK RATING OF 86% OR GREATER AND COMPLETE WITH THERMOSTATICALLY CONTROLLED VALVES TO EACH RADIATOR.
ALL TO BE INSTALLED BY A CORGI REGISTERED INSTALLER.

NOTE
This drawing is for obtaining Planning permission and Building Regulations Approval only. The successful Building contractor is to carry out a Site Survey, including levels, before commencing works.
The builder is responsible for ensuring that all works to be carried out are to the requirements of the Building Regulations and the relevant current codes of practice to the satisfaction of the District Building Surveyor.

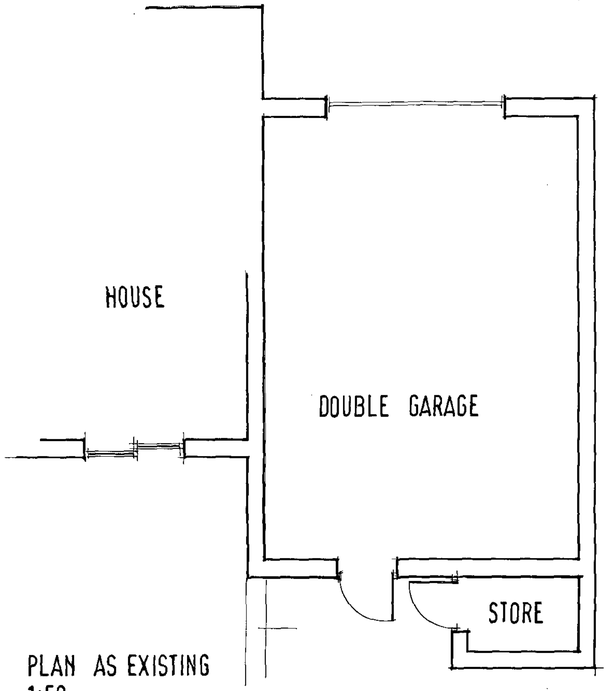
PROPOSED CONVERSION OF EXISTING DOUBLE GARAGE INTO GRANNY ANNEXE AT
Nº 5 KENDAL GREEN
WORSBOROUGH
NR BARNSLEY:
S 70 6 T.T.

Barnsley Metropolitan Borough Council
21 SEP 2009
Corporate Mail Room

SCALE 1:50 1:100
DATE MAY 09
DRAWN R HARRIS

2009·15·02

Millé design
R. Harris F.C.S.D.
M. E. Harris B.A.hons
Architectural planning, building & interiors
tel: & fax:

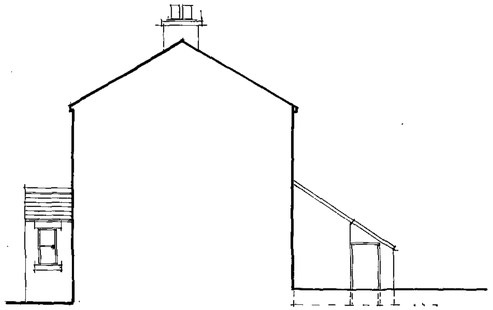


PLAN AS EXISTING
1:50

REAR ELEVATION AS EXISTING

FRONT ELEVATION AS EXISTING

SIDE ELEVATION AS EXISTING



SIDE ELEVATION AS EXISTING

Barnsley Metropolitan Borough Council
21 SEP 2009
Corporate Mail Room

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S 70 6 TT.

SCALE 1:100 1:50
DATE MAY 09 2009 : 15 : 01
DRAWN R HARRIS

Millé design

c s d R Harris FCSD
M L Harris BA(hons)
Design & construction

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