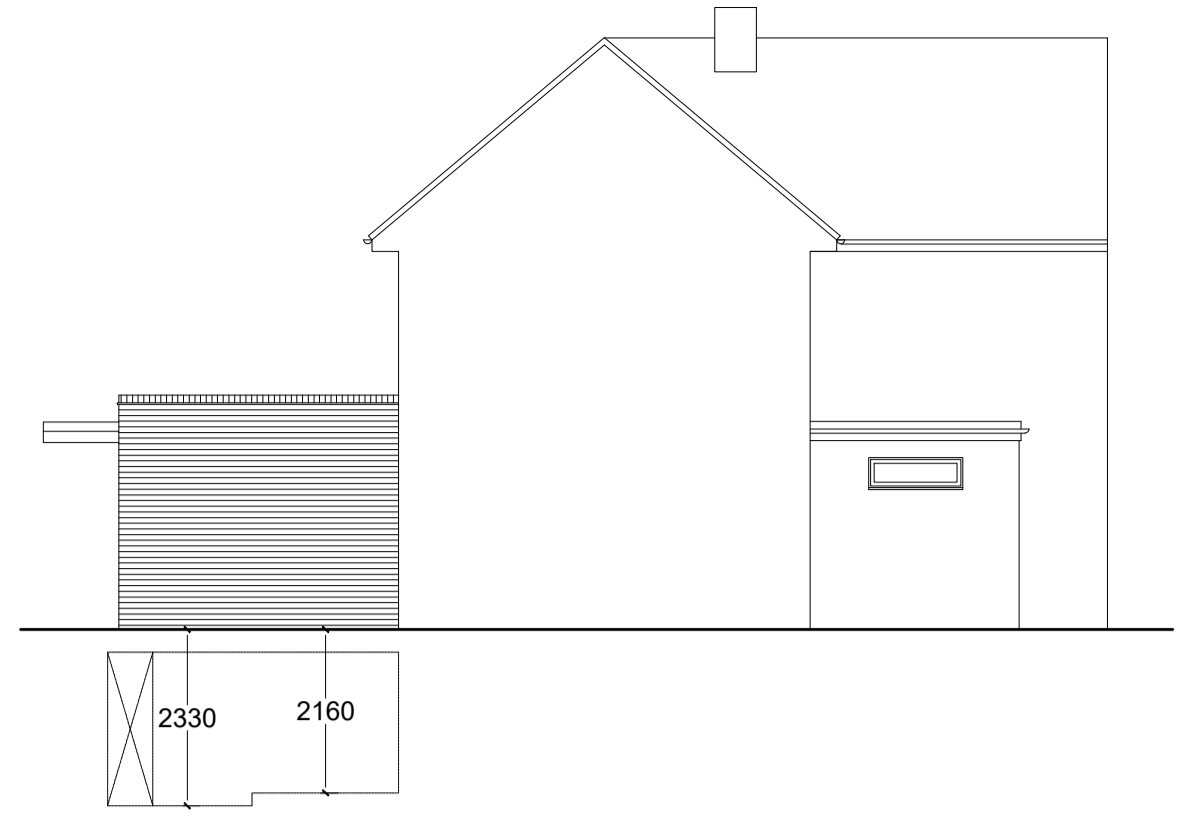
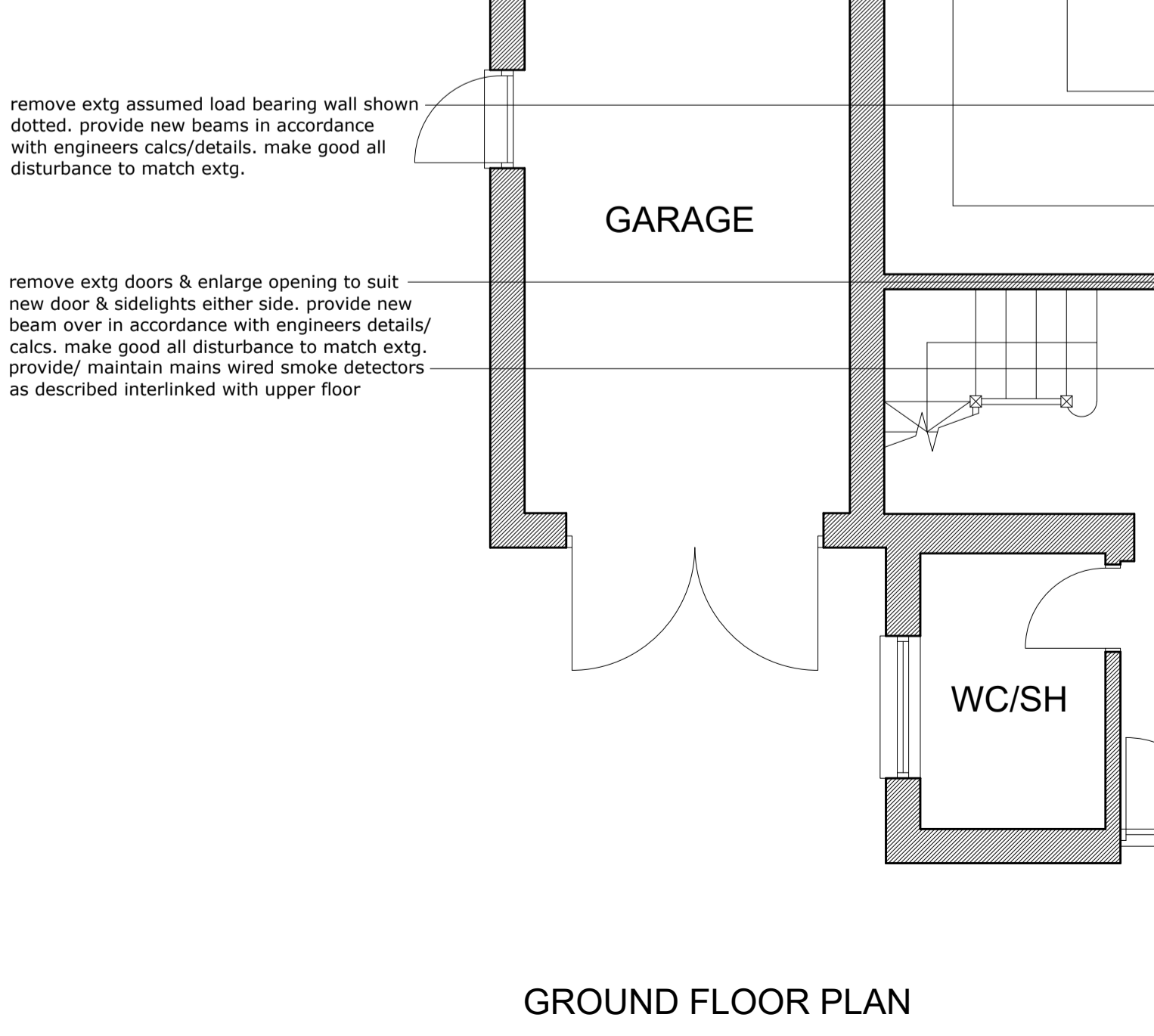
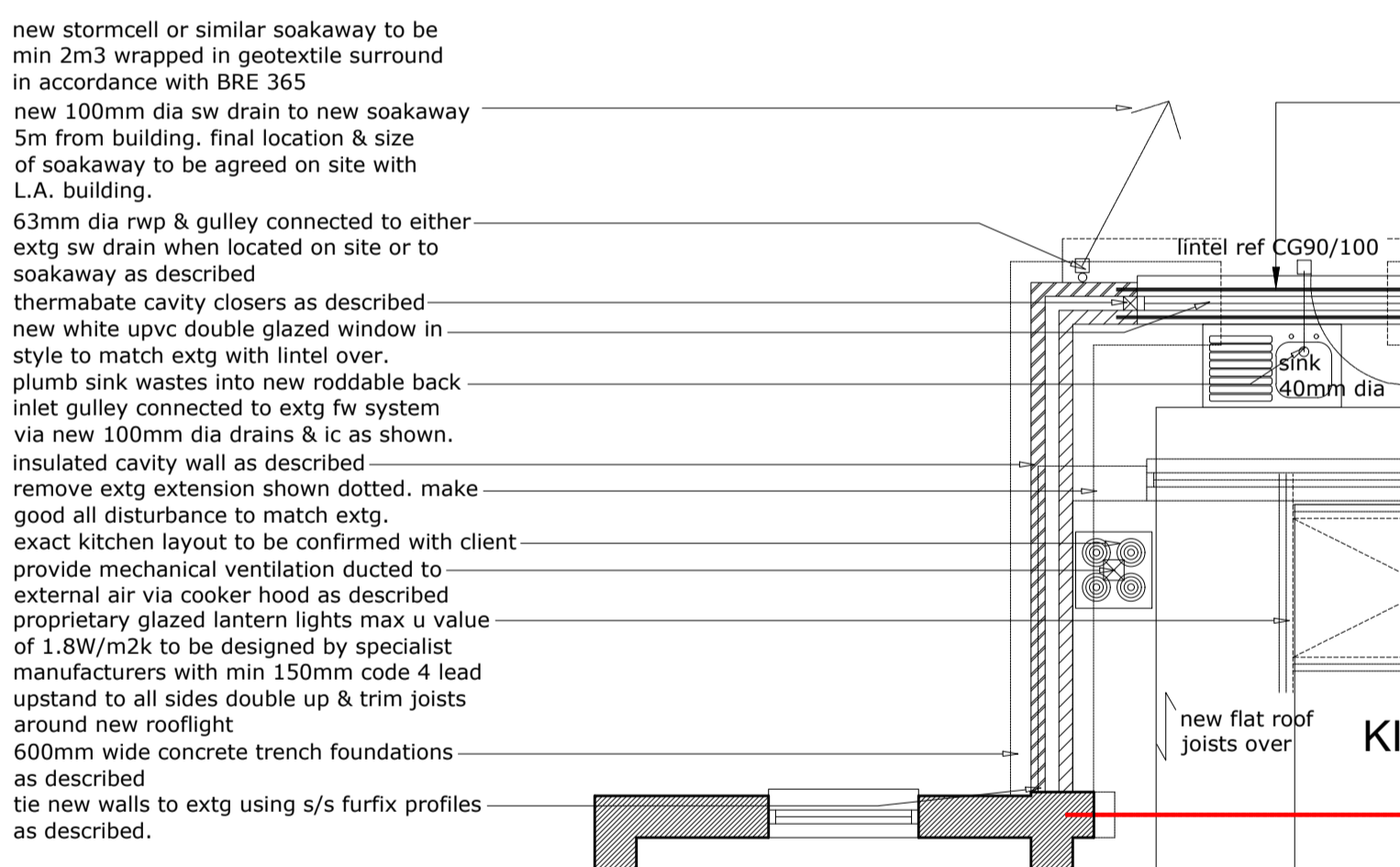
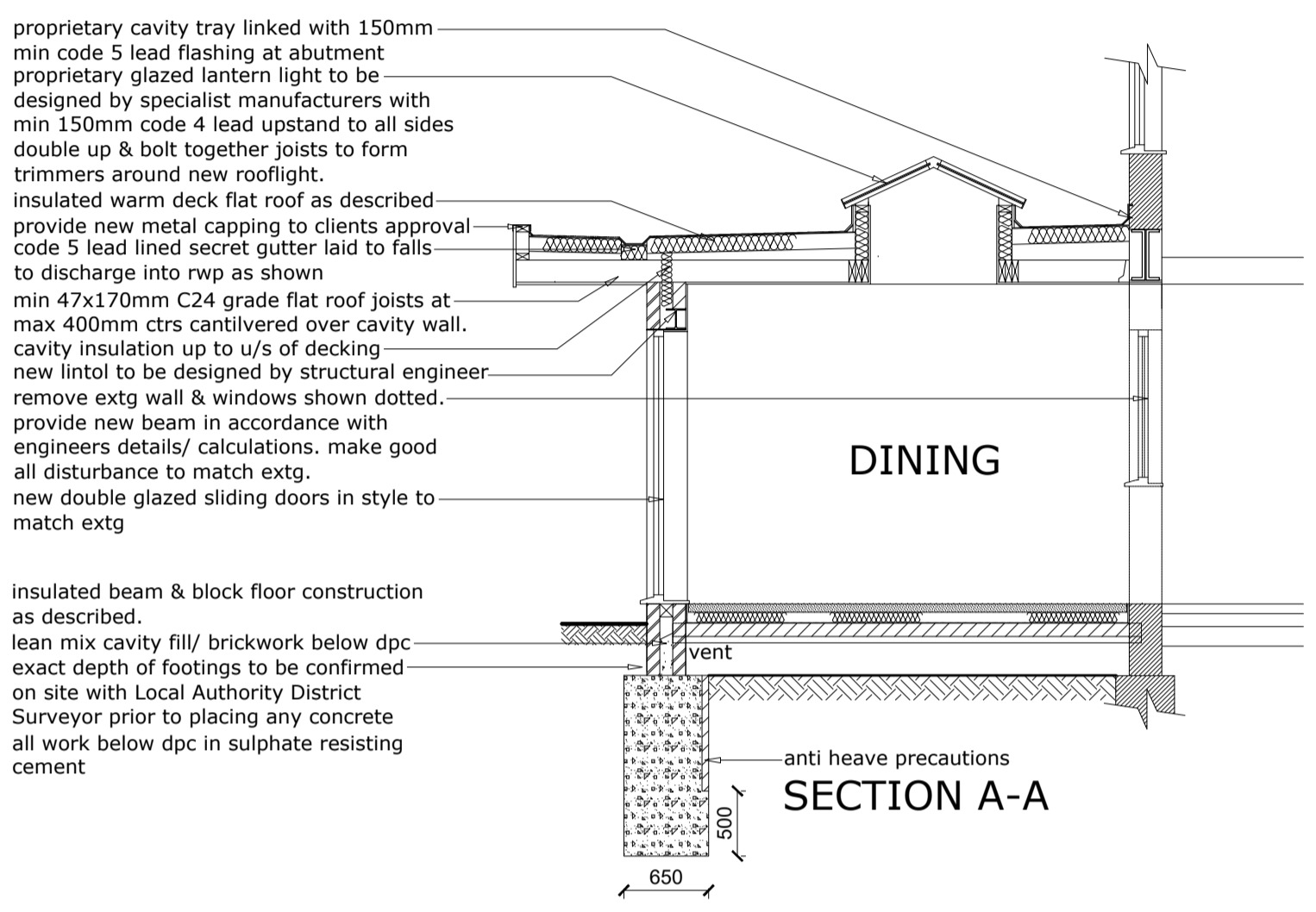


SIDE ELEVATION

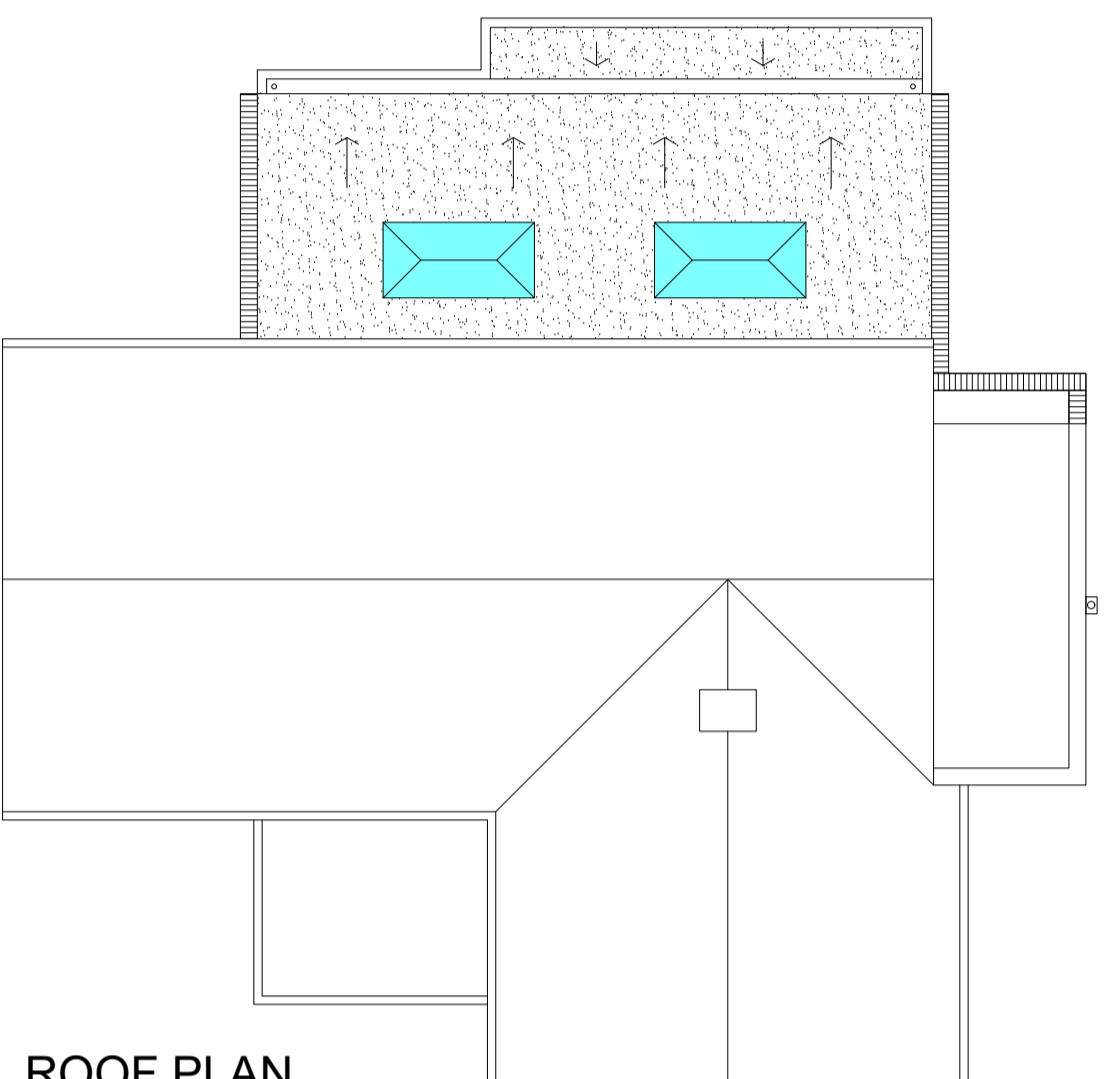
REAR ELEVATION



SIDE ELEVATION



GROUND FLOOR PLAN



ROOF PLAN

GENERAL SPECIFICATION NOTES:
 ALL WORKS TO BE CARRIED OUT TO THE SATISFACTION OF THE L.A. BUILDING INSPECTOR.
 UNDERGROUND DRAINAGE:
 CONTRACTOR TO FULLY INVESTIGATE LOCATION AND DEPTH OF EXTG FW DRAIN AND INCOMING SERVICES PRIOR TO COMMENCEMENT OF EXCAVATIONS.
 FOR ARRANGEMENT OF NEW UNDERGROUND DRAINAGE REFER TO GROUND FLOOR PLAN.
 UNDERGROUND DRAINAGE GENERALLY TO COMPLY WITH BS 8301:1985.
 ALL NEW DRAIN RUNS CONNECTING INTO EXISTING TO BE LAID TO LEVELS AND FALLS TO SUIT EXISTING AND TO THE APPROVAL OF L.A. BUILDING OFFICER.
 INVERT LEVELS OF NEW MH TO SUIT EXTG DRAIN DEPTHS.
 DRAINS PASSING THROUGH NEW WALLS TO BE SPANNED USING PCC LINTOLS OR SLEEVED WITH FLEXIBLE 'ROCKER' JOINTS WITHIN 150mm OF EACH WALL FACE.
 DRAINS PASSING UNDER THE BUILDING TO BE SURROUNDED WITH 150mm CONCRETE & OUTSIDE OF BUILDING TO HAVE 150mm PEA SHINGLE SURROUND.
 NEW RWP'S TO BE NOM. 63mm DIA UPVC TO MATCH EXISTING, COMPLETE WITH RODDING ACCESS AT GROUND LEVEL.
 RWP'S TO DISCHARGE TO SOAKAWAY VIA NOM. 100mm DIA UNDERGROUND DRAINS.
 NEW GUTTERS TO BE NOM 110mm HALF-ROUND UPVC TO MATCH EXISTING.
 ALL DRAINS TO BE 100mm DIA FLEXIBLE JOINTED UPVC.

FOUNDATIONS:
 MIN. 600MM WIDE CONCRETE STRIP FOUNDATIONS DEPTHS AS NOTED ON SECTIONS/ ELEVATIONS. FOUNDATIONS GENERALLY TO BE IN ACCORDANCE WITH NHBC PRACTICE NOTE 4.2, 1992 AND ARE TO BE A MINIMUM OF 600MM BELOW ANY TREE ROOTS FOUND OR TO A GREATER DEPTH IF REQUIRED BY THE LOCAL AUTHORITY BUILDING INSPECTOR.
 (FOUNDATIONS DEEPER THAN 1500MM BELOW FINISHED GROUND LEVEL TO INCORPORATE 50MM 'CLAYBOARD' OR SIMILAR HEAVE PROTECTION BOARD TO INTERNAL FACES AS DIRECTED BY L.A. BUILDING INSPECTOR. IF THE SUB-SOIL IS FOUND TO BE OF A LOW SHRINKAGE CATEGORY, IE SAND, BALLAST, HOGGIN, CHALK, ETC., EXCAVATIONS ARE TO BE STOPPED AT 1M BELOW FINISHED GROUND LEVEL AND BUILDING INSPECTOR CONTACTED FOR SITE INSPECTION- FULL DEPTH EXCAVATION MAY NOT BE REQUIRED. ALL CONCRETE USED IS TO BE SULPHATE-RESISTING UNLESS AGREED OTHERWISE WITH L.A. BUILDING INSPECTOR). ECCENTRIC FOUNDATIONS TO BE 750mm WIDE.
 SERVICES PASSING THROUGH FOUNDATIONS TO BE DUCTED AS NECESSARY. FOUNDATIONS ADJACENT DRAIN RUNS TO BE DEEPENED BELOW INVERT LEVEL OF DRAIN.

NEW SUSPENDED GROUND FLOOR CONSTRUCTION:
 MIN. 75mm SAND/CEMENT SCREED INCORPORATING ANTI-CRACK REINFORCEMENT MESH ON 1000 GAUGE POLYTHENE SEPARATING LAYER ON 75mm CELOTEX GA4000Z RIGID FLOORING GRADE INSULATION BOARDS ON 1200G POLYTHENE DPM ON AN APPROVED SYSTEM OF PRE-CAST CONCRETE BEAM AND BLOCK FLOORING BY SPECIALIST MANUFACTURER 20MM VERTICAL POLYSTYRENE INSULATION BOARD TO BE INCORPORATED TO PERIMETER OF NEW FLOOR SCREEDS AT JUNCTIONS WITH EXTERNAL WALLS.
 TO ACHIEVE A 'U' VALUE NOT EXCEEDING 0.22W/m2K.
 ADDITIONAL DPC TO BE INCORPORATED BELOW BEAMS/BLOCKS WHERE FLOOR IS BUILT IN TO SUPPORTING WALLS. POLYTHENE DPM TO BE TURNED UP INTERNAL FACE OF EXTERNAL WALLS AND LAPPED/BONDED WITH DPC TO INNER BLOCKWORK LEAF.
 MIN 150mm CLEAR VOID IS TO BE MAINTAINED BELOW THE SUSPENDED FLOOR, FULLY VENTILATED USING PROPRIETARY TELESCOPIC VOID VENTS TO OPPOSING WALLS, SPACED TO PROVIDE MIN 1500sq mm VENTILATION AREA PER METRE RUN OF WALL.
 AIRBRICKS TO BE INSTALLED TO INTERMEDIATE WALLS BELOW FLOOR LEVEL TO MAINTAIN CROSS-VENTILATION.
 FLOORING MANUFACTURER TO PROVIDE FULL DESIGN DETAILS AND SUPPORTING CALCULATIONS AS NECESSARY FOR THE APPROVAL OF THE LOCAL AUTHORITY PRIOR TO MANUFACTURE AND INSTALLATION.

ABOVE GROUND DRAINAGE:
 ALL APPLIANCES TO DISCHARGE TO NOM 100MM DIA SVP OR BACK-INLET GULLEYS AS INDICATED. SANITARY PIPEWORK TO COMPLY WITH BS 12056.
 ALL INTERNAL DRAINAGE PIPES TO BE IN UPVC:
 -SVP/WC WASTES TO BE NOM. 100 DIA. HOUSED WITHIN SOUND INSULATED STUDWORK DUCTS COMPLETE WITH ACCESS PANELS. (USE 50MM ROCKWOOL RW2 INSULATION IN FILLS)
 -BASIN WASTES NOM. 32 DIA. OR 50 DIA. WHERE COMBINED.
 -SINK/SHOWER/WASTES NOM. 38 DIA. OR 50 DIA. WHERE COMBINED.
 ALL WASTES TO HAVE MIN. 75mm DEEP SEALED TRAPS.

STEEL BEAMS
 ALL NEW STRUCTURAL STEEL BEAMS TO EITHER BE ENCASED USING 2 LAYERS 12.5MM PLASTERBOARD OR PAINTED WITH 2 LAYERS INTUMESCENT PAINT TO ACHIEVE MIN 1/2 HOUR FIRE RESISTANCE.

WINDOWS/EXTERNAL DOORS
 WINDOWS/EXTERNAL DOORS TO BE UPVC FRAMES COMPLETE WITH SEALED DOUBLE GLAZED UNITS IN A STYLE TO MATCH EXISTING INCORPORATING LOW-E GLASS (EMISSIVITY=0.05) AND 16MM AIR GAP TO ACHIEVE A 'U' VALUE NOT EXCEEDING 1.6W/M2K. WINDOWS/DOORS TO EXTENSION TO PROVIDE MIN 1/20TH FLOOR AREA NATURAL VENTILATION TO HABITABLE ROOMS AND TO INCORPORATE ADJUSTABLE HEAD VENTILATORS TO PROVIDE MIN. 4,000MM2 BACKGROUND VENTILATION TO SHOWER ROOM AND KITCHEN.

GLAZING
 GLAZING IN CRITICAL LOCATIONS I.E. DOORS/SIDE PANELS AND LOW LEVEL WINDOWS WITHIN 800MM OF FFL SHALL BE IN SAFETY GLASS IN ACCORDANCE WITH THE REQUIREMENT OF APPROVED DOCUMENT K OF THE BUILDING REGULATIONS.

ALL LOAD BEARING ELEMENTS INCLUDING FOUNDATIONS TO BE EXPOSED & CHECKED ON SITE FOR ADEQUACY WHERE ADDITIONAL LOADS IMPOSED.
 thermabate cavity closers as described new double glazed bifold sliding doors in style to match extg with lintel over as engineers details/ calculations
 600mm wide eccentric concrete deep fill trench foundations as described to avoid encroachment of adjoining property
 new white upvc double glazed window in style to match extg with lintel over.
 2 No pc conc lintels to bridge over new drain run
 new 430mm dia upvc ic as described
 remove redundant rwp, manhole & drain connections shown dotted. make good all disturbance to match extg.
 remove redundant gully & drain connection alter & adapt extg manholes to suit new & redundant drain connections
 tie new walls to extg using s/s furfix profiles as described.
 remove extg wall & windows shown dotted. provide new beam in accordance with engineers details/ calculations. make good all disturbance to match extg.
 re build pier using min 7.3N blocks for inner skin and Class A engineering bricks brickwork for external skin. provide min 300 x 300mm concrete padstone, as per engineers design.
 two existing steel beams - one on top of the other. bottom one is a 152 x 89mm PFC and the top one is a 152 x 76mm UB.
 remove extg door shown dotted. provide new white upvc double glazed window in style to match extg. infill remainder of opening in construction to match extg
 existing 152 x 89mm UB

new stormcell or similar soakaway to be min 2m3 wrapped in geotextile surround in accordance with BRE 365
 new 100mm dia sw drain to new soakaway 5m from building. final location & size of soakaway to be agreed on site with L.A. building.
 63mm dia rwp & gully connected to either extg sw drain when located on site or to soakaway as described
 thermabate cavity closers as described
 new white upvc double glazed window in style to match extg with lintel over.
 plumb sink wastes into new roddable back inlet gully connected to extg fw system via new 100mm dia drains & ic as shown.
 insulated cavity wall as described
 remove extg extension shown dotted. make good all disturbance to match extg.
 exact kitchen layout to be confirmed with client
 provide mechanical ventilation ducted to external air via cooker hood as described
 proprietary glazed lantern lights max u value of 1.8W/m2k to be designed by specialist manufacturers with min 150mm code 4 lead upstand to all sides double up & trim joists around new rooflight
 600mm wide concrete trench foundations as described
 tie new walls to extg using s/s furfix profiles as described.
 remove extg assumed load bearing wall shown dotted. provide new beams in accordance with engineers calcs/details. make good all disturbance to match extg.
 remove extg doors & enlarge opening to suit new door & sidelights either side. provide new beam over in accordance with engineers details/ calcs. make good all disturbance to match extg. provide/ maintain mains wired smoke detectors as described interlinked with upper floor

2 No pc conc lintels to bridge over new drain run
 lintel ref CG90/100
 40mm dia
 new flat roof joists over
 lintel ref CG90/100
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NEW WARM FLAT ROOF CONSTRUCTION TO COMPRISE OF:
 GYP OR SIMILAR ROOFING SYSTEM ON STANDARD UNDERLAY STAPLED TO MIN. 19MM WBP PLY DECKING, ON 126MM 'CELOTEX TEMPHECK DECK TD4000' OR SIMILAR ROOFING GRADE INSULATION BOARD WITH BUILT IN VAPOUR BARRIER, LAID TO NOM. 1 IN 40 FALLS ON MIN 50MM DEEP TREATED SW FIRTINGS ON C24 FLAT ROOF JOISTS. 1 LAYER 12.5MM PLASTERBOARD TO U/S JOISTS FINISHED TO CLIENTS REQUIREMENTS. ALL TO ACHIEVE 'U' VALUE NOT EXCEEDING 0.18W/M2

LATERAL RESTRAINT
 RAFTERS SUPPORTED ON 100X50MM TREATED SW WALL PLATES SECURED TO SUPPORTING WALLS MS STRAPS AT MAX 2000MM CENTRES. FLOOR/ CEILING JOISTS PARALLEL TO EXTERNAL WALL TO BE STRAPPED TO WALLS AT 2M CTRS WITH MS STRAPS FIXED BACK ACROSS 3 NO JOISTS WITH SOLID BLOCKING BETWEEN.

THE HEATING AND HOT WATER SYSTEM TO BE EXTENDED IN ACCORDANCE WITH THE DOMESTIC HEATING COMPLIANCE GUIDE, NBS, 2010. ALL HEATING AND HOT WATER SYSTEMS NEED TO BE FULLY COMMISSIONED TO ENSURE THEY ARE OPERATING AT MAXIMUM EFFICIENCY AND THAT ALL CONTROLS WORK AS INTENDED. THE PERSON WHO CARRIES OUT THE COMMISSIONING MUST PROVIDE A CERTIFICATE CONFIRMING THAT IT HAS BEEN CARRIED OUT PROPERLY TO BOTH THE CLIENT AND BUILDING CONTROL SURVEYOR.

ELECTRICAL SYSTEM:
 ANY NEW ELECTRICAL INSTALLATIONS TO COMPLY WITH THE ELECTRICITY AT WORK REGULATIONS 1989 (AS AMENDED), BS 7671:2008 AND THE ELECTRICAL SAFETY, QUALITY AND CONTINUITY REGULATIONS 2002.
 NEW INSTALLATIONS SHOULD BE INSPECTED AND TESTED DURING AND ON COMPLETION OF THE INSTALLATION BY A COMPETENT PERSON REGISTERED WITH AN ELECTRICAL SELF-CERTIFICATION SCHEME, WHO SHOULD PROVIDE A DECLARATION THAT COMPLIANCE WITH THE BUILDING REGULATIONS HAS BEEN ACHIEVED.
 ALL IN ACCORDANCE WITH THE REQUIREMENTS OF APPROVED DOCUMENT P.

LIGHTING
 MIN 3 in 4 (75%) LIGHTING POINTS OR LUMINAIRES TO BE PROVIDED WHICH IS CAPABLE OF ACCEPTING ONLY A LAMP HAVING A LUMINOUS EFFICACY GREATER THAN 40 LUMEN PER CIRCUIT WATT. MIN OF 75% OF BULBS TO BE LOW ENERGY.

VENTILATION
 ALL HABITABLE ROOMS TO HAVE ONE TWENTIETH FLOOR AREA VENTILATION BY MEANS OF AN OPENING WINDOW OR DOOR TO EXTERNAL AIR, NIGHT OR TRICKLE VENTS OF 8000SQMM TO BE PROVIDED. KITCHEN, UTILITY ROOM, BATHROOM OR SHOWER ROOMS WITH WINDOWS TO HAVE 4000SQMM NIGHT OR TRICKLE VENTS.

SMOKE DETECTORS
 MAINS WIRED SMOKE DETECTORS TO BE PROVIDED WIRED BACK TO A SEPARATE CIRCUIT BREAKER AT THE FUSE BOARD. ALL TO CURRENT I.E.E REGULATIONS DETECTORS TO BE LOCATED IN HALL AND LANDINGS WITHIN 3.0M OF BEDROOM DOORS AND 7.0M OF LIVING ROOM DOORS. KEEP AWAY FROM HEATERS, RADIATORS AND LIGHT FITTINGS. SOUNDERS TO BE LINKED TOGETHER FOR MAXIMUM EFFECT

MECHANICAL VENTILATION
 MECHANICAL EXTRACT VENTILATION TO BE PROVIDED AS FOLLOWS:
 KITCHEN - COOKER HOOD RATED AT 30L/S OR AN EXTRACT FAN RATED AT 60L/S.

EXTRACT FANS TO BE EITHER LINKED TO LIGHT SWITCHES AND TO OPERATE INTERMITTENTLY WITH 15MINUTE OVERRUN OR BE HUMIDISTAT OR MOVEMENT SENSOR TYPE. EXTRACTS TO BE DUCTED TO EXTERNAL AIR USING PVC FLEXIBLE DUCTING.

EXTERNAL WALLS:
 CAVITY WALL CONSTRUCTION TO COMPRISE:
 103MM FACING BRICKWORK TO MATCH EXTG & TO LA APPROVAL. 100MM CAVITY FILLED WITH 100MM CROWN DRITHERM CAVITY SLAB INSULATION BATT. 100MM CELCON SOLOR BLOCK INNER LEAF FINISHED INTERNALLY WITH 13MM PLASTER TO ACHIEVE MAX 'U' VALUE OF 0.28W/M2K
 CAVITY WALL TIES TO BE MIN. 225MM LONG AUSTENITIC STAINLESS STEEL CAVITY WALL 'SAFETY' TIES OR SIMILAR INSTALLED AT MAX. 900MM HORIZONTAL CENTRES/450MM VERTICAL CENTRES (STAGGERED). WALL TIE CENTRES TO BE INCREASED TO 225MM VERTICALLY WITHIN 225MM OF OPENINGS/RETURNS/MOVEMENT JOINTS.
 MINIMUM TIE EMBEDMENT 50MM INTO EACH LEAF.

OPENINGS TO EXTERNAL WALLS TO BE SPANNED USING 'CATNIC' OR SIMILAR PROPRIETARY INSULATED GALV MS LINTOLS WITH MIN. 150MM END BEARINGS. CAVITY WALLS BELOW GROUND LEVEL TO BE IN CLASS 3 COMMON BRICKWORK OR FOUNDATION BLOCKWORK (UP TO MIN. 2 COURSES BELOW FINISHED GROUND LEVEL TO EXTERNAL LEAVES). CAVITIES BELOW GROUND LEVEL TO BE BACKFILLED WITH LEAN MIX CONCRETE TO WITHIN 225MM OF INTERNAL DPC.
 NEW WALLS TO BE TIED TO EXISTING USING PROPRIETARY SS WALL STARTER PLATES BOLTED TO EXISTING WALL WITH TIES TO EACH NEW LEAF AT MAX. 225MM VERTICAL CENTRES. JOINT BETWEEN NEW/EXTG EXTERNAL WALLS TO INCORPORATE COMPRESSIBLE FILLER STRIP WITH SEALANT EXTERNALLY.
 'THERMABATE' OR SIMILAR PROPRIETARY INSULATED CAVITY CLOSERS TO PERIMETER OF ALL EXTERNAL WALL OPENINGS.

THIS DRAWING PRINTED ON A1 SIZE PAPER

HOME EXTENSION DESIGNS
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Project: 1 ROUNDWOOD DRIVE, WELWYN GARDEN CITY, HERTFORDSHIRE

Drawing Title: PROPOSED PLANS, SECTIONS AND ELEVATIONS.

Drawn By: DAMIEN Scale: 1:50, 1:100 Date: JUNE 20

Dwg Status: BUILDING REGULATIONS Checked:

Drawing No: 4660-BR01 Revision: E

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TREE LOCATION/ FOUNDATION PLAN