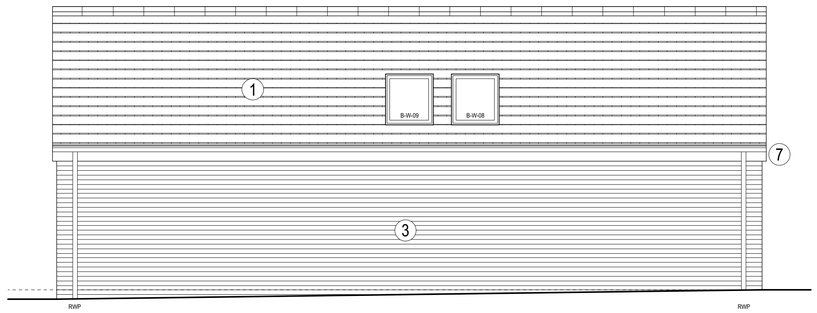
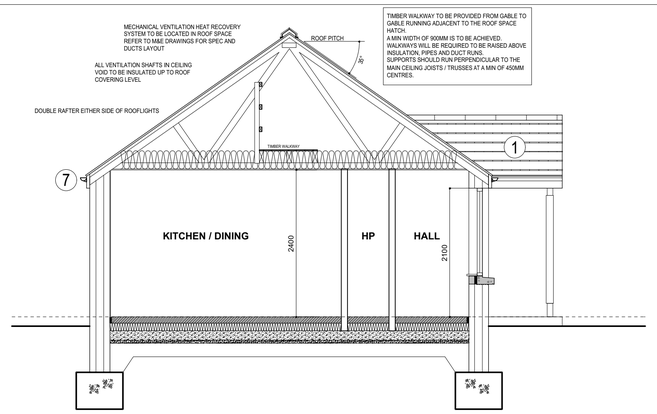


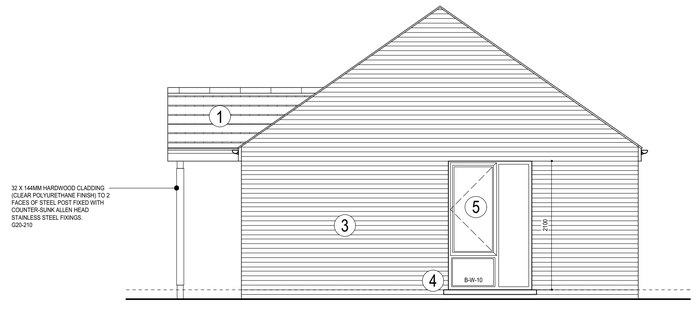

## REAR ELEVATION

## SIDE ELEVATION




## SECTION A - A

## FRONT ELEVATION




## SIDE ELEVATION

### FINISHES SCHEDULE

1. BLUE / BLACK CONCRETE ROOF TILES
2. SMOOTH THROUGH COLOUR RENDER
3. FACING BRICK
4. SMOOTH PRE-CAST CONCRETE CILLS
5. UPVC WINDOWS
6. GRP COMPOSITE DOORS WITH HARDWOOD FRAME
7. UPVC GUTTERS, DOWNPIPES AND FASCIAS

**ENERGY EFFICIENT VENTILATION IN DWELLINGS:**

ALL VENTILATION IN THIS BUILDING HAS BEEN DESIGNED TO MEET THE BUILDING CONTROL REQUIREMENTS IN TECHNICAL BOOKLET 'K' AND THE ENERGY SAVING TRUST GPG268.

ALL KITCHEN EXTRACT CANOPIES ARE TO BE COMPLETE WITH SPEED CONTROL. BATHROOM AND EN-SUITE FANS ARE TO BE COMPLETE WITH PIR DETECTORS AND RUN ON timMERS WITH BACK DRAUGHT SHUTTERS FOR ENERGY EFFICIENT OPERATION.

NATURAL VENTILATION IS BE PROVIDED TO THE INTERNAL BATHROOM VIA THE 9000MM2 SPACE TO THE BOTTOM OF THE BATHROOM, BEDROOM AND HALL DOORS, AS IDENTIFIED IN TECHNICAL BOOKLET 'K' TABLE 2.2. ALL BEDROOM AND HALL AREAS HAVE TRICKLE VENTILATION VIA WINDOWS, WHICH WILL SERVE THE FRESH AIR REQUIREMENTS FOR THE ADJACENT INTERNAL BATHROOM.

**LEVEL APPROACH** (AS TAKEN FROM TECHNICAL BOOKLET R)

A LEVEL APPROACH SHALL HAVE -
(A) AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 1500 MM.
WHERE A LEVEL APPROACH HAS A CROSSFALL IT SHALL BE NOT STEEPER THAN 1 IN 40.
THE SURFACE OF A LEVEL APPROACH SHALL -
(A) BE FIRM;
(B) REDUCE THE RISK OF SLIPPING;
(C) HAVE SIMILAR SURFACE FRICTIONAL CHARACTERISTICS ALONG ITS LENGTH; AND
(D) HAVE AN EVEN SURFACE FINISH.
2.5 NOTWITHSTANDING THE REQUIREMENTS OF PARAGRAPH 2.4 (D) -
(A) WHERE FORMLESS MATERIALS ARE USED AS SURFACING, ANY UNDULATIONS SHALL BE NOT MORE THAN 3 MM MEASURED FROM A POINT BELOW A 1000 MM STRAIGHT EDGE; AND
(B) WHERE PAVING UNITS ARE USED AS SURFACING MATERIAL, ANY DIFFERENCE IN LEVEL BETWEEN THE UNITS AT THE JOINTS, SHALL BE NOT MORE THAN 5 MM.
2.6 WHERE PAVING UNITS ARE USED AS SURFACING MATERIAL AND HAVE -
(A) RECESSED FILLED JOINTS, THE JOINTS SHALL BE NOT MORE THAN 10 MM WIDE AND 5 MM DEEP; AND
(B) UNFILLED JOINTS, THE JOINTS SHALL BE NOT MORE THAN 5 MM WIDE.

**LOW ENERGY LIGHTING:**

INTERNAL LOW ENERGY LIGHTING IS REQUIRED IN 100% OF FIXED LIGHTING FITTINGS.
FIXED EXTERNAL LIGHTING SHALL BE EITHER, ONLY CAPABLE OF ACCEPTING LAMPS HAVING AN EFFICIENCY GREATER THAN 40 LUMENS PER CIRCUIT WATT OR HAVE MAXIMUM OUTPUT OF 150 WATT PER FITTING. EXTERNAL FIXED LIGHTING REQUIRES TO BE SUCH THAT IT WILL AUTOMATICALLY SWITCH OFF WHEN THERE IS ADEQUATE DAYLIGHT OR WHERE NOT REQUIRED AT NIGHT. EXIT SIGNAGE TO COMPLY WITH BS5499 : PART 1.

**INTERNAL ELECTRICAL SWITCHES:**

ALL INTERNAL SWITCHES, CONTROLS AND SOCKETS ETC MUST COMPLY WITH TECHNICAL BOOKLET R OF NI BUILDING REGULATIONS 2012. REFER TO M&E DRAWINGS AND SPECIFICATION FOR ALL HEIGHTS AND LOCATIONS.

**COMPARTMENT PENETRATIONS:**

ALL DUCT, FLUE DRAINAGE OR VENTIALTION PIPES PASSING THROUGH FIRE RESISTING CONSTRUCTION TO COMPLY WITH THE GUIDLINES GIVEN IN BS 5588: PART 9; 1989 GIVEN FOR MAINTAINING FIRE RESISTANCE. IN ADDITION ALL PIPES SHALL BE FIRE STOPPED AT ALL JOINTS OR IMPERFECTIONS OF FIT BETWEN ELEMENTS WHICH SERVE AS A BARRIER TO THE PASSAGE OF FIRE. TO PREVENT DISPLACEMENT OF FIRE STOPPING IT SHALL BE SUPPORTED BY A NON-COMBUSTIBLE MATERIAL. IE. INTUMESCENT MASTIC, GLASS FIBRE OR MORTAR.

DUCTS OR PIPES PENETRATING THE FLOOR SHALL BE IN A NON-COMBUSTIBLE SLEEVE OR ENCLOSURE. BOTH ABOVE AND BELOW THE FLOOR. THE ENCLOSURE SHALL EITHER BE LINED OR THE PIPE OR DUCT WRAPPED WITHIN, WITH 25MM TK. UNFACED MINERAL WOOL.

THE MATERIAL OF THE ENCLOSURE SHALL HAVE A MASS OF 15KG/M2. FLEXIBLE FIRE STOPPING SHALL BE USED WHERE THE PIPE OR DUCT PASSES THROUGH THE FLOOR. WHERE A FLUE PIPE PENETRATES THE FLOOR AND DOES NOT DISCHARGE INTO A FLUE WITHIN A CHIMNEY CARRIED BY THE FLOOR, A NON-COMBUSTIBLE ENCLOSING DUCT WITH MINERAL WOOL ABSORBENT LINING SHALL BE PROVIDED.

**MECHANICAL VENTILATION:**

MECHANICAL VENTILATION TO AREAS WITH SANITARY ACCOMMODATION TO BE PROVIDED BY A 12 VOLT FAN OPERATING AT MIN. 15 LITRES/SEC. AND TO OPERATE CONTINUOUSLY WHILE ROOM IS IN USE AND FOR A MIN. PERIOD OF 15MIN. AFTER USE HAS CEASED.
KITCHEN TO BE MIN. 30 LITRES/SEC. OUTPUT POSITIONED DIRECTLY OVER COOKER AND PROVIDE EXTRACT FAN IN UTILITY TO GIVE 30L/SEC OUTPUT. SEE MECHANICAL AND ELECTRICAL CONSULTANTS DRAWINGS FOR LAYOUTS AND SPECIFICATIONS.

**BOILER FLUES:**

ALL FLUES SHALL BE CHECKED AT COMPLETION TO ENSURE THAT IT IS FREE FROM OBSTRUCTIONS. SATISFACTORY GAS TIGHT AND CONSTRUCTED WITH MATERIALS AND COMPONENTS OF SIZES THAT SUIT THE INTENDED APPLICATION.
WHERE THE BUILDING WORK INCLUDES THE INSTALLATION OF A COMBUSTION APPLIANCE ALL OF THE TESTS SHALL INCLUDE THE FLUEIPIE AND THE GAS-TIGHTNESS OF THE JOINT BETWEEN THE FLUEPIPE AND THE COMBUSTION APPLIANCE OUTLET. A SPILLAGE TEST SHALL BE CARRIED OUT WITH THE APPLIANCE UNDER FIRE.
A DURABLE NOTICE PLATE SHALL BE FIXED AT AN APPROPRIATE LOCATION IN THE DWELLING (UNDER REGULATION L5). FOR EACH HEARTH, FIREPLACE AND FLUE SETTING:-
-LOCATION
-TYPE PER APPLIANCE THAT CAN BE ACCOMMODATED
-TYPE, SIZE AND MANUFACTURER OF FLUE OR LINER
EXAMPLE OF A NOTICE PLATE CAN BE SEEN IN TECHNICAL BOOKLET L PARAGRAPHS 1.46 - 1.48.

**INTUMESCENT COATINGS FOR FIRE PROTECTION OF STEELWORK:**

ENSURE ALL STEELWORK IS PRIMED WITH A SYSTEM THAT IS RECOMMENDED BY THE INTUMESCENT COATING MANUFACTURER, SUITABLY CURED AND IN GOOD CONDITION.
ENSURE THAT ALL NECESSARY CLEANING DOWN AND REPAIR OF DAMAGE TO THE PRIMING SYSTEM IS CARRIED OUT. FIRE RESISTANCE TO BS 476:21. 90 MINS TOP SEALER COAT AS RECOMMENDED BY INTUMESCENT MANUFACTURER TO BE INTERSHEEN 54 OR EQUAL & APPROVED. ALL TO BE INSTALLED AS TO MANUFACTURERS RECOMMENDATIONS AND INSTRUCTIONS.

**AIR PERMEABILITY AND PRESSURE TESTING MUST COMPLY WITH THE FOLLOWING REGULATIONS FROM TECHNICAL BOOKLET F1**

- THE PROCEDURE FOR AIR PRESSURE TESTING IS GIVEN IN THE AIR TIGHTNESS TESTING AND MEASUREMENT ASSOCIATION (ATTMA) PUBLICATION MEASURING AIR PERMEABILITY OF BUILDING ENVELOPES (DWELLINGS). THE MANNER APPROVED FOR RECORDING THE RESULTS AND THE DATA ON WHICH THEY ARE BASED IS GIVEN IN SECTION 4 OF THAT DOCUMENT. TRICKLE VENTILATORS SHOULD BE TEMPORARILY SEALED RATHER THAN JUST CLOSED.
- BUILDING CONTROL SHOULD BE PROVIDED WITH EVIDENCE THAT THE TEST EQUIPMENT HAS BEEN CALIBRATED WITHIN THE PREVIOUS 12 MONTHS USING A UKAS ACCREDITED FACILITY AND THAT THE TESTS HAVE BEEN CARRIED OUT BY A PERSON WHO HAS RECEIVED APPROPRIATE TRAINING AND WHO IS REGISTERED TO TEST THE SPECIFIC CLASS OF BUILDING CONCERNED.
- AN AIR PRESSURE TEST SHOULD BE CARRIED OUT ON THREE UNITS OF EACH DWELLING TYPE OR 50% OF ALL INSTANCES OF THAT DWELLING TYPE, WHICHEVER IS LESS; AND AT LEAST ONE OF EACH TYPE SHOULD BE TESTED. THE DWELLINGS TO BE TESTED SHOULD BE TAKEN FROM THE FIRST COMPLETED BATCH OF UNITS OF EACH DWELLING TYPE TO CONFIRM THE ROBUSTNESS OF THE DESIGNS AND THE CONSTRUCTION PROCEDURES.
- THE DWELLINGS SELECTED FOR TEST SHOULD BE CHOSEN BY THE DISTRICT COUNCIL IN CONSULTATION WITH THE PRESSURE TESTER. THEY SHOULD BE SELECTED SO THAT ABOUT HALF OF THE TESTS ON EACH DWELLING TYPE ARE CARRIED OUT DURING THE CONSTRUCTION OF THE FIRST 25% OF THE DWELLINGS OF THAT TYPE. ALL TESTS ON DWELLINGS IN THE SAMPLE SHOULD BE REPORTED TO THE DISTRICT COUNCIL INCLUDING ANY TEST FAILURES
- THE PERSON CARRYING OUT THE WORK IS REQUIRED TO GIVE, NOT MORE THAN 5 DAYS AFTER COMPLETION OF THE TESTING, A NOTICE IN WRITING TO THE DISTRICT COUNCIL STATING THE RESULT OF THE AIR PRESSURE TEST.

**AIR INFILTRATION:**

TO REDUCE AIR INFILTRATION OF COLD AIR THROUGH THE BUILDING THE FOLLOWING METHODS MUST BE APPLIED:
(A) GEAL GAPS BETWEEN DRY-LINING AND MASONRY WALLS AT THE EDGES OF OPENING SUCH AS WINDOWS AND DOORS AT AT JUNCTIONS WITH WALLS, FLOORS & CEILINGS.
(B) SEAL GAPS BETWEEN FRAMES, OPENINGS & DRAUGHPROOFING THE OPENABLE ELEMENTS OF WINDOWS, DOORS AND ROOFLIGHTS.
(C) SEAL HATCHES TO UNHEATED FLOOR & ROOF VOIDS.
(D) SEAL SERVICE PENETRATIONS & AT FLOOR AND CEILING JUNCTIONS WHERE SERVICES ARE NOT BOXED IN.
(E) SEAL AROUND JOIST ENDS WHERE JOISTS ARE BUILT INTO THE EXTERNAL WALL.
(F) SEAL VAPOUR CONTROL MEMBRANES IN TIMBER FRAMED CONSTRUCTION.
NOTE: BUILDINGS WILL GENERALLY BE SUBJECT TO AN APPROPRIATE AIR PERMEABILITY TEST WHEN CONSTRUCTED.

**BUILDER'S COMPLETION CHECK LIST:**

THE FOLLOWING IS A SUMMARY OF THE INFORMATION THAT MUST BE SUBMITTED TO THE DISTRICT COUNCIL (AND WHERE MENTIONED TO OTHER PARTIES) AT COMPLETION TO SATISFY NOT ONLY PART F BUT ALSO PART L.
(1) DWELLING CARBON DIOXIDE EMISSIONS RATE (DER)
(2) SAP ENERGY RATING NOTICE PROVIDED TO NOT ONLY THE COUNCIL BUT ALSO FIXED IN THE DWELLING
(3) CONFIRMATION OF COMPLIANCE WITH THE DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG) ACCREDITED CONSTRUCTION DETAILS' OR EQUIVALENT LEVEL OF PERFORMANCE. IN OTHER WORDS THE BUILDER IS REQUIRED TO DEMONSTRATE THAT AN APPROPIATE SYSTEM OF SITE INSPECTION IS IN PLACE TO ENSURE THAT THE CORRECT CONSTRUCTION STANDARDS (FROM THE DCLG AS QUOTED ABOVE) ARE ACHIEVED TO AVOID THERMAL BRIDGING .
(4) RESULTS OF AIR PERMEABILITY AND AIR PRESSURE TESTING. NOTE THAT AN AIR PERMEABILITY OF 7.0M3/HM2 @ 50 PA HAS BEEN USED IN THE DESIGN CALCULATIONS AND THAT THIS RATE MUST BE ACHIEVED BY TEST ON COMPLETION OF THE DWELLING
(5) NOTICE CONFIRMING THAT ALL FIXED SERVICES HAVE BEEN PROPERLY COMMISSIONED SIGNED BY A SUITABILITY QUALIFIED PERSON AND A COPY GIVEN TO THE BUILDING OWNER AS WELL AS THE DISTRICT COUNCIL.
(6) CONFIRMATION THAT THE BUILDING OWNER HAS BEEN GIVEN SUFFICIENT INFORMATION OF SPECIFIC APPARATUS/SYSTEMS INSTALLED, INCLUDING OPERATIONAL AND MAINTENANCE INSTRUCTIONS, TO ENABLE THE DWELLING AND ITS SERVICES TO BE OPERATED AND MAINTAINED IN AN ENERGY EFFICIENT MANNER.
(7) CONFIRMATION THAT A DURABLE NOTICE PLATE HAS BEEN FIXED AT AN APPROPRIATE LOCATION IN THE DWELLING (UNDER REGULATION L5). FOR EACH HEARTH, FIREPLACE AND FLUE SETTING:-
-LOCATION
-TYPE PER APPLIANCE THAT CAN BE ACCOMMODATED
-TYPE, SIZE AND MANUFACTURER OF FLUE OR LINER
EXAMPLE OF A NOTICE PLATE CAN BE SEEN IN TECHNICAL BOOKLET L PARAGRAPHS 1.46 - 1.48.
DWELLING OWNER TO BE MADE AWARE OF THE SAME.

**REFER TO M&E DRAWINGS / SPECIFICATION FOR ALL COMMISSIONING AND TESTING DETAILS**

BUILDING CONTROL SHOULD BE NOTIFIED IN WRITING, NOT MORE THAN 5 DAYS AFTER COMPLETION OF THE COMMISSIONING WORKS, OF THE RESULTS OF TESTING CONFIRMING THAT THE TESTING AND COMMISSIONING HAS BEEN CARRIED OUT AND THE SYSTEM IS OPERATING ADEQUATELY.

THE MINIMUM PERFORMANCE REQUIREMENTS SPECIFIED IN SYSTEMS 1 TO 4 FOR EACH VENTILATOR, SHOULD BE MEASURED USING THE TEST METHODS CONTAINED IN THE RELEVANT CLAUSES OF THE FOLLOWING DOCUMENTS –
(A) INTERMITTENT EXTRACT FANS: BS EN 13141-4 CLAUSE 4 "PERFORMANCE TESTING OF AERODYNAMIC CHARACTERISTICS". ALL SUB-CLAUSES ARE RELEVANT
(B) RANGE HOODS: BS EN 13141-3 CLAUSE 4 "PERFORMANCE TESTING OF AERODYNAMIC CHARACTERISTICS". ALL SUB-CLAUSES ARE RELEVANT
(C) BACKGROUND VENTILATORS (NON-RELATIVE HUMIDITY (RH) CONTROLLED) BS EN 13141-1 CLAUSE 4 "PERFORMANCE TESTING OF AERODYNAMIC CHARACTERISTICS". ONLY THE FOLLOWING SUB-CLAUSES ARE RELEVANT –
(I) 4.1 "FLOW RATE/PRESSURE"; AND
(II) 4.2 "NONREVERSE FLOW ABILITY".

**ELECTRICAL AND MECHANICAL:**

ALL ELECTRICAL AND MECHANICAL INSTALATIONS ARE TO BE FITTED AS CONSULTING ENGINEERS SPECIFICATION AND DRAWINGS. ALL METER BOX LOCATIONS TO BE CONFIRMED BY M&E ENGINEERS. REFER TO M&E DRAWINGS / INFO FOR ALL M & E FIRE PROTECTION.

**STRUCTURAL ENGINEERS:**

ALL STRUCTURAL RETAINING WALLS, STRUCTURE AND SUPPORTS TO BE CONSTRUCTED AS PER STRUCTURAL ENGINEERS DRAWINGS AND SPECIFICATION

**MATERIALS AND WORKMANSHIP:**

ALL MATERIALS AND WORKMANSHIP TO BE CARRIED OUT TO CURRENT STANDARDS AS PER THE DESIGN TEAMS 'NBS' SPECIFICATION.

**SURVEYS:**

ALL SITES ARE TO BE SURVEYED PRIOR TO CONSTRUCTION COMMENCING, AND ANY DISCREPANCIES REPORTED TO THE PROJECT ARCHITECT.

**ELECTRICAL METERS:**

ELECTRICAL & GAS METER LOCATIONS AS PER M&E DRAWINGS & SPECIFICATION.

**CIVILS:**

RETAINING WALL SYSTEMS, CIVIL ROADS & DRAINAGE, REINFORCED EARTH BANKS TO BE CONSTRUCTED AS CIVIL ENGINEERS DRAWINGS & SPECIFICATION.

**SITE PHASING:**

SITE PHASING AND ASSOCIATED HOARDING, GATED ACCESSS AND SITE COMPOUNDS TO BE DESIGNED BY MAIN CONTRACTOR. PHASING OF DWELLING HOUSE RELEASES AS PER CLIENTS RECOMMENDATION.

**CDM:**

CONTRACTORS SHALL COMPLY WITH CDM REGULATIONS AND HEALTH AND SAFETY LEGISLATION.

**ACCESS FOR CLEANING BLOCKAGES IN TRAPS:**

IF A TRAP FORMS PART OF AN APPLIANCE THE APPLIANCE SHALL BE REMOVABLE. ALL OTHER TRAPS SHALL BE FITTED DIRECTLY AFTER THE APPLIANCE AND SHALL BE REMOVABLE OR BE FITTED WITH A CLEANING EYE.

**ACCESS FOR CLEARING BLOCKAGES IN BRANCH PIPES:**

RODDING POINTS SHALL BE PROVIDED TO GIVE ACCESS TO ANY LENGTH OF BRANCH PIPE WHICH CANNOT BE REACHED BY REMOVING A TRAP

**MECHANICAL VENTILATION:**

MECHANICAL VENTILATION TO BE AS PER MECHANICAL AND ELECTRICAL CONSULTANTS DRAWINGS, LAYOUTS AND SPECIFICATIONS.

**ENERGY PERFORMANCE CERTIFICATE:**

-ENERGY PERFORMANCE CERTIFICATE TO BE SUPPLIED FOR ALL DWELLINGS AT COMPLETION STAGE.

**TRUSS DESIGN:**

-TRUSS MANUFACTURER'S DETAILED DRAWINGS AND CALCULATIONS TO BE SUBMITTED TO BUILDING CONTROL A MINIMUM OF 14 DAYS PRIOR TO ARRIVAL ON SITE.

**DRAINAGE:**

DRAINS LOCATED WITHIN 1000MM OF FOUNDATIONS AND BELOW LEVEL OF FOUNDATIONS TO BE SURROUNDED & BACKFILLED IN CONCRETE UP TO LEVEL OF FOUNDATIONS.
ALL UNDERGROND DRAINAGE PIPEWORK TO BE IN UPVC TO CONFORM TO BS 4660, BS4514 & BSEN1329.
ABOVE GROUND DRAINAGE PIPEWORK TO BE IN UPVC TO CONFORM TO BS541 & BSEN1329.
MINIMUM COVER TO UNDERGROUND DRAINAGE PIPEWORK TO BE 450MM.
WHERE PIPES PASS THROUGH WALLS PROVIDE LINTEL OVER.
WHERE PIPES ARE LOCATED UNDER FLOORS PIPES TO BE WRAPPED IN POLYTHENE AND SURROUNDED IN PEA GRAVEL MIN. 150MM ALL AROUND.
INTERNAL SANITARY PIPEWORK IN GREY UPVC WITH 90° BENDS TO HAVE ROODDALE ACCESS POINTS, SHOWERS TO HAVE REMOVABLE ACCESS TRAPS AND WHES TO HAVE 75MM MIN. DEEP SEAL TRAPS.

MINIMUM GRADIENT (STORM) : 1:80
MINIMUM GRADIENT (FOUL) : 1:40
**SECURE BY DESIGN FEATURES:**

- ENTRANCE DOORS PAS 23/ 24 SECURITY STANDARD
WITH MIN 3 POINT LOCKING SYSTEM
- WINDOWS TESTED TO BS 7950 1997
- SECURITY LIGHTING AT ENTRANCE DOORS PIR ACTIVATED
- ADDITIONAL ELECTRIC FOIL TO BE PROVIDED IN HALL TO FACILITATE FUTURE BURGLAR ALARM INSTALLATION.
- BOUNDARY FENCING TO REAR -2000MM WHERE ABUT OPEN SPAVE, 1800 MM HIGH AT REAR GARDEN DIVISIONS AND 1000MM HIGH
- RAILINGS AT FRONT AS DEFENSIBLE SPACE.

**AS-BUILT INFORMATION**

CONTRACTOR TO PROVIDE:
- AS-BUILT DRAWINGS
- AS-BUILT SAP CALCULATIONS & REPORTS, TO CURRENT REGULATIONS
- AS- BUILT EPCS & ASSOCIATED BUILDING SIGNAGE, TO CURRENT REGULATIONS
- AS-BUILT AIR TESTS & REPORTS
- ON COMPLETION A SIGNED COPY OF EACH ACCREDITED DETAILS WILL BE PROVIDED TO BUILDING CONTROL AS HAVING BEEN COMPLETED SATISFACTORILY.

**FLOOR PENETRATIONS:**

REFER TO BUILDING REGULATIONS (NI) TECHNICAL BOOKLET G SECTION 1.9. DUCTS OR PIPES PENETRATING THE FLOOR SHALL BE IN A NON-COMBUSTIBLE SLEEVE OR ENCLOSURE, BOTH ABOVE AND BELOW THE FLOOR. ENCLOSURE TO BE EITHER LINED OR THE PIPE OR DUCT WRAPPED WITHIN, WITH 25MM TK. UNFACED MINERAL WOOL. THE MATERIAL OF THE ENCLOSURE SHALL HAVE A MASS OF 15KG/M2 FLEXIBLE FIRE STOPPING SHALL BE USED WHERE THE PIPE OR DUCT PASSES THROUGH THE FLOOR. WHERE A FLUE PIPE PENETRATES THE FLOOR AND DOES NOT DISCHARGE INTO A FLUE WITHIN A CHIMNEY CARRIED BY THE FLOOR, A NON-COMBUSTIBLE ENCLOSING DUCT WITH MINERAL FIBRE ABSORBENT LINING SHALL BE PROVIDED.

**LIFETIME HOMES REQUIREMENTS:**

- 1.2M WIDE RAMPED ACCESS PATHS @ 1 TO 20 GRADIENT OR 1 TO 12 WHERE LEVELS DICTATE.
- 1.5M WHEELCHAIR TURNING CIRCLES TO BE ACCOMODATED IN HALL, KITCHEN / DINING, LIVING ROOM ON GROUND FLOOR AND IN MAIN BEDROOM ON FIRST FLOOR.
- BATHROOM AND WC DOORS TO OPEN OUTWARDS
- BATHROOM AND WC LAYOUT TO MATCH REQUIREMENTS OF LIFETIME HOMES INCLUDING TOILETS 500MM FROM SIDE-ON WALL, 1100MM MIN. FREE FLOOR SPACE IN FRONT OF TOILET AND 700MM TO THE SIDE.
- DOOR WIDTHS TO HAVE A MINIMUM CLEAR OPENING WIDTH OF 750MM.
- 300MM NIB TO THE SIDE OF THE LEADING EDGE OF ALL DOORS AT GROUND FLOOR LEVEL
- BEDROOM ADJACENT TO BATHROOM TO HAVE A SECTION CONSTRUCTED OF REMOVABLE STUDWORK AND PLASTERBOARD PANEL TO FACILITATE POSSIBLE FUTURE HOIST INSTALLATION. CEILING TO BE STRENGTHENED ALONG POSSIBLE FUTURE HOIST ROUTE.
- PROVISION TO BE MADE FOR POSSIBLE THROUGH THE FLOOR LIFT FROM LIVING ROOM TO BEDROOM. SPACE OF MIN. 1550MM X 1050MM TO BE LEFT IN JOISTS THROUGH TO FIRST FLOOR AND ELECTRIC POINT PROVIDED.
- SPACE TO BE LEFT FOR FUTURE STAIR LIFT AND ELECTRIC POINT TO BE PROVIDED.
- HEIGHTS OF ALL ELECTRICAL SWITCHES AND SOCKETS TO BE 1.00M ABOVE FLOOR LEVEL (EXCEPT THOSE FOR WORKTOPS IN KITCHENS - TO BE 150MM ABOVE WORKTOP)
- ALL IRONMONGERY TO BE IN ACCORDANCE WITH LIFETIME HOMES - REFER TO IRONMONGERY SCHEDULE

**SOUND REQUIREMENTS (AS PER BLDG REGS TECHNICAL BOOKLET G (TB G));**

**SOUND TESTING (AS TB G SECTION 1 & APPENDIX B):**

CONTRACTOR TO CARRY OUT SOUND TESTING BETWEEN DWELLINGS AND ACHIEVE CURRENT REQUIRED PERFORMANCE STANDARDS IN ACCORDANCE WITH PART G NI BUILDING REGULATIONS 2012. CONTRACTOR WILL BE RESPONSIBLE FOR THE DESIGN / TESTING TO CURRENT REGULATIONS AND BE RESPONSIBLE FOR ANY ADDITIONAL / REMEDIAL WORK REQUIRED. ADDITIONAL TESTING TO BE UNDERTAKEN, AS REQUIRED, UNTIL SUCH TIMES AS CURRENT REGULATIONS ARE FULLY COMPLIED WITH.
**INTERNAL STUD WALLS - INTERNAL WALL TYPE B (AS TB G 5.17):**

(1) - MIN 75MM CAVITY. WITH ALL JOINTS / PENETRATIONS WELL SEALED.
(2) - ALL INTERNAL STUD WALLS OF BEDROOMS AND WC / BATHROOMS TO BE ACOUSTICALLY INSULATED WITH 25MM ISOWOOL APR 1200 BETWEEN STUDS - EXCLUDING LENGTHS OF WALLS WITH DOORS AND WALLS BETWEEN ENSUITES & ASSOCIATED BEDROOMS.

**INTERNAL SOLID WALLS - INTERNAL WALL TYPE C (AS TB G 5.18):**

(1) - MIN. MASS PER UNIT AREA EXCL FINISH OF 120KG/M3 WITH ALL JOINTS / PENETRATIONS WELL SEALED.

**SOUND TESTS FOR THE SITE MUST COMPLY WITH THE FOLLOWING REGULATIONS FROM TECHNICAL BOOKLET G OF NI BUILDING REGULATIONS 2012**

**SETS OF TESTS IN DWELLINGHOUSES**
1.20 NORMALLY, ONE SET OF TESTS SHOULD COMPRISE TWO INDIVIDUAL SOUND INSULATION TESTS (TWO AIRBORNE TESTS) –
(A) A TEST OF INSULATION AGAINST AIRBORNE SOUND BETWEEN ONE PAIR OF ROOMS (WHERE POSSIBLE SUITABLE FOR USE AS LIVING ROOMS) ON OPPOSITE SIDES OF THE SEPARATING WALL; AND
(B) A TEST OF INSULATION AGAINST AIRBORNE SOUND BETWEEN ANOTHER PAIR OF ROOMS (WHERE POSSIBLE SUITABLE FOR USE AS BEDROOMS) ON OPPOSITE SIDES OF THE SEPARATING WALL.

**TYPES OF ROOMS FOR TESTING**
1.24 IT IS PREFERABLE THAT EACH SET OF TESTS CONTAINS INDIVIDUAL TESTS IN BEDROOMS AND LIVING ROOMS
1.25 WHERE PAIRS OF ROOMS ON EITHER SIDE OF THE SEPARATING ELEMENT ARE DIFFERENT (E.G. A BEDROOM AND A STUDY, A LIVING ROOM AND A BEDROOM), AT LEAST ONE OF THE ROOMS IN ONE OF THE PAIRS SHOULD BE A BEDROOM AND AT LEAST ONE OF THE ROOMS IN THE OTHER PAIR SHOULD BE A LIVING ROOM.
1.26 WHERE THE LAYOUT HAS ONLY ONE PAIR OF ROOMS ON OPPOSITE SIDES OF THE ENTIRE AREA OF SEPARATING WALL OR FLOOR BETWEEN TWO DWELLINGS OR ROOMS FOR RESIDENTIAL PURPOSES THEN THE NUMBER OF AIRBORNE AND IMPACT SOUND INSULATION TESTS SET OUT IN PARAGRAPHS 1.20 TO 1.22 MAY BE REDUCED ACCORDINGLY.
1.27 THE APPROVED PROCEDURE DESCRIBED IN APPENDIX B INCLUDES REQUIREMENTS RELATING TO ROOMS.

**SETS OF TESTS IN ROOMS FOR RESIDENTIAL PURPOSES**
1.28 TO CONDUCT A SET OF TESTS, THE SOUND INSULATION BETWEEN THE MAIN ROOMS SHOULD BE MEASURED ACCORDING TO THE PRINCIPLES SET OUT IN THIS SECTION FOR NEW BUILDINGS AND MATERIAL CHANGE OF USE, BUT ADAPTING THEM TO SUIT THE CIRCUMSTANCES.

**ALL SOUND TEST RESULTS MUST BE RECORDED IN THE FOLLOWING MANNER AND ISSUED TO BUILDING CONTROL FOR APPROVAL**

**APPROVED MANNER OF RECORDING PRE-COMPLETION TESTING RESULTS**
1.42 THE TEST REPORT OF A SET OF TESTS MUST CONTAIN AT LEAST THE FOLLOWING INFORMATION, IN THE ORDER BELOW –
(A) ADDRESS OF THE BUILDING.
(B) TYPE(S) OF PROPERTY.
USE THE DEFINITIONS IN PART A OF THE BUILDING REGULATIONS: DWELLING, FLAT, ROOM FOR RESIDENTIAL PURPOSES. STATE IF THE BUILDING IS OF HISTORIC OR ARCHITECTURAL MERIT WHERE THE BUILDING WOULD WARRANT SYMPATHETIC TREATMENT AND WHERE ADVICE FROM SPECIALISTS (NORTHERN IRELAND ENVIRONMENT AGENCY) WOULD BE BENEFICIAL.
(C) DATE(S) OF TESTING.
(D) ORGANISATION CARRYING OUT TESTING, INCLUDING –
(I) NAME AND ADDRESS;
(II) THIRD PARTY ACCREDITATION NUMBER (E.G. UKAS OR EUROPEAN EQUIVALENT);
(III) NAME(S) OF PERSON(S) IN CHARGE OF TEST; AND
(IV) NAME(S) OF CLIENT(S).
(E) A STATEMENT (PREFERABLY IN A TABLE) GIVING THE FOLLOWING INFORMATION –
(I) THE ROOMS USED FOR EACH TEST WITHIN THE SET OF TESTS;
(II) THE MEASURED SINGLE-NUMBER QUANTITY (DNT,W + CTR FOR AIRBORNE SOUND INSULATION AND L'NT,W FOR IMPACT SOUND INSULATION) FOR EACH TEST WITHIN THE SET OF TESTS;
(III) THE SOUND INSULATION VALUES THAT SHOULD BE ACHIEVED ACCORDING TO THE VALUES GIVEN IN TABLES 1A OR 1B; AND
(IV) AN ENTRY STATING "PASS" OR "FAIL" FOR EACH TEST WITHIN THE SET OF TESTS ACCORDING TO THE SOUND INSULATION VALUES GIVEN IN TABLES 1A OR 1B.
(F) BRIEF DETAILS OF TEST, INCLUDING –
(I) EQUIPMENT;
(II) A STATEMENT THAT THE TEST PROCEDURES IN APPENDIX B HAVE BEEN FOLLOWED. IF THE PROCEDURE COULD NOT BE FOLLOWED EXACTLY THEN THE EXCEPTIONS SHOULD BE DESCRIBED AND REASONS GIVEN;
(III) SOURCE AND RECEIVER ROOM VOLUMES (INCLUDING A STATEMENT ON WHICH ROOMS WERE USED AS SOURCE ROOMS); AND
(IV) RESULTS OF TESTS SHOWN IN TABULAR AND GRAPHICAL FORM FOR THIRD OCTAVE BANDS ACCORDING TO THE RELEVANT PART OF THE BS EN ISO 140 SERIES AND BS EN ISO 717 SERIES, INCLUDING –
(A) SINGLE-NUMBER QUANTITIES AND THE SPECTRUM ADAPTATION TERMS; AND
(B) DNT AND LNT DATA FROM WHICH THE SINGLE NUMBER QUANTITIES ARE CALCULATED.