

GENERAL NOTES

- DO NOT SCALE FROM THIS DRAWING.
- THIS DRAWING IS PROPERTY OF ALLAN CORFIELD STRUCTURES LTD AND SHOULD NOT BE REPRODUCED OR ALTERED WITHOUT PRIOR PERMISSION.
- THIS DRAWING HAS BEEN PRODUCED WITH THE INTENTION OF OBTAINING A BUILDING WARRANT. THIS DRAWING MAY BE SUITABLE FOR CONSTRUCTION PURPOSES WHEN USES IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS/DETAILS/SPECIFICATIONS.
- FOR ALL SETTING OUT DIMENSIONS & DETAILS, WITH THE ADDITION OF ALL EXTERNAL & INTERNAL FINISHES, REFER TO ARCHITECT'S DRAWINGS, SPECIFICATIONS/INSTRUCTIONS.
- ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR OR HIS SUB-CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING ON SITE. ANY DISCREPANCIES NOTED BETWEEN ARCHITECTS AND ENGINEERS DETAILS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.
- THE DRAWINGS MUST BE READ IN CONJUNCTION WITH ARCHITECT, SERVICE ENGINEER AND SPECIALIST CONTRACTOR'S DRAWINGS, DETAILS AND SPECIFICATIONS. ANY DISCREPANCIES NOTED BETWEEN DETAILED DRAWINGS SHOULD BE RAISED TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR CARRYING OUT A DILADITION SURVEY TO RECORD THE CONDITION OF THE PROPERTY AND ANY ADJOINING PROPERTIES PRIOR TO THE COMMENCEMENT OF WORKS.
- THE CONTRACTOR SHALL TAKE PRECAUTIONS AND CARRY OUT WORKS IN A MANNER TO AVOID CAUSING DAMAGE TO BOUNDARY/COMMON PARTY WALLS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL BELOW GROUND SERVICES PRIOR TO CARRYING OUT ANY WORKS. THE CONTRACTOR MUST ADVISE ALL RELEVANT PROJECT DESIGNERS OF ANY CLASHES WITH EXISTING SERVICES AND PROPOSED WORKS AT THE EARLIEST GIVEN OPPORTUNITY.
- IN THE EVENT OF THE CONTRACTOR WISHING TO CONSTRUCT THE WORKS BY METHODS WHICH INVOLVE REVISIONS AND ALTERATIONS TO THE DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL BEAR THE FULL COSTS OF MAKING SUCH REVISIONS AND ALTERATIONS. ALTERNATIVE PROPOSALS SHALL HAVE THE APPROVAL OF THE STRUCTURAL ENGINEER BEFORE INCORPORATION INTO THE WORKS.
- ALLOW FOR A MINIMUM OF 30 MINUTES FIRE PROTECTION FOR ALL STRUCTURAL ELEMENTS. REFER TO ARCHITECTS DETAILS FOR FIRE PROTECTION DETAILS AND SPECIFICATIONS.

HEALTH AND SAFETY

- CONTRACTOR TO ENSURE ALL OPERATIVES USE THE APPROPRIATE PERSONAL PROTECTION EQUIPMENT AT ALL TIMES.
- CONTRACTOR TO LIAISE WITH UTILITY AUTHORITIES AND TO CONFIRM THE PRESENCE OF EXISTING UTILITIES BY CHECKING OR OTHERWISE.
- ALL SERVICES TO BE DEEMED "LIVE" UNTIL CONFIRMED OTHERWISE.
- ALL CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT CDM REGULATIONS, HEALTH, AND SAFETY AT WORK ACT, COSHH REGULATIONS AND ANY OTHER RELEVANT HEALTH AND SAFETY LEGISLATION.
- THE FOLLOWING SITE PRACTICES SHALL BE IMPLEMENTED UNLESS IMPRACTICAL OR UNSAFE:
 - FIXED/ MOBILE CRANAGE SHALL BE USED FOR MATERIAL TRANSPORT AND PLACEMENT.
 - THE USE OF SITE VEHICLES SHALL BE KEPT TO A MINIMUM.
 - THE SITE SHALL BE LAID OUT IN SUCH A WAY THAT VEHICLES FOLLOW A ONE-WAY SYSTEM. VEHICLES REVERSING SHOULD BE AVOIDED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSESSING GROUND CONDITIONS IN THE LOCATION WHERE ANY POINT FROM ANY PLANT, EQUIPMENT OR VEHICLES PRIOR TO THE ARRIVAL OF ANY SHED/TENTS AND PROVIDE SUITABLE LOAD DISTRIBUTION SYSTEMS IF REQUIRED.
- CONTRACTOR TO PROVIDE ADEQUATE BARRIERS AROUND WORKING AREA AND TO BLOCK OFF AREAS WHERE THERE IS NO PUBLIC ACCESS.
- CONTRACTOR TO PROVIDE ADEQUATE WARNING SIGNAGE TO THE GENERAL PUBLIC.
- COMPETENT AND EXPERIENCED SITE FOREMAN TO SUPERVISE WORKS.
- CONTRACTOR MUST ENSURE THAT NO DEBRIS FALLS OUTWITH HIS WORKING AREA. ALL SCAFFOLDING MUST BE FITTED WITH PROTECTIVE TOE BOARDS.
- ALL BROKEN-OUT MATERIAL TO BE REMOVED FROM SITE TO AN APPROVED AND LICENSED TIP.
- NO LIFTING OR SLEWING OPERATIONS BY PLANT TO BE UNDERTAKEN OUTWITH THE SITE BOUNDARIES.
- THE CONTRACTOR SHOULD TAKE CAUTION TO IDENTIFY ALL MATERIALS PRESENT WITHIN THE EXISTING BUILDING PRIOR TO THE COMMENCEMENT OF ANY DOWNTAKINGS. SHOULD THERE BE ANY MATERIALS FOUND TO BE OF AN UNKNOWN SUBSTANCE OR SUSPECTED TO BE ASBESTOS THEN ALL WORK SHOULD CEASE AND THE GUIDANCE AS STATED IN EM1 ASBESTOS ESSENTIALS BY THE HSE SHOULD BE FOLLOWED.

LOADINGS

IMPOSED LOADINGS

- MINIMUM IMPOSED FLOOR LOADS = 1.5 kN/m²
- MINIMUM IMPOSED FLOOR LOADS FOR BALCONIES = 1.5 kN/m²
- MINIMUM IMPOSED ROOF LOADS = 0.75 kN/m²
- DEAD LOADS CALCULATED IN COMPLIANCE WITH BS EN 1991-1-1:2002
- WIND LOADS CALCULATED IN ACCORDANCE WITH BS EN 1991-1-4:2002
- LOCATION: CRAWLEY, HORSHAM
- TERRAIN: COUNTRY
- ALTITUDE: 70km
- DISTANCE TO SEA: 50km
- BASIC WIND SPEED, Vb: 21 m/s

EXCAVATION

- EXCAVATIONS TO BE TAKEN DOWN TO STRATA CAPABLE OF ACHIEVING 60 kN/m² SAFE GROUND BEARING PRESSURE.
- FORMATION TO BE FREE OF TOPSOIL, ROOTS AND VEGETATION.
- SOFT SPOTS TO BE REMOVED AND MADE UP WITH MASS CONCRETE (C20) OR SELECTED HARDCORE LAID AND COMPACTED IN LAYERS NOT EXCEEDING 225mm THICK.
- HARDCORE TO BE CLEAN SELECTED GRANULAR MATERIAL FREE FROM SULPHATES, GYPSUM AND OTHER IMPURITIES.
- HARDCORE SUB-BASE MATERIAL TO BE MINIMUM OF 150mm THICK LAID AND COMPACTED AS ABOVE.
- 75mm BLINDING TO BE USED TO SEAL FOUNDATION BELOW FOUNDATIONS.
- SURFACE OF HARDCORE TO BE BURNED WITH FINES.
- EXCAVATIONS TO BE KEPT FREE OF WATER. IF ANY WATER IS PRESENT, IT SHALL BE DEALT WITH IN SUCH A MANNER SO AS TO PREVENT THE DETERIORATION OF THE SURFACE ON WHICH FOUNDATIONS OR OTHER WORK WILL BE CONSTRUCTED.
- THE GROUND BELOW NEW FORMATION LEVEL MUST NOT BE DISTURBED AND EXCAVATIONS FOR FOUNDATIONS SHOULD REMAIN OPEN FOR AS SHORT A PERIOD OF TIME AS POSSIBLE. THEY SHOULD BE PROTECTED BY PLACING BLINDING CONCRETE OR PLACING THE FOUNDATION CONCRETE ITSELF WITHIN THE SAME DAY.
- THE ADEQUACY OF THE FORMATION FOR GROUND BEARING SLABS WILL BE DICTATED BY THE STRUCTURAL ENGINEER AND THE CONTRACTOR SHALL AWAIT ANY DECISIONS BY THE STRUCTURAL ENGINEER WHERE NECESSARY.

FOUNDATIONS (GENERAL)

- FOUNDATIONS TO BE DESIGNED TO BS 8004, BS EN 1992-1-1 AND BS EN 1997-1 WITH REFERENCE TO SUPPORTING NATIONAL ANNEX.
- ALL STRUCTURAL CONCRETE TO BE QUALITY CONTROLLED, MANUFACTURED AND CONSTRUCTED IN ACCORDANCE WITH BS EN 206 AND BS EN ISO 9001.
- ALL STRUCTURAL CONCRETE TO BE IN ACCORDANCE WITH NATIONAL CONCRETE SPECIFICATION FOR BUILDING CONSTRUCTION, FOURTH EDITION.
- REINFORCEMENT BAR AND MESH TO COMPLY WITH BS 4449 AND BS 4483 RESPECTIVELY.
- ALL CONCRETE CAST AGAINST UNPREPARED GROUND TO HAVE A MIN. COVER OF 75mm UNLESS NOTED OTHERWISE ON ALLAN CORFIELD STRUCTURES DRAWINGS.
- FOR BLINDING USE DESIGNATED MIX TYPE GEN 1 STRENGTH 25N/m²
- ANY OVER-EXCAVATION AND/OR SOFT SPOTS SHALL BE REPLACED WITH GEN 3 CONCRETE.
- CONCRETE IS TO BE GRADE RC28/35 TO BS 8500-1 WITH A MINIMUM CEMENT CONTENT OF 280 kg/m³ AND A MAXIMUM FREE WATER/CEMENT RATIO OF 0.55 AND A MAXIMUM AGGREGATE SIZE OF 20mm. UNLESS NOTED OTHERWISE ON STRUCTURAL ENGINEERS DRAWINGS, FOR ENCASEMENT AND HAUNCHING USE DESIGNATED MIX TYPE GEN 1 STRENGTH 15N/m² UNO.
- WHERE FOUNDATIONS ARE SPECIFIED AS REINFORCED ADOPT A BOTTOM & TOP LAYER OF A393 MESH REINFORCEMENT UNO. MESH TO HAVE 75mm SIDE AND TOP COVER, WITH 75mm BOTTOM COVER, MESH TO HAVE 400mm MINIMUM LAPS UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.
- FOUNDATIONS ARE TO BE PLACED CENTRALLY BENEATH WALLS IN UNIFORM LEVEL TRENCHES UNLESS NOTED OTHERWISE.
- FOUNDATION EXCAVATIONS ARE TO BE STEPPED AS REQUIRED TO ENSURE CONSISTENT FORMATION MATERIAL.
- UNDERBUILDING CAVITY WALLS ARE TO BE CONCRETE FILLED UP (GRADE GEN 1) TO FINISHED GROUND / S.S.L. LEVELS.
- WHERE FOUNDATIONS ARE REQUIRED TO BE CONSTRUCTED ADJACENT TO EXISTING STRUCTURES i.e. BUILDINGS, BOUNDARY WALLS ETC, THEN THE NEW FOUNDATION FORMATION LEVELS MUST MATCH EXISTING. EXTREME CARE TO BE EXERCISED DURING FOUNDATION EXCAVATIONS TO ENSURE THAT EXISTING FOUNDATIONS ARE NOT UNDERCUT.
- WHERE EXTENSION STRIP FOUNDATIONS ARE TO ABUT EXISTING, THEN DOWELLED TOGETHER, USING A MINIMUM 3 No. STEEL DOWELS CENTRALLY LOCATED WITHIN THE STRIP DEPTH.
- STRUCTURAL FILL TO BE GRADE 'BN' IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS, SERIES 600, EARTHWORKS. CONTRACTOR TO FAMILIARISE THEMSELVES WITH THIS SPECIFICATION PRIOR TO ORDERING MATERIAL.
- BEARING STRATA TBC FOLLOWING TRIAL PITS DUG BY CONTRACTOR NOT BE AFFORDED AN OPPORTUNITY TO INSPECT BEARING STRATA PRIOR TO ANY FORMING OF FOUNDATIONS OR POURING OF CONCRETE.
- CARE TO BE EXERCISED TO ENSURE CONTROL OF ANY SURFACE WATER DURING CONSTRUCTION SO AS TO PREVENT SOFTENING OR LOOSENING OF EXPOSED EXCAVATION SURFACES. SITE TO BE CLEARED OF ALL SURFACE SOIL AND VEGETABLE MATTER.
- FILL TO BE WELL COMPACTED IN 150mm LAYERS AND PLATE LOAD TESTED AS REQUIRED. TESTS REQUIRED TO EACH ZONE OF UNDERBUILD AND AT 900mm VERTICAL CENTRES. AFTER UPRILL IS COMPLETE, 2No PLATE BEARING TESTS REQUIRED PER ZONE OF UNDERBUILD. PLATE SIZE TO BE APPROX 300mm² AND SETTLEMENTS TO BE LIMITED TO LESS THAN 15mm AT 15kN/m²
- FILL TO BE PLACED IN A FASHION SO THAT IT DOES NOT EXERT A SURCHARGE ON UNDERBUILD. CONTRACTOR NOT TO FILL MORE THAN 300mm DEEPER ON ANY ONE SIDE OF A WALL THAN THE OTHER TO AVOID THIS.
- ALL FILL MATERIAL IMPORTED TO SITE SHALL COME FROM A FULLY LICENSED QUARRY, AND AS SUCH SHOULD BE CERTIFIED TO COMPLY WITH TESTS AS DESCRIBED ABOVE.
- BACKFILLING OF SOLLIMS ETC. TO BE CAREFULLY CARRIED OUT TO AVOID SURCHARGING THE UNDERBUILDING WALLS. BACKFILL MATERIAL TO BE BROUGHT UP AND COMPACTED TO EQUAL LEVELS EACH SIDE OF WALLS ON SITE.
- EXCAVATIONS MUST BE KEPT DRY BEFORE AND DURING THE PLACING OF CONCRETE. IF WATER SEEPAGE IS ENCOUNTERED DURING FOUNDATION EXCAVATIONS, THIS IS TO BE REMOVED PRIOR TO POURING CONCRETE BY MEANS OF A SUITABLE PUMP. ALL LOOSE MATERIAL AND SLURRY TO BE REMOVED FROM FORMATIONS PRIOR TO POURING CONCRETE. ENGINEER TO INSPECT FORMATIONS PRIOR TO POURING ANY CONCRETE.

GLAZING NOTES

- ALL GLASS TO BE DESIGNED TO ISTRUCTICE 'USE OF STRUCTURAL GLASS IN BUILDINGS' SECOND EDITION 2014 & EN 13474, BS EN 16612:2019 AND LOADINGS AS PER THE LOADING SPECIFICATION NOTES.
- ALL GLAZING TO BE TOUGHENED SAFETY GLASS COMPLIANT WITH EN 13474 AND BS EN 16612:2019
- LOADING SPECIFICATION FOR GLAZING UNITS/CLADDING ELEMENTS AND ASSOCIATED FIXINGS TO BE DESIGNED FOR WIND LOAD TO BS EN 1996-1-4;
DYNAMIC PRESSURE (q_s) = **1.1kN/m²**
PRESSURE COEFFICIENTS FOR CLADDING ELEMENTS TO BE TAKEN FROM BS EN 1994-1-4.
ALTERNATIVELY IF WORST-CASE SURFACE PRESSURE ON ELEMENTS OF GLAZING/CLADDING MAY BE TAKEN AS FOLLOWS:
MAXIMUM POSITIVE PRESSURE = **+1.15 kN/m²**
MAXIMUM NEGATIVE PRESSURE = **-1.50 kN/m²**
WHERE BARRIER LOADING APPLIES, THE INNER PANE MUST BE DESIGNED TO MEET THE REQUIREMENTS OF TABLE 2 IN BS 6180 ASSUMING A LINE LOAD OF 0.74kN/m + UDL 1.0kN/m² + CONCENTRATED LOAD OF 0.5kN.
- CONTRACTOR TO SUBMIT DETAILS OF ALL GLAZING/CLADDING ELEMENTS AND ASSOCIATED FIXINGS TO THE ENGINEER.
- ALL DOORS, WINDOWS AND GLAZING TO BE DESIGNED IN ACCORDANCE WITH NHBC GUIDANCE.
- GLAZING WILL BE DESIGNED IN ACCORDANCE WITH THE APPROPRIATE STANDARDS:
BS EN 12150 - TOUGHENED GLAZING
BS 5516 - PATENT GLAZING
BS 6262 - GLAZING OF BUILDINGS
BS EN 1279 - INSTALLING GLASS UNITS
- WINDOW AND DOOR FRAMES MUST BE FIXED TO AN ACCURATE LEVEL AND FIXED SOLIDLY USING DOOR/WINDOW CLAMPS OR TO BE PLUGGED AND SCREWED.
- FIXINGS MUST BE NO MORE THAN 600mm APART AND NO MORE THAN 150mm FROM THE BOTTOM.
- FOR CONTRACTOR DESIGNED ELEMENTS THE CONTRACTOR IS TO SUBMIT THE FOLLOWING INFORMATION TO THE ENGINEERS AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF ANY FABRICATION.
 - TWO COPIES OF FABRICATION DRAWINGS, I.E. DIMENSIONED GENERAL ARRANGEMENT AND FABRICATION DETAILS.
 - CONNECTION CALCULATIONS,
 - MILL CERTIFICATES.

STAIRS NOTES

- STAIRCASES TO BE DESIGNED TO ALL RELEVANT BS EN 1995-1-1, RELEVANT PARTS OF BS 5395 AND ALL OTHER CODES SPECIFIC TO THE CONSTRUCTION OF THE STAIRCASE. FURTHER GUIDANCE GIVEN WITHIN BS EN 16481:2014 AND PD 6688-1:1:2011.
- WHEN THE STAIRCASE IS A 3RD PARTY DESIGNED ITEM FULL CALCULATIONS WILL BE SUBMITTED FOR ALL COMPONENTS OF THE STAIRS PRIOR TO ALLAN CORFIELD STRUCTURES PRIOR TO THE SUBMISSION OF THE SER FORM Q.
- ALL STEELWORK STARTS TO CONFORM TO BS EN 10210. FOR GENERAL NOTES ON STEEL REFER TO THE STEEL SPECIFICATION SECTION.
- TIMBER STAIRCASES AND HANDRAILS TO COMPLY WITH NHBC GUIDELINES.
- ALL STAIRCASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GEOMETRY AND SETTING OUT INFORMATION PROVIDED BY THE ARCHITECT.
- SUPPORT STRUCTURE FOR THE STAIRS TO BE AGREED WITH THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF THE STAIRS.

BALUSTRADE NOTES

- BALUSTRADES TO BE DESIGNED TO BS EN 1991-1-1:2002 AND BS EN 1991-1-7:2006+A1:2014 AS WELL AS ANY RELEVANT MATERIAL CODES OF PRACTICE.
- GLASS BALUSTRADES (INTERNAL VOID EDGES, STAIRS AND EXTERNAL GLASS BALUSTRADES) ARE TO BE FORMED AS EITHER 15mm SOLID TOUGHENED GLASS WITH A CONTINUOUS HANDRAIL OR 21.5mm THICK TOUGHENED LAMINATED GLASS UNO.
- INTERNAL VOID EDGE AND STAIR BALUSTRADING FIXED WITH PROPRIETARY STAND-OFF BRACKETS, WITH MIN 50mm DIAMETER AND 8mm THICK FACING PLATES. SPACING OF FIXINGS AS SHOWN ON STRUCTURAL DETAILS.
- EXTERNAL GLASS BALUSTRADES TO BE FIXED WITH PROPRIETARY ALUMINIUM CLAMPING CHANNEL AS POSTI-GLAZE, OR EQUAL AND APPROVED. CHANNEL TO BE FIXED TO STEEL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- FOR CONTRACTOR DESIGNED BALUSTRADES THE CONTRACTOR WILL SUBMIT FABRICATION DRAWINGS & DETAILS, CONNECTION CALCULATIONS AND MILL CERTIFICATES PRIOR TO ANY FABRICATION.

TIMBER NOTES

- ALL STRUCTURAL TIMBER IS TO BE GRADED C16 UNO WITH MAXIMUM MOISTURE CONTENT OF 18%.
- ALL STRUCTURAL TIMBER TO BS EN 338: 2016 AND DESIGNED TO BS EN 1995-1-1.
- ALL TIMBER IS TO BE PRESERVATIVE TREATED AGAINST FUNGAL & INSECT ATTACK.
- ALL TIMBER FIXINGS TO BE GALVANISED, ALL PROPRIETARY FIXINGS I.E. PLATES, HANGERS, ETC. ARE TO HAVE EVERY HOLE NAILED USING 3.75mm SQUARE TWIST NAILS.
- LOAD BEARING STUD WALLS - ALL UNLESS NOTED OTHERWISE ON DRAWINGS.
- LOADBEARING WALLS ARE TO BE CONSTRUCTED FROM 45mmx145mm C24 TIMBER STUDS AT MAXIMUM 600mm CENTRES. 45mmx145mm TOP & BOTTOM RAILS. PANELS TO BE NAILED TOGETHER USING 75mm LONG X 3.75mm NAILS AT 300mm CENTRES. ALL UNLESS NOTED ON DRAWINGS.
- NON-LOAD BEARING STUDS ARE TO BE 45mmx100mm. ALL UNLESS OTHERWISE NOTED ON DRAWINGS.
- RACKING PANELS TO BE SHEATHED BOTH SIDES WITH 9mm OSB FULL HEIGHT. OSB TO BE FIXED USING 50mm LONG X 3.1mm NAILS AT 15mm CENTRES TO PERIMETER MEMBERS AND AT 150mm CENTRES TO INTERNAL MEMBERS. ALL UNLESS NOTED OTHERWISE ON DRAWINGS. RACKING PANELS MUST STRICTLY COMPLY WITH BS EN 1995-1-1:2004+A2:2014 WITH REFERENCE TO UK NATIONAL ANNEX.
- TIMBER FLOOR JOISTS TO BE J11 JOISTS AT 600mm CENTRES UNLESS NOTED OTHERWISE ON DRAWINGS.
- ALL JOISTS ARE TO BE ADEQUATELY DOWNGED AT THIRD POINTS WITH FULL DEPTH DWANGS UN.O. SPANS > 4.5m MAY REQUIRE ADDITIONAL DWANGS AT ENGINEERS DISCRETION.
- CONTRACTOR TO PROVIDE ALLAN CORFIELD STRUCTURES SPECIFICATIONS FOR JOIST HANGERS ETC. A MINIMUM OF 2 WEEKS PRIOR TO INSTALLATION.
- FLOOR JOISTS ARE TO BE HOLED AND NOTCHED TO MANUFACTURES SPECIFICATIONS.
- DIMENSIONS, FINISHES AND INSULATION TO ARCHITECT'S DETAILS.
- ALL TIMBER UNTELS TO BE SPIKED TOGETHER ALONG FULL LENGTH AND TO BEAR ON CRIPPLE STUDS.

MASONRY

- CLAY TO COMPLY WITH BS EN 1996-1-1 AND BS EN 771-1.
- BLOCKS TO COMPLY WITH BS EN 1996-1-1 AND BS EN 771-3.
- BLOCKWORK TO BE STRENGTH 7N/m² WITH A MINIMUM DENSITY 1400 kg/m³ IN GENERAL.
- BRICKWORK TO BE MINIMUM STRENGTH 27 N/m² DURABILITY STRENGTH FL.
- ALL MORTAR TO BE CLASS M5 TO BS EN 1996 UNO.
- MOMENT JOINTS IN BRICKWORK AT 6m c/c AND TO BE SEALED WITH EXTERNAL GRADE POLYSULPHIDE. JOINTS IN BRICKWORK TO BE MAXIMUM 12m c/c AT CORNERS JOINTS ARE TO BE PROVIDED WITHIN 3m.
- STAINLESS STEEL WALL TIES TO BS EN 845-1 TO BE USED FOR TWO LEAF MASONRY CAVITY WALLS. MAXIMUM SPACING FOR TIES TO BE 900 c/c HORIZONTALLY, 450 c/c VERTICALLY (STAGGERED), AND 300mm CENTRES MAX AT VERTICAL ENDS. FOR ZONES SUBJECT TO HIGH WINDS SPECIALIST MASONRY FIXINGS MAY BE REQUIRED.
- FOR CAVITY WALLING CONSISTING OF ONE LEAF TIMBER KIT WALLING AND ONE LEAF MASONRY WALLING, STAINLESS STEEL WALL TIES TO BS EN 1991-1-1 TO BE PROVIDED AT 400 c/c HORIZONTAL AND AT 450 c/c VERTICAL.
- AT OPENINGS, TIES TO BE PROVIDED WITHIN 225mm OF OPENING AND AT 300 c/c FOR BRICKWORK OR 225 c/c FOR BLOCKWORK.
- MAXIMUM HEIGHT OF MASONRY BUILT IN ONE DAY NOT TO EXCEED 1.5m
- CONCRETE LINTELS BEARING ONTO MASONRY TO HAVE MINIMUM 150mm REST.
- DPC TO BE MINIMUM OF 150mm ABOVE THE FINISHED GROUND LEVEL.
- SLUMP FOR INFILL MIX TO BE 50-150.
- GABLE WALLS TO BE TIED AT EACH FLOOR LEVEL AND AT ROOF LEVEL WITH LATERAL RESTRAINT STRAPS. MINIMUM SPACING OF STRAPS TO BE AT 1.5m c/c WITH A MINIMUM LENGTH OF 1.5m.
- ALL BRICKWORK AND BLOCKWORK FINISHES TO ARCHITECTS SPECIFICATIONS.
- MAXIMUM BLOCK UNIT WEIGHT NOT TO EXCEED 20kg
- UNDERBUILD BLOCKWORK MUST NOT BE LAID IN AN OPEN EXCAVATION.

CONCRETE WORK

- STRUCTURAL CONCRETE TO BE GRADE C35/45 UNO.
- CEMENT CONTENT TO CONTAIN MAXIMUM AGGREGATE SIZE 20mm.
- MAXIMUM WATER TO CEMENT RATIO NOT TO EXCEED 0.55
- NO HIGH ALUMINA CEMENT, OR CALCIUM CHLORIDE ADMIXTURES TO BE USED.
- ALL REINFORCED CONCRETE DESIGN TO BE DESIGNED TO BS EN 1992-1-1
- ALL REINFORCEMENT TO COMPLY WITH BS 4449, BS 8666 and BS 4483.
- PROPRIETARY CONCRETE SPACERS IN COMPLIANCE WITH BS EN 206 AND BS 7973 ARE TO BE USED TO ENSURE CORRECT COVER AT THE BOTTOM AND SIDE OF ALL POURS.
- UNLESS USING APPROVED SUPER PLASTICISED CONCRETE, ALL CONCRETE IS TO BE PROPERLY COMPACTED USING MECHANICAL VIBRATION EQUIPMENT.
- CASTING CONCRETE IN STANDING WATER OR WATERLOGGED GROUND IS NOT PERMITTED UNLESS PROVISION HAS BEEN MADE FOR PUMPING WATER CLEAR OF FRESH CONCRETE.
- NO BOLTS MUST NOT BE FLOATED INTO POSITION.
- RIGID SHUTTERS ARE TO BE USED FOR ALL FORMWORK.

PROPRIETARY FIXINGS

- FIXINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR SHALL CONFIRM THE TYPE AND DEPTH OF FIXING STRATA TO THE ENGINEER PRIOR TO WORKS PROGRESSING.
- ALL FIXINGS SHOULD BE DIRECT TO THE SUPPORTING SUB-STRATA AND THE STRATA THEREAFTER INSPECTED TO ENSURE ITS ADEQUACY. FIXING THROUGH NON-STRUCTURAL ELEMENTS SUCH AS RENDER OR SCREED IS PROHIBITED. THESE MATERIALS MUST BE BROKEN OUT TO ALLOW AN APPROPRIATE FIXING.
- FOR FIXINGS INTO MASONRY, THESE SHOULD BE INSTALLED TO THE CENTRE OF BLOCK UNITS. FIXING INTO MORTAR BEDS IS STRICTLY PROHIBITED.
- FOR FIXING INTO CONCRETE, THESE SHOULD BE, WHERE POSSIBLE CENTRALLY LOCATED WITHIN THE EXPOSED CONCRETE FACE.
- EMBEDMENT DEPTHS ARE AS FOLLOWS (UNLESS NOTED ON DRAWINGS):
FIXING TO MASONRY : EMBEDMENT DEPTH SET TO 80mm
FIXING TO CONCRETE : MINIMUM EMBEDMENT DEPTH 150mm
- THE ABOVE DEPTHS ARE BASED ON M10 HILTI HY70 RESIN ANCHORS FOR MASONRY AND M12 HILTI HY150 RESIN ANCHORS. AS A GUIDE, FOR ANCHORING INTO CONCRETE MINIMUM EMBEDMENT DEPTHS SHALL INCREASE BY 40mm FOR EVERY INCREASE IN BOLT SIZE. CENTRES BETWEEN ANCHORS ARE NOTED ON DRAWINGS. ALTERNATIVES MAY BE OFFERED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR COMMENT.
- FOR FIXINGS BELOW GROUND OR TO FOUNDATIONS STAINLESS STEEL MATERIALS MUST BE USED UNLESS NOTED ON DRAWINGS.
- WHERE REQUIRED, PROVING TESTS ON ANCHORS MAY BE REQUESTED BY ALLAN CORFIELD STRUCTURES. THESE WILL BE ORGANISED AND UNDERTAKEN BY THE CONTRACTOR, AT HIS EXPENSE.
- WHERE A SPECIFIC STRUCTURAL COMPONENT IS SPECIFIED, THIS SHOULD BE CONSIDERED 'OR EQUAL' AND THE CONTRACTOR WILL BE DEEMED RESPONSIBLE FOR ENSURING THAT ANY SUGGESTED ALTERNATIVE COMPONENTS HAVE THE NECESSARY PERFORMANCE AND STRUCTURAL CAPACITY STRENGTH ETC.
- WHEN AN EQUAL PRODUCT IS OFFERED THE CONTRACTOR MUST SUPPLY FULL CERTIFICATION OF COMPLIANCE WITH THE SPECIFICATION INCLUDING (WHERE REQUESTED), CALCULATIONS AND PERFORMANCE TESTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ANY TESTING AND CERTIFICATES OFFERED IN SUPPORT OF THEIR CHOICE OF PRODUCT COMPLY WITH ALL APPROVED STANDARDS AND CODES OF PRACTICE. IT IS FURTHER THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACCURACY OF THE SUPPORTING DOCUMENTATION INCLUDING ALL CERTIFICATES OF COMPLIANCE. ONLY AFTER THIS HAS BEEN COMPLETED SHOULD CERTIFICATES, TESTING RESULTS OR SUPPORTING DOCUMENTATION BE OFFERED TO ALLAN CORFIELD STRUCTURES FOR COMMENT.

STEEL NOTES

- ALL FABRICATED STEELWORK TO COMPLY WITH NSSS 5TH EDITION CE MARKING VERSION, AND BS EN 1090-1 AND BS EN 1090-2: 2018
- THE EXECUTION CLASS OF THE WORKS AS A WHOLE, INDIVIDUAL COMPONENTS, AND DETAILS IS EXECUTION CLASS 2 TO BS EN 1090-2: 2018.
- THE FOLLOWING NOTES ARE TO BE READ IN CONJUNCTION WITH THE NATIONAL STRUCTURAL STEELWORK SPECIFICATION (CE MARKING VERSION) AND SOI IN ITS MOST CURRENT EDITION.
- UC AND UB SECTIONS GRADE S275 TO BS EN 10025, AND HOLLOW SECTIONS GRADE S355 TO BS EN 10210-1 IN ACCORDANCE WITH BS EN 1993.
- CHANNELS, ANGLES AND PLATES TO BS EN 10025 GRADE S355 UNO. ANGLE CLEATS TO BE HOT DIP GALVANISED MILD STEEL TO BS EN ISO 1461:2022.
- ALL EXTERNAL STEELWORK TO BE HOT DIP GALVANISED TO BS EN ISO 1461:2022, 85 MICRONS TO BS EN ISO 12944.
- ALL STRUCTURAL STEELWORK TO BE IN ACCORDANCE WITH BS EN 1993-1-1.
- STEELWORK CONTRACTOR RESPONSIBILITY FOR PROVIDING TEMPORARY BRACING.
- ALL WELDS TO BE BMM FPFW UN.O. WELDING TO COMPLY WITH BS EN 1011-2:2001 AND BS EN 1011-8:2004 AS APPROPRIATE.
- ALL STEELWORK TO BE BLAST CLEANED TO BS EN ISO 8501-1 AND BE PRIMED WITH ONE COAT 75 MICRONS DRY FILM THICKNESS, HIGH BUILD ZINC PHOSPHATE.
- ALL STEELWORK BELOW GFL TO BE ENCASED IN RC 25/30 CONCRETE ENCASERS WITH A MINIMUM 100 mm COVER AND STEELWORK TO BE GIVEN ADDITIONAL 2 COATS BITUMINOUS RUBBER PAINT.
- UNDERCOAT AND FINISH COAT TO ARCHITECT'S SPECIFICATION.
- STEELWORK FABRICATOR TO CHECK AND CONFIRM ALL SETTING OUT DIMENSIONS PRIOR TO FABRICATION NOTING ALL STEPS IN FOUNDATION LEVEL, DESIGN AND GENERAL ARRANGEMENT DRAWINGS TO BE SUBMITTED TO ALLAN CORFIELD STRUCTURES FOR COMMENTS AND APPROVAL PRIOR TO COMMENCEMENT OF FABRICATION.

STEEL CONNECTION NOTES

- ALL BOLTED CONNECTIONS TO BE GRADE 8.8 BOLTS TO BS EN 15048-1 U.N.O.
- CE MARKING TO BE PROVIDED IN ACCORDANCE WITH BS EN 15048-1 FOR NON-PRELOADED BOLTING ASSEMBLIES AND BS EN 14399-1 FOR HIGH STRENGTH STRUCTURAL BOLTING ASSEMBLIES FOR PRELOADING.
- ALL CONNECTION BOLTS TO BE HOT SPUN GALVANISED.
- ALL STEELWORK CONNECTIONS SHOULD BE DESIGNED TO BS EN 1993-1-8 AND SCI P358 & P398.
- THE CONTRACTOR IS RESPONSIBLE FOR FASTENERS WHICH MAY BECOME INACCESSIBLE ON ERECTION MAY REQUIRE NUTS TO BE WELDED IN PLACE PRIOR TO BEGINNING CONSTRUCTION.
- ALL BEAM TO COLUMN CONNECTIONS TO BE DESIGNED TO RESIST A SHEAR LOAD WILL ALSO BE DESIGNED TO RESIST THE EQUIVALENT TENSILE LOAD.
- WHERE END REACTIONS ARE NOT SPECIFIED CONNECTIONS ARE TO BE DESIGNED TO RESIST A SHEAR & TENSILE LOAD OF 75 kN.
- MINIMUM THICKNESS OF GUSSETS & END PLATES ARE 8 mm.

HOLES WITHIN STEEL

- MANUFACTURES GUIDANCE SHOULD BE FOLLOWED PRECISELY.
- WHERE POSSIBLE OPENINGS SHOULD BE LOCATED AT MID-HEIGHT OF THE SECTION AND WHERE THIS IS NOT POSSIBLE THE DEPTHS OF THE UPPER AND LOWER SECTIONS OF THE WEB SHOULD NOT BE DIFFERENT BY MORE THAN A FACTOR OF 2.
- NO OPENING SHOULD BE CLOSER THAN TWICE THE BEAM DEPTH TO THE NEAREST SUPPORT OR CLOSER THAN 10% OF THE BEAM SPAN, WHICHEVER IS THE GREATEST DISTANCE.
- IN UNFORMALLY LOADED BEAMS THE BEST LOCATION FOR AN OPENING IS BETWEEN 20% - 33% OF THE SPAN TO THE NEAREST SUPPORT. IN BEAMS SUBJECTED TO POINT LOADS OPENINGS SHOULD BE IN THE LOWER SHEAR ZONE.
- OPENINGS SHOULD BE SPACED AT LEAST THE DEPTH OF THE BEAM APART.
- UNSTIFFENED OPENINGS SHOULD WHERE POSSIBLE NOT BE WIDER THAN 1.5 TIMES THE BEAM DEPTH AND THE DEPTH OF OPENING SHOULD BE LESS THAN 0.6 TIMES THE BEAM DEPTH.

SITE WELDING

- SITE WELDING TO BE KEPT TO AN ABSOLUTE MINIMUM AND SHALL ONLY BE CARRIED OUT WITH THE ADVANCE APPROVAL OF THE ENGINEER.
- SITE WELDING SHOULD FOLLOW THE GUIDANCE OF PARTS 1 AND 2 OF BS EN 1011. CONTRACTOR TO FORWARD PROPOSALS TO THE ENGINEER FOR APPROVAL PRIOR TO WORK COMMENCING.
- ALL SITE WELDING TO BE CARRIED OUT BY CERTIFIED STRUCTURAL CODED WELDERS WHO ARE FULLY CONVERSANT WITH ALL RELEVANT CODES OF PRACTICE REGARDING HOT WORKING PRACTICES.

TEMPORARY WORKS

- SCAFFOLDING TO COMPLY WITH BS EN 12811-1:2003 "TEMPORARY WORKS EQUIPMENT", & ALL CURRENT AMENDMENTS. ALL SCAFFOLDING TO BE DISMANTLED AS DEMOLITION PROCEEDS.
- TUBES & FITTING TO COMPLY WITH THE REQUIREMENTS OF BS 1139 "METAL SCAFFOLDING" & ALL CURRENT AMENDMENTS.
- TEMPORARY WORKS TO REMAIN IN PLACE FOR A MINIMUM PERIOD OF 2 DAYS TO ALLOW SUFFICIENT CURING TIME FOR ANY NEW MORTARS AND GROUTS BEFORE LOAD IS TRANSFERRED TO THE PERMANENT STRUCTURE.
- TEMPORARY WORKS SHALL BE DESIGNED TO CARRY AN UN-FACTORED DEAD LOAD OF 20 kN/m AND IMPOSED LOAD OF 20 kN/m AND ALL PROPPING SHALL BE TAKEN TO SOUND BEARING.
- TEMPORARY WORKS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST DESIGN, SUPPLY AND INSTALL ALL NECESSARY TEMPORARY WORKS REQUIRED. THE CONTRACTOR MUST SUBMIT DRAWINGS / CALCULATIONS FOR REVIEW PRIOR TO THE COMMENCEMENT OF WORKS.
- THE CONTRACTOR HAS TO FULLY INVESTIGATE AND CONFIRM ALL EXISTING WALL CONSTRUCTIONS AND STRUCTURAL CONDITION TO ALLOW A DESIGN CHECK TO BE CARRIED OUT PRIOR TO THE COMMENCEMENT OF DEMOLITION / CONSTRUCTION WORKS.
- TEMPORARY WORKS ARE TO BE CARRIED OUT BY OPERATIVES SKILLED AND EXPERIENCED IN THIS TYPE OF WORK.

FIRE SAFETY

- THE DESIGN AND CHOICE OF FIRE PROTECTION WILL BE AS SPECIFIED BY THE ARCHITECT.
- THE PERIOD OF DURATION OF FIRE PROTECTION REQUIRED IS TO THE ARCHITECTS INFORMATION AND AT A MINIMUM IS ASSUMED TO BE 30 MINUTES.
- ALL NEW STEEL IS ASSUMED TO RECEIVE 30 MINUTES PROTECTION WHICH IS PROVIDED BY PLASTERBOARD OR INSTRUMENT PAINT WHERE EXPOSED. ALL TO ARCHITECTS DETAILS AND SPECIFICATION.
- TIMBER WITHIN EXTERNAL WALLS IS ASSUMED TO RECEIVE 30 MINUTES PROTECTION WHICH IS PROVIDED BY PLASTERBOARD FINISH. ALL TO ARCHITECTS DETAILS AND SPECIFICATION.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY FIRE STOPPING TO GAPS AND PENETRATIONS THROUGH FLOORS AND WALLS. WHERE FIRE STOPPING IS PLACED IN FLOORS, IT SHALL BE CAPABLE OF CARRYING ALL FLOOR LOADS APPLIED TO THE FLOOR.

ICF WALLING

IZODOM (ICF) WALLING SYSTEM

- IZODOM PROPRIETARY WALL SYSTEM TO BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- CONCRETE SPECIFICATION:
 - STRENGTH CLASS RC35/45
 - MAXIMUM W/C RATIO 0.65
 - MINIMUM CEMENT CONTENT 300 kg/m³
 - NOMINAL COVER TO REINFORCEMENT 45mm (EQUIVALENT DESIGNATED CONCRETE RC 25/30) - MAXIMUM AGGREGATE SIZE 10mm
 - PUMPABLE MIX TO BE ADOPTED
 - CONCRETE TO BE THOROUGHLY COMPACTED.
- WINDOW AND DOOR OPENINGS TO BE BOXED OUT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- ALL WALL CORNERS AND JUNCTIONS TO BE CROSS BONDED. CUT OUT ANY INTERNAL WALL FACES TO ALLOW CONTINUOUS 150/200mm CONCRETE CORE AT ALL CORNERS AND JUNCTIONS.
- MAXIMUM LIFT OF WALLING SYSTEM AND POURING OF CONCRETE CORE 2.5m (1 STOREY HEIGHT)
- ALL PENETRATIONS THROUGH THE WALL TO BE 1m MAX WIDTH, MIN 1m APART AND 500mm FROM ANY VERTICAL REINFORCED PIERS. LINTELED WITH L1 OVER

FIXING SCHEDULE	
BUILDING ELEMENT	FIXING DETAIL
STUDS TO HEAD OF SOLE PLATE	4mm DIA. x 90mm 2No. END NAILED EACH END
DWANGS TO STUDS	4mm DIA. x 90mm 2No. END NAILED EACH END.
STUDS TO CRIPPLE STUDS	4mm DIA. x 90mm 2No. END NAILED AT 600mm C/C - STAGGERED
LINTEL BEARING ONTO ADJACENT CRIPPLE STUD	4mm DIA. x 90mm 4 No. END NAILED
PLATE UNDER OPENING TO CRIPPLE STUD	4mm DIA. x 90mm 2 No. END NAILED
STUDS UNDER OPENINGS	4mm DIA. x 90mm 2 No. END NAILED
LINTELS TO LINTELS	4mm DIA. x 90mm 2 No. END NAILED
OSB SHEATHING	3.1mm DIA. x 50mm RING SHANK NAILS AT 75mm C/C AROUND PERIMETER. 150mm CENTRES TO INTERNAL MEMBERS.
STUD TO STUD	3.75mm DIA. x 75mm NAILED AT 600mm C/C
PLATES UNDER STUDS	L x 4mm AT 600mm C/C FACE NAILED – STAGGERED
DWANGING	4mm DIA. x 90mm 2 No. SKEW NAILED ONE END. 4No. TOE NAILED THROUGH JOISTS
PLASTERBOARD DWANGS	3.75mm DIA. x 75mm FACE NAILED 2No. ONE END, SKEW NAILED, 2No. OTHER END.
WALL PLATE TO UNDERBUILDING	SELF-TAPPING SCREWS HILTI HUS 7.5mm DIA. x 100mm LONG OR FRAME ANCHORS HILTI HRD 10mm DIA. x 100mm LONG AT 600mm MAX. C/C.
PLASTERBOARD	2.6mm DIA. x 40mm GALVANISED CLOUT HEADS FACE NAILED AT 150mm C/C.
CHIPBOARD TO JOISTS	5mm DIA. x 65mm RING SHANK NAILS, FACE NAILED. 5No. IN WIDTH TO ENDS, 3No. IN WIDTH TO INTERMEDIATE

GENERAL NOTES:

1. ALL DIMENSIONS AND SETTING-OUT TO BE IN ACCORDANCE WITH THE ARCHITECT'S LAYOUTS.

2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S DRAWINGS, ENGINEER'S DRAWINGS AND SPECIFICATIONS.

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4. ACS DRAWING REFERENCES:

• FOR STRUCTURAL PLANS, REFER TO ACS S340_ST-200 SERIES DRAWINGS.

• FOR STRUCTURAL SECTIONS, REFER TO ACS S340_ST-300 SERIES DRAWINGS.

• FOR REINFORCEMENT DRAWINGS, REFER TO ACS S340_ST-400 SERIES DRAWINGS.

• FOR STRUCTURAL DETAILING DRAWINGS, REFER TO ACS S340_ST-500 SERIES.

• FOR GUIDANCE AND SPECIFICATION NOTES, REFER TO ACS S340_ST-600 DRAWING.

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HEALTH AND SAFETY

THE DESIGN HAS HIGHLIGHTED ONLY COMMON HAZARDS, WHICH HAZARDS ARE CONSIDERED TO BE WITHIN THE NORMAL EXPERIENCE OF A COMPETENT CONTRACTOR.

THE DETAILS ON THIS SHEET ARE INDICATIVE. THE CONTRACTOR IS TO DEVELOP THEIR OWN TEMPORARY WORK REQUIREMENTS.