

LOADING:
– ROOF, IMPOSED UNFACTORED LOADS, NO ACCESS IS PROVIDED TO ROOF (OTHER THAN THAT NECESSARY FOR CLEANING AND MAINTENANCE):
UNIFORMLY DISTRIBUTED LOAD, SNOW = 0.75 KN/M²
CONCENTRATED LOAD = 0.9 KN
WIND:
BASIC WIND SPEED = 25 m/s
MAX. DESIGN WIND PRESSURE ROOF CLADDING = 1.0 KN/M²
MAX. DESIGN WIND PRESSURE WALL CLADDING = 1.5 KN/M²
(ABOVE LOADS ARE UNFACTORED)

TIMBER SPECIFICATION
ALL TIMBER WORK TO BE IN ACCORDANCE WITH THE ENGINEERS TIMBER SPECIFICATIONS.
ALL PRODUCTS SHALL BE CE MARKED.
ALL TIMBER TO BE DESIGNED AND CONSTRUCTED TO EUROCODE 5 OR BS 5268, IS 440 AND IS444.
ALL ROOFING AND DECKING SHALL BE GRADE OSB/3 (SERVICE CLASS 2) TO EN 300, TYPE 'OSB3–T&G4' BY 'SMARTPLY' UNLESS NOTED OTHERWISE. NOTE DIRECTION OF FACE GRAIN ON DRAWINGS. ORIENTATION OF THE FACE GRAIN OF THE BOARD SHALL BE PERPENDICULAR TO SUPPORTS U.N.O. MINIMUM SIZE TO BE NOMINALLY 1200 X 2400 X 18MM U.NO.
ALL TIMBER SIZES AS PER PLAN AND DETAILS, GRADE C24 U.N.O. TO IS 444 AND MARKED/STAMPED WITH THE APPROPRIATE STRENGTH CLASS.
ALL DIMENSIONS AND ROOF PITCHES TO BE CONFIRMED ON SITE PRIOR TO ANY MANUFACTURE.
ALL TIMBER WORK USED ON SITE SHALL HAVE PRESERVATIVE TREATMENT USING THE DOUBLE VACUUM TREATMENT PROCESS WITH AN ORGANIC SOLVENT PRESERVATIVE TO COMPLY WITH BS5268. ENDS OF ALL TIMBER WORK, TIMBER WORK SAWN CUT, NOTCHED, BIRDS MOUTHED ETC. ON SITE SHALL BE LIBERALLY COATED WITH 2 NO. COATS COLOURED WOOD PRESERVATIVE 'PROTIM' OR SIMILAR COMPATIBLE WITH THE DOUBLE VACUUM TREATMENT. BUILT-IN TIMBER SHALL BE PROTECTED BY WRAPPING IN WATERPROOF MEMBRANE.
ALL NAILS TO BE A MINIMUM OF 3.5mm DIA (10 SWG) X 75mm LONG GALVANISED ROUND WIRE NAILS U.N.O. WHERE PROPRIETARY HANGERS/TRUSS CLIPS ARE USED EACH HOLE AVAILABLE FOR FIXING SHALL BE OCCUPIED WITH A NAIL.
SPACING OF JOISTS, RAFTERS AND STUDS SHALL BE AT 400 C/C NOMINALLY U.N.O.
MINIMUM BEARING TO BE 50MM FOR TIMBER JOISTS AND RAFTERS, PROVIDE BRIDGING TO FLOOR & ROOF JOISTS AS SHOWN / NOTED.
NOTCHING AND DRILLING OF JOISTS / BEAMS/STUDS SHALL CONFORM TO I.S. 444 OR I.S. EN 1995–1–1.
ROOF PANELS SHALL BE VENTILATED AS DETAILED.

STEELWORK
THE CONTRACTOR SHALL SUBMIT FABRICATION DRAWINGS OF STEELWORK LAYOUT AND DETAILS TO THIS OFFICE FOR APPROVAL PRIOR TO COMMENCEMENT OF MANUFACTURE.
– ALL STEELWORK AND FABRICATION TO BE 'CE' MARKED; ALL STEEL EXECUTION CLASS 'EXC2'.
CONTRACTOR AND STEELWORK FABRICATOR TO COORDINATE DETAILING AND INSTALLATION OF STEELWORK
– ALL STEELWORK TO BE GRADE S275, ALL BOLTS TO BE GRADE 8.8 U.N.O., ALL STEEL/STEEL CONNECTIONS BE MIN 4NO. M20 BOLTS OR 6MM FILLET WELD.
ALL STEELWORK IS TO BE PROTECTED IN ACCORDANCE WITH THE FOLLOWING: HIDDEN INTERIOR STEELWORK; BLAST CLEAN TO SA2½, APPLY 80µm HIGH BUILD ZINC PHOSPHATE EPOXY PRIMER.
EXTERIOR STEELWORK ENVIRONMENT CATEGORY 'C5' OR STEELWORK IN CONTACT WITH MASONRY OUTER SKIN: HOT–DIP GALVANIZE 85 MICRON, MORDANT WASH, 40 MICRON EPOXY PRIMER, 100 MICRON 'MIO', FINISH COAT TO ARCHITECT'S DETAIL.
ALL INTERNAL STEELWORK AT GROUND FLOOR & UPPER FLOORS SUPPORTING UPPER LEVELS TO BE FIREPROOFED BY APPROVED INTUMESCENT COATING TO PROVIDE 1 HOURS FIRE RESISTANCE.

NOTE ON GROUND CONDITIONS & FOUNDATIONS:
A DESK STUDY OF GROUND CONDITIONS IN THE AREA SHOWS THAT TOPSOIL IS TYPICALLY UNDERLAIN WITH BROWN BOULDER CLAYS. THIS SHALL BE CONFIRMED BY TRIAL PIT; 300–500mm OF TOPSOIL ON FIRM/STIFF BROWN BOULDER CLAY WITH TYPICAL 'ALLOWABLE BEARING PRESSURE' OF 150kPa.
FOUNDATIONS SHALL BE TAKEN INTO THE BROWN BOULDER CLAY. FROM HISTORICAL MAPS NO MAJOR WATERCOURSES WERE IDENTIFIED IN THE AREA. PRIOR TO POUR, THE ENGINEER SHALL BE IN ATTENDANCE TO INSPECT THE PROPOSED FORMATION LEVEL(S) AND INSTALLATION OF REBAR. THE CONTRACTOR SHALL INFORM THE ENGINEER IN GOOD TIME TO ARRANGE OF INSPECTION DATE/TIME.
SOFT SPOTS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED hardcore

NOTE WALL RESTRAINT & ROOF HOLDING–DOWN:
PROVIDE 1200mm LG. x 30mm x 5.0mm STEEL RESTRAINT STRAPS @ 1.8 METRES CENTRES BETWEEN ROOF TIMBER JOISTS AND BLOCKWORK WALLS PARALLEL TO JOISTS.
PROVIDE 1200mm LG. x 30mm x 2.5mm STEEL HOLDING–STRAPS @ 1.8 METRES CENTRES BETWEEN ROOF TIMBER JOISTS AND BLOCKWORK PERPENDICULAR TO JOISTS.

NOTE ON TEMP WORKS: ALL TEMPORARY WORKS, DESIGN AND CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. TEMPORARY WORKS DESIGN SHALL BE CARRIED OUT IN ACCORDANCE WITH HSA GUIDELINES. PRIOR TO DEMOLITION WORKS COMMENCING, THE CONTRACTOR SHALL APPOINT A TEMPORARY WORKS DESIGNER AND SUBMIT TO THE ENGINEER FOR REVIEW DESIGN DOCUMENTATION INCL. METHOD STATEMENTS, CALCULATIONS AND DRAWINGS. IT IS RECOMMENDED THAT THE TEMPORARY WORKS DESIGNER PROVIDE A TEMPORARY WORKS DESIGN CERTIFICATE. THE TEMPORARY WORKS DESIGNER SHALL BE EXPERIENCED AND QUALIFIED.
A METHOD STATEMENT FOR THE DEMOLITIONS AND/OR SITE ERECTION SHALL BE SUBMITTED TO THE PSDP & ENGINEER. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ADJOINING PROPERTIES AND SHARED BOUNDARY STRUCTURES. ANY RETAINED STRUCTURES SHALL BE SEPARATED FROM ADJOINING DEMOLISHED STRUCTURES PRIOR TO PULLING DOWN BY SAWING OR OTHER APPROVED METHOD. THE TEMPORARY STABILITY OF THE RETAINED STRUCTURES AND/OR FRAMES SHALL BE PROVIDED BY PROPPING AND SHORING AS REQUIRED. EXISTING WALL CONSTRUCTIONS SHALL BE CONFIRMED PRIOR TO ORDERING STEELWORK, PRECAST CONCRETE AND/OR TIMBER FRAMES.

NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR STORED IN ANY RETRIEVAL SYSTEM OF ANY NATURE WITHOUT THE WRITTEN PERMISSION OF ANDREW RILEY CONSULTING ENGINEERS AS COPYRIGHT HOLDER EXCEPT AS AGREED FOR USE ON THE PROJECT FOR WHICH THE DRAWING WAS ORIGINALLY ISSUED.

A. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS, ARCHITECTS AND SPECIALISTS DRAWINGS.
B. ALL DIMENSIONS IN mm UNLESS NOTED.
C. DO NOT SCALE DIMENSIONS.
D. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. DISCREPANCIES SHALL BE REPORTED TO THIS OFFICE IN WRITING.

NOTE CE MARKING & CERTIFICATION:
TO SHOW COMPLIANCE WITH BUILDING REGULATIONS, CE MARKING & TO ALLOW CERTIFICATION OF WORKS, THE CONTRACTOR SHALL SUBMIT THE FOLLOWING DOCUMENTATION TO THIS OFFICE FOR REVIEW:
BLOCKWORK:
Declaration of Performance
Certificates of Factory Production Control
Delivery docket w/ spec printed
READY–MIX CONCRETE:
Delivery docket w/ spec printed
AGGREGATE/HARDCORE
Declaration of Performance
Certificates of Factory Production Control
Delivery docket w/ spec printed
BLOCKWORK ACCESSORIES WALL TIES:
Declaration of Performance
Delivery docket(s) w/ spec printed
BLOCKWORK ACCESSORIES LINTELS:
Declaration of Performance
Certificates of Factory Production Control
Delivery docket w/ spec printed
MORTAR:
Declaration of Performance
Confirmation of specification/mix used for site mixed mortar for walls, and provide specification of ingredients / materials.
STRUCTURAL TIMBER:
CE mark Declaration of Performance
Delivery docket w/ spec printed
STRUCTURAL TIMBER FRAME:
CE mark Declaration of Performance
Delivery docket w/ spec printed
Certificate of NSAI's Timber Frame Manufacturers Approval Scheme
STRUCTURAL STEELWORK:
CE mark documention incl.
Declaration of Performance
Factory Production Control
Welding Certs
Delivery docket w/ spec printed

NOTE FOR HARDCORE: Hardcore should conform with I.S.EN 13242:2014 and meet the specification as outlined in Annex E of the accompanying guidance document to this standard, SR21: 2014. The layer of hardcore should be well compacted, clean and free from matter liable to cause damage to the concrete.
Specific guidance is given in 3.4.2 of SR21: 2014 on limiting the presence of a reactive form of pyrite which may give rise to swelling or sulfate attack on concrete
Only crushed rock aggregate shall be allowed under the floor slabs. The contractor shall obtain specifications and Declarations of Performamnce from the quarry operator /supplier of the hardcore that the material being supplied to the site is compliant with the specification and is fit for purpose.

R.C. & MASONRY SPECIFICATION
1 ALL LEVELS TO LOCAL DATUM
2 FOUNDATIONS TO BE CAST AGAINST GROUND U.N.O. OR PRIOR AGREEMENT.
3 CONCRETE GRADES SHALL BE AS FOLLOWS:
BLINDING : C12/15 ALL IN AGGREGATE FOUNDATIONS C28/35, 20mm NOMINAL AGGREGATE, CEMENT CEM IIIA WITH 50% G.G.B.S., ALL TO ISEN 206.
4 ALL REINFORCEMENT BARS SHALL BE IN ACCORDANCE WITH BS4449 OR BS4461 WITH A YIELD STRENGTH OF 500N/mm² OR 250N/mm2 FOR BARS DENOTED H OR R RESPECTIVELY. ALL WIRE MESH SHALL BE IN ACCORDANCE WITH BS4483 WITH MINIMUM YIELD STRENGTH OF 500N/mm².
COVER TO REINFORCEMENT:
CAST AGAINST GROUND 50mm
CAST AGAINST SHUTTER 40mm
CAST AGAINST BLINDING 40mm
5 WALLS TO BE CONCRETE BLOCKWORK TO IS325 OR EC6. COMPRESSIVE STRENGTH TO BE 5N/mm² TO IS20 OR EQUIVALENT MINIMUM 7.5N/mm² TO I.S. EN 771–3:2003.
USE DESIGNATION MORTAR MIX(iii).
6 DO NOT EXCEED LIFTS OF 1.5m PER DAY. PROTECT MASONRY FROM FROST, RAIN AND WIND. ALLOW 14 DAYS FOR MORTAR TO SET BEFORE BACKFILLING.
7 ALL PRECAST CONCRETE COMPOSITE LINTELS TO HAVE MIN. 150MM BEARING & 2 COURSES OF SOLID BLOCKWORK U.N.O.
8 MOVEMENT JOINTS TO BE PROVIDED IN OUTERLEAF OF EXTERNAL MASONRY WALL AS INDICATED ON ARCHITECT'S ELEVATIONS. FOR CONCRETE BLOCKWORK JOINTS SHALL BE SPACED AT OPTIMUM 6M CENTRES UP TO A MAXIMUM 9M CENTRES IF NO OPES ARE PRESENT, LOCATIONS TO BE AGREED WITH ARCH.
9 SLAB SUB–BASE TO BE MIN 225mm BLINDED COMPACTED HARDCORE U.N.O. REFER TO SPEC.
ACRONYMS:
B.G.L. – BELOW GROUND LEVEL
T.O.C. – TOP OF CONCRETE
U.O.C. – UNDERSIDE OF CONCRETE
F.F.L. – FINISHED FLOOR LEVEL
S.F.L. – STRUCTURAL FLOOR LEVEL
U.N.O. – UNLESS NOTED OTHERWISE
B.O.S – BOTTOM OF STEEL
T.O.S – TOP OF STEEL
S/S – STAINLESS STEEL
T.B.C. – TO BE CONFIRMED