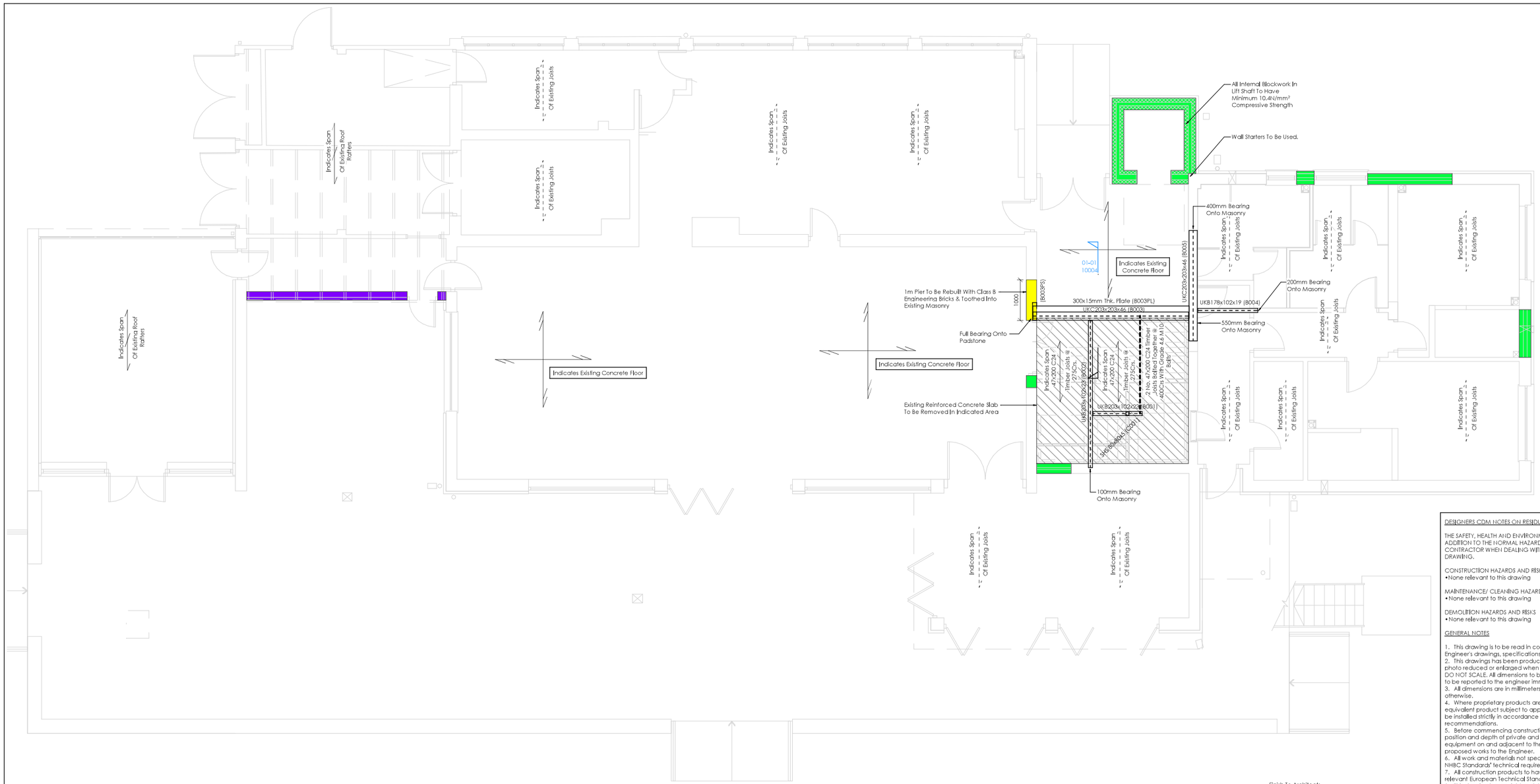
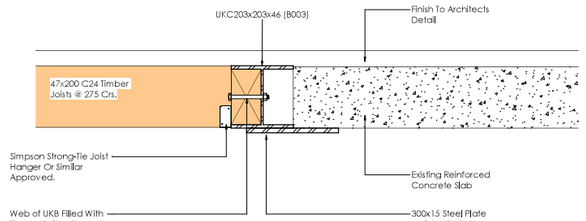


FIRST FLOOR STRUCTURAL LAYOUT

1 : 50

All New Masonry To Be Medium Dense 7.3N/mm² Blockwork U.N.O.



SLAB CONNECTION SECTION 00-02

1 : 10

DESIGNERS CDM NOTES ON RESIDUAL RISKS

THE SAFETY, HEALTH AND ENVIRONMENTAL ISSUES NOTED BELOW ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.

CONSTRUCTION HAZARDS AND RISKS
- None relevant to this drawing

MAINTENANCE/ CLEANING HAZARDS AND RISKS
- None relevant to this drawing

DEMOLITION HAZARDS AND RISKS
- None relevant to this drawing

GENERAL NOTES

1. This drawing is to be read in conjunction with all relevant Architect's / Engineer's drawings, specifications and CDM documentation.
2. This drawings has been produced electronically and may have been photo reduced or enlarged when copied. Work to figured dimensions only. DO NOT SCALE. All dimensions to be checked on site. Any errors or omissions to be reported to the engineer immediately.
3. All dimensions are in millimeters and levels in meters except where shown otherwise.
4. Where proprietary products are specified these may be substituted by an equivalent product subject to approval by the Engineer. All products are to be installed strictly in accordance with the manufacturer's recommendations.
5. Before commencing construction the Contractor is to ascertain the position and depth of private and utility services and other plant or equipment on and adjacent to the site and report any conflicts with proposed works to the Engineer.
6. All work and materials not specified shall be in accordance with the NHBC Standards' technical requirements and guidance (ISBN 0907257 series).
7. All construction products to have CE Marking in accordance with the relevant European Technical Standards in force at the time.
8. This drawing is copyright and shall not be copied in whole or in part without written permission of SWJ Consulting.
9. Until technical approval has been obtained from the relevant Authorities it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor start site work prior to approval been given, it is entirely at his own risk.
10. Should there be any discrepancies between details indicated on this drawing and those indicated on other drawings the Engineer should be informed PRIOR to construction on site.

STRUCTURAL STEELWORK (all in accordance with BS EN 1993-1 & 1994-1)

a. The steelwork contractor shall submit detailed drawings and connection calculations for all designs to the Main Contractor before work commences. Comment on drawings and calculations by the Main Contractor or the Design Team shall not relieve the Steelwork Contractor of any responsibilities under the contract.Fabrication drawings and calculations are to be submitted to SWJ Consulting for comment 10 working days prior to fabrication & erection of steelwork.
b. All Steelwork, including connections to be designed, fabricated and erected in accordance with all relevant Eurocodes and the requirements of the National Structural Steelwork Specification (NSSS). Due consideration in detailing should be given to avoid water entrapment.
c. All steelwork elements to be fabricated to achieve a CE Marking Execution Class of **EXC2** to BS EN 1090-2.
d. All minor connections to use a minimum of 2 No. **M16** Grade 8.8 bolts. All major connections to use a minimum of 4 No. **M16** Grade 8.8 bolts. All bracing connections to use a minimum of 2 No. **M16** Grade 8.8 HSFG bolts. Minimum connection plate thickness 10mm. Bolt holes to be drilled with 2mm clearance on bolt diameter. All connections to be designed for a minimum tie force of **75kN** and a minimum shear force of **75kN**.
e. All structural steelwork to be grade **S355 J0** in accordance with BS EN 10025 unless noted otherwise.
f. All rolled structural steel sections shall be in accordance with BS4 or BS EN 10055/6 as appropriate, all hot finished hollow sections to BS EN 10210 and all cold formed hollow sections to BS EN 10219. All structural steel sections to comply with the Construction Products Directive. All hollow sections to be hot finished unless noted otherwise.
g. All bolts, nuts, washers, locking pins, etc., to comply with BS EN 14399 and as a minimum be Grade 8.8 zinc plated.
h. Welding to be full length, continuous full profile fillet weld (FW) or full penetration butt weld. Minimum size of fillet welds 6mm.
i. All holding down bolts and washer plate assemblies to comply with BS7419, BS4190 and BS4320 and to be supplied by the Steelwork Contractor to the Main Contractor for installation into the foundations.
j. All cleader angles etc. necessary for fixing of cladding to be supplied by Steelwork Contractor.
k. All cladding panels and roof sheets to be screw fixed to their supports at maximum 600mm spacing but to suit subcontractor detailed design.
l. All plan dimensions shown are to center lines of beams or stanchions and all beams/stanchions shall be located symmetrically on grid lines unless otherwise noted.
m. All dimensions to be checked on site by the Steelwork Contractor prior to fabrication and erection of the steelwork.
n. The accuracy of erected steelwork in line and level is to generally be in accordance with the NSSS.
o. All dimensions and levels are subject to confirmation by the architect.
p. Design of all temporary works - propping, bracing and the like to be the responsibility of the Steelwork Contractor.
q. The Main Contractor shall not form any holes through steel members other than those for connections without the written approval of the Engineer.
r. All steelwork (including associated MS brackets and plates) to be thoroughly blast cleaned to BS7079 Part A1 grade SA2 ½ to achieve an average surface profile in the range 35-75 microns, maximum profile 100 microns as ASFP Technical Guidance Document 11:2008 and then given a protective treatment in accordance with the appropriate system from the Corus 'Prevention of Corrosion of Structural Steelwork' guidelines for its Environment Category to BS EN ISO 12944-2:1998 Corrosion Protection Classification of environments and as determined by reference to the architects drawings:

Specification 1 - steelwork in dry internal environment - Environment Category C1 - Internal columns and beams generally - Leighs system F1 75dft microns of Macropoxy 400 (C400V3) build coat.
Specification 2 - steelwork in environment subject to condensation - Environment Category C2 - Internal columns and beams in cavity walls - Leighs system F4 125dft microns of Macropoxy 400 (C400V3) build coat.
Specification 3 - feature steelwork in exposed external environment - Environment Category C5 - Hot dip galvanized to BS EN ISO 1461, Minimum Coating Weight = 710gms/m2.

s. All steelwork surfaces in direct contact with masonry or concrete - except where concrete encased for corrosion protection - to be over painted with two site coats of an approved bituminous coating to BS 6949, type 1, class A, with a total dry film thickness of 200 microns.
t. All steelwork below ground level to be encased with minimum 100mm concrete (grade FND2) with D49 wrapping fabric as directed by the Engineer, unless noted otherwise. Where steel is partially embedded in concrete in environments C3 e.g. at column bases, extra protection should be provided at the steel/concrete junction by means of an alkali resistant paint at the junction or an alkali resistant mastic at the joint.
u. Galvanized steelwork to have a minimum 85 microns thick coating in accordance with BS EN 146-1 following fabrication and preparation by acid pickling.
v. All fire protection and finishing top coats to all steelwork to be in accordance with the Architects specification, unless noted otherwise.
w. The Steelwork Contractor is to ensure that any shop or site applied primers are compatible with any finishing top coats, intumescent or bituminous coatings, which may be applied by the Main Contractor. Reference should be made to the recommendations of the Corus 'Prevention of Corrosion of Structural Steelwork' guidelines and ASFP Technical Guidance Document 11:2008 Code of practice for the specification & on-site installation of intumescent coatings for fire protection of structural steelwork.
x. The protective coatings are to achieve a minimum structural life of **50 years** and time to first maintenance of upto **20 years** for functional coats and **10** years for decorative coats.
y. Steel floor beams carrying timber joists to have minimum 100x50 C16 timber plate bolted to top flange with M10 bolts at min 600mm centers. All joists to be skew nailed to timber plate as a minimum.
z. Padstones to be used wherever steelwork is supported off masonry and steelwork to be securely built into masonry.
aa. Minimum bearing onto masonry walls to be 100mm.
ab. Steel beams are to be bolted to padstones with 2No. M10 Hilti HIT-HY200 resin anchors with HIT-V Threaded bolts, min edge distance 50mm, min spacing 50mm. Refer to typical details.
ac. All steel beams to be propped until precast floor planks are laid and grouted.

GENERAL TIMBER SPECIFICATION

a. All timbers to be graded and stamped in accordance with BS EN 14081.
b. Structural timber to be strength class C24 except where shown otherwise.
c. All joists to be supported on joist hangers manufactured to BS EN 845-1. Joist hangers to be by Simpson Strongtie or other approved to suit joist size. Masonry walls use type SFH with mini strap to provide equivalent tension strap. Timber to timber to use type JHA.
d. Tension straps to be provided to parallel masonry runs using proprietary 30 *5mm GMS L-straps, across min 3 joists, at maximum 2m centers, in accordance with Building Regulations Document A.
e. Timber joists to be min doubled-up under parallel stud partitions, around stair openings, lift knock out panels, roof lights and bath supports unless noted otherwise.
f. Multi-section timber beams and trimmers are to be bolted up at min 500mm centers using M10, grade 4.6 bolts with square washers each end.
g. Joist strutting to be installed at joist ends not supported on hangers plus at mid span where span exceeds 2.5m or 1/3rd span where span exceeds 4.5m.

Proposed Wall Types

- Proposed Cavity Wall
- Proposed Single Skin Wall

Ground Floor Structural Columns Table

Ref.	Size	Structural Material	Qty.
C001	SHS 80x80x5	Steel S355 J0	1

First Floor Steel Beam & Padstone Table

Ref.	Size	Steel / Concrete Grade	Qty.
B001	UKB203x102x23	Steel S355 J0	1
B002	UKB203x102x23	Steel S355 J0	1
B003	UKC203x203x46	Steel S355 J0	1
B003PL	300x15mm Thk. Plate	Steel S355 J0	1
B003PS	440x100x215dp. Padstone	Concrete, Cast-in-Place gray	1
B004	UKB178x102x19	Steel S355 J0	1
B005	UKC203x203x46	Steel S355 J0	1

REV	REVISION DETAILS	DATE	DRAWN BY
T1	First Issue For Comment	04/09/25	MB

CLIENT: WITNEY TOWN COUNCIL
ORIGINATOR: SWJ

PROJECT	TITLE
West Witney Sports Ground Sports And Socail Club	First Floor Structural Layout

SCALE	DRAWN	CHECKED	APPROVED
As indicated @A1	MB	MJB	JRS

PROJECT	ORIGINATOR	ZONE	LEVEL	TYPE	ROLE	DOC NO
04725	SWJ	SC	01	DR	S	10004

JOB NO.	PURPOSE OF ISSUE	STATUS:	REVISION:
04725	FOR COMMENT	S3	T1