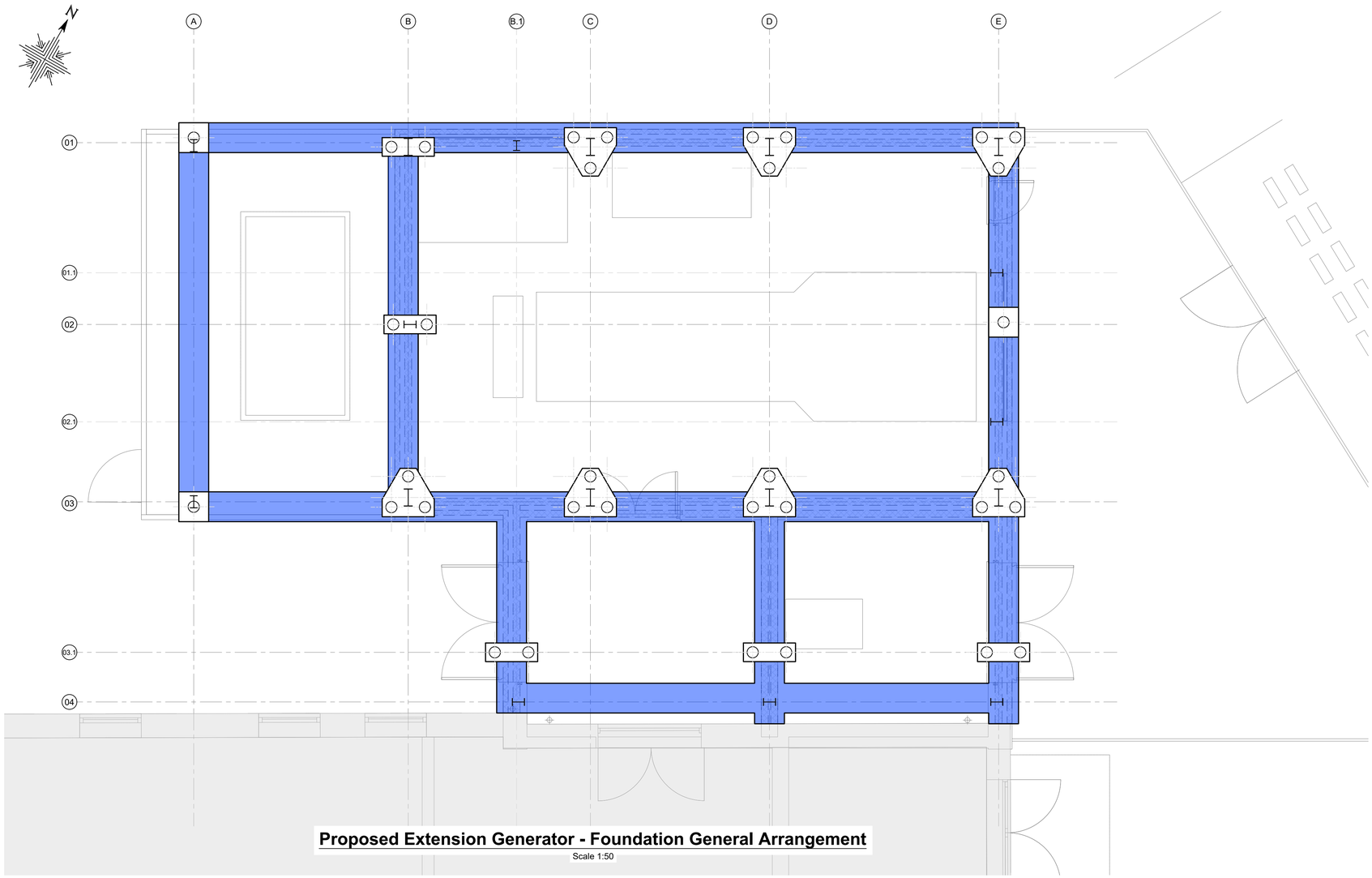
TO BE PRINTED IN COLOUR

A1



Proposed Extension Generator - Foundation General Arrangement

Scale 1:50

notes :

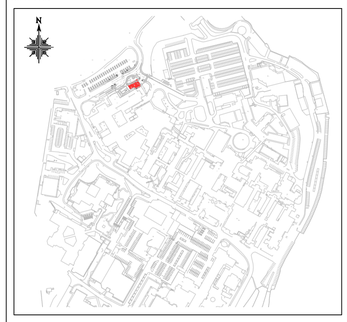
1. IF THIS DRAWING HAS BEEN RECEIVED ELECTRONICALLY IT IS THE RECIPIENTS RESPONSIBILTY TO PRINT THE DOCUMENT TO THE CORRECT SCALE
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. IT IS RECOMMENDED THAT INFORMATION IS NOT SCALED OFF THIS DRAWING
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS
4. ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

Legend

Denotes Proposed 600x600 R.C. Ground Beam

Denotes Proposed 225Ø Pile.
Piles to Achieve Circa 250kN Unfactored. Final Loads and Piling Layouts TBC Following Stage 3 Infromation.

KEYPLAN



STEELWORK - GENERAL

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS, SPECIFICATIONS.
2. ALL MATERIALS, FABRICATION AND ERECTION TO CONFORM WITH THE CURRENT EDITION OF THE BCSA PUBLICATION ENTITLED 'NATIONAL STRUCTURAL STEELWORK SPECIFICATION FOR BUILDING CONSTRUCTION'.
3. ALL STEELWORK TO BE FABRICATED AND INSTALLED TO RELEVANT BRITISH STANDARDS, EUROCODES AND QUALITY ASSURANCE DOCUMENTS.
4. ALL STEELWORK TO BE GRADE S355 TO BS EN 10 025 AND FABRICATED IN ACCORDANCE WITH BS5950 UNO.
5. ACTUAL SERIAL SIZES OF SECTIONS ARE SHOWN BUT THEY DO NOT TAKE INTO ACCOUNT ROLLING TOLERANCES.
6. ALL STEELWORK WHICH IS TO BE ENCLOSED WITHIN CAVITIES IS TO BE PAINTED WITH TWO COATS OF 2 PACK HIGH BUILD COAL TAR EPOXY BY GENERAL CONTRACTOR. MINIMUM DFT 125 MICRONS PER COAT.
7. FABRICATION DRAWINGS TO BE SUBMITTED IN GOOD TIME TO THE ENGINEER AND ARCHITECT FOR INSPECTION PRIOR TO COMMENCEMENT OF FABRICATION WORKS. COMMENTS WILL BE PROVIDED BY THE ENGINEER, HOWEVER THE STEELWORK CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL AND ACCURACY OF THE FABRICATION/ INSTALLATION DRAWINGS.
8. WHERE SPECIFIED, BRICKWORK RESTRAINTS TO HAVE SLOTTED HOLES IN END CONNECTIONS TO ALLOW VERTICAL MOVEMENT. TOLERANCE OF MOVEMENT TO BE BETWEEN -0mm AND +75mm.
9. AFTER THE STEELWORK HAS BEEN LINED, LEVELED AND PLUMBED BY THE STEELWORK CONTRACTOR THE GENERAL CONTRACTOR IS TO GROUT THE STEELWORK BASES IN ACCORDANCE WITH ALL RELEVANT CODES OF PRACTICE.
10. THE MAIN CONTRACTOR IS RESPONSIBLE FOR SETTING OUT AND CHECKING OF ALL EXISTING DIMENSIONS. ANY DISCREPANCIES ARE TO BE NOTIFIED TO THE ENGINEER PRIOR TO MANUFACTURE.
11. STEELWORK TO BE SHOTBLASTED TO SA2.5 AND PAINTED WITH 1 COAT 2 PACK HIGH BUILD EPOXY ZINC PHOSPHATE PRIMER GREY. MINIMUM DFT 100 MICRONS.
12. STEELWORK ENCASED IN CONCRETE IS TO BE COMMERCIALLY SHOT BLASTED AND IS TO REMAIN UNPAINTED.
13. STEELWORK CONTRACTOR TO INCLUDE FOR WIRE BRUSHING ANY DAMAGED AREAS OF STEEL BACK TO BRIGHT METAL. FEATHER EDGES OF DAMAGED PAINTWORK AND MAKE GOOD WITH 2 PACK HIGH BUILD ZINC PHOSPHATE PRIMER GREY, MINIMUM DFT 100 MICRONS.
14. ALL SUSPENDED FLOOR SLAB STEELWORK TO BE COATED USING MAGNELIS COATING SPECIFICATION AS PER CONTRACTORS REQUIREMENTS. COATING TO BE APPLIED FOLLOWING MANUFACTURES SPECIFICATION & GUIDANCE.
15. ALL EXPOSED STEELWORK TO BE HOT DIP GALVANISED TO EN 150 1461. MINIMUM DFT 85 MICRONS.
16. ALL WELDING TO BE A MINIMUM OF 6mm CONTINUOUS FILLET WELD WHERE POSSIBLE U.N.O.
14. ALL STEELWORK CONNECTION DESIGN & DETAILING TO BE THE RESPONSIBILITY OF THE STEELWORK FABRICATOR. FABRICATION DRAWINGS TO BE SUBMITTED IN GOOD TIME TO THE ENGINEER FOR COMMENTS FOR INSPECTION PRIOR TO COMMENCEMENT OF FABRICATION WORKS.
15. MINIMUM BEARING OF OTHER STRUCTURAL ELEMENTS ONTO STEEL TO BE (UNLESS NOTED OTHERWISE) :-

PRECAST UNITS	75mm
TIMBER	70mm

MASONRY - GENERAL

1. REFER TO ARCHITECTS DRAWINGS FOR SETTING OUT OF ALL MASONRY WALLS, FIXINGS AND SUPPORT DETAILS.
2. WHERE NOTED INTERNAL WALLS ARE TO BE FORMED WITH 140mm NWC BLOCKWORK WITH A MINIMUM COMPRESSIVE STRENGTH OF 7.3N/mm2.
3. ALL BLOCKWORK TO BE CONSTRUCTED WITH MORTAR TYPE M6 (II) UNO.
4. ALL BLOCKWORK BELOW DPC LEVEL IS TO BE DENSE SOLID BLOCK WITH NO VOIDS AND A MINIMUM COMPRESSIVE STRENGTH OF 7.3N/mm² AND A MAXIMUM WATER ABSORPTION RATE OF 7%.
5. ALL BRICKWORK BELOW DPC LEVEL IS TO BE A MINIMUM COMPRESSIVE STRENGTH OF 27N/mm² AND MAXIMUM WATER ABSORPTION OF 7%.
6. ALL MORTAR BELOW DPC LEVEL IS TO BE 1:3 CEMENT: SAND (GRADE 2). NO ADDITIVES WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE ENGINEER.
7. ALL BRICKWORK ABOVE DPC LEVEL IS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 27.0N/mm² AND A MAXIMUM ABSORPTION RATE OF 12%, UNO.
8. ALL BLOCKWORK ABOVE DPC LEVEL IS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 7.3N/mm², UNO.
9. VERTICAL MOVEMENT JOINTS SHOULD BE PROVIDED IN CLAY MASONRY WALLS AT MAXIMUM 12m c/c.
10. VERTICAL MOVEMENT JOINTS SHOULD BE PROVIDED IN CONCRETE BLOCK WALLS AT MAXIMUM 6m c/c.
11. MOVEMENT JOINT LOCATIONS AND SPACINGS SHOULD BE CONFIRMED BY THE SUB-CONTRACTOR TO ENSURE JOINT SPACING AND LAYOUT SHOWN IS SUITABLE WITH THE BLOCK TYPE USED. FINAL DESIGN OF THE JOINT SPACING IS THE RESPONSIBILITY OF THE SUB-CONTRACTOR.
12. REFER TO ARCHITECTS DRAWINGS FOR SETTING OUT OF ALL MASONRY WALLS.
13. REFER TO THE ARCHITECTS DRAWINGS FOR FINAL DETAILS AND LOCATIONS OF MASONRY TIES, FIXINGS, SUPPORT DETAILS, HEAD RESTRAINTS AND MOVEMENT JOINTS.
14. WHERE SINGLE LEAF BLOCKWORK WALLS ARE SHOWN BY THE ARCHITECT, ALLOW FOR PROPRIETARY COLD ROLLED WINDPOSTS AT 3.5m MAX c/c. ANCON WP2 150x70x6 OR EQUAL APPROVED.
15. ALL WALL TIES TO BE STAINLESS STEEL AND SHALL BE IN ACCORDANCE WITH BS.1243 OR MEET WITH THE REQUIREMENTS OF DD140 PART 2.
16. WALL TIES TO BE AT 450mm VERTICAL AND 900mm HORIZONTAL CENTRES. AROUND OPENINGS AND VERTICAL UN-BONDED OR RETURNED EDGES, TIES SHALL BE PROVIDED AT 225mm VERTICAL CENTRES AND WITHIN 225mm OF THE EDGE.
17. ALL MASONRY WALLS ARE TO HAVE A VERTICALLY SLOTTED HEAD RESTRAINT TO THE FULL LENGTH OF THE WALL. UNO THE FOLLOWING STANDARD DETAIL SHOULD BE ADOPTED: ANCON IHR-B OR EQUAL APPROVED @ 450mm c/c.
18. MASONRY TIES BETWEEN THE MASONRY AND ANY RESTRAINING WINDPOSTS OR RC STRUCTURE SHOULD BE PROVIDED AT 225mm VERTICAL CENTRES.
19. THE FINAL SELECTION OF ALL PROPRIETARY MASONRY RESTRAINT PRODUCTS SPECIFIED ON THE CCS CONSULTING DRAWINGS IS THE RESPONSIBILITY OF THE MASONRY SUB-CONTRACTOR BASED ON THE MANUFACTURER/SUPPLIER SELECTED AND THE APPROPRIATE DESIGN LOADING.
20. MINIMUM BEARING OF OTHER STRUCTURAL ELEMENTS ONTO MASONRY TO BE (UNLESS NOTED OTHERWISE) :-

STEEL	100mm
PRECAST UNITS	90mm
TIMBER	70mm

21. CONCRETE PADSTONES WHERE SHOWN ARE TO BE A MINIMUM 440mm LONG x 215mm DEEP UNLESS NOTED OTHERWISE. ALL PADSTONES TO STEEL BEAMS SHOULD COME COMPLETE WITH 2No. M16 DIAMETER RAGE BOLTS FOR POSITIVE CONNECTION.

IN-SITU CONCRETE

1. REFER TO CCS CONSULTING IN-SITU CONCRETE SPECIFICATION FOR ALL RELEVANT NOTES.
   - CONCRETE GRADE FOR ALL OTHER ELEMENTS UNO - C32/40

     TO BS8110: MIN CEMENT CONTENT 300kg/m³ OPC; MAX FREE WATER / CEMENT RATIO 0.6, MAX AGGREGATE SIZE 20mm.
2. ALL DIMENSIONS TO SLAB EDGE TO BE CONFIRMED BY THE ARCHITECT.
3. UNO CONCRETE COVER TO OUTERMOST REINFORCEMENT TO BE:
   - FOUNDATIONS - 50mm BOTTOM, 50mm SIDE AND TOP
   - SUPERSTRUCTURE - 25mm ALL FACES (INTERNAL CASE ONLY)
4. THE ABOVE COVERS RELATE TO CONCRETE CAST AGAINST FORMED SURFACES. WHERE CONCRETE IS CAST AGAINST NON-AGGRESSIVE SOIL, THE COVER TO REINFORCEMENT SHALL BE INCREASED TO 75mm.
5. ALL CONCRETE FACES TO BE CAST AGAINST FORMWORK UNLESS PRIOR CONSENT IS GRANTED BY THE ENGINEER.
7. ANY FORMWORK OR TEMPORARY PROPPING REQUIRED TO BE DESIGNED AND INSTALLED BY THE MAIN CONTRACTOR. DETAILS TO BE ISSUED TO CCS FOR COMMENT PRIOR COMMENCEMENT.
8. REFER TO ARCHITECTS DRAWINGS FOR DETAILS OF REBATES, CHAMFERS, ETC TO EXPOSED CONCRETE CONSTRUCTION.
9. THE EXPOSED FACES OF THE CONCRETE STRUCTURES ARE TO BE INSPECTED IN ACCORDANCE WITH THE CCS CONSULTING IN-SITU CONCRETE SPECIFICATION. EXPOSED CONCRETE TO FOLLOW ARCHITECTURAL REQUIREMENTS WITH RESPECT TO FINISH, TEXTURE AND COLOUR.
10. NO HOLES, CHASES OR OTHER OPENINGS TO BE CUT OR ANY REINFORCEMENT TO BE CUT, BENT OR DISPLACED IN ANY PART OF THE STRUCTURE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
11. PENETRATIONS LESS THAN 300mm SQUARE OR DIAMETER ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS - REFER TO BUILDERS WORK DRAWINGS FOR DETAILS. BUILDINGS WORK DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR COMMENT.
12. WHERE REQUIRED PENETRATIONS OF THIS SIZE SHOULD BE FORMED PRIOR TO POURING AND REINFORCEMENT LOCALLY DISPLACED TO SUIT.
13. CONSTRUCTION JOINT POSITIONS OTHER THAN THOSE DETAILED ON THE DRAWINGS ARE TO BE AGREED WITH THE ENGINEER IN ADVANCE OF CONSTRUCTION. THE JOINTS SHOULD BE CLEANED AND ALL LOOSE CONCRETE / DEBRIS REMOVED AND ROUGHENED PRIOR TO CONCRETING THE ADJACENT POUR.
14. MAXIMUM LENGTH OF TIME BEFORE POURING AGAINST PREVIOUS DAYS WORK IS 4 DAYS.
15. ALL REINFORCEMENT TO BE GRADE 500 CONFORMING TO BS 4449:2005 AND SCHEDULED IN ACCORDANCE WITH BS 8666:2005
16. ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR CHAIRS, SPACERS OR SUPPORT BARS. THESE TEMPORARY ELEMENTS WILL NOT BE SHOWN ON CCS CONSULTING REINFORCEMENT DRAWINGS.
17. SURFACE HOLES RESULTING FROM THE USE OF FORMWORK THROUGH TIES SHALL BE PLUGGED WITH A SEMI-DRY 1:3 CEMENT: SAND MIX WELL RAMMED IN.
18. SIZE OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
19. NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
20. THE CONTRACTOR SHALL PROVIDE INFORMATION OF THEIR METHODS OF CONTROLLING THE CURING OF CONCRETE AND SHALL DETAIL THESE IN A METHOD STATEMENT FOR SUBMISSION TO THE ENGINEER/ARCHITECT IN ACCORDANCE WITH THE SPECIFICATION.

REV.	DESCRIPTION	DATE	DRW.	CHK.
P1	Preliminary Issue	31.10.22	JF	LDC

Preliminary Issue - For Discussion Purposes Only

NHS
Manchester University
NHS Foundation Trust

APPOINTED PARTY LOGO/INFORMATION

ccs consulting
MANCHESTER • LONDON • LEEDS

PROJECT
North Manchester General Hospital - Extension Generator

TITLE
Proposed Foundation Plan (Option H)

STATUS	PURPOSE OF ISSUE
S1	For Information

DRAWN BY	CHECKED BY	DATE
JF	LDC	Oct. '22

SCALE (@A1)	PROJECT NUMBER
As Shown	21-2135

FILE DRAWING NUMBER	REV.
212135 -CCS - S1 - XX- DR - S - 0320	P1