

Sketch/Calc ☐Site Visit ☐Memo ☐Phone Call ☐Meeting ☐File Note ☐

Project No./Ref: 34254/1

Project: CHILLCROFT HALLS - INTERNAL REPAIRS

Section:

Prepared: NLS

Checked:

©Date: JULY 25

Time:

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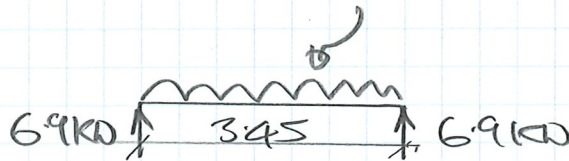
3.45m SPAN BEAM TO SUPPORT NID
INTERNAL NCB BLOCKWORK

100 BLOCK
PUSTER x 2

$$\begin{array}{r} 1.2 \\ 0.3 \\ \hline 1.5 \text{ kN/m}^2 \end{array}$$

HEIGHT of wall = 2.5m

$$\begin{aligned} \text{so } \text{UDL} &= (2.5 \times 1.5) + \text{S.W.} \\ &= 3.75 + 0.25 \\ &= 4 \text{ kN/m} \end{aligned}$$



$$\begin{aligned} M &= 4 \times 3.45^2 / 8 \\ &= 5.95 \text{ kNm} \end{aligned}$$

TRY 120 SHS (5)

$$\sigma_b = \frac{5.95 \times 10^3}{836} = 71.1 \text{ N/mm}^2 < 230 \text{ N/mm}^2$$

$$\begin{aligned} A &= \frac{5 \times 4 \times 3450^4}{384 \times 205 \times 505 \times 10^9} \\ &= 7.13 \text{ mm} = \frac{\text{SPAN}}{438} \end{aligned}$$

so USE 120x120 SHS (5)

Sketch/Calc ☐Site Visit ☐Memo ☐Phone Call ☐Meeting ☐File Note ☐

Project No./Ref: 34254/2

Project: MILLSTONE HILLS - 1000WAL ALUMINUMS

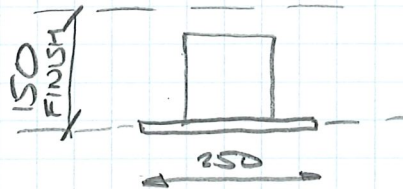
Section:

Prepared: NLS

Checked:

©Date: JUL 25

Time:

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LOCH BEARING STRENGTH

$$= \frac{1.25 \times 1.7 \text{ N/mm}^2}{3.5} = 0.607 \text{ N/mm}^2$$

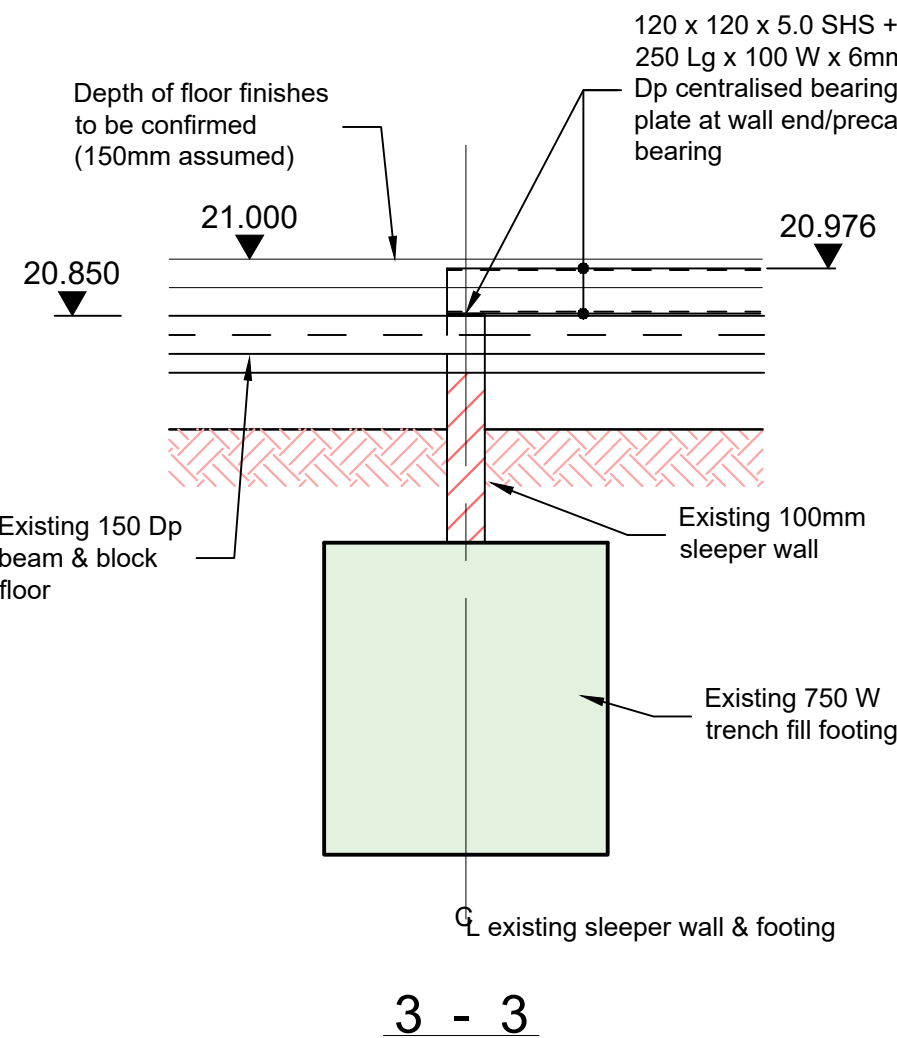
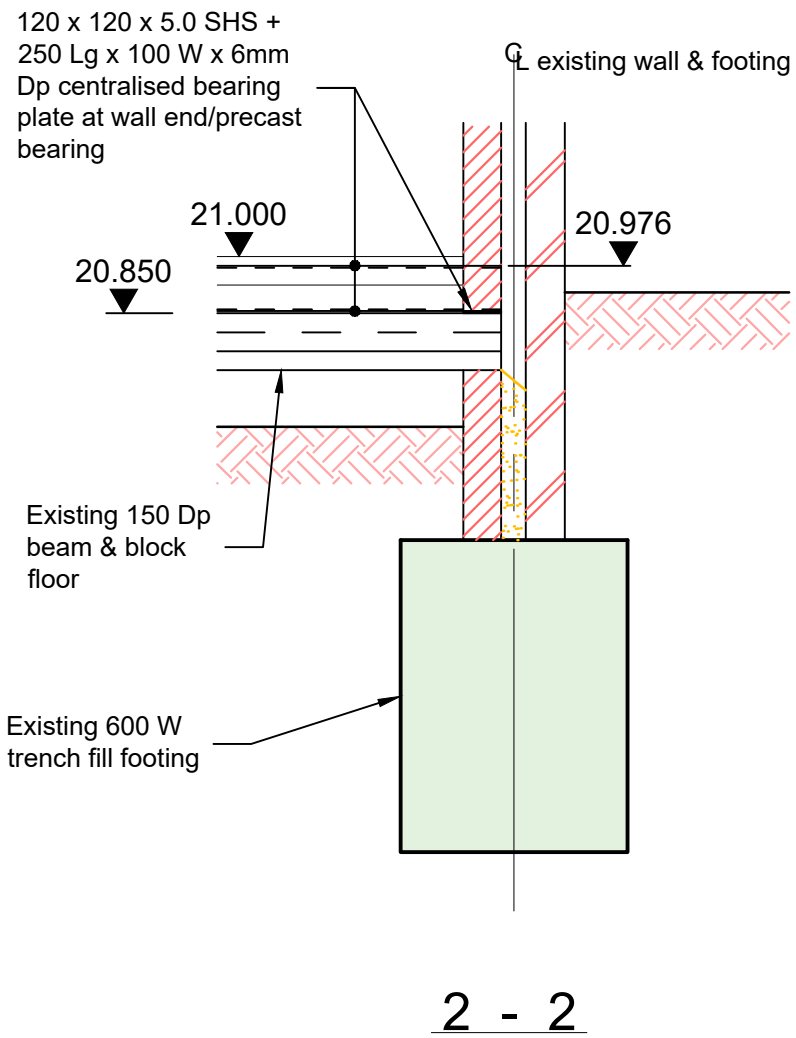
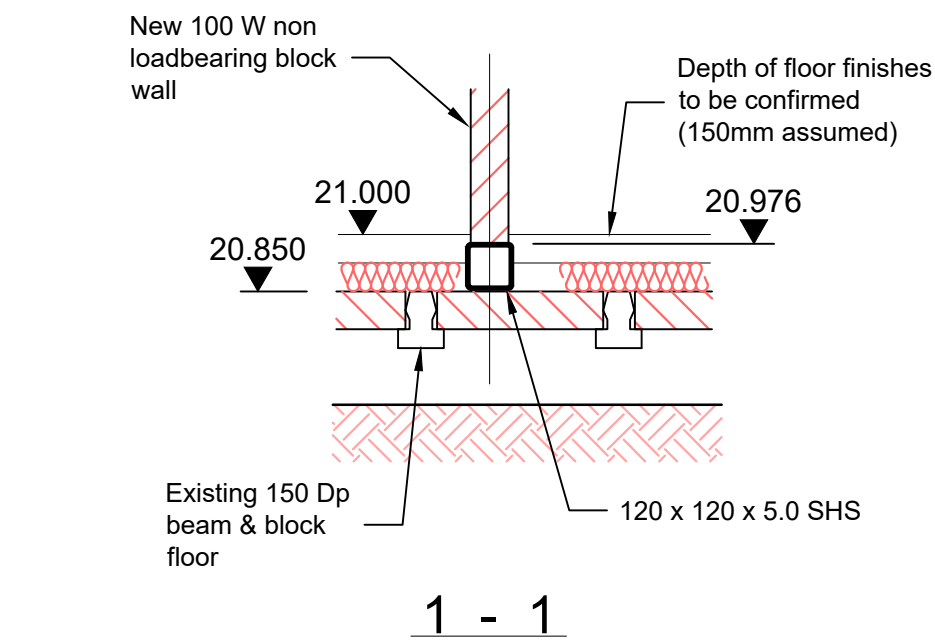
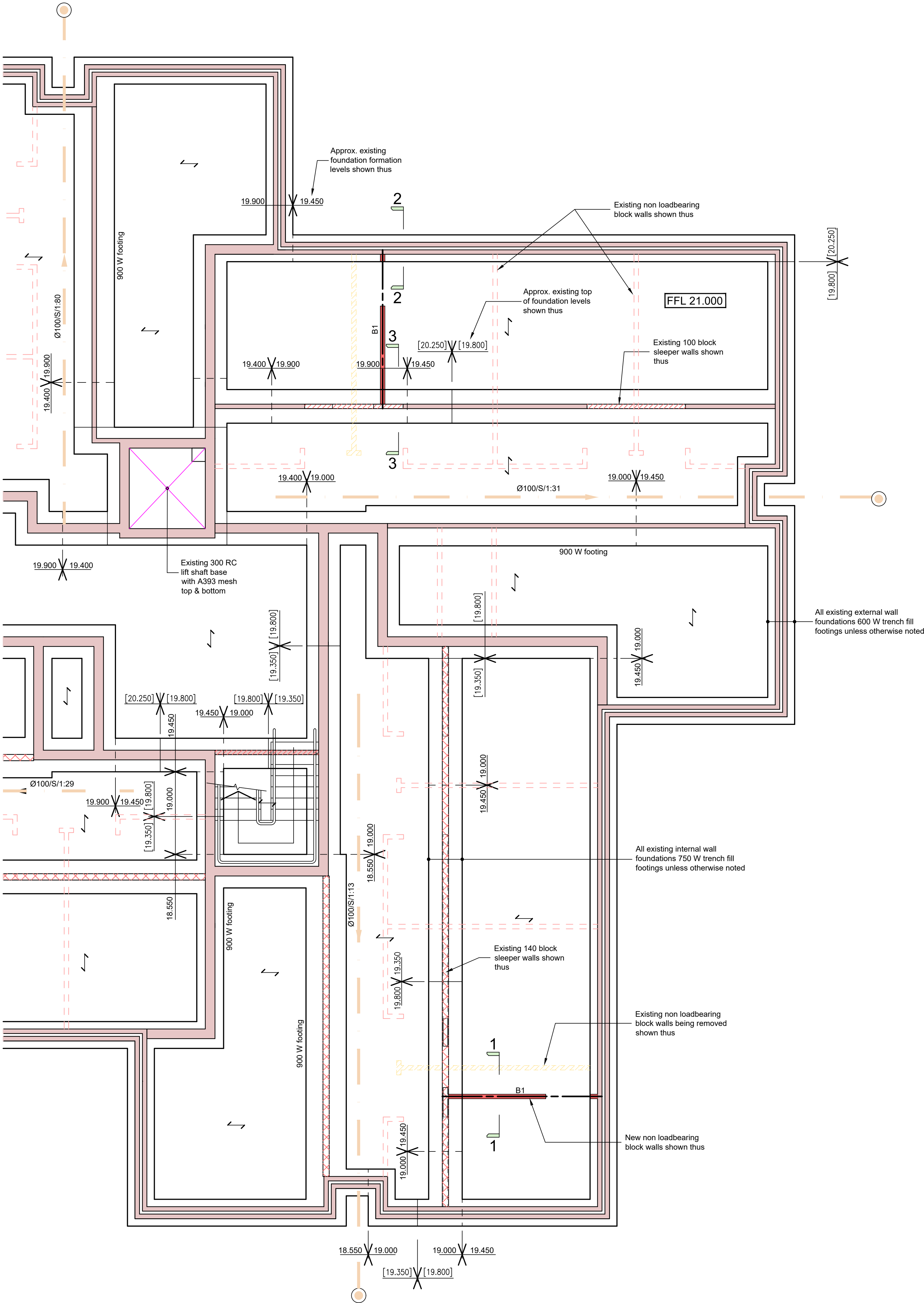
$$\sigma_{\text{bearing}} = \frac{1.4(6900)}{250 \times 100}$$

$$= 0.39 \text{ N/mm}^2$$

$$< 0.607 \text{ N/mm}^2 \quad \text{OK}$$

OK USE BEARING RATE

$$100 \times 250 \times 6$$



- NOTES.
- This drawing to be read in conjunction with all relevant architects and engineers drawings and specifications.
 - All design, materials and workmanship shall be in accordance with the current Building Regulations and all relevant Codes of Practice and British Standards.
 - All dimensions, details, components and assemblies shall be verified by the contractor prior to construction, manufacture or supply.
 - Open steel sections to be grade S355JR to BS EN 10025 - 2
Hollow steel sections to be grade S355NH to BS EN10210 - 1
Steel sections dimensional tolerances to be to BS4 - 1, BS EN 10034 & BS EN 10210 - 2
All steels to be execution class 2 unless otherwise noted & sections to be CE marked in accordance with BS EN 1090 - 1 & 2
Bolts to be grade 8.8 unless otherwise noted.
 - All welding to be carried out in accordance with BS EN 1090-2. All welds to be 6mm fillet welds unless otherwise noted.
 - Steelwork preparation: Shotblast to SA 2½
- | Painting: | | | |
|-------------------------------------|---------------------------|--|------------------------------|
| Coat
(i.e. Primer/
Finishing) | Type | Min.Dry Film
Thickness (µm)
per coat | No. of Coats
(Works/Site) |
| Primer | High Build Zinc Phosphate | 75 | 1 |
- All damaged areas of works applied paint coats to be touched up on site. All bolts to be sheradised or hot dipped galvanised. Steel encased in concrete not to be painted. All steelwork surfaces exposed to cavities and/or built into inner skin of external cavity wall to be painted two coats bituminous paint on site (min film thickness 100 microns, 50 microns per coat).
- Shop drawings and details to be submitted to engineer for comment at least 10 working days prior to fabrication.
 - The steelwork fabricator will be required to read architects drawings in conjunction with engineers drawings for setting out dimensions.
 - Any proprietary items, fixings or materials specified on the drawings should be installed, fixed or used in accordance with manufacturers instructions.
 - CDM Risks
- No Unusual Risks

Beam Legend

Beam Ref.	Size
B1	120 x 120 x 5.0 SHS + 250 Lg x width of wall x 6mm Dp bearings plates at each end

Symbols Legend

	Indicates span of existing 150 beam & block floor
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REV	DESCRIPTION	CHECKED	DATE
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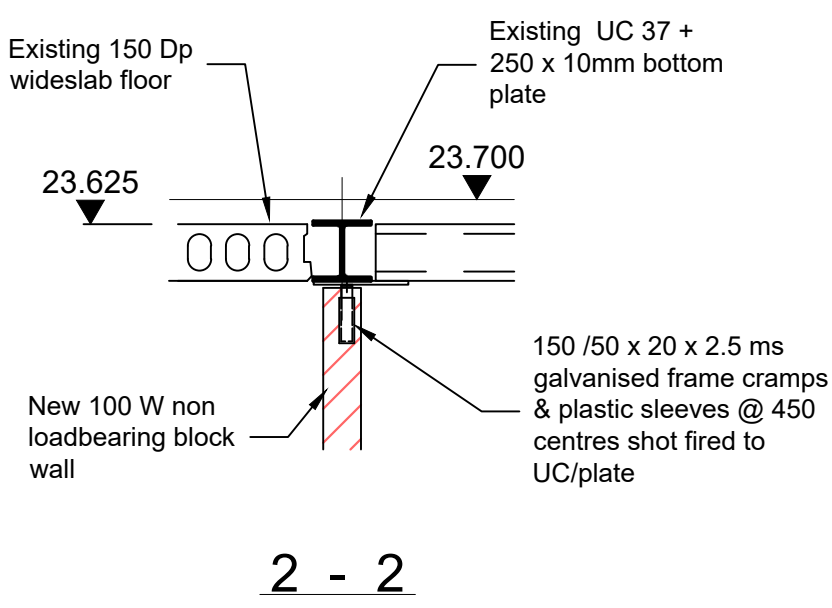
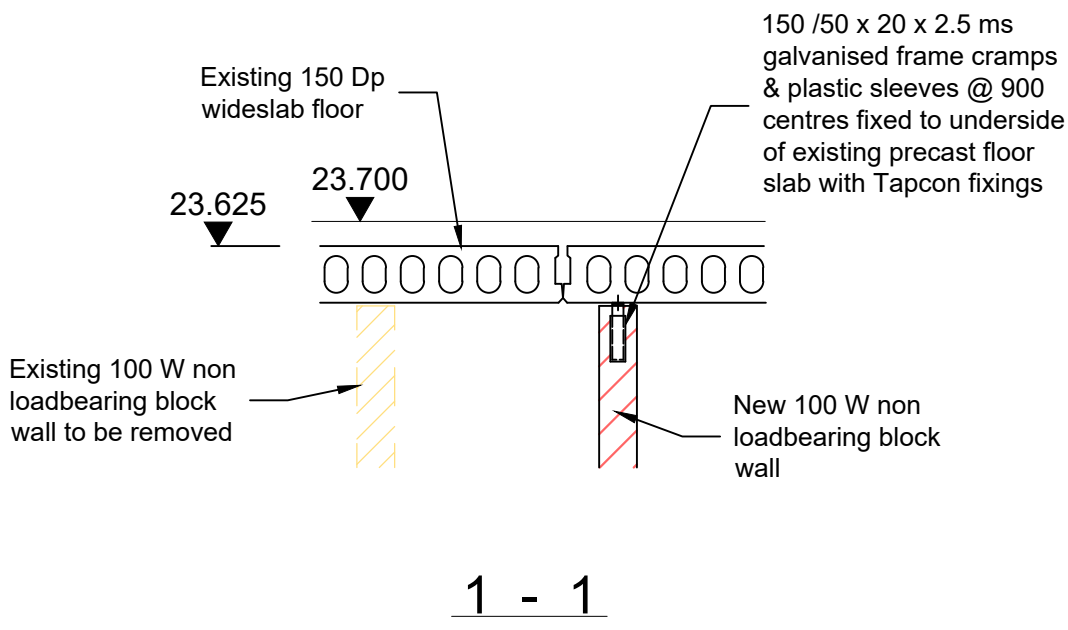
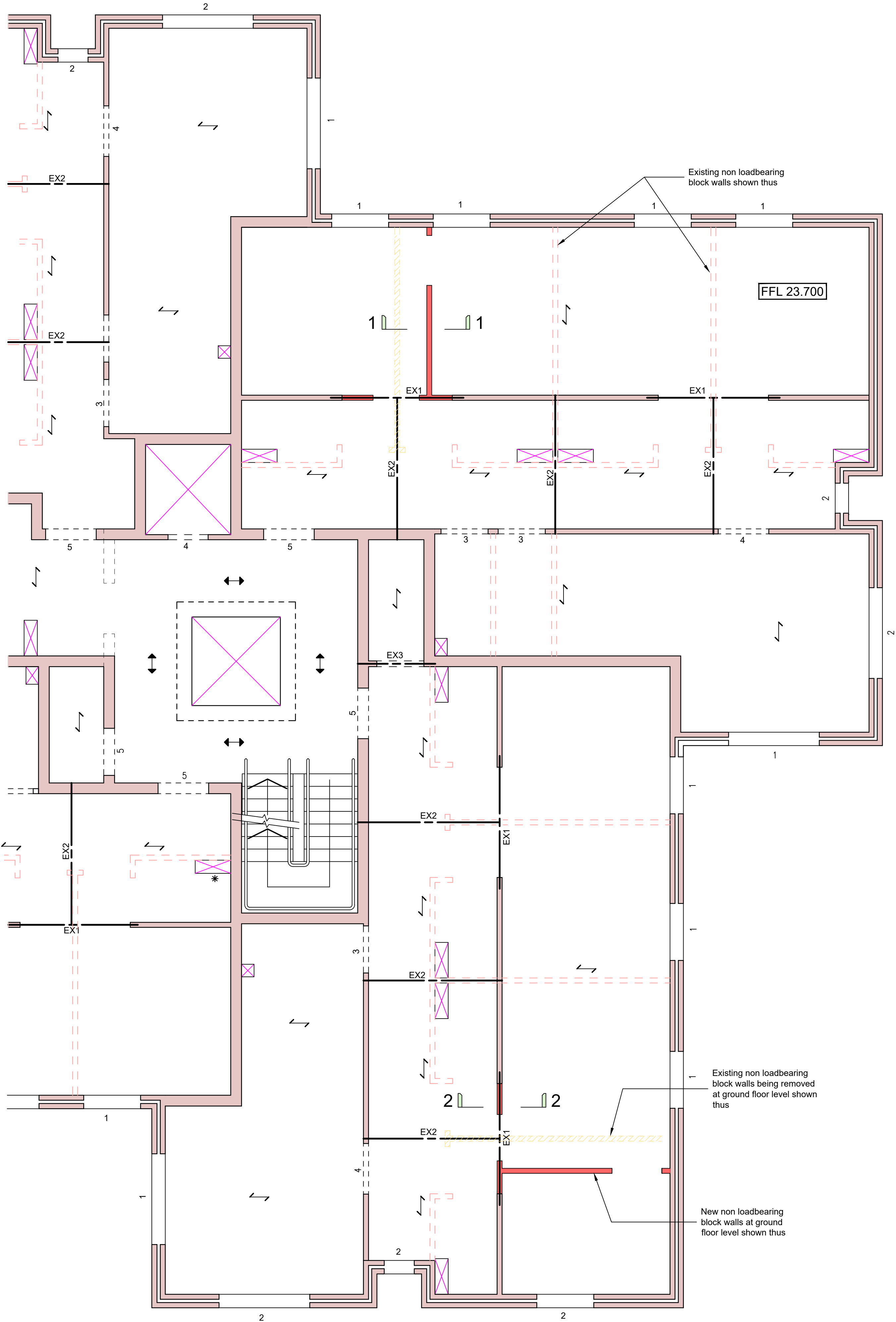
CLIENT
Chichester University

PROJECT

Proposed Alterations
Chilgrove House, Chichester University
Ground Floor & Foundation Plan

ARCHITECT

DRAWN BY	CHECKED BY	DESIGNED BY
AT	NS	NS
SCALE @ A1	© DATE	STATUS
1:50 1:20	July 2025	Preliminary
JOB NO.	DRAWING NO.	REVISION
34254	GA1	



- NOTES.
- 1 This drawing to be read in conjunction with all relevant architects and engineers drawings and specifications.
 - 2 For general notes refer to drawing no. 34254/GA1

Beam Legend	
Beam Ref.	Size
EX1	Existing 152 x 152 UC 37 + 250 x 10mm Bottom Plate
EX2	Existing 152 x 152 UC 30 + 350 x 10mm Bottom Plate
EX3	Existing 203 x 102 UCT 30

Lintel Schedule	
Ref.	Type
L1	Existing Catnic L1/XHD 50
L2	Existing L1/S 50
L3	Existing 100 W x 100 Dp PS Beam
L4	Existing 100 W x 140 Dp PS Beam
L5	Existing 2 no. 100 W x 140 Dp PS Beam

Symbols Legend	
	Indicates span of existing 150 wideslab floor
	Indicates span of existing 250 RC slab

REV	DESCRIPTION	CHECKED	DATE
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CLIENT
Chichester University

PROJECT
Proposed Alterations
Chilgrove House, Chichester University
Ground Floor Plan (Showing First Floor Structure Over)

ARCHITECT

DRAWN BY AT	CHECKED BY NS	DESIGNED BY NS
SCALE @ A1 1:50 1:20	© DATE July 2025	STATUS Preliminary
JOB NO. 34254	DRAWING NO. GA2	REVISION