STRUCTURAL DESIGN PROJECT PORTFOLIO

2025

5a -7a St. James's Road, Croydon, Surrey CR0 2SB

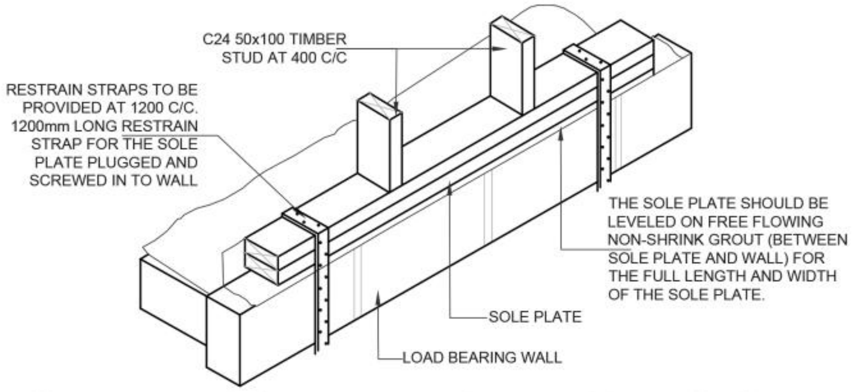
Tel: +44(0) 20 4558 8272
Mob: +44(0) 7538 697 972
Email: info@leniogroup.com
Website: www.leniogroup.com

2020 COMPANY FOUNDED

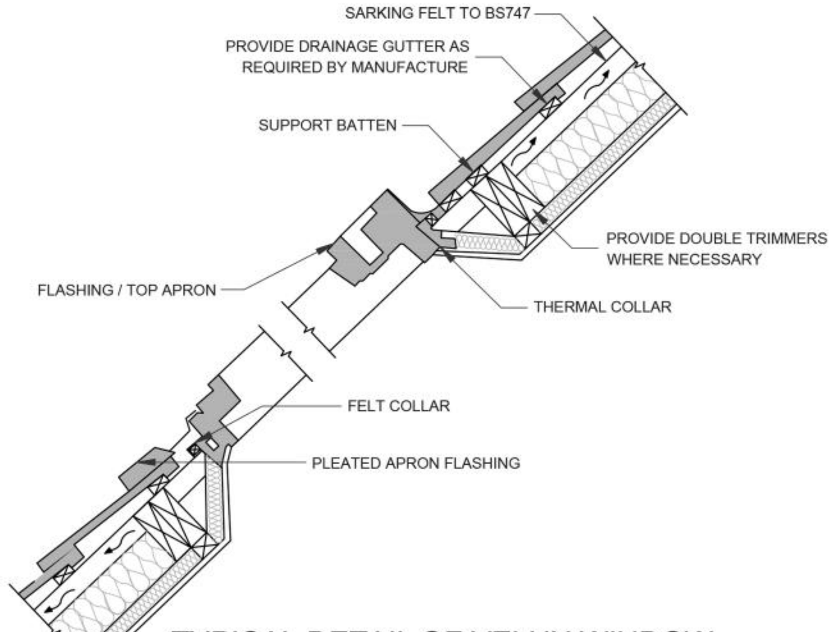
300+ PROJECTS DELIVERED

20+ PROFESSIONAL TEAM MEMBERS

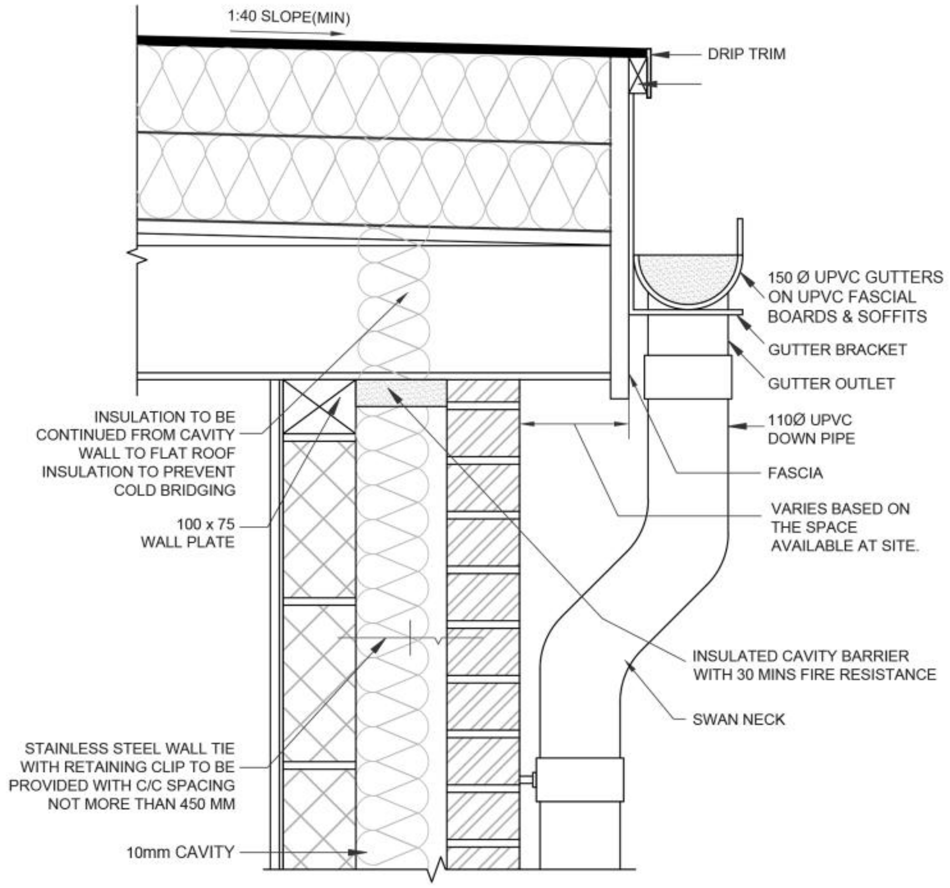
100% DELIVERY RATE



LOAD BEARING STUD WALL TO WALL CONNECTION

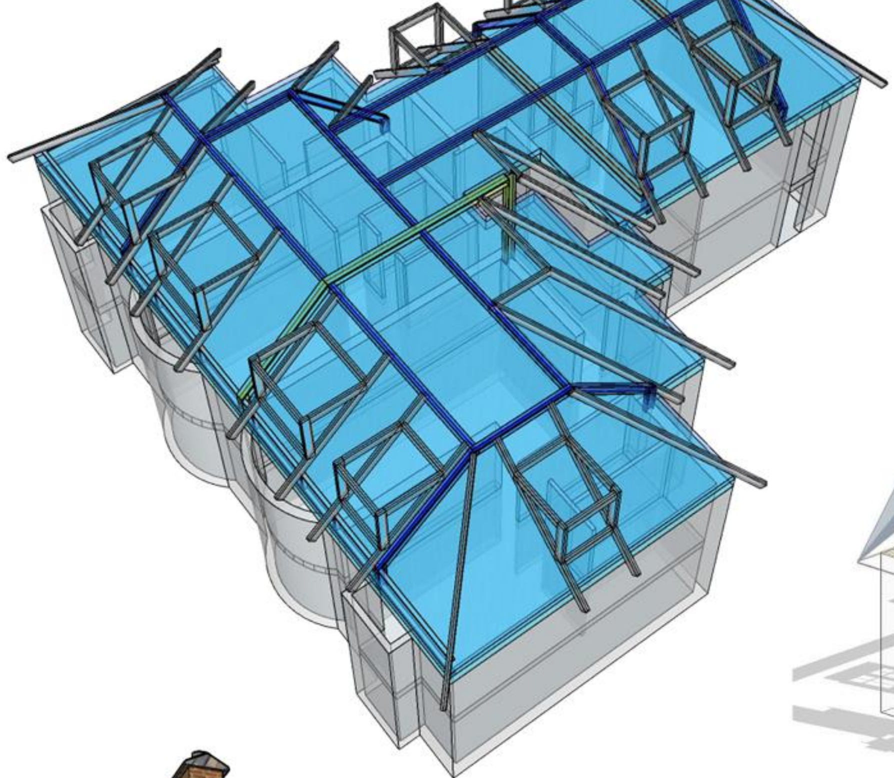


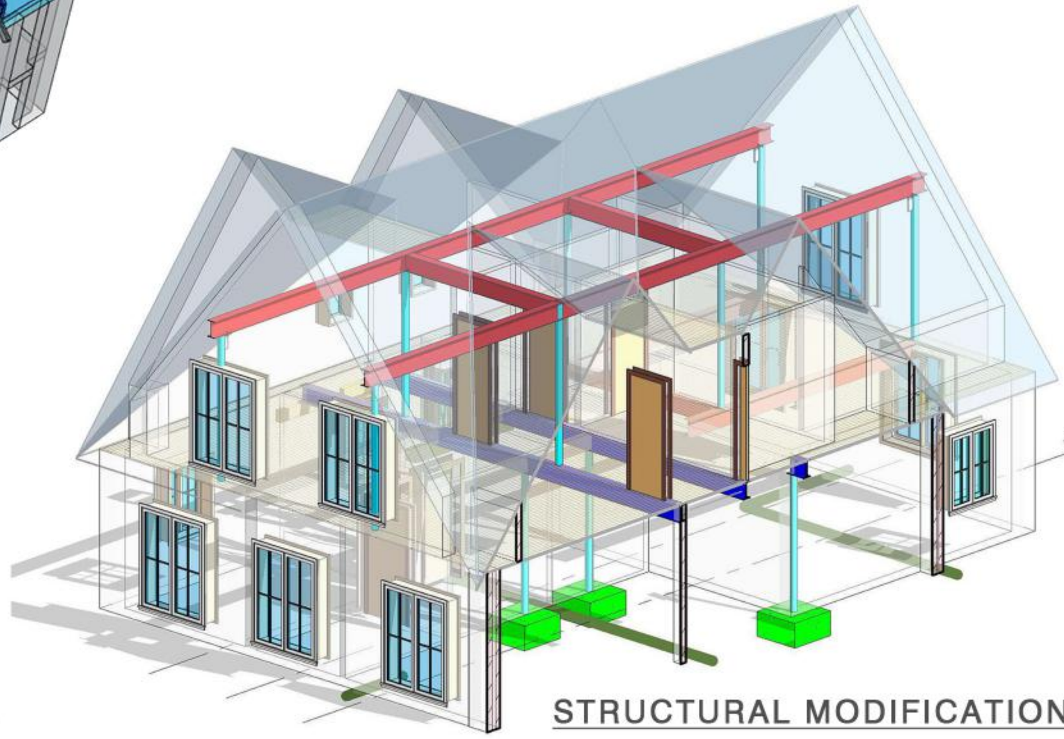
TYPICAL DETAIL OF VELUX WINDOW
(PITCHED ROOF)



TYPICAL DETAIL FLAT ROOF EAVE

ROOF CONVERSIONS





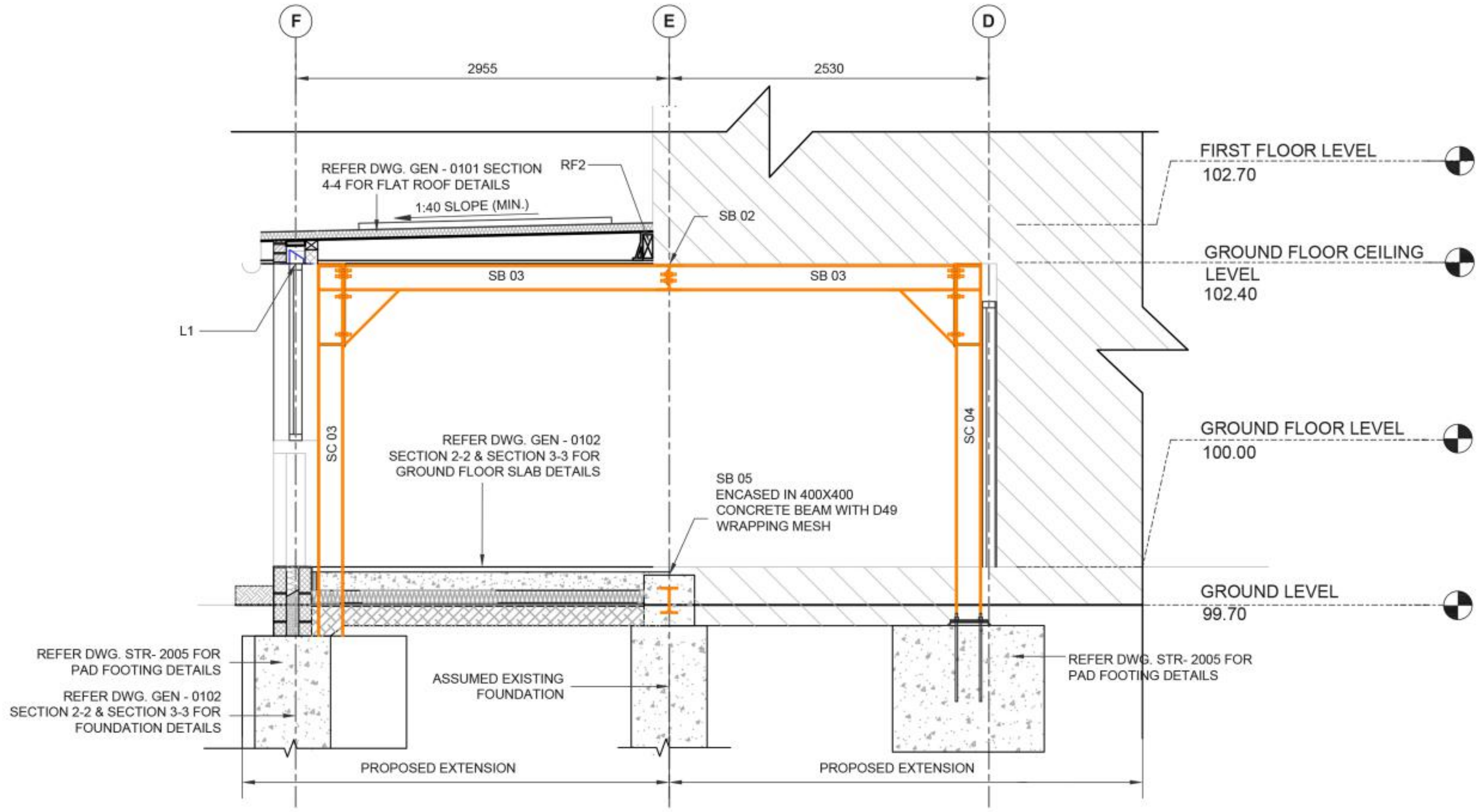
STRUCTURAL MODIFICATIONS

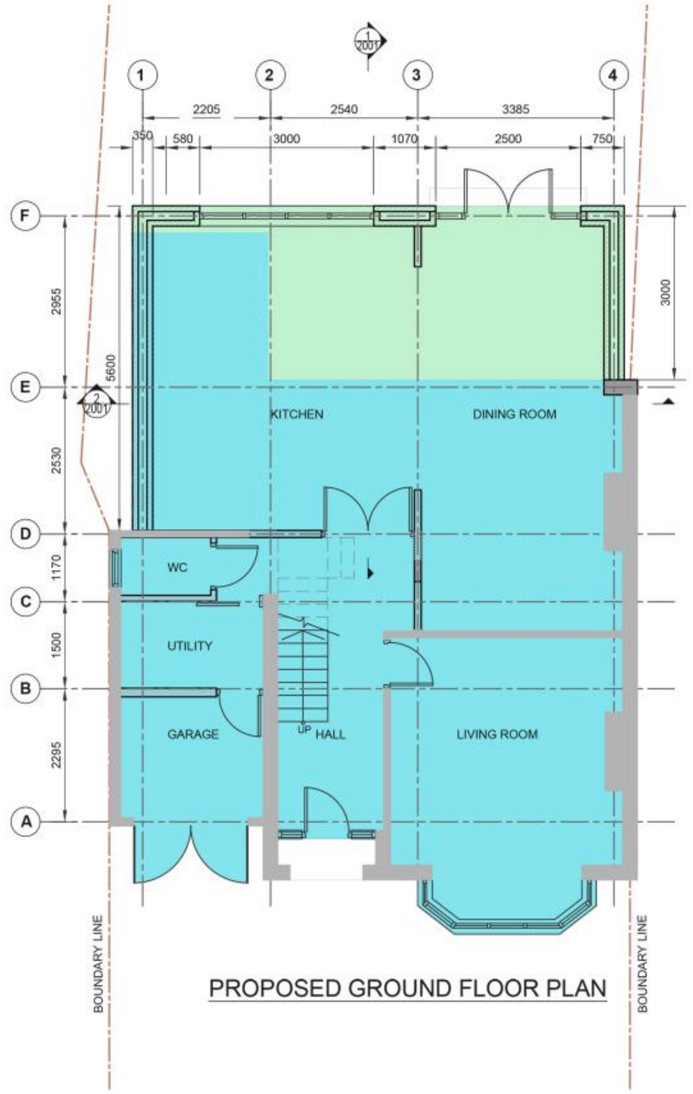
REAR EXTENSIONS

SIDE EXTENSIONS

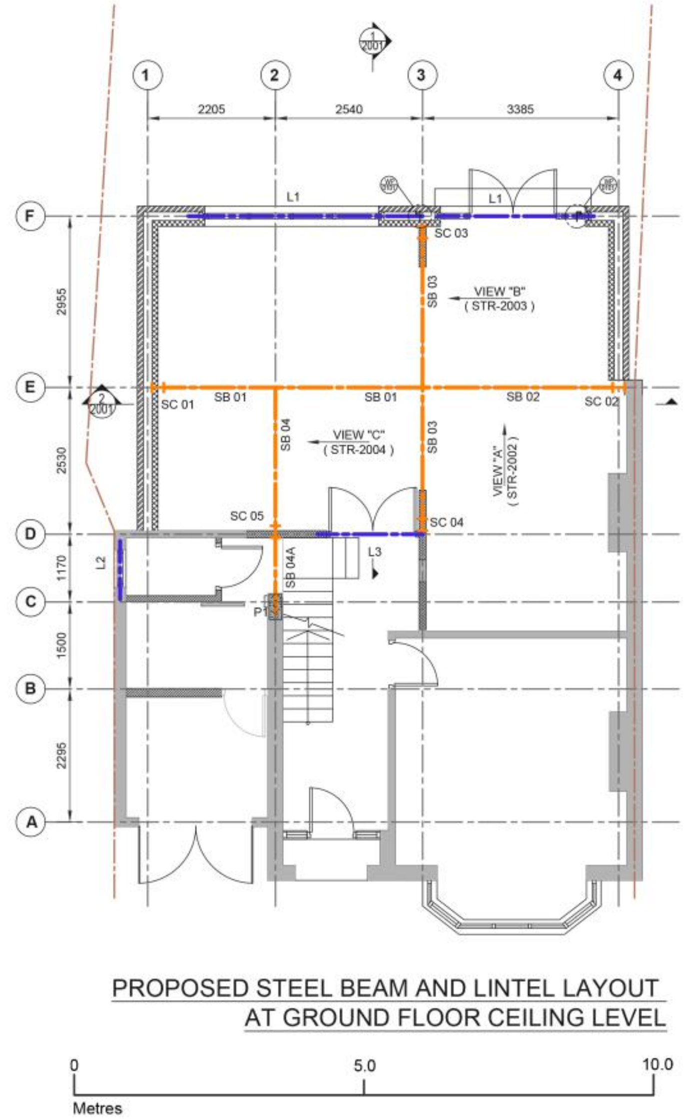
Overview of
Structural Design and Details

SECTION 1-1



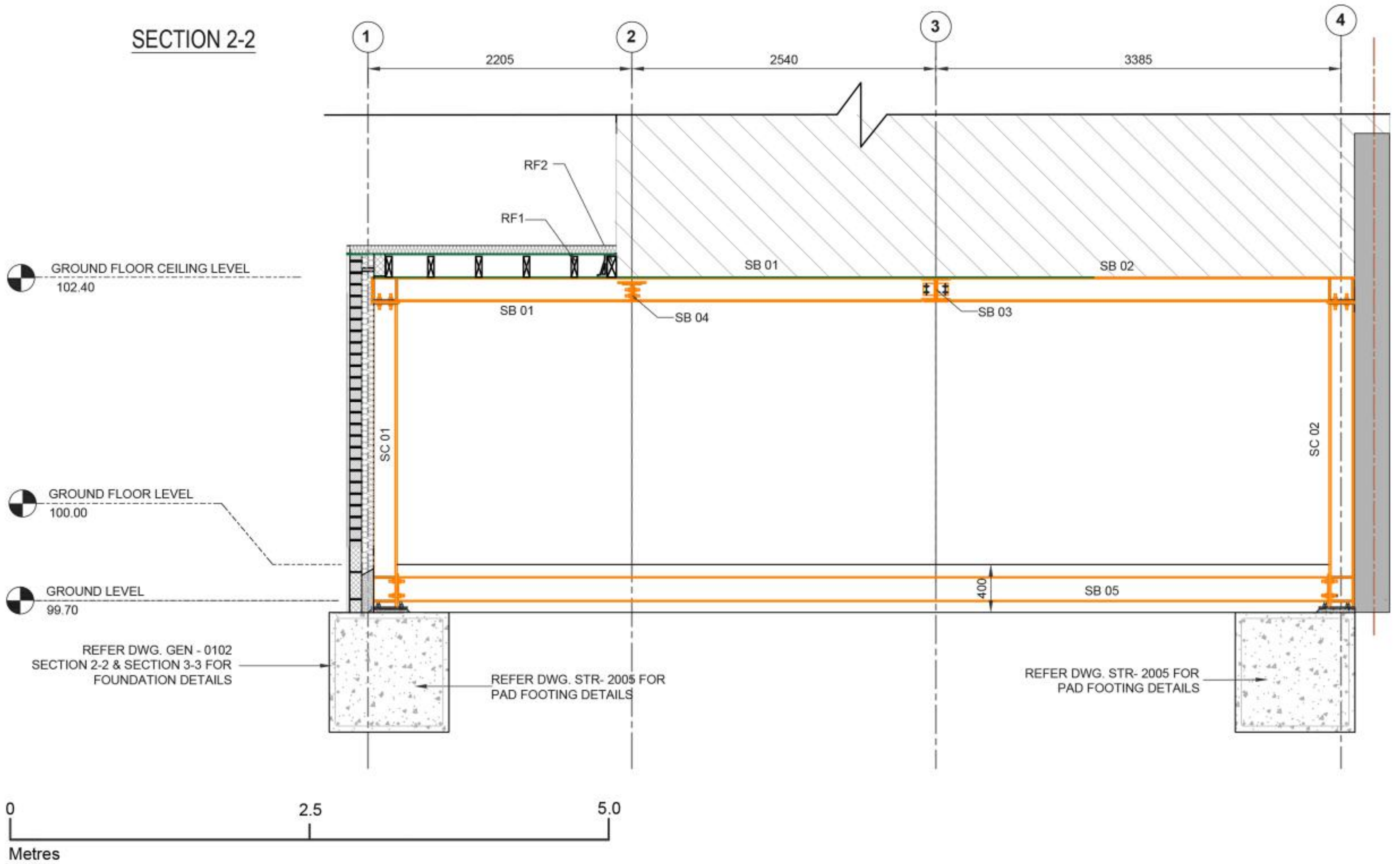


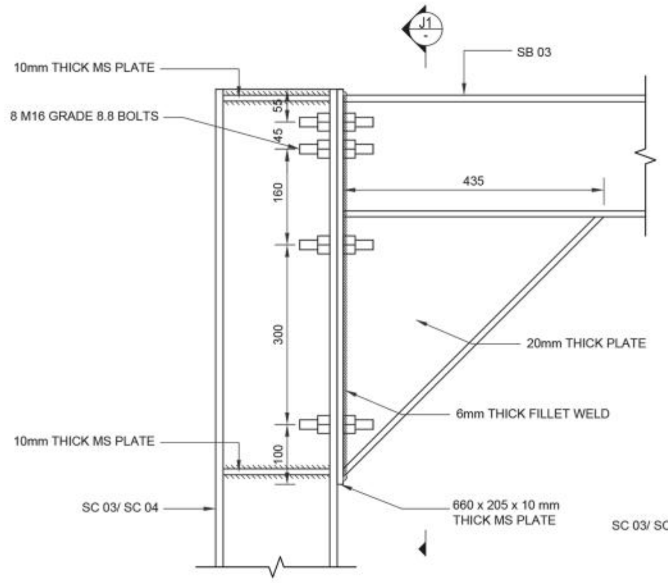
PROPOSED GROUND FLOOR PLAN



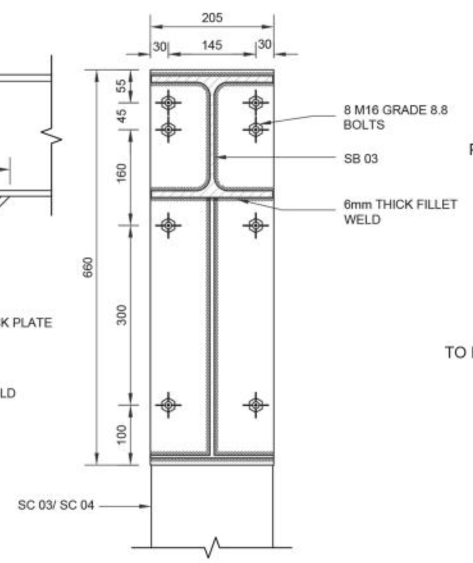
PROPOSED STEEL BEAM AND LINTEL LAYOUT AT GROUND FLOOR CEILING LEVEL

SECTION 2-2





DETAIL "J"



SECTION J1 - J1

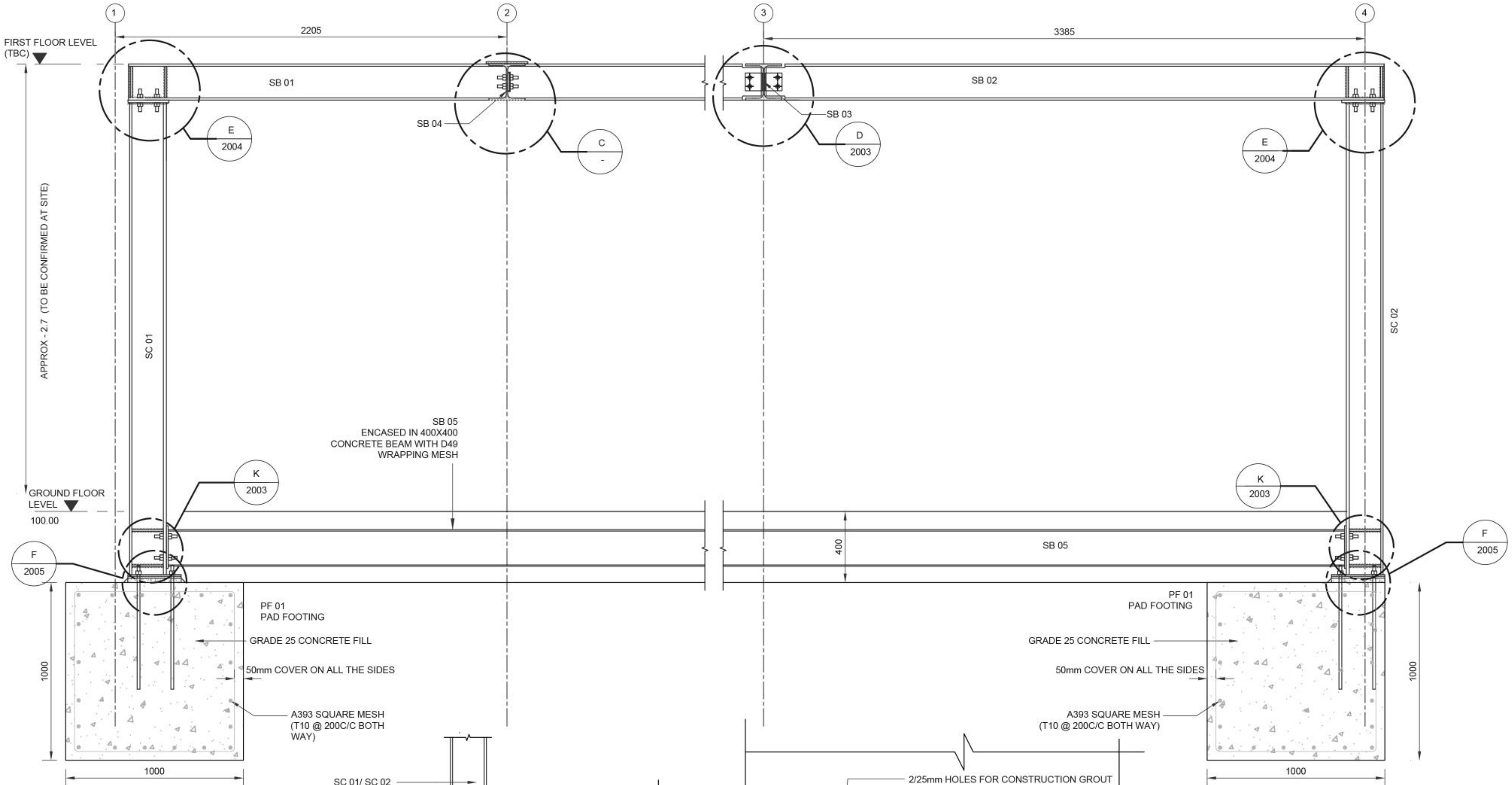
LEGEND

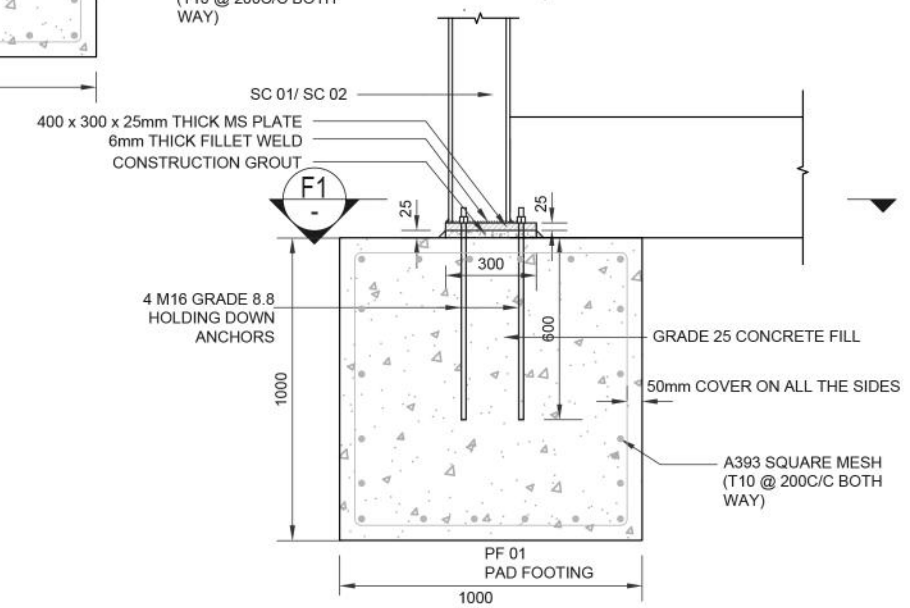
- EXISTING WALLS
- PROPOSED CAVITY WALLS
- PROPOSED INTERNAL WALLS
- EXISTING AREA
- PROPOSED AREA
- TO BE DEMOLISHED / REPLACED

Queen Mary Avenue, Morden
Rear Extension

STRUCTURAL DESIGN
LENIO
QUALITY ASSURED
ENGINEERING EXCELLENCE

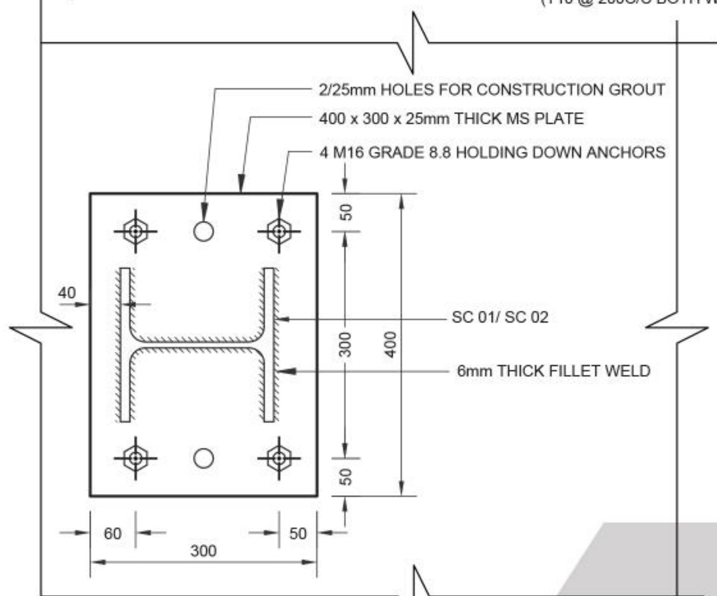
VIEW "A" (PROPOSED STEEL FRAME ONE - ELEVATION)





0 1.25 2.5
Metres

DETAIL "F"



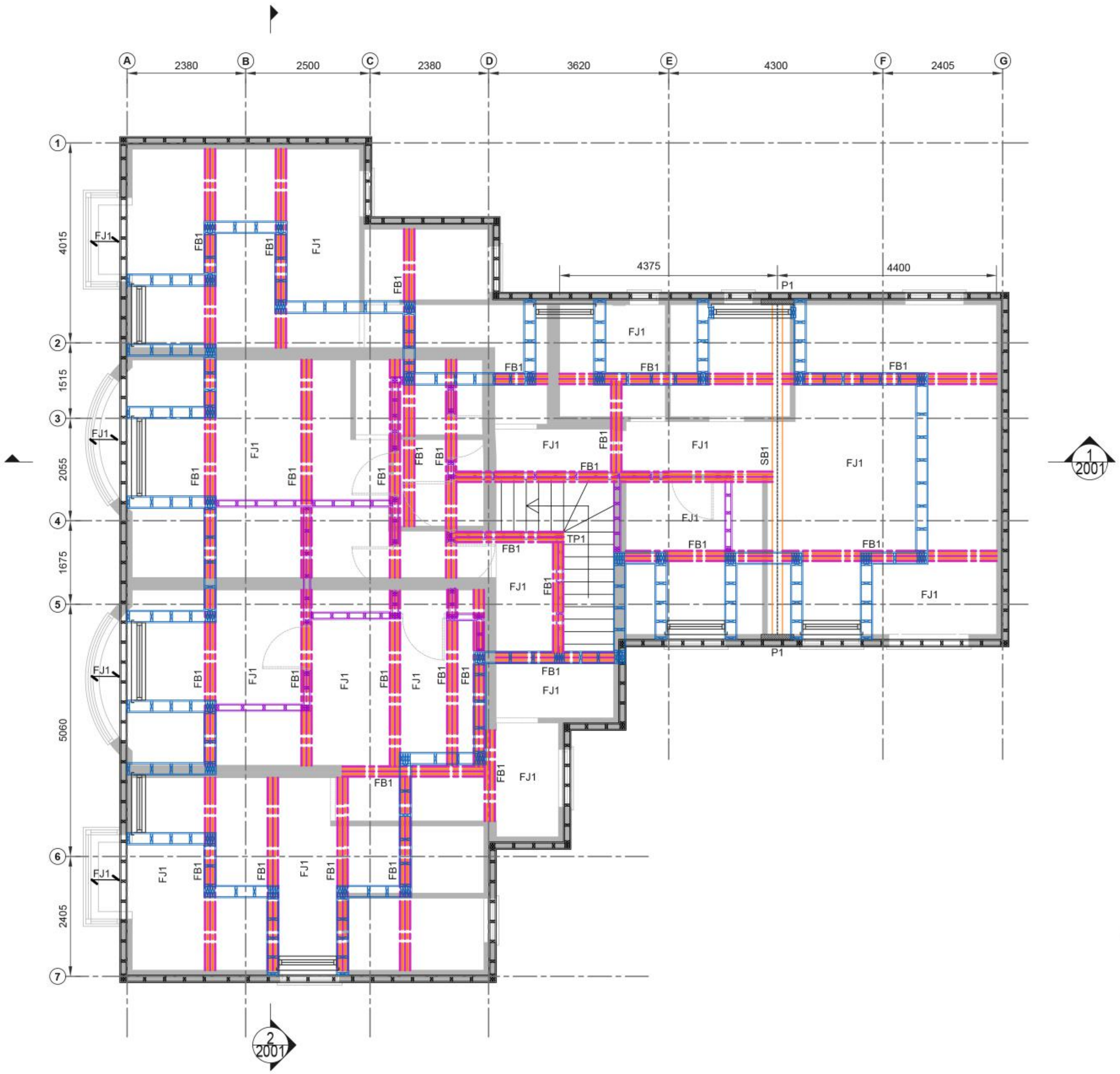
F1 -F1

NOTES

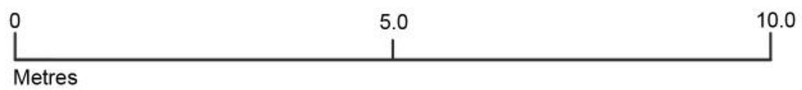
1. BUILDING INSPECTOR TO ADVICE ON DEPTH OF NEW FOUNDATIONS. TO A SUITABLE SUB-SOIL, OR TO THE INVERT OF ANY DRAINAGE. IF TREE ROOTS ARE PRESENT THEN A DEEP STRIP IN ACCORDANCE WITH THE NHBC PRACTICES SHALL BE REQUIRED. FOUNDATIONS TO GO DOWN TO AT LEAST THE INVERT LEVEL OF THE SEWER PIPE.
2. DEPTH OF FOUNDATION TO BE DETERMINED AT SITE WITH CONSULTATION OF BUILDING INSPECTOR. AS A MINIMUM, THE BASE OF THE FOOTING SHALL BE FORMED AT A MINIMUM OF 1000mm BELOW NATURAL GROUND LEVEL.
3. STEEL WORK BELOW GROUND TO BE ENCASED IN A MINIMUM OF 100mm CONCRETE WITH D49 WRAPPING MESH.
4. STEEL COLUMNS TO BE TIED WITH THE ADJACENT WALLS USING ANCON WALL TIES SHOT FIRED AT 450 C/C VERTICALLY.

Queen Mary Avenue, Morden
Rear Extension

STRUCTURAL DESIGN LENIO QUALITY ASSURED ENGINEERING EXCELLENCE

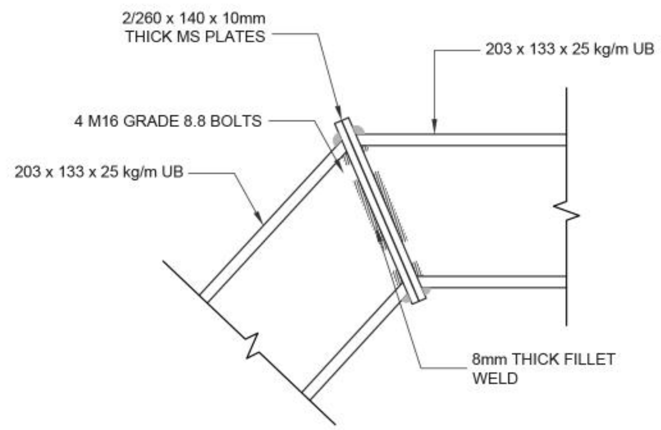


SECOND FLOOR STRUCTURE LAYOUT
(SHOWING OVER FIRST FLOOR PLAN)

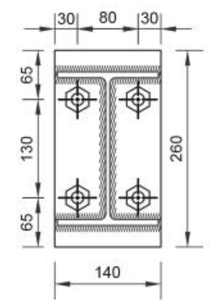


LEGEND

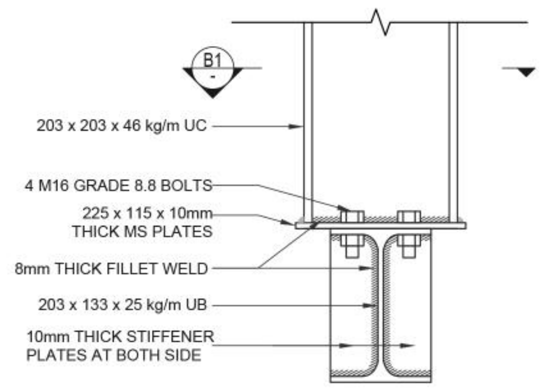
- EXISTING WALLS
- 50 x 200 C24 LOAD BEARING STUD PARTITION WALLS
- 50 x 100 C24 LOAD BEARING STUD PARTITION WALLS
- STEEL MEMBERS
- TIMBER MEMBERS
- 100 x 150 C24 TIMBER PURLIN



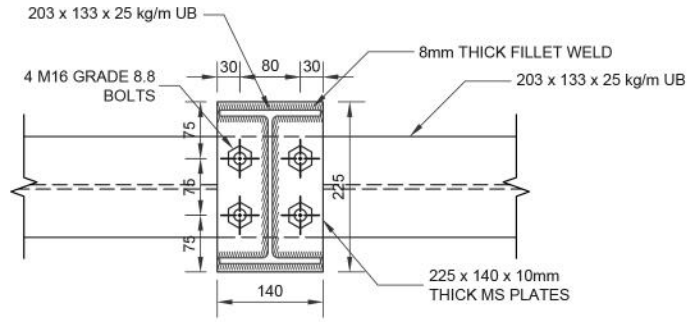
DETAIL "A"



A1 - A1

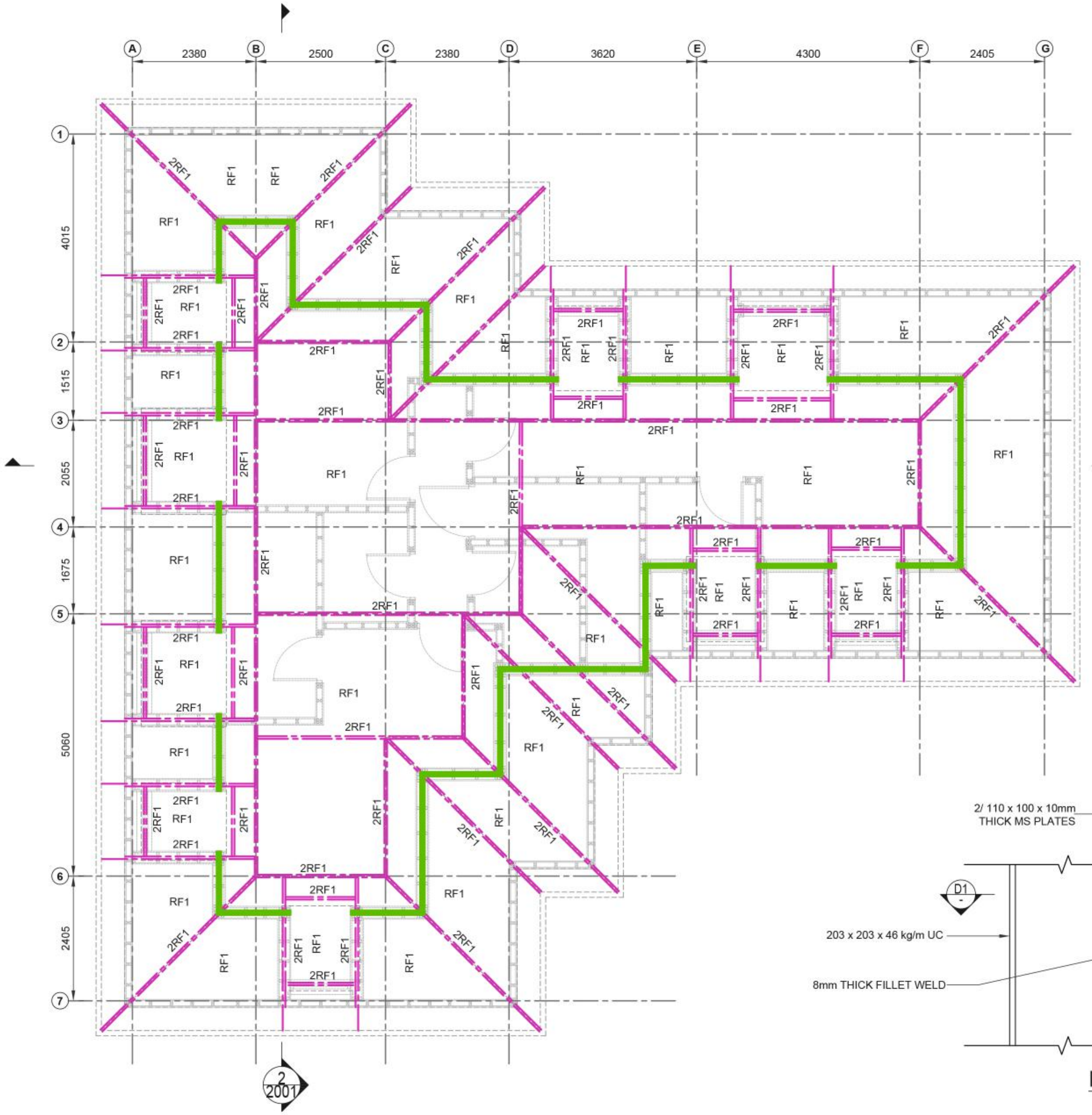


DETAIL "B"



B1 - B1

Craig House, Wilson Ave
Loft Conversion

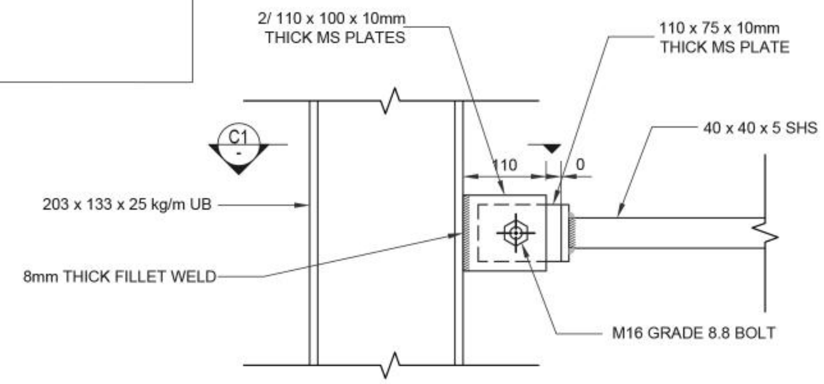


ROOF STRUCTURE LAYOUT
(SHOWING OVER SECOND FLOOR PLAN)

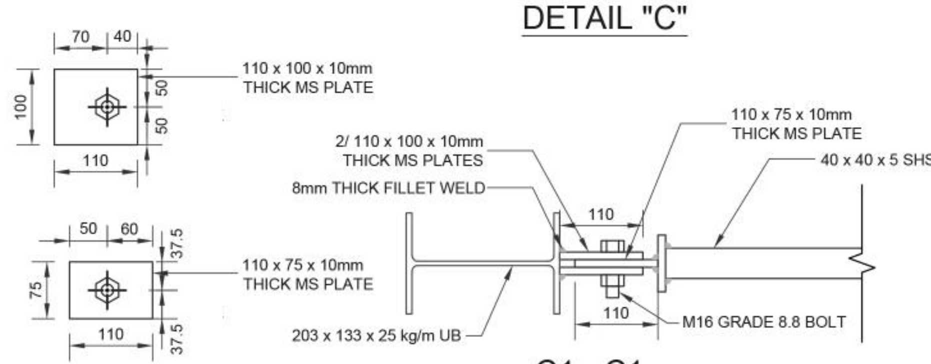
0 5.0 10.0
Metres

LEGEND

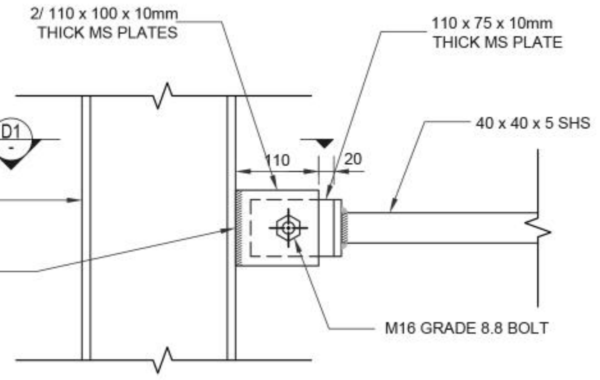
- EXISTING WALLS
- 50 x 200 C24 LOAD BEARING STUD PARTITION WALLS
- 50 x 100 C24 LOAD BEARING STUD PARTITION WALLS
- STEEL MEMBERS
- TIMBER MEMBERS
- 100 x 150 C24 TIMBER PURLIN



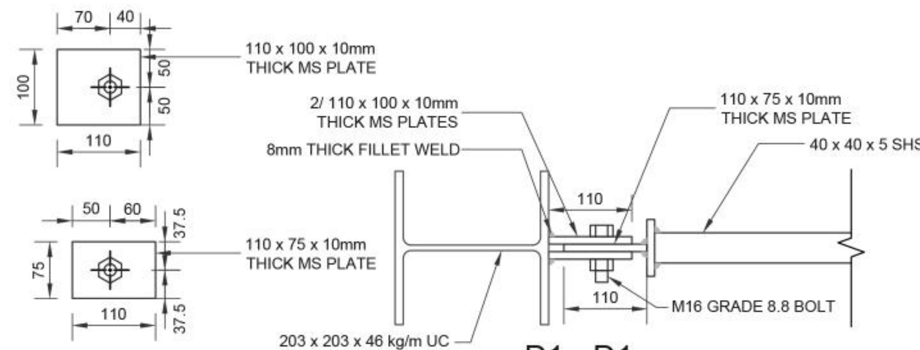
DETAIL "C"



C1 - C1



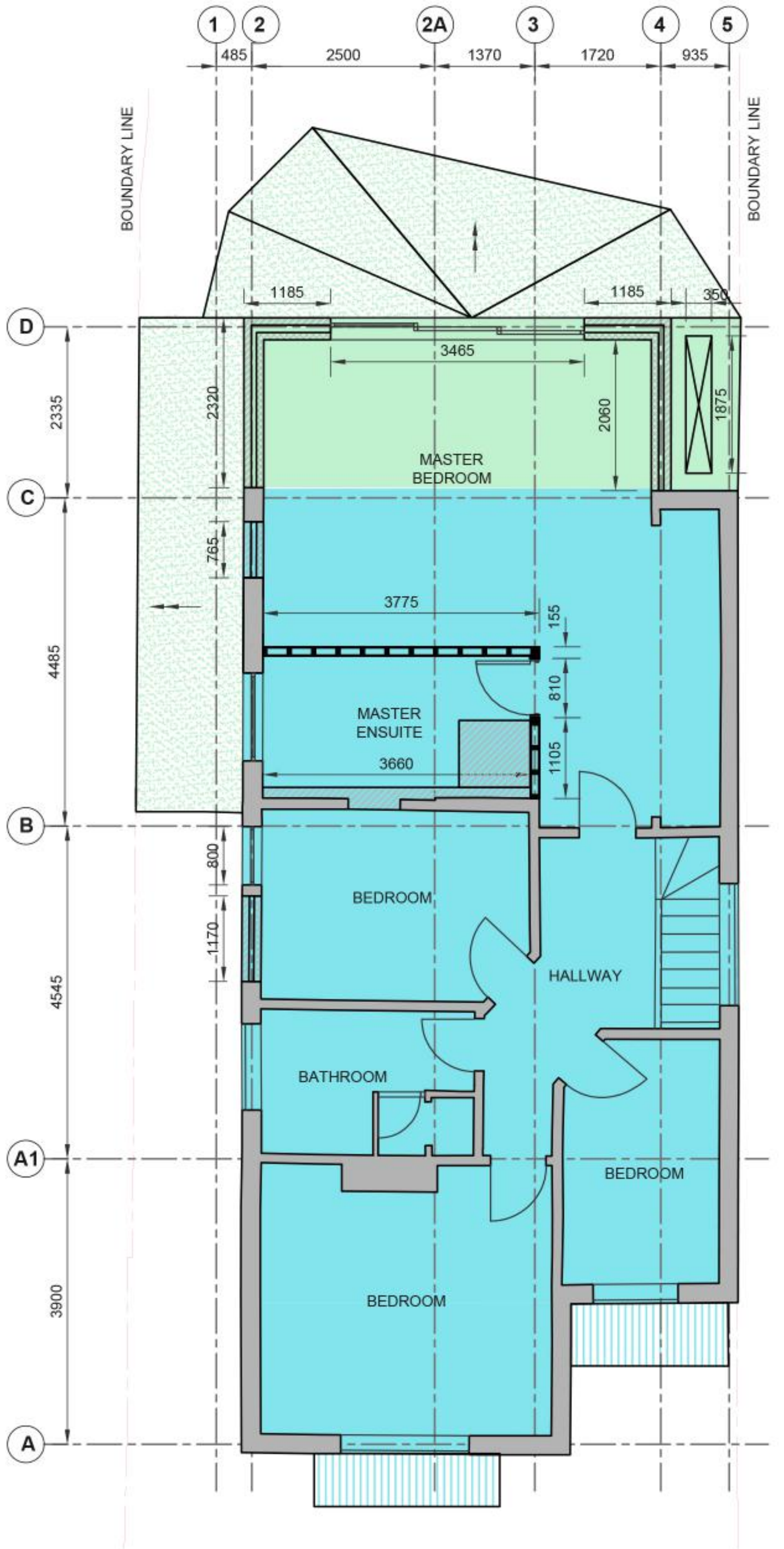
DETAIL "D"



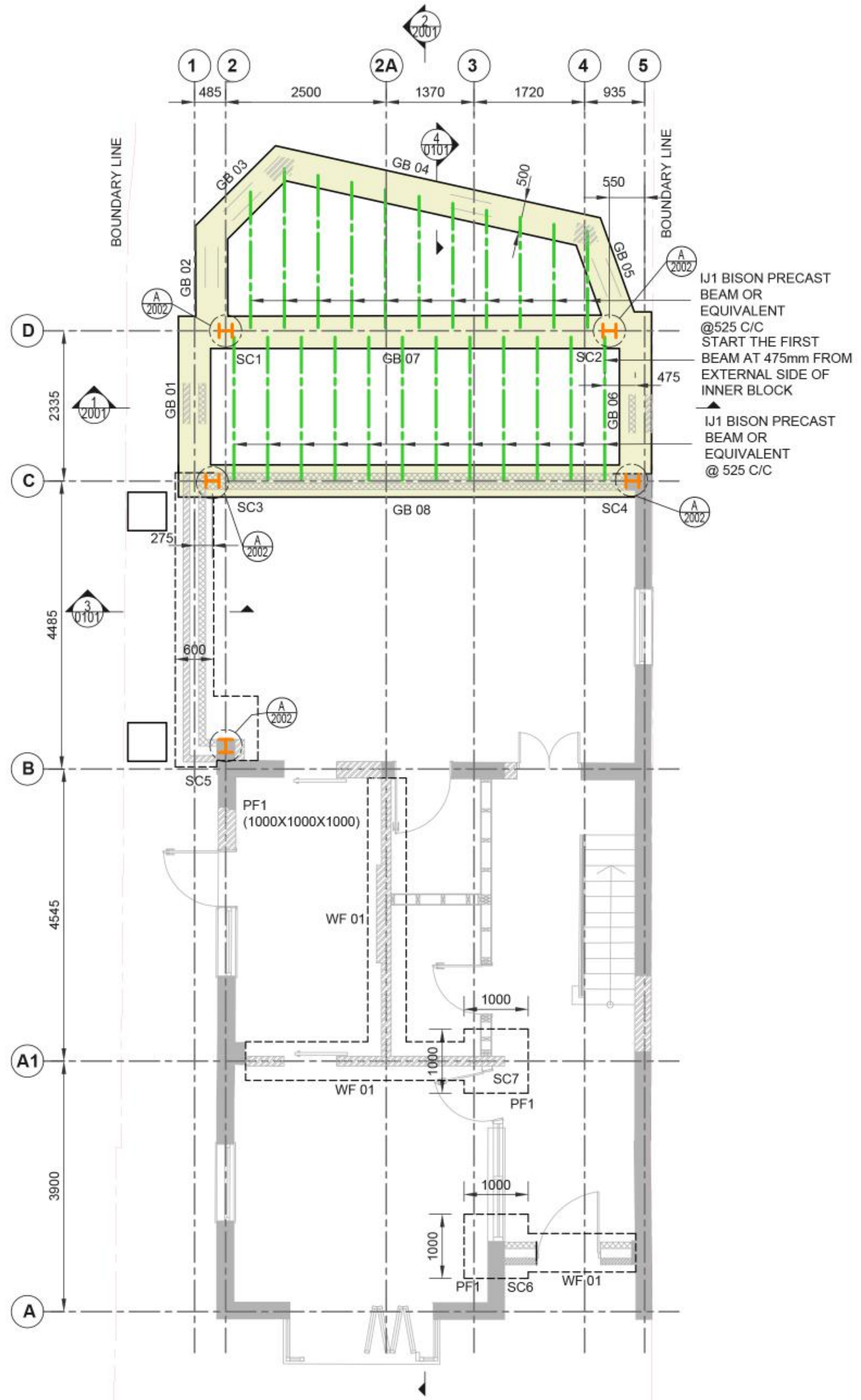
D1 - D1

Craig House, Wilson Ave
Loft Conversion

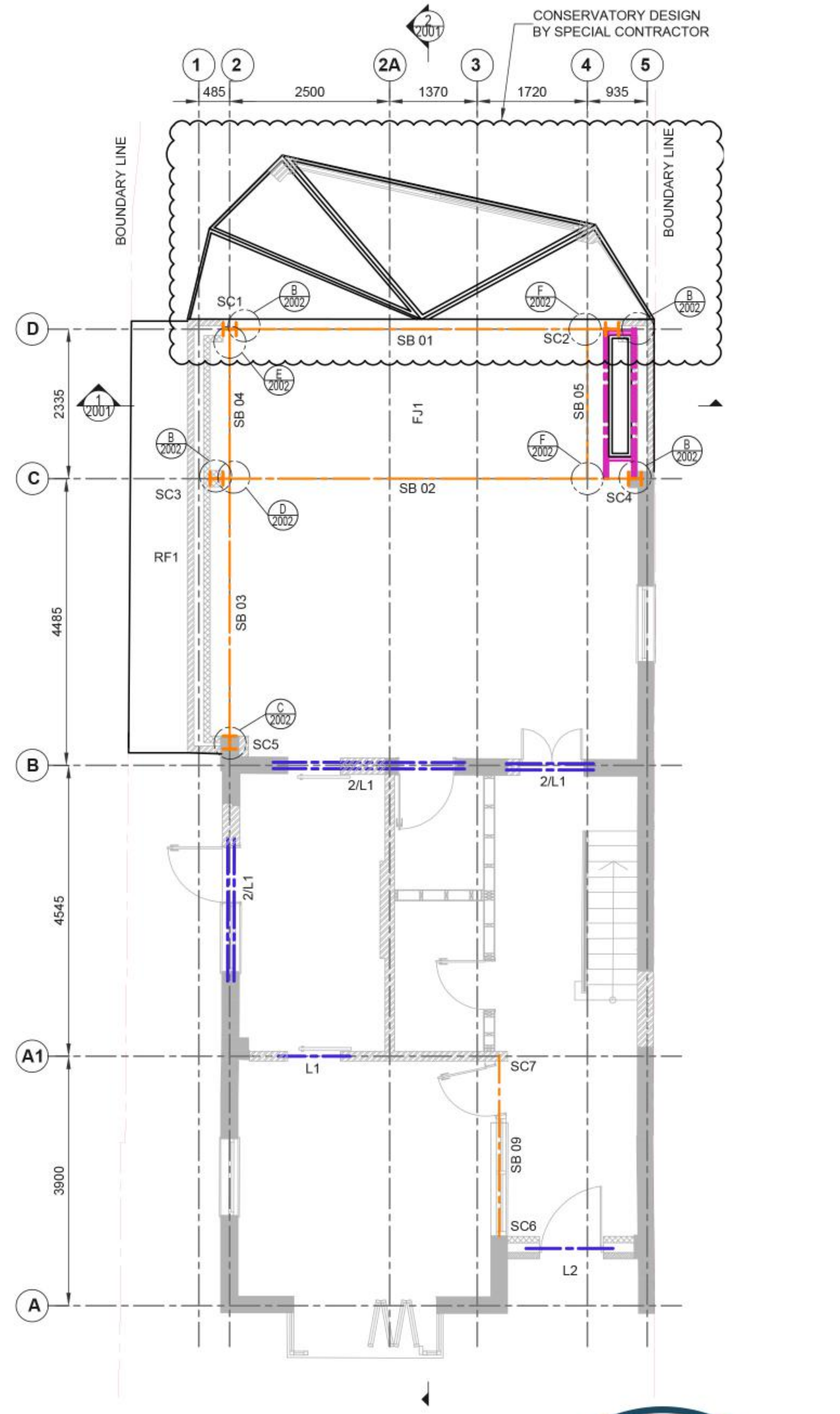
STRUCTURAL DESIGN
LENIO
QUALITY ASSURED
ENGINEERING EXCELLENCE



PROPOSED FIRST FLOOR PLAN



PROPOSED GROUND FLOOR STRUCTURE LAYOUT

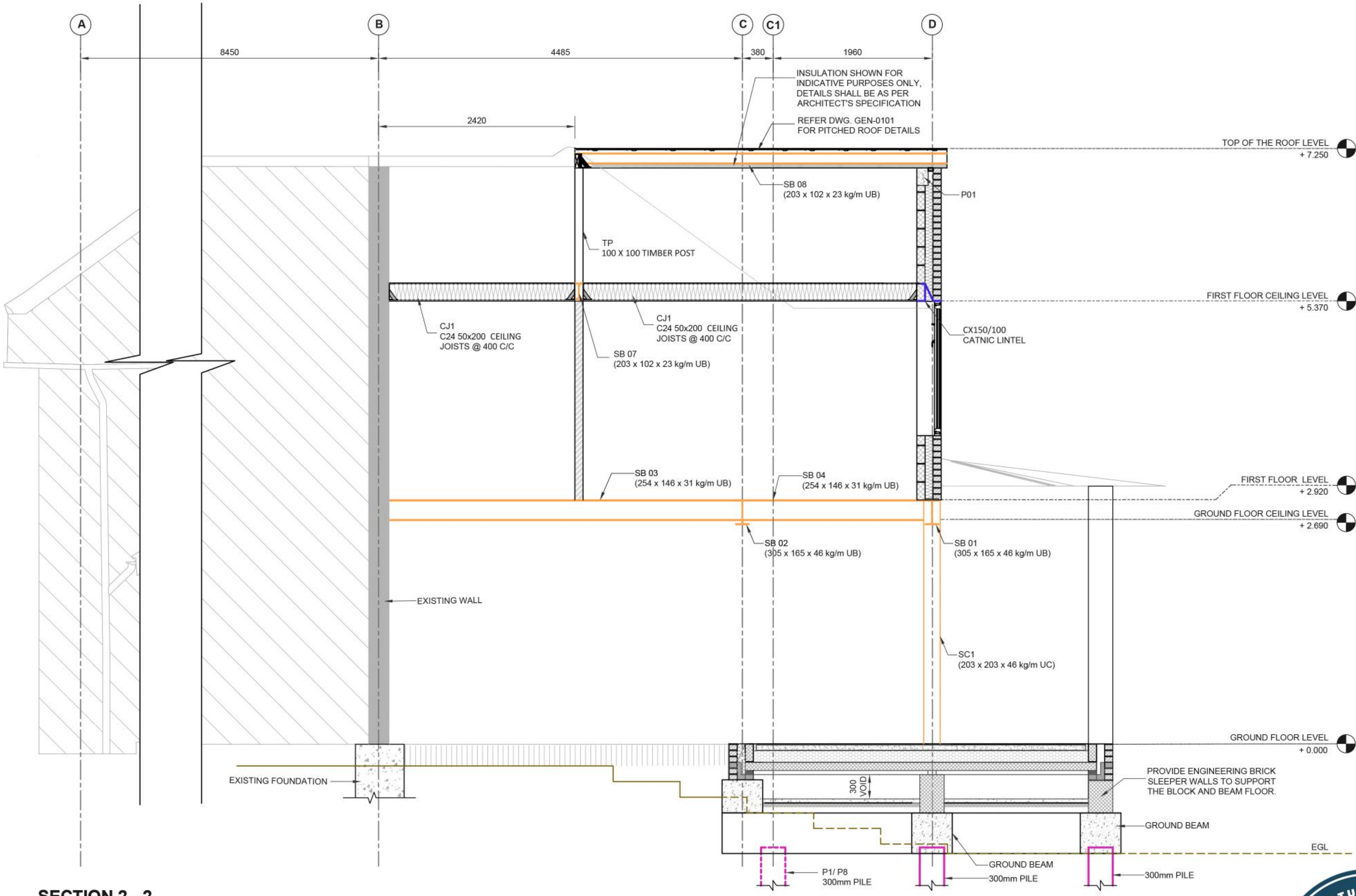


FIRST FLOOR - STRUCTURE PLAN
(GROUND FLOOR WALL LAYOUT)

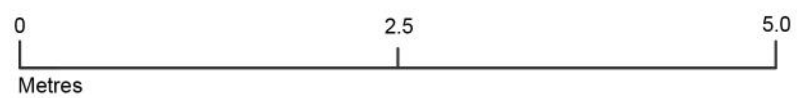
0 5.0 10.0
Metres

Queens Drive, Thames Ditton
Double storey Extension

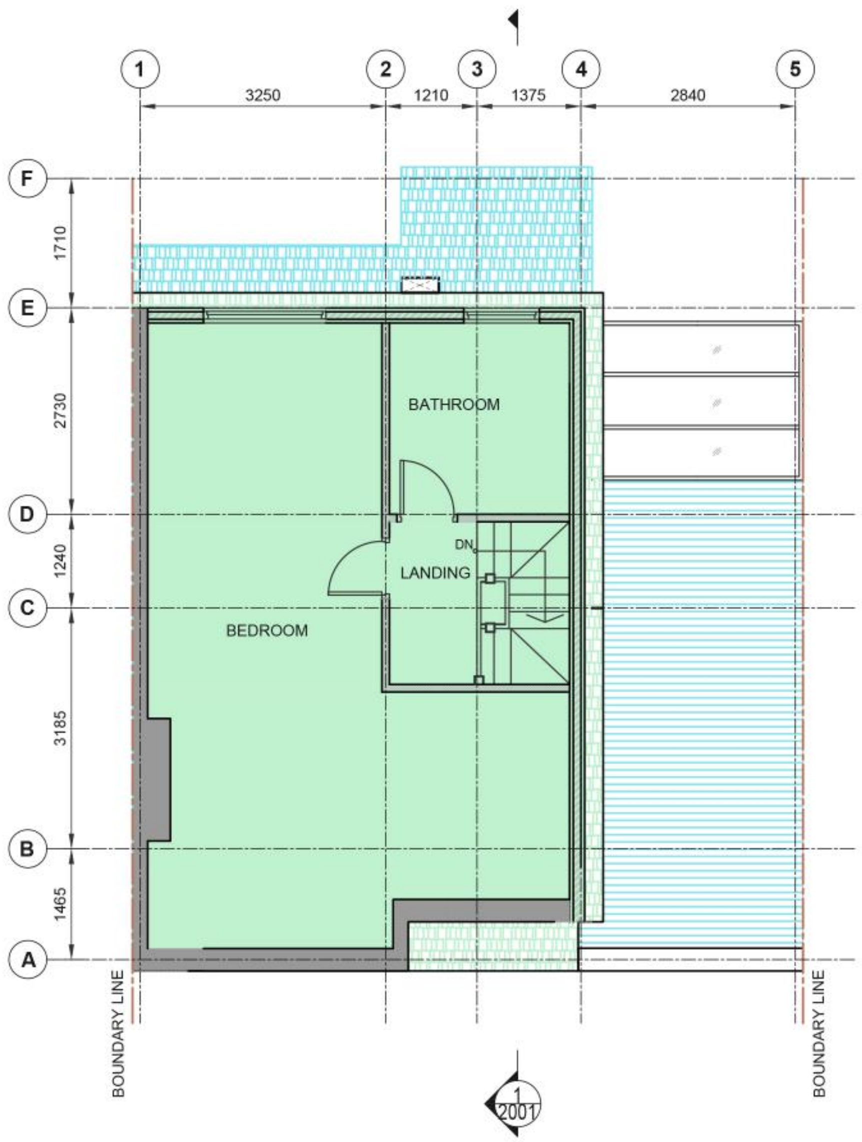
STRUCTURAL DESIGN
LENIO
QUALITY ASSURED
ENGINEERING EXCELLENCE



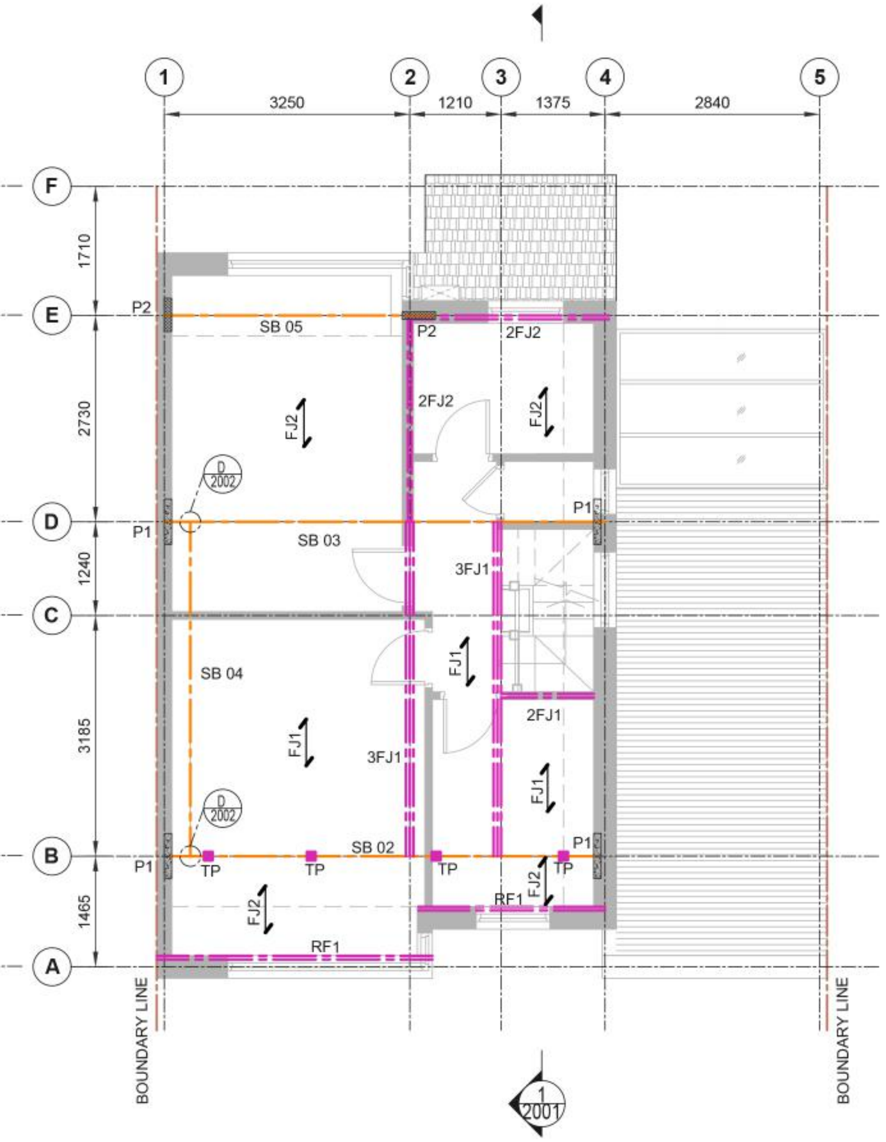
SECTION 2 - 2



Queens Drive, Thames Ditton
Double storey Extension

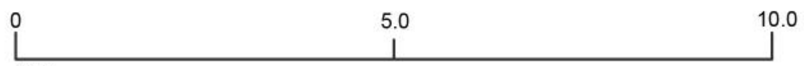


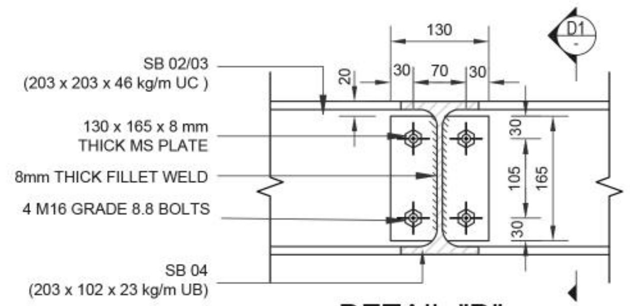
PROPOSED LOFT PLAN



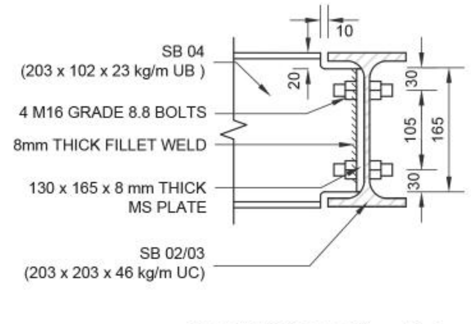
LOFT FLOOR STRUCTURE LAYOUT (SHOWING OVER FIRST FLOOR PLAN)

LEGEND	
	- EXISTING PITCHED ROOF
	- EXISTING FLAT ROOF
	- PROPOSED PITCHED ROOF
	- PROPOSED FLAT ROOF
	- TO BE DEMOLISHED / REPLACED

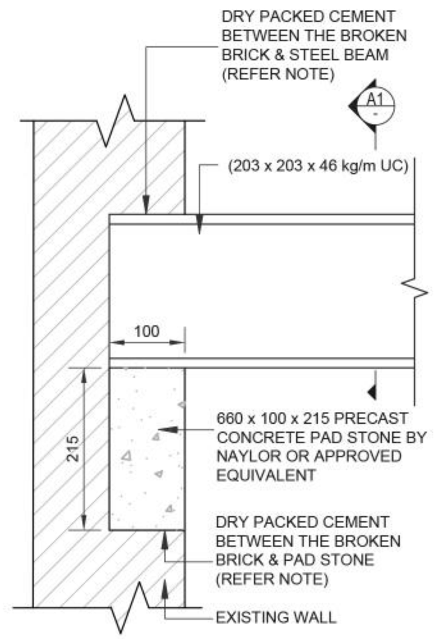




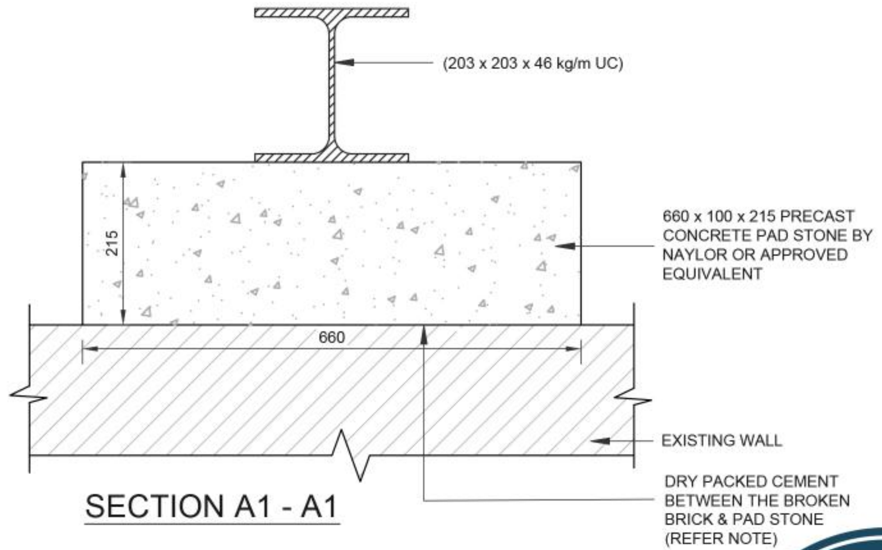
DETAIL "D"



SECTION D1 - D1



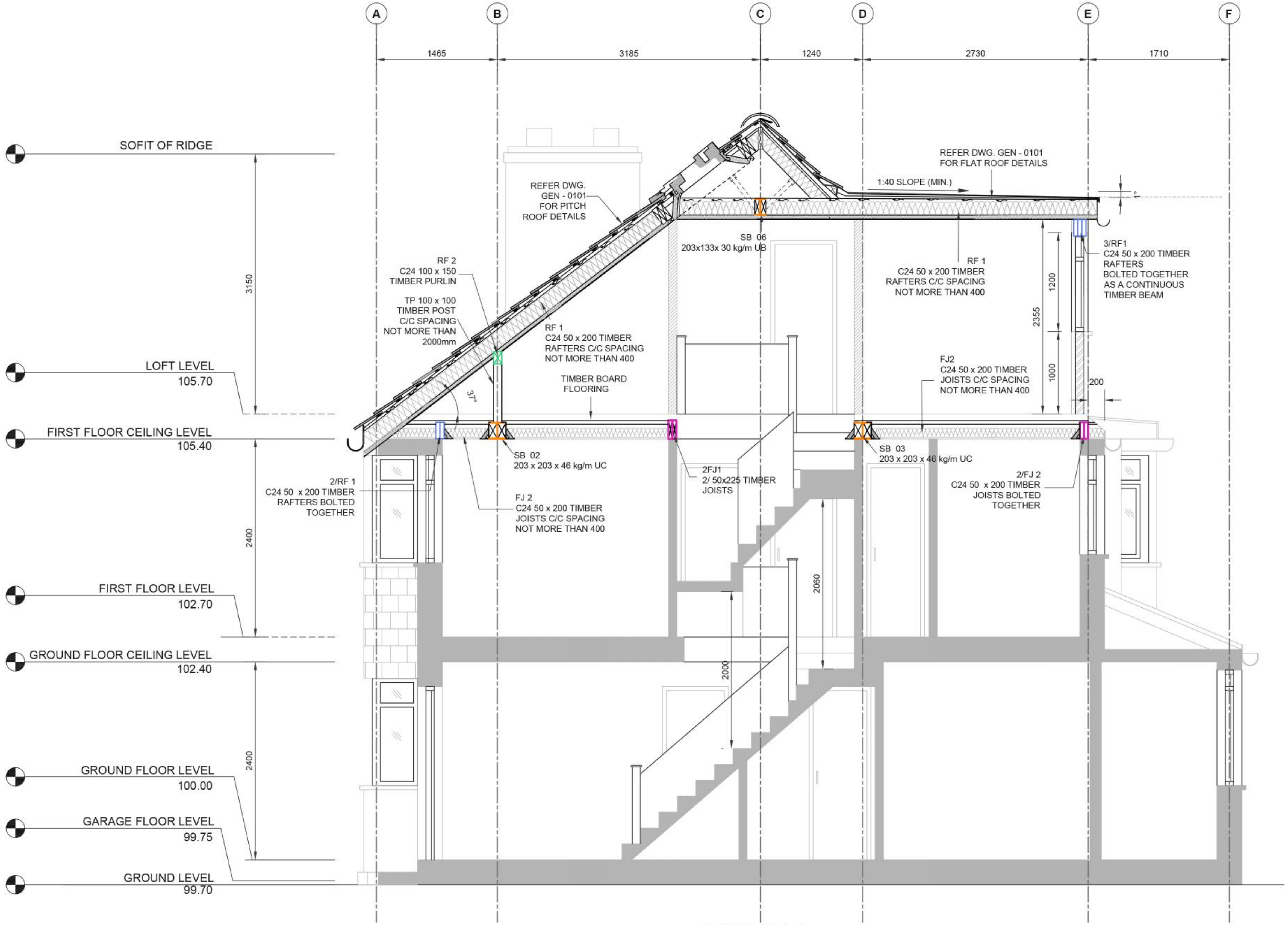
PAD STONE DETAIL - "P1"



SECTION A1 - A1

Sheephouse Way, New Malden
Loft Conversion

STRUCTURAL DESIGN · LENIO · QUALITY ASSURED · ENGINEERING EXCELLENCE

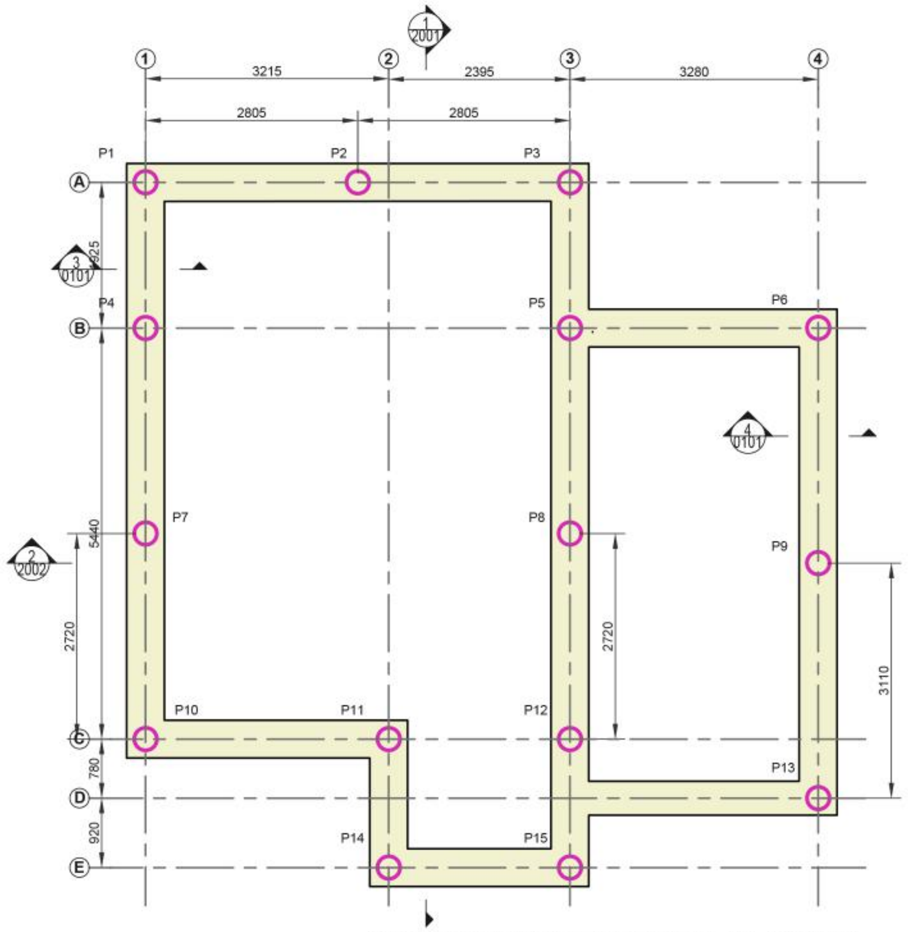


SECTION 1-1

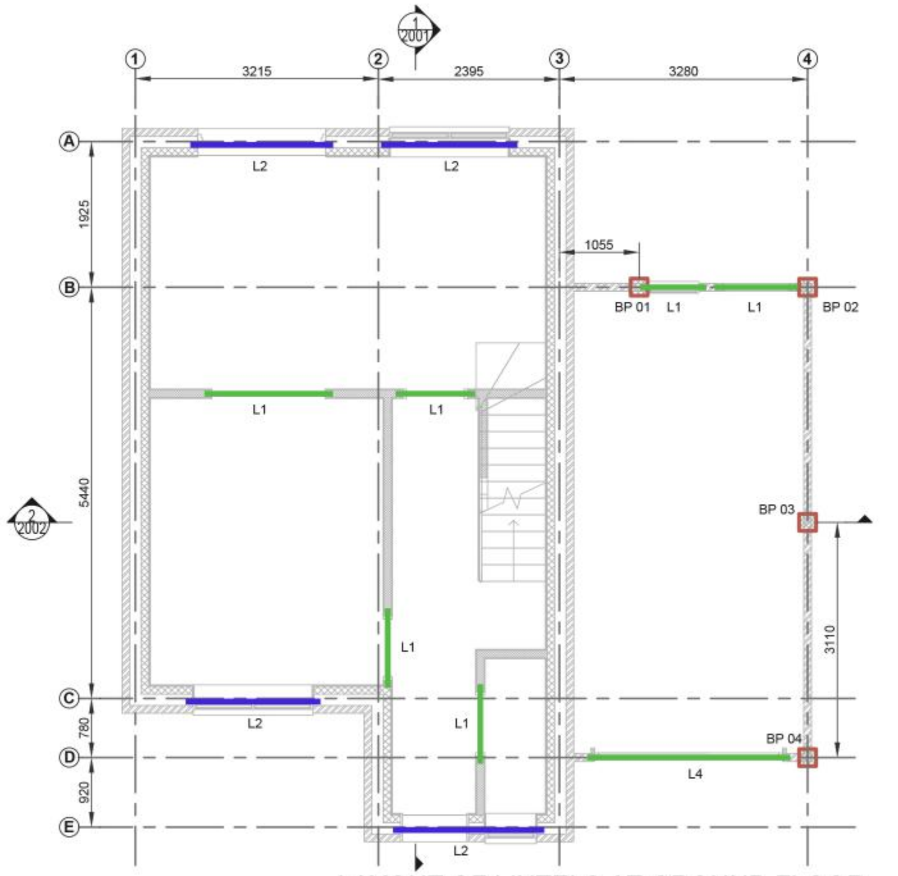
0 2.5 5.0
Metres

STRUCTURAL DESIGN LENIO QUALITY ASSURED ENGINEERING EXCELLENCE

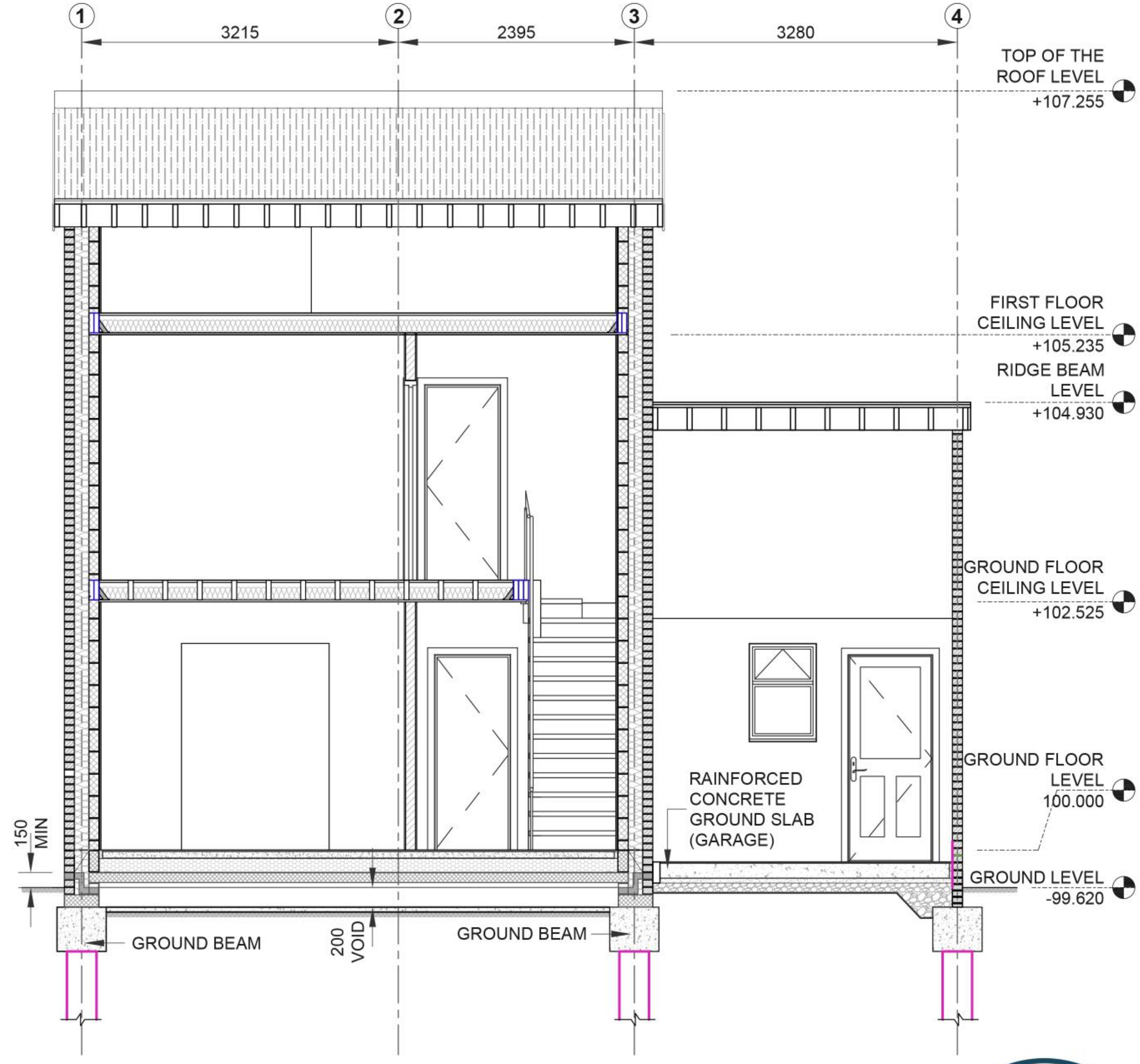
Sheephouse Way, New Malden
Loft Conversion



PROPOSED SCHEMATIC PILE LAYOUT



LAYOUT OF LINTELS AT GROUND FLOOR

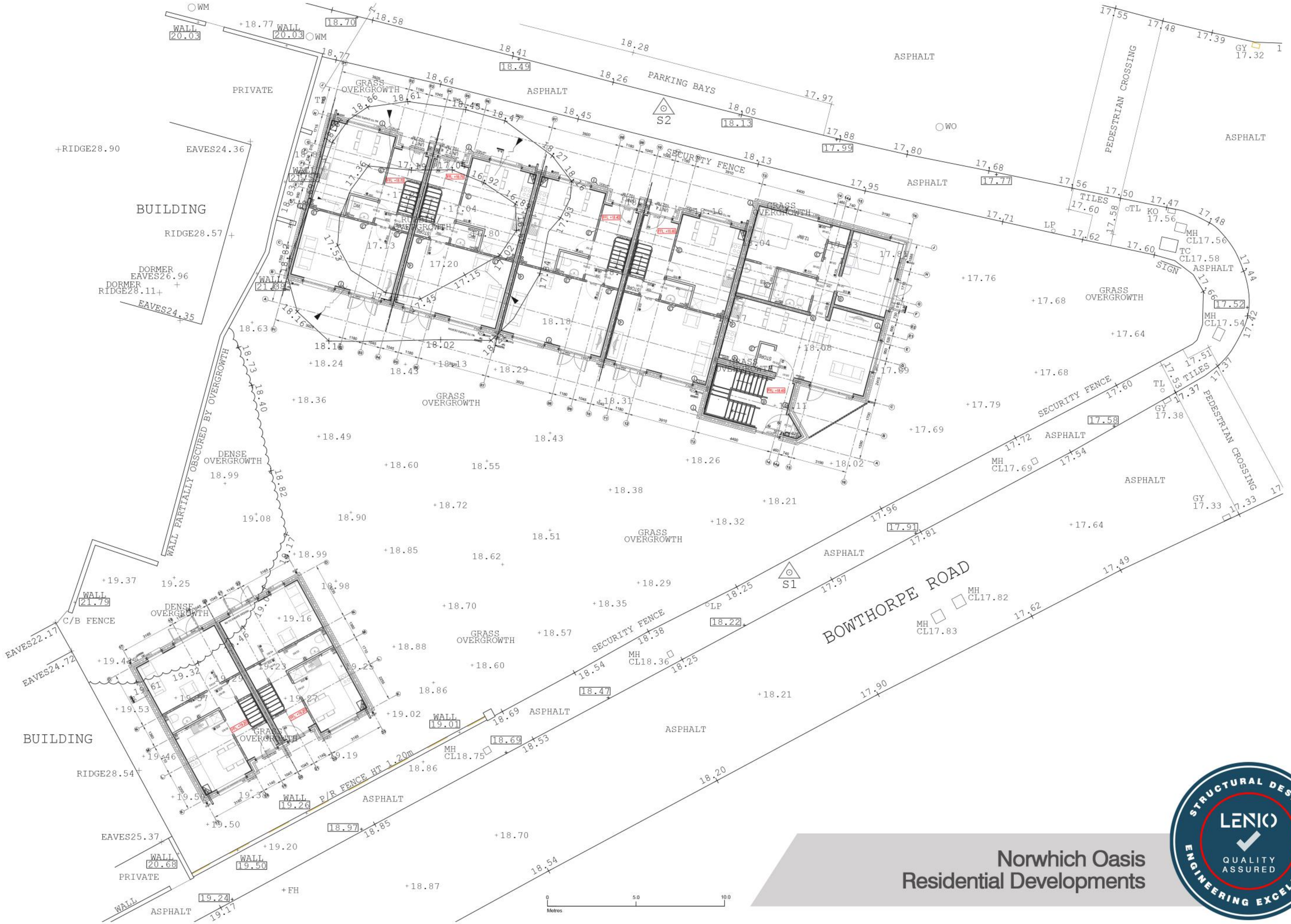


SECTION 2 - 2

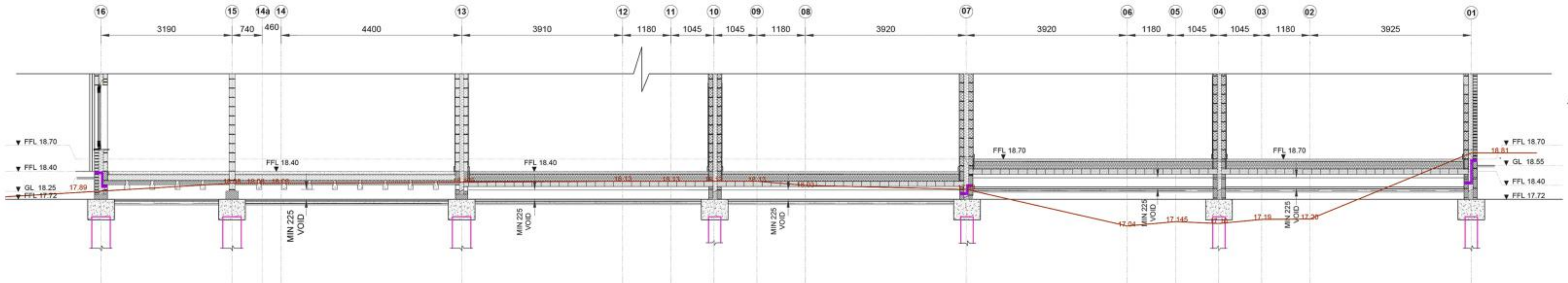
0 2.5 5.0
Metres

STRUCTURAL DESIGN
LENIO
QUALITY ASSURED
ENGINEERING EXCELLENCE

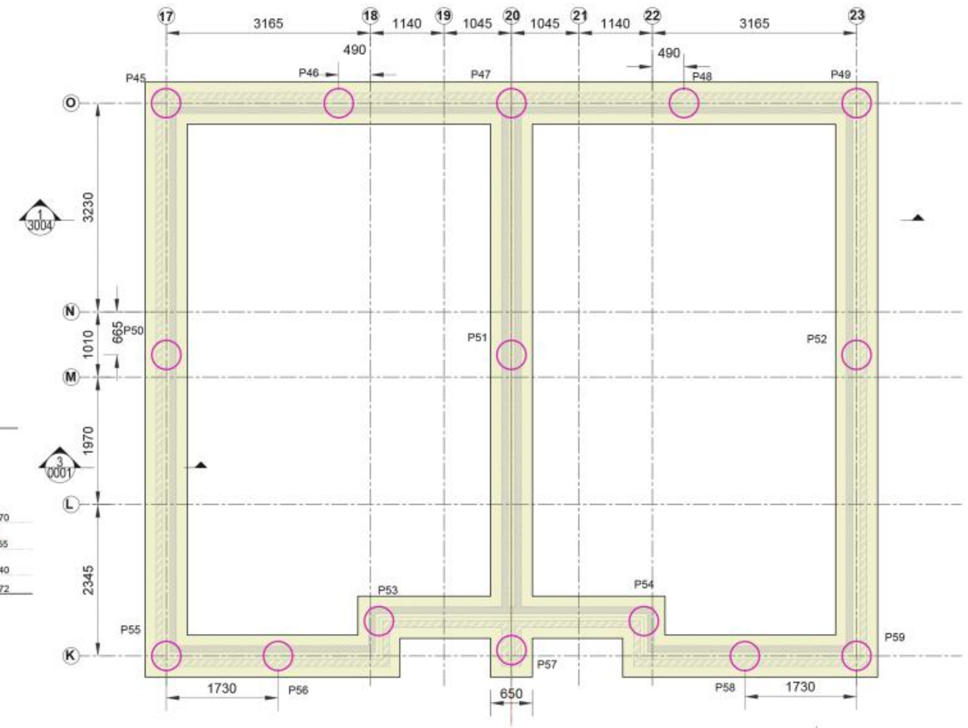
Quarry Way, Southwater
Pile & Ground Floor Lintel Layout



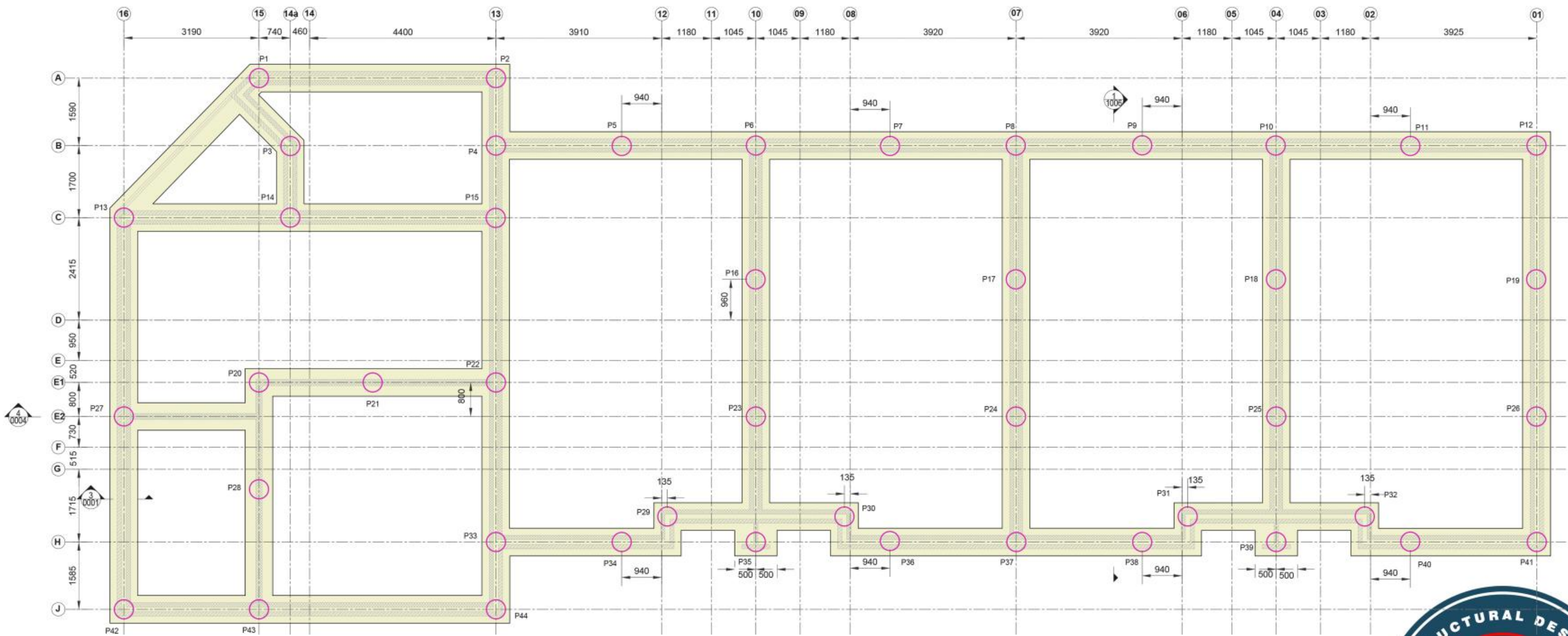
Norwhich Oasis
Residential Developments

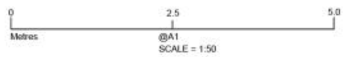


SECTION 4 - 4 - VARIATION OF FLOOR LEVEL AND EXISTING GROUND LEVEL ACCROSS PLOT 1 - 7



PROPOSED SCHEMATIC PILE LAYOUT
(FOUNDATION FOR PLOT 8 TO 9)



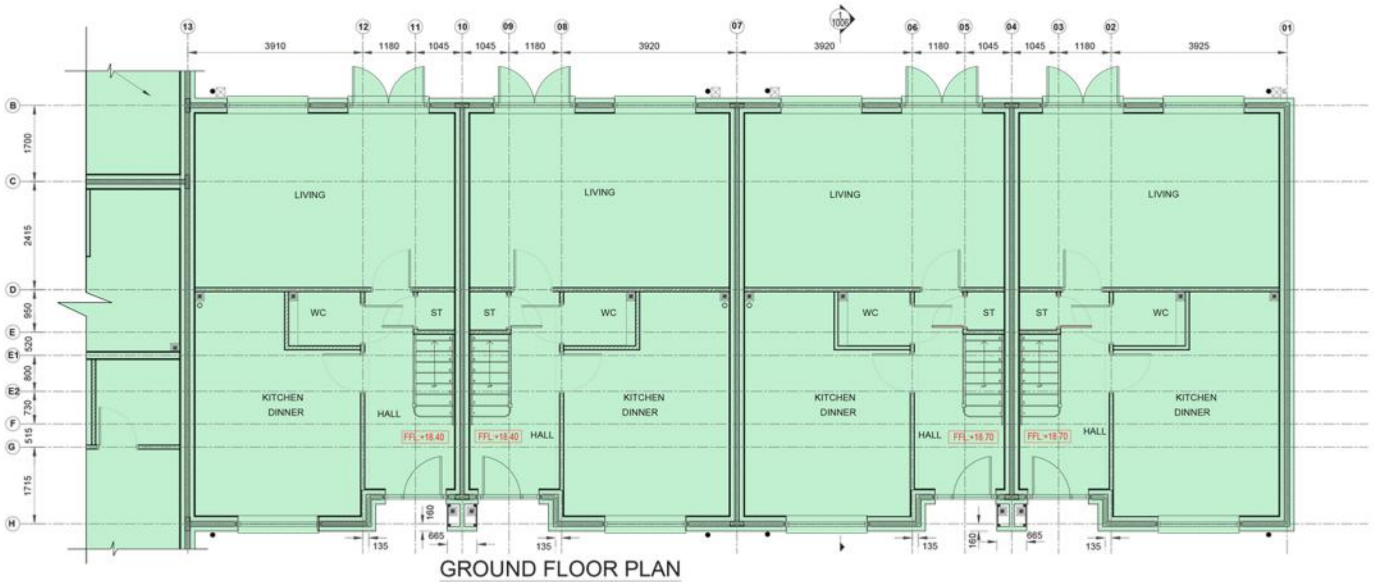


PROPOSED SCHEMATIC PILE LAYOUT
(FOUNDATION FOR PLOT 1 TO 7)

LEGEND

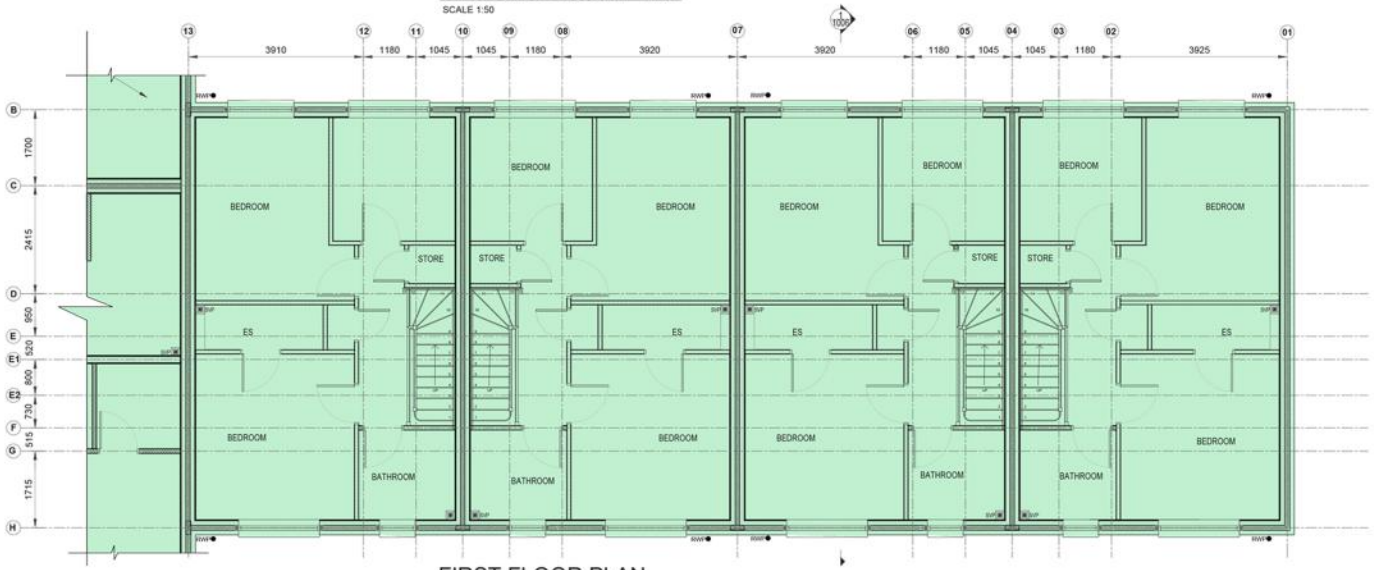
- 650 mm WIDE 500 mm DEEP GROUND BEAMS
- 450mm DIA. PILES

Norwhich Oasis
Residential Developments

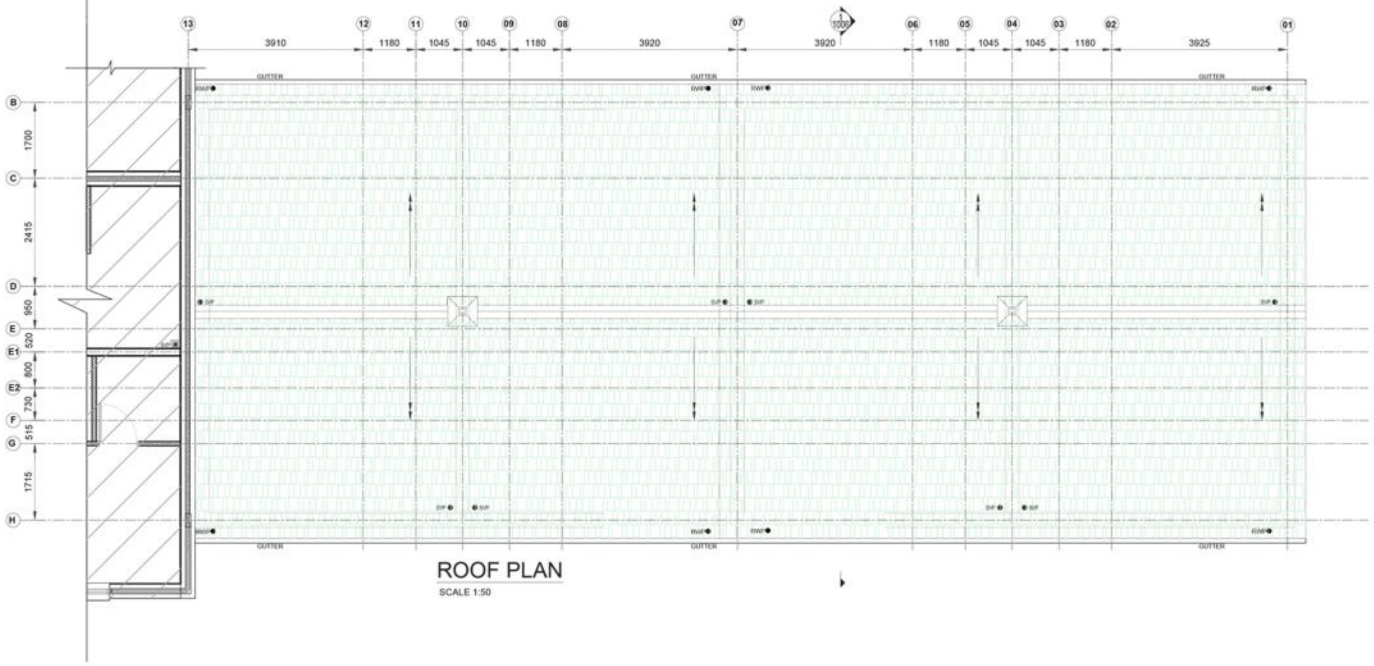


GROUND FLOOR PLAN
SCALE 1:50

LEGEND
- CAVITY WALLS
- NON LOAD BEARING TIMBER STUD PARTITION WALLS
- FLOOR AREA
- G
- RWP

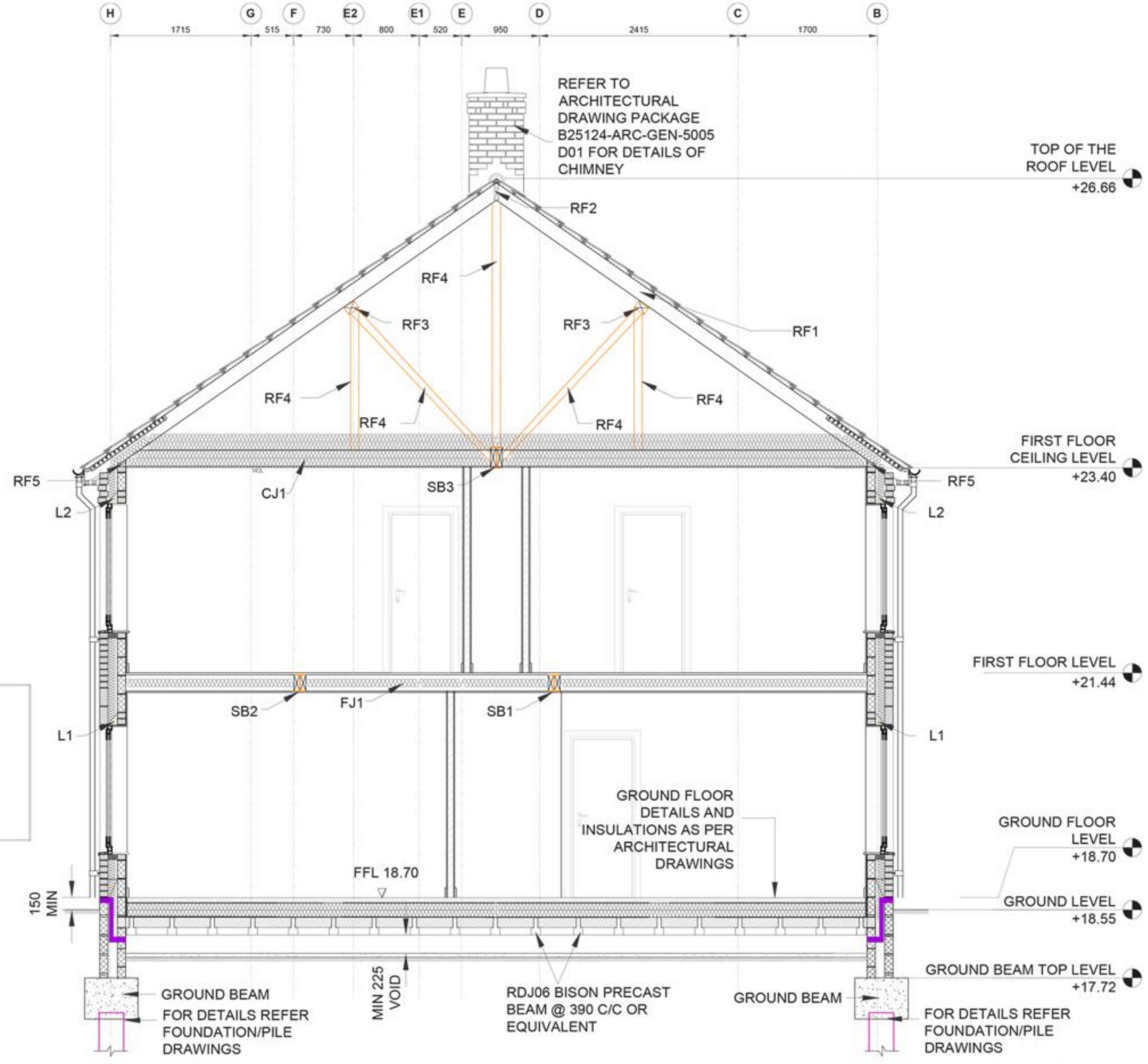


FIRST FLOOR PLAN
SCALE 1:50



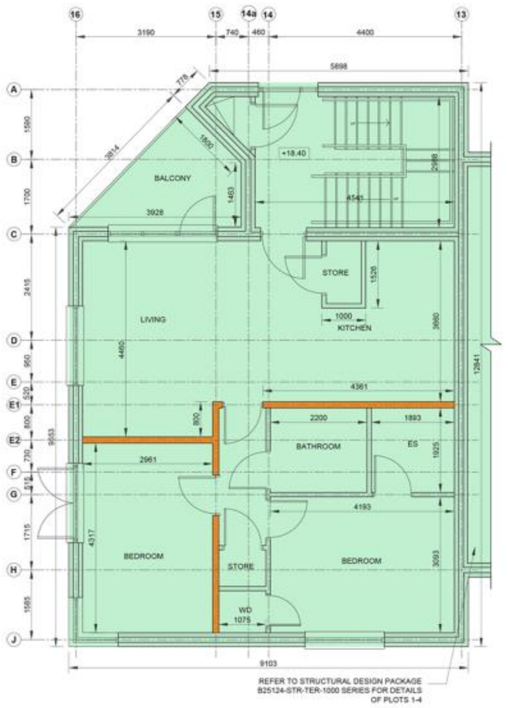
ROOF PLAN
SCALE 1:50

LEGEND
- WALLS BELOW
- PITCH ROOF

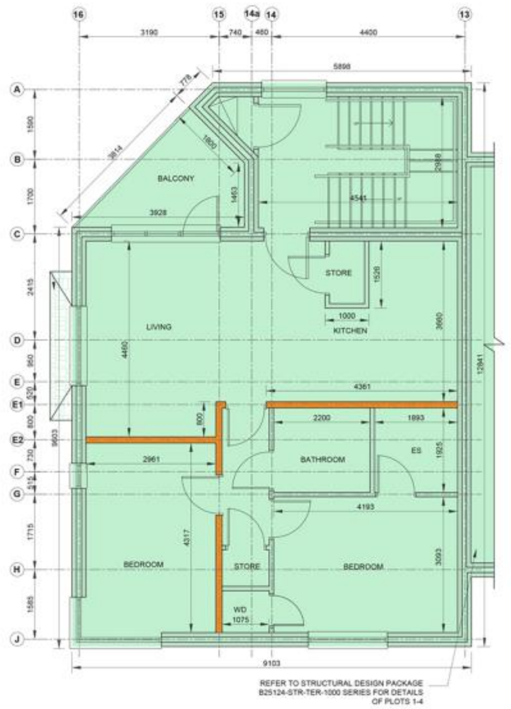


SECTION 1 - 1
SCALE 1:25

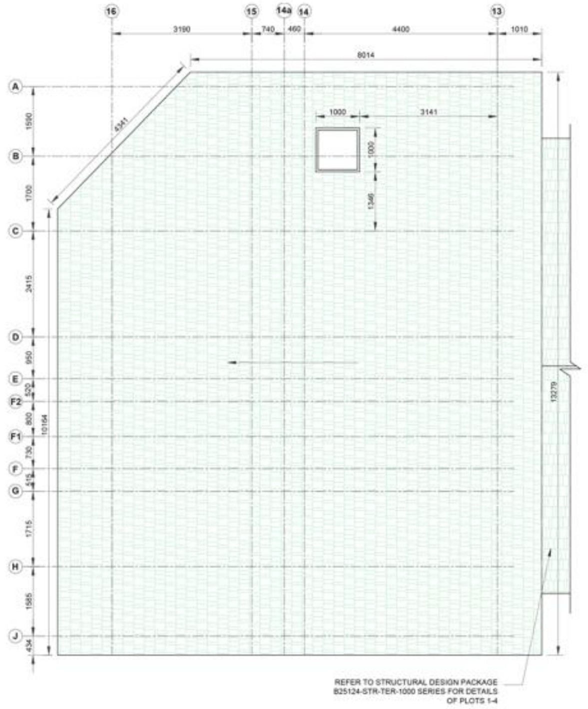
Norwhich Oasis Residential Development



GROUND FLOOR PLAN



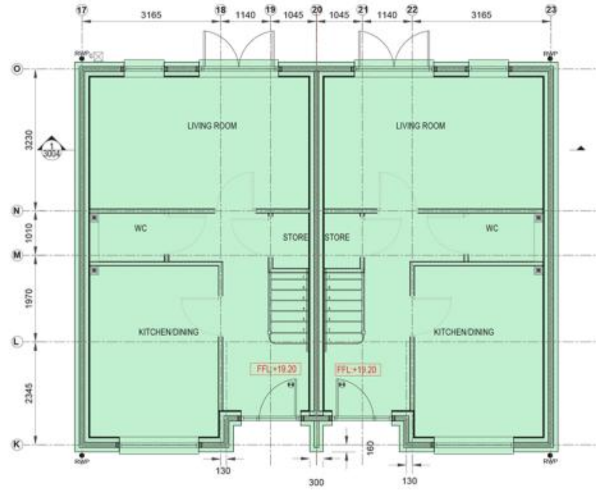
FIRST FLOOR PLAN
SECOND FLOOR SIMILAR



ROOF PLAN

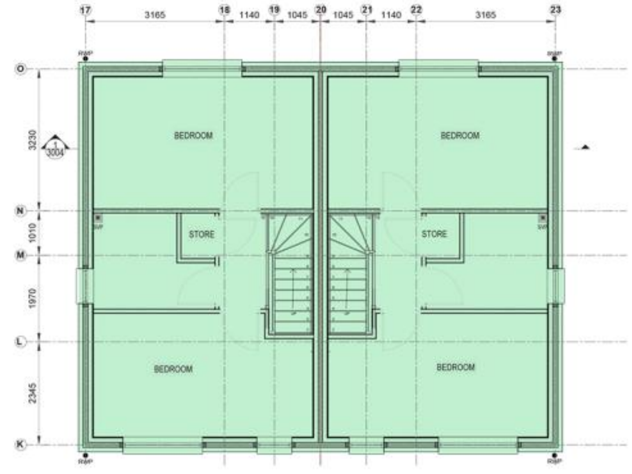
LEGEND

- CAVITY WALLS
- NON LOAD BEARING TIMBER STUD PARTITION WALLS
- 140mm BLOCK WALL
- FLOOR AREA
- PITCH ROOF



GROUND FLOOR PLAN

SCALE 1:50

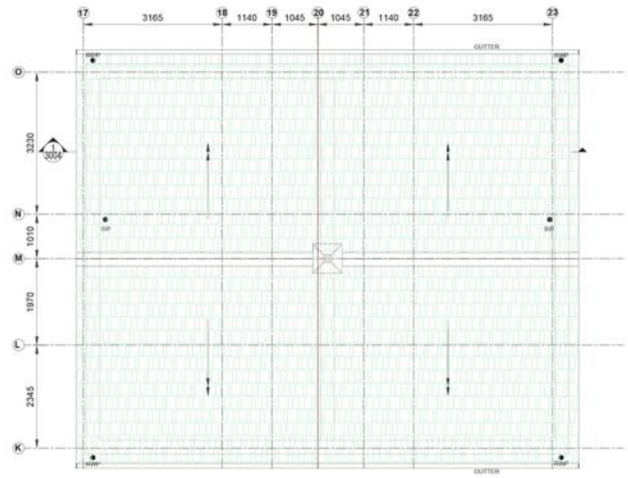


FIRST FLOOR PLAN

SCALE 1:50

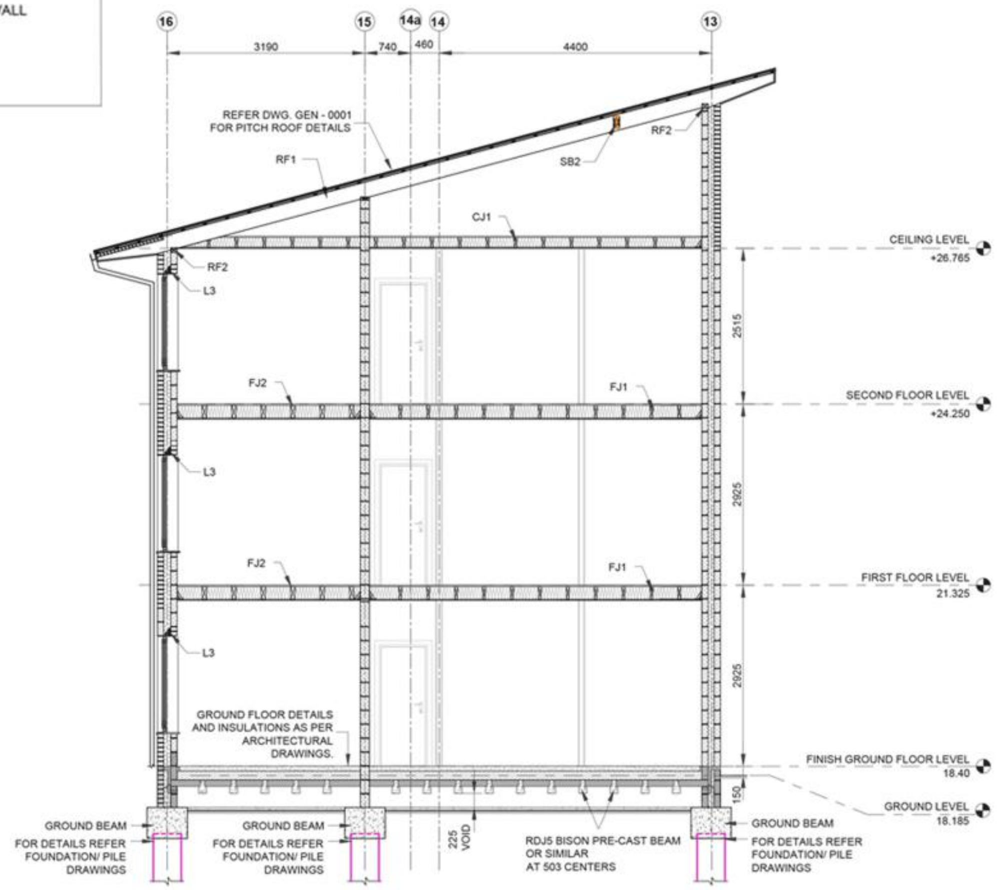
LEGEND

- CAVITY WALLS
- NON LOAD BEARING TIMBER STUD PARTITION WALLS
- PITCH ROOF
- RWP
- G
- FLOOR AREA

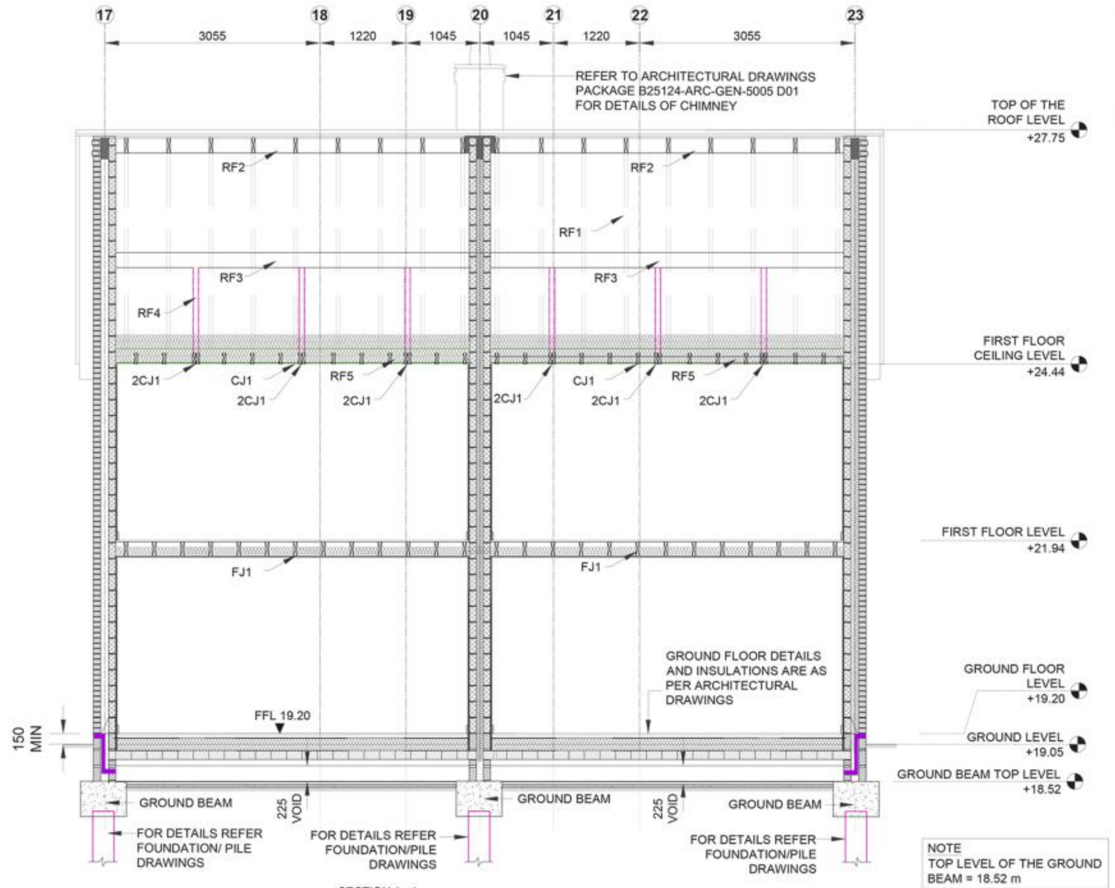


ROOF PLAN

SCALE 1:50



SECTION 1 - 1



SECTION 1 - 1

SCALE 1:25

Norwhich Oasis Residential Development