

PROPOSED ATTACHED DUAL OCCUPANCY AT 166 FLUSHCOMBE ROAD, BLACKTOWN

GENERAL NOTES

- G1 These drawings shall be read in conjunction with other consultants' drawings and specifications and with other such written instructions as may be issued during the course of the Contract. Any discrepancy shall be referred to the Engineer before proceeding with the work.
- G2 All dimensions are in millimetres, U.N.O. (unless noted otherwise).
- G3 No dimension shall be obtained by scaling the drawings.
- G4 All levels and setting out dimensions shown on the drawings shall be checked on site prior to the commencement of the work.
- G5 During construction the structure shall be maintained in a stable condition and no part shall be overstressed.
- G6 Damp-proofing & sealing details shall be in accordance with Architect's details. All joints in concrete elements shall be suitably sealed or damp-proofed.

FOUNDATIONS

- Refer Slab Design Criteria for classification of site.
- F2 Footings have been designed for an allowable bearing pressure of 150 kPa U.N.O. All foundations must be stable and uniform throughout.
- F3 Foundation material shall be inspected and approved for the above site classification and allowable bearing pressure by a Geotechnical Engineer before placing footing reinforcement.
- F4 Footings shall be placed centrally under walls and columns, U.N.O.

LOADING

Superimposed floor loads are generally in accordance with AS 1170.1 or as noted in Table L4.

Wind loads are in accordance with AS/NZS 1170.2 as follows:
Region : A 2 Regional Wind Velocity, V500 : 45 m/s Category : 3, U.N.O.

Earthquake loads are in accordance with AS 1170.4 as follows:
a = 0.08 S = 1.0 I = 1.0, U.N.O.

Live loads & additional dead loads: (to AS/NZS 1170.1)

Area subject to loading	Live Load		Add. Dead Load
	Uniform	Point	
Floors - Internal	1.50 kPa	1.80 kN	0.50 kPa
Floors - External & Garage	3.00 kPa	1.80 kN	1.00 kPa
Roof Areas	0.25 kPa	1.40 kN	0.15 kPa

MASONRY

- M1 All workmanship and materials shall be in accordance with AS 3700.
- M2 Characteristic compressive strength of masonry (f_{uc}) = 24 MPa

Durability Requirements			
Mortar	Salt Attack Resistance Grade	Built In Component	Min. Cover to Reinforcement & Tendons in Grouted Cavities
M2	Protected	R1 (Galv'd 300 g/m² each side)	5
M3	General Purpose	R3 (Galv'd 470 g/m² each side)	15
M4	Exposure	R4 (Stainless)	30

- M3 All masonry walls supporting slabs and beams shall have a pre-greased two layer galvanised steel slip joint between concrete and masonry.
- M4 All masonry walls supporting or supported by concrete floors shall be provided with vertical joints to match any control joints in the concrete.
- M5 Non load bearing walls shall be separated from concrete above by 12 mm thick closed cell polyethylene strip.
- M6 Provide vertical control joints at 8 metres maximum centres, and 4 metres maximum from corners in masonry walls, and between new & existing brickwork.
- M7 Masonry retaining walls are to be backfilled with either of the following material:
- Coarse grained soil with low silt content
- Residual soil containing stones
- Fine silty sand
- Granular materials with low clay content

REINFORCED CONCRETE

- C1 All workmanship and materials shall be in accordance with AS 3600 current edition, except where varied by the contract documents.
- C2 Concrete quality shall be as follows (subject to note C4 being satisfied):

Element	Slump mm	Max. Agg. Size mm	Cement Type	f _c at 28 Days MPa
Footings	80	20	Normal	20
Slabs on Ground	80	20	Portland	25
Suspended Floors	80	20	Type A	32

- C3 Engineer to approve any admixtures used in concrete mix.
- C4 Cover to reinforcement shall be obtained by the use of approved bar chairs. All chairs to be placed at 750 maximum centres.

- C5 Minimum clear concrete cover to reinforcement including ties and stirrups (other than residential slabs on ground or footings) shall be as follows uno.

Exposure Classification	Minimum Cover (mm)				
	Concrete Strength (f _c)				
	20 MPa	25 MPa	32 MPa	40 MPa	>50 MPa
A1	20	20	20	20	20
A2	-	30	25	20	20
B1	-	-	40	30	25
B2	-	-	-	45	35
C	-	-	-	-	50

- C6 Residential slab on ground and footings cover requirements: (Minimum concrete grade N20)
- Unprotected ground: 40 mm
- External exposure: 40 mm
- Membrane in contact with ground: 30 mm
- Internal surface: 20 mm
- Strip & pad footing: 40 mm
- C7 All concrete shall be mechanically vibrated. Vibrators shall not be used to spread concrete.
- C8 Sizes of concrete elements do not include thickness of applied finishes.
- C9 No holes or chases other than those shown on the structural drawings shall be made in concrete members without the prior approval of the Engineer.
- C10 Construction joints where not shown shall be located to the approval of the Engineer.
- C11 Curing of all concrete is to be achieved by keeping surfaces continuously wet for a period of 3 days, and prevention of loss of moisture for a total of 7 days followed by gradual drying out. Approved sprayed on compounds may be used where no floor finishes are proposed. Polythene sheeting or wet hessian may be used if protected from wind and traffic.
- C12 Construction support propping is to be left in place where needed to avoid over stressing the structure due to construction loading. No masonry or partition walls are to be constructed on suspended levels until all propping is removed and the slab has absorbed its dead load deflection.
- C13 Conduits, pipes, etc. shall only be placed in the middle one third of slab depth and spread at not less than 3 diameters.
- C14 Reinforcement symbols :
N - Denotes deformed grade 500 normal ductility reinforcing bars to AS/NZS 4671.
R - Denotes plain round grade 250 normal ductility reinforcing bars to AS/NZS 4671.
SL - Denotes deformed grade 500 low ductility reinforcing mesh to AS/NZS 4671.
RL - Denotes deformed grade 500 low ductility reinforcing mesh to AS/NZS 4671.
L--TM - Denotes deformed grade 500 low ductility trench mesh to AS/NZS 4671.

- C15 Reinforcement is represented diagrammatically; it is not necessarily shown in true projection.
- C16 Splices in reinforcement shall be made only in positions shown or otherwise approved by the Engineer.
- C17 Fabric reinforcement shall have splices made so that the overlap, measured between the outermost transverse wires of each sheet of fabric, is not less than the spacing of those wires plus 25 mm.
- C18 Welding of reinforcement shall not be permitted unless shown on the structural drawings or approved by the Engineer.

STRUCTURAL STEEL

- S1 All workmanship and materials shall be in accordance with AS 4100, AS 1163, AS 1554.1 and AS/NZS 4600.
- S2 The structural design has been based on the following steel grades, U.N.O:
Hot rolled universal beams, columns, channels & angles:300PLUS
Circular, square & rectangular hollow sections: C350/C450LO
Cold formed open DuraGal profiles: C400/C450LO
Cold formed lipped Cee & Zed purlins: G550/G500/G450
- S3 The structural design has been based on MBPMA nominal size Cee & Zed lipped purlins. All purlin profiles shall be in accordance with the MBPMA specifications.
- S4 Qualifications of welding procedures and personnel shall conform to Section 4 of AS 1554.1. Non destructive testing of welds shall include 100% visual inspection and additional testing as shown on the drawings.
All welds shall be 6 mm continuous fillet type SP, U.N.O. All butt welds shall be complete penetration in accordance with AS 1554.1, U.N.O.

Commercial bolts to AS 1111, snug tightened
High strength structural bolts to AS 1562, snug tightened
High strength structural bolts to AS 1562, fully tensioned bearing joint to AS 1511
High strength structural bolts to AS 1562, fully tensioned friction joint to AS 1511

All bolts shall be M16 8.8/S, with a minimum of 2 bolts per connection, U.N.O.

- S7 High strength TF & TB bolts shall be installed using approved load indicator washers, or in accordance with the part turn method nominated in AS 4100.
- S8 Gusset plates shall be 10 mm thick, grade 300PLUS steel, U.N.O.
- S9 Concrete encased steelwork shall be wrapped with SL41 fabric and shall have a minimum of 50 mm cover, U.N.O.
- S10 Steelwork not encased shall have the following surface treatment :

Exposure Classification	Steelwork Protection Required
A1 / A2	Power tool clean to AS1627 Class 1 1 Coat Alkyd Primer (Zinc Phosphate)
B1	Abrasive blast to AS1627 Class 2.5 1 Coat Inorganic Zinc Silicate
B2	Hot Dipped Galvanised to AS4680

- S11 Where sealed tube members are hot dip galvanised, the fabricator shall provide drill holes as necessary.
- S12 All transport and erection damage, site welds etc., shall be reinstated to an equivalent finish to adjacent steelwork

SITE PREPARATION FOR SLABS ON GROUND

- P1 Strip topsoil containing organic matter. Proof roll fill sub grade and remove any soft zones.
- P2 Where additional fill is required to the underside of slabs on ground, non cohesive materials such as sand and gravel dust shall be placed by "controlled" compaction in horizontal layers of 200 mm (loose) maximum depth. This fill shall be compacted to at least 95% of Standard Maximum Dry Density (SMDD).
- P3 For slabs on ground, sand 50 mm approximate thickness is to be spread as a levelling layer and well watered down.
- P4 Damp-proofing membrane unpunctured and taped at laps, is to be placed over the sand, sufficient membrane being provided at edges to return under brickwork. Where no brickwork, tape membrane to side of footing below ground.

FOUNDATION MAINTENANCE

FOUNDATION SOILS : All soils are affected by water. Silts are weakened by water and some sands can settle if heavily watered, but most problems arise on clay foundations. Clays swell and shrink due to changes in moisture content and the potential amount of the movement is implied in the site classification in Australian Standard AS2870, which is specified as follows:

- A Stable (Non-reactive).
S Slightly Reactive.
M Moderately Reactive.
H Highly Reactive.
E Extremely Reactive.

CLASS A & S SITES : Sands, silts and clays shall be protected from becoming extremely wet by adequate attention to site drainage and prompt repair of plumbing leaks.

CLASS M, H & E SITES : Sites classified as M, H, or E shall be maintained at essentially stable moisture conditions and extremes of wetting and drying prevented. This will require attention to the following :

Drainage of the site : The site shall be graded or drained so that water cannot pond against or near the house. The ground immediately adjacent to the house shall be graded to a uniform fall of 50 mm minimum away from the house over the first metre. The sub floor space for houses with suspended floors shall be graded or drained to prevent ponding where this may affect the performance of the footing system. The site drainage requirements shall be maintained for the economic life of the building.

Limitations on gardens : The development of the gardens shall not interfere with the drainage requirements or the sub floor ventilation and weep hole drainage systems. Garden beds adjacent to the house should be avoided. Care should be taken to avoid over watering of gardens close to the house footings.

Restrictions on trees and shrubs : Planting of trees should be avoided near the foundation of a house or neighbouring house on reactive sites as they can cause damage due to drying of the clay at substantial distances. To reduce, but not eliminate, the possibility of damage, tree planting should be restricted to a distance from the house of :

- 1.50 x mature height for Class E sites
1.00 x mature height for Class H sites
0.75 x mature height for Class M sites

Where rows or groups of trees are involved, the distance from the building should be increased. Removal of trees from the site can also cause similar problems.

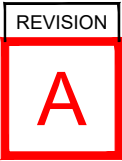
Repair of leaks : Leaks in plumbing, including storm water and sewerage drainage should be repaired promptly.

The level to which these measures are implemented depends on the reactivity of the site. The measures apply mainly to masonry houses and masonry veneer houses. For frame houses clad with timber or sheeting, lesser precautions may be appropriate.

BONDEK/CONDECK FORMWORK

- B1 U.N.O. Bondek/condeck panels shall be 1.00mm bmt
- B2 Panels are to be securely fixed or held down to prevent displacement due to construction loading or wind uplift prior to concreting
- B3 Fix panels to steelwork by puddle welding drive pins or other suitable methods. slip joints shall be located as shown
- B4 Fxing to masonry is not necessary provided concrete is placed immediately after panels are laid. Top course of brickwork is to be straight and level. If required, provide layer of smooth hard mortar slip joints shall be provided at all masonry u.n.o.
- B5 Before concrete is placed, any accumulated debris, grease or any other substance will need to be removed to ensure clean bonding surface. Any ponded rainwater should be removed by blowing or sweeping
- B6 Fastening of side lap joints shall be in accordance with lysaght publications, and generally one no. 10-24x16mm self-drilling tapping screw is required mid-span for support spacing of 2750mm or greater. For point loads ratings or exposed soffits additional fixing may be required
- B7 U.N.O Propping shall be in accordance with lysaght publications
- B8 Props shall not be removed until concrete has reached sufficient strength

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE



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PROPOSED ATTACHED DUAL OCCUPANCY

166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939

GENERAL NOTES

JOB NUMBER: 24244	DWG NUMBER: S01	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	

LEGEND

- =====
- DENOTES LOAD BEARING BRICK WALL OVER
- =====
- DENOTES CORE FILLED BLOCK WALL OVER
- =====
- DENOTES NON LOAD BEARING WALL OVER
- =====
- DENOTES NON LOAD BEARING WALL UNDER
- =====
- DENOTES LOAD BEARING MASONRY WALL UNDER
- =====
- DENOTES LOAD BEARING 190 DINCEL WALL
- ⊠
- DENOTES SLAB PENETRATION
- XX
- DENOTES SLAB STEP DEPTH
- ???
- DENOTES MINIMUM SLAB DEPTH
- SC1
- DENOTES STEEL COLUMN OVER
- SC1(U)
- DENOTES STEEL COLUMN UNDER
- SC1(U+O)
- DENOTES STEEL COLUMN UNDER + OVER
- ⊙
- DENOTES SLAB DATUM
- SB1(-150)
- DENOTES STEEL BEAM 150mm BELOW SLAB DATUM
- S.J
- DENOTES SAWN JOINT. REFER TO DETAILS.
- K.J
- DENOTES KEY JOINT. REFER TO DETAILS.
- DS
- DENOTES DOUBLE STUD
- TS
- DENOTES TRIPLE STUD
- PS
- DENOTES F11x4.5 THICK PLYWOOD SHEET
STRUCTURAL BRACING. REFER TO TIMBER
FRAMING CODE FOR FIXING.
- MSX
- DENOTES 30x0.8 METAL STRAP CROSS BRACING.
REFER TO TIMBER FRAMING CODE AS1684
FOR FIXING

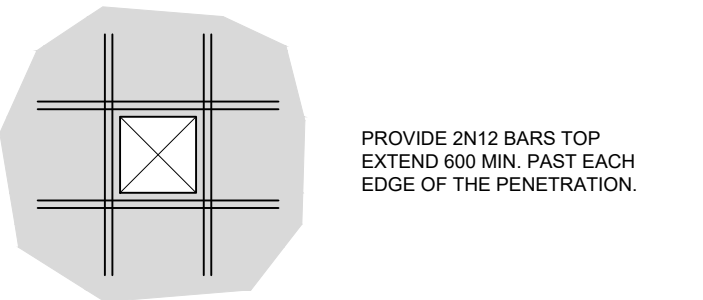
TIMBER FRAMING NOTES

- TF1. ALL DESIGN, WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH NATIONAL TIMBER FRAMING CODE AS1684 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- TF2. TIMBER SIZES, CONNECTIONS AND BRACING WALL SHALL BE TO FRAME MANUFACTURER'S DETAILS & SPECIFICATIONS & SHALL BE IN ACCORDANCE WITH AS1684. TIMBER FRAMING OUTSIDE THE SCOPE OF AS1684 SHALL BE REFERED TO THE SUPERINTENDENT FOR A DECISION BEFORE PROCEEDING.
- TF3. ROOF BRACING & ANCHOR DETAILS WHERE NOT SHOWN ON DRAWINGS SHALL BE IN ACCORDANCE WITH AS1684.
- TF4. ROOF TRUSSES TO MANUFACTURERS SPECIFICATION
- TF5. TRUSS LAYOUT TO BE FORWARDED TO ANH CONSULTING ENGINEERS BEFORE COMMENCEMENT OF WORK ON SITE
- TF6. MINIMUM 3 COURSES OF BRICK TO BE LAID ABOVE LINTELS
- TF7. FOR LINTEL NOT SHOWN ON PLAN, REFER TO STANDARD LINTEL SCHEDULE
- TF8. FIX ALL STUD WALLS TO STEEL COLUMNS

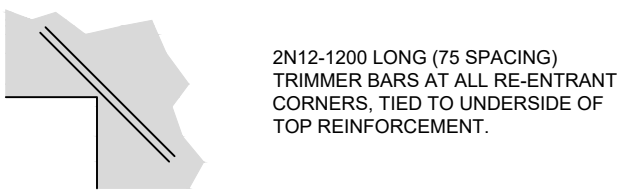
SLAB ON GROUND NOTES

- 110
- DENOTES EXTENT OF 110 THICK SLAB ON GROUND REINFORCED WITH SL82 MESH TOP CONTINUOUS THROUGHOUT PLUS ANY EXTRAS AS NOTED ON PLAN AND IN DETAILS.
- 150
- DENOTES EXTENT OF 150 THICK 400mm MAXIMUM COMPACTED FILL REINFORCED WITH SL82 MESH TOP & BTM CONTINUOUS THROUGHOUT PLUS ANY EXTRAS AS NOTED ON PLAN AND IN DETAILS.

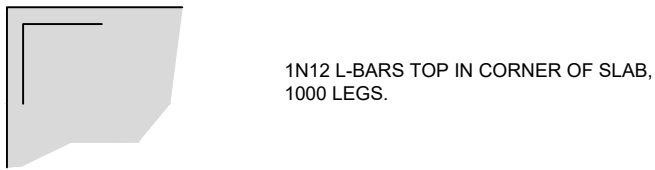
TYPICAL SLAB TRIMMER DETAILS



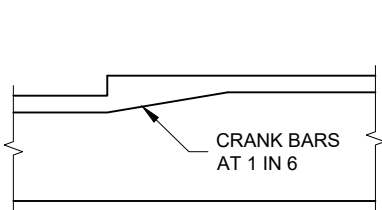
SLAB PENETRATION TRIMMER



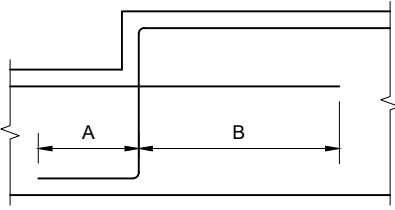
SLAB RE-ENTRANT CORNER TRIMMER



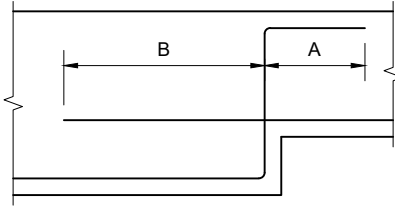
SLAB CORNER TRIMMER



WET AREA SETDOWN



TOP OF SLAB STEP



BOTTOM OF SLAB STEP

STANDARD COG SCHEDULE	
BAR	COG (mm)
UP TO N12	200
N16	200
N20	245
N24	295
N28	340
N32	390
N36	440

TYPICAL REINFORCEMENT BAR LAP AT STEPS		
BAR DIA.	A	B
N12	200	600
N16	300	800
N20	400	1000
N24	500	1200
N28	600	1400
N32	700	1600
N36	800	1800

SLAB REINFORCEMENT MIN. SPLICE SCHEDULE	
BAR	LAP (mm)
UP TO N12	480
N16	640
N20	800
N24	960
N28	1120
N32	1280
N36	1440

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE

REVISION

A

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A	03.09.2024	ISSUED FOR CDC	SJ

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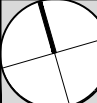
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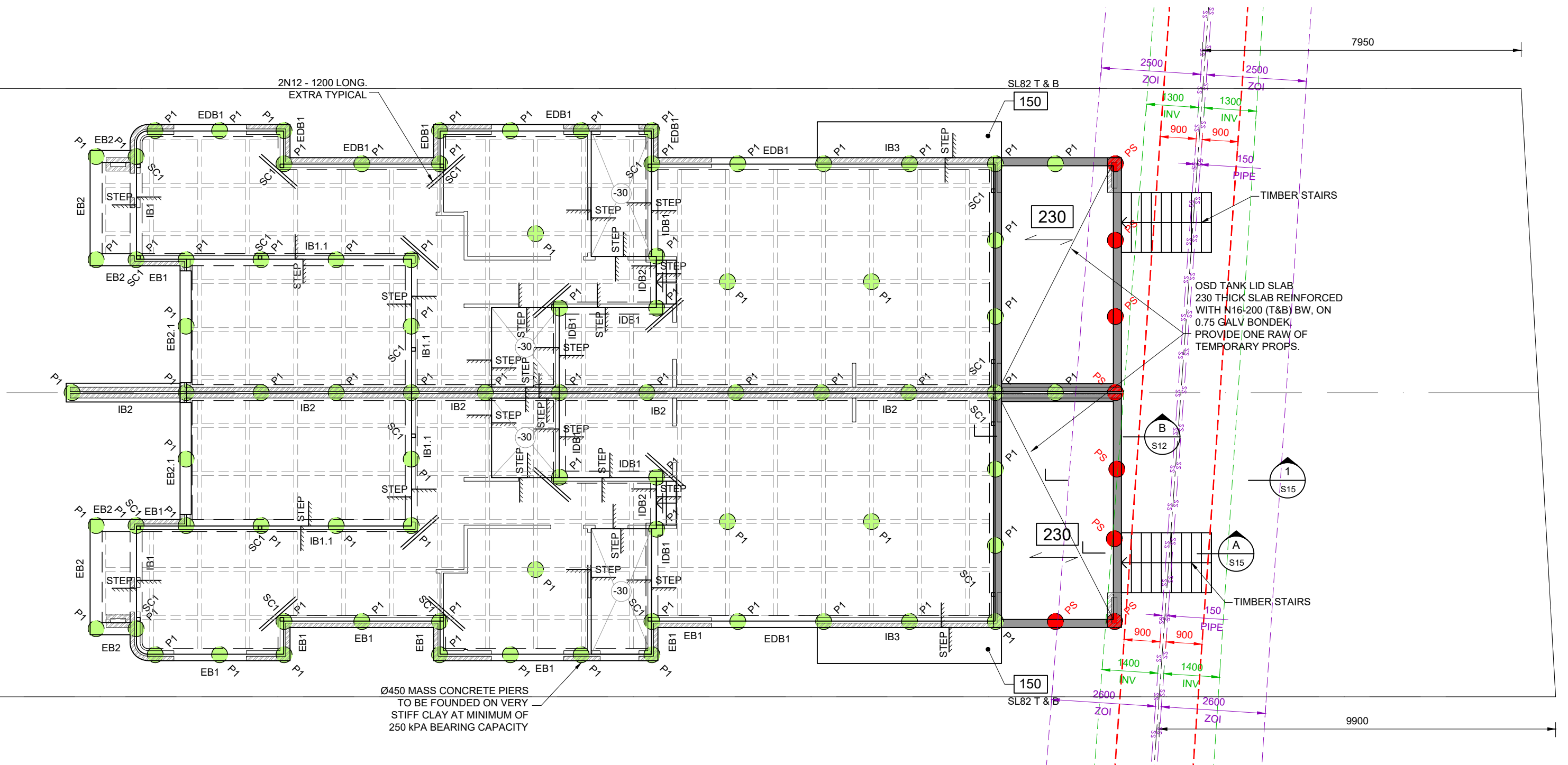
STRUCTURAL ENGINEERING
& ARCHITECTURAL DESIGN

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PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939

LEGEND AND PROJECT SPECIFICATION

JOB NUMBER: 24244	DWG NUMBER: S02	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	



PROPOSED WAFFLE POD SLAB LAYOUT PLAN

1:100

NOTES:

1. ALL FOOTINGS TO BEAR ON SAME STRATA & ON NATURAL GROUND
2. ARTICULATE ALL BRICKWORK & DRAINAGE TO BCA
3. BUILDER TO REPORT SITE CONDITION TO STRUCTURAL ENGINEER AFTER THE SITE CUT & FILL IS COMPLETE
4. DESIGN LOADING AT FOOTING LEVEL NOT EXCEEDING 50kPa

GEOTECHNICAL NOTES:

PIERS AND SLAB HAVE BEEN DESIGNED IN ACCORDANCE WITH AN ASSUMED SOIL CLASS INDICATED IN THE DESIGN CRITERIA. TO OPTIMISE SLAB & PIERING CONFIGURATION, NEMCO DESIGN RECOMMEND GEOTECHNICAL ASSESSMENT OF THE SITE.

WHERE UNCONTROLLED FILL IS ENCOUNTERED, GEOTECHNICAL INVESTIGATION REQUIRED.

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE

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PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939

PROPOSED WAFFLE POD SLAB
LAYOUT PLAN

JOB NUMBER: 24244	DWG NUMBER: S10.2	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	

ELEMENT	STRENGTH f _c	MAX SIZE AGG. mm	SLUMP mm	CEMENT TYPE	ADMIXTURE
CONCRETE QUALITY					
WAFFLE POD SLAB	25	20	80	GP	-
PIERS	25	20	80	GP	-

REFER TO GENERAL NOTES FOR REINFORCEMENT COVER

NOTE:

REFER TO DRAWING S02 FOR LEGEND & PROJECT SPECIFICATION

LEGEND

- DENOTES LOCATION OF **300** DEEP
PODS. POD SIZE: 1090 x 1090
(CUT PODS AS REQUIRED)
- DENOTES LOCATION OF **225** DEEP
PODS. POD SIZE: 1090 x 1090
(CUT PODS AS REQUIRED)
- POD LAYOUT STARTING POINT
- P1 DENOTES **Ø450** CONC UNO. PIERS.
REFER TO BORED PIER NOTES AND DETAIL
ON DWG S14
- PS DENOTES **Ø450** CONC. PIERS MUST BE
INSPECTED BY SYDNEY WATER PRIOR TO
PLACEMENT OF CONCRETE.

WAFFLE SLAB NOTES

85 THICK SLAB REINFORCED WITH **SL82 MESH TOP**
CONTINUOUS THROUGHOUT INCLUDING ANY EXTRAS
AS NOTED ON PLAN OR IN DETAILS.

SITE PREPARATION SHALL BE CARRIED OUT IN
ACCORDANCE WITH THE GENERAL NOTES &
CURRENT EDITION OF AS2870 - RESIDENTIAL SLABS &
FOOTING CODE.

REFER TO GENERAL NOTES FOR CONCRETE COVERS

TYPICAL WAFFLE POD LAYOUT AT RE-ENTRANT
CORNER REFER TO DRAWING S13

DESIGN CRITERIA

SITE SOIL CLASSIFICATION : ASSUMED **CLASS M**
(REFER TO NOTE BELOW)

SITE WIND CLASSIFICATION : **N2**

CONSTRUCTION TYPE: **BRICK VENEER**

ROOF FRAMING: **SKILLION ROOF**

NOTE:

THE SUPERINTENDENT SHALL HAVE THE SITE SOIL
CLASSIFICATION CONFIRMED (BY INSPECTION OF TEST
PIER HOLE 1500 MIN DEEP OR TO AUGER REFUSAL,
WHICHEVER IS LESS) BY THE ENGINEER PRIOR TO
COMMENCING CONSTRUCTION.


WHERE THE CLAY EXTENDS FOR 1500 OR MORE THE
SUPERINTENDENT SHALL HAVE THE SITE
CLASSIFICATION CONFIRMED BY A SUITABLY QUALIFIED
GEOTECHNICAL ENGINEER PRIOR TO COMMENCING
CONSTRUCTION.

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO
ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE

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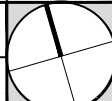
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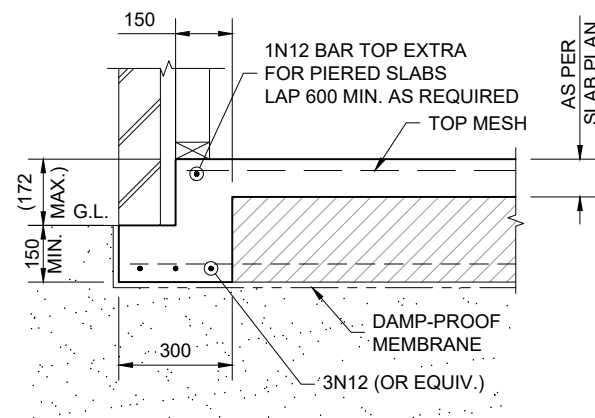
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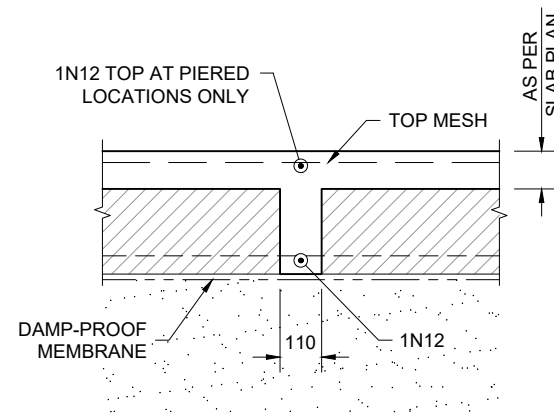
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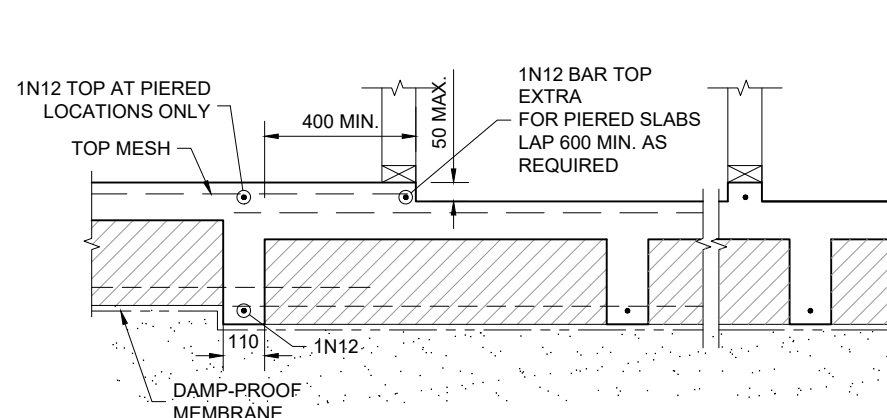
PROPOSED ATTACHED DUAL OCCUPANCY		JOB NUMBER: 24244	DWG NUMBER: S10.3	ORIGINAL SIZE: A3
166 FLUSHCOMBE RD, BLACKTOWN LOT 2, DP 38939		DESIGNED BY: A.N.	DATE: 03.09.2024	
PROPOSED WAFFLE POD SLAB LAYOUT PLAN		DRAWN BY: A.N.	SCALE: AS SHOWN	



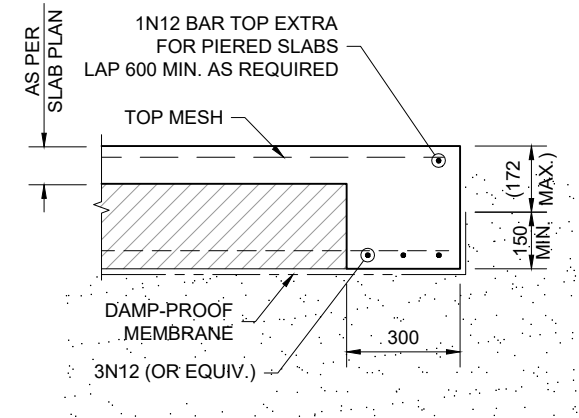
EDGE BEAM - 'EB1'
1:20



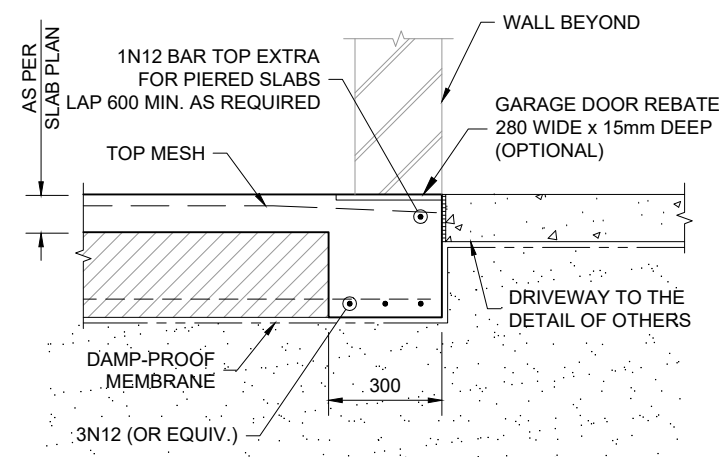
STIFFENING RIB
1:20



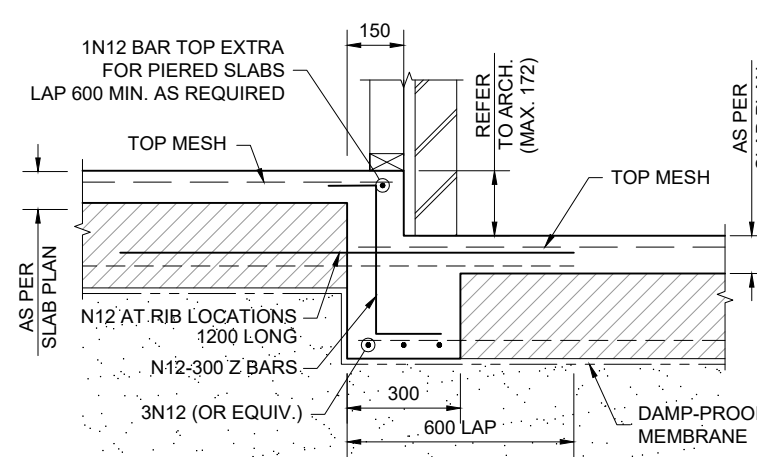
WET AREA SET DOWN
1:20



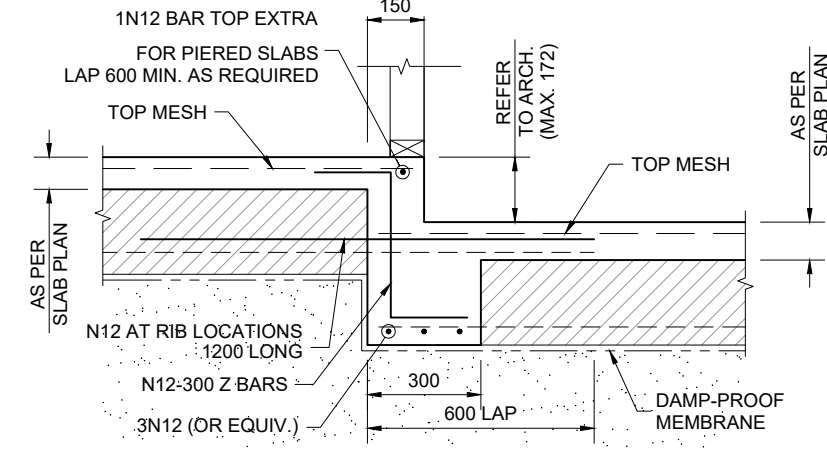
EDGE BEAM - 'EB2'
1:20



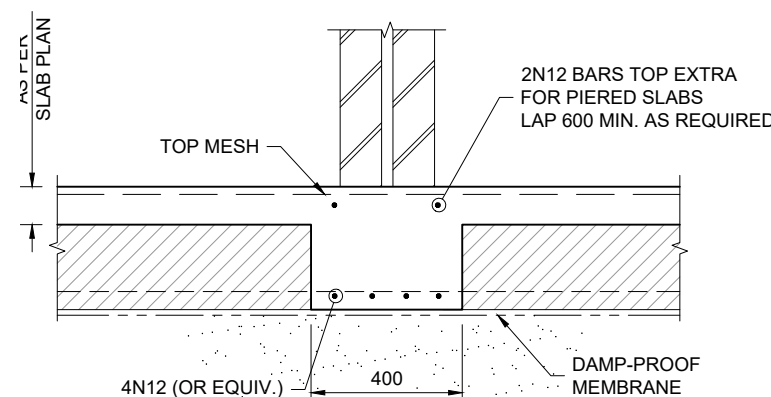
EDGE BEAM - 'EB2.1'
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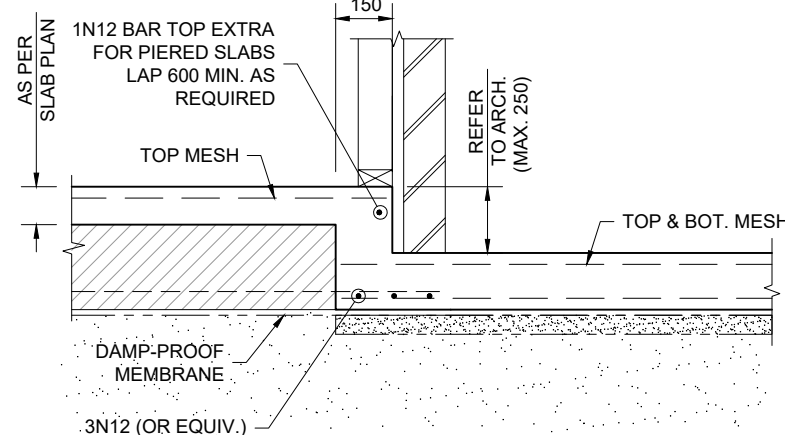
INTERNAL BEAM - 'IB1'
1:20



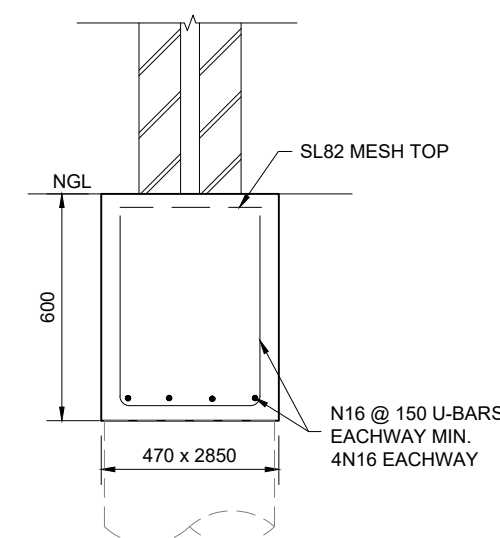
INTERNAL BEAM - 'IB1.1'
1:20



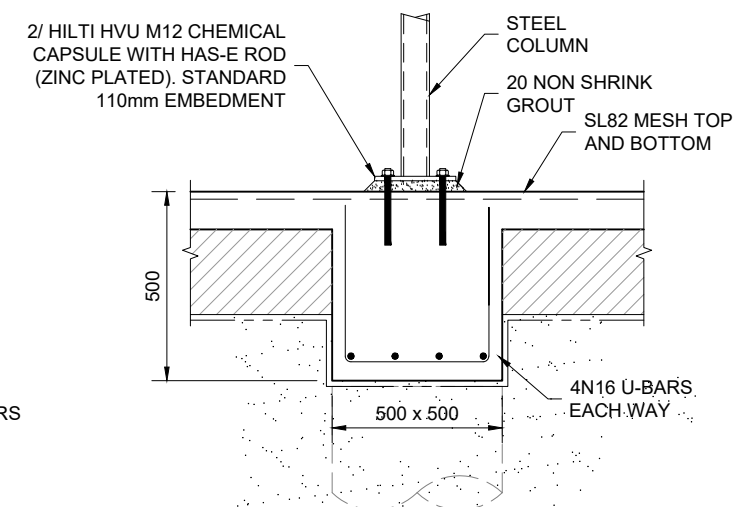
INTERNAL BEAM - 'IB2'
1:20



INTERNAL BEAM - 'IB3'
1:20



PAD FOOTING - 'PF1'
1:20



PAD FOOTING - 'PF2'
1:20

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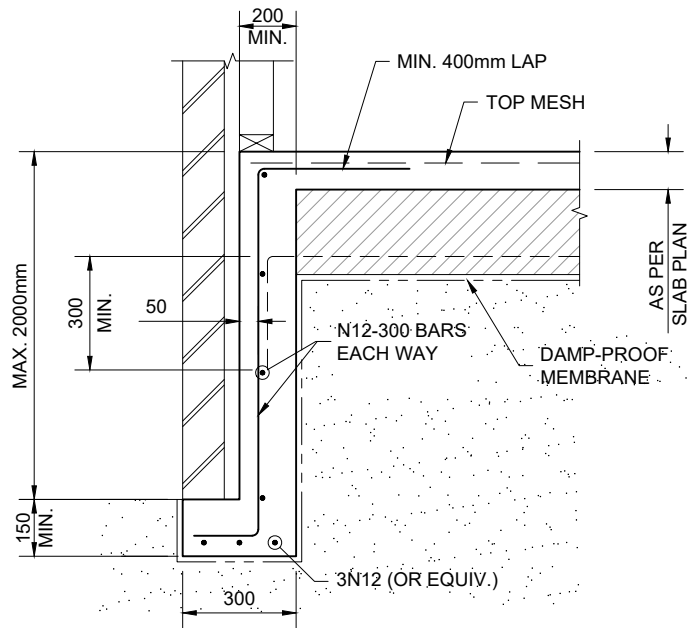
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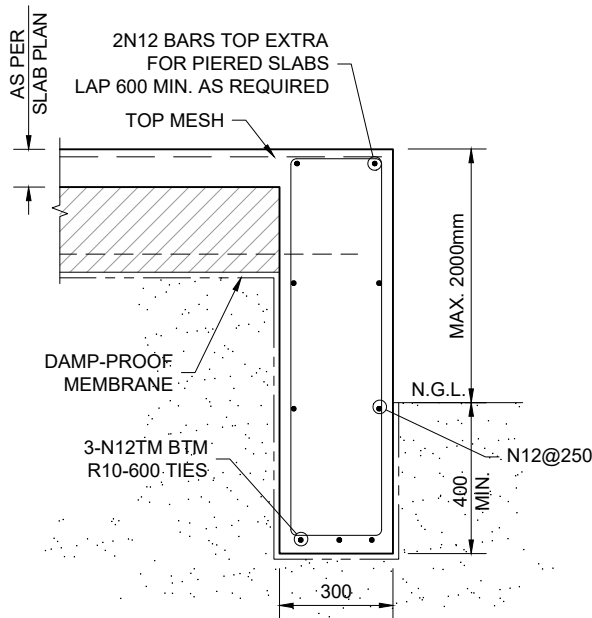
PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939
GROUND FLOOR
SLAB DETAILS (SHEET 1)

JOB NUMBER: 24244	DWG NUMBER: S11	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	



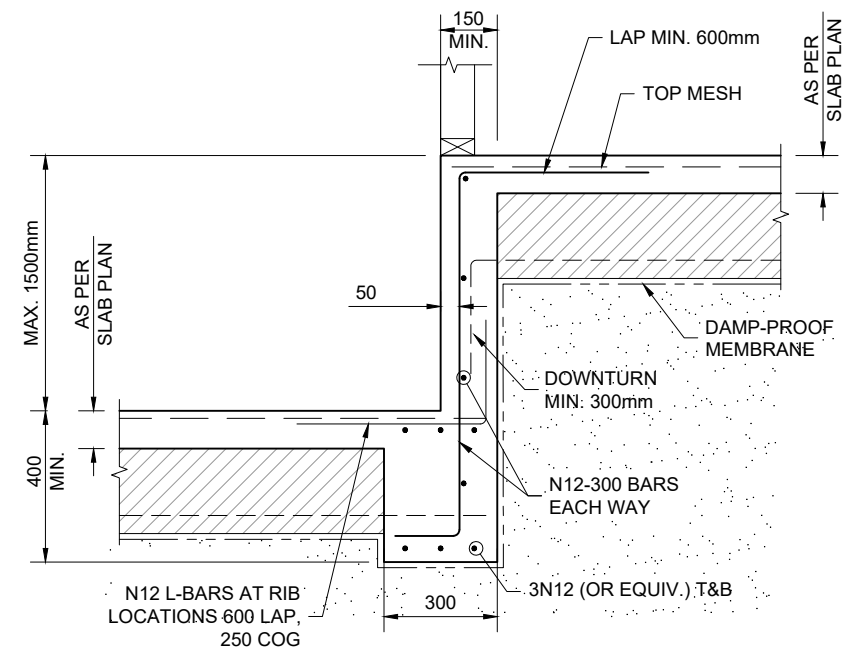
EDGE DROP BEAM - 'EDB1'

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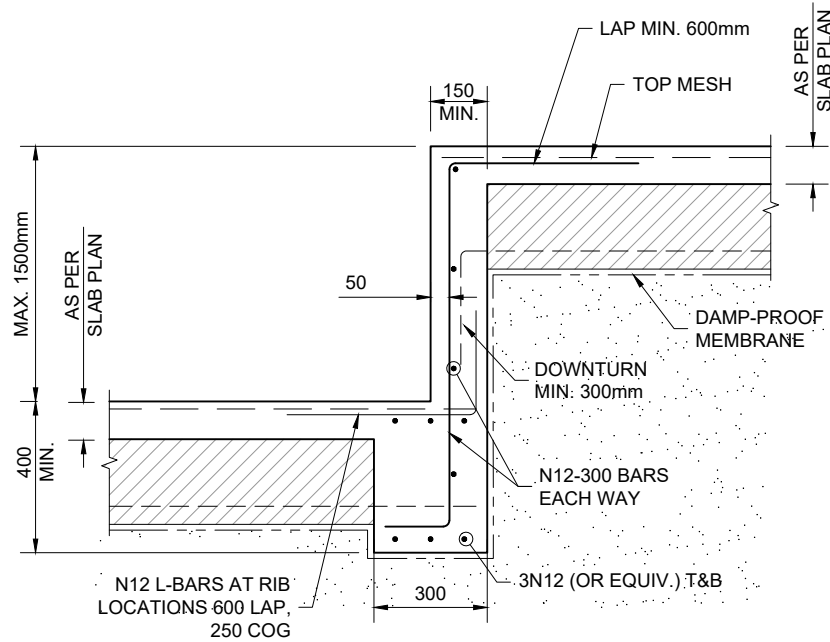
EDGE DROP BEAM - 'EDB2'

1:20



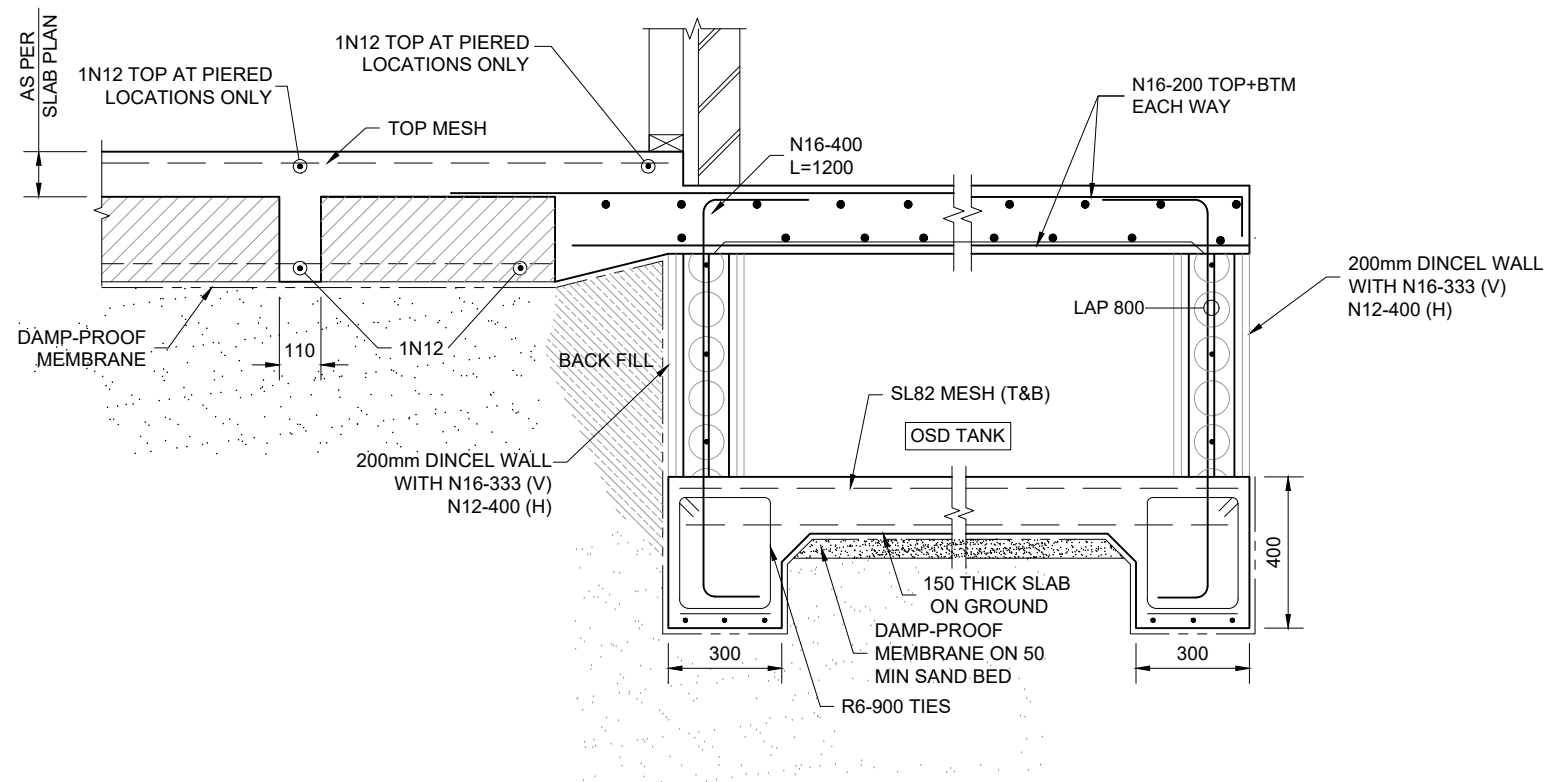
INTERNAL DROP BEAM - 'IDB1'

1:20



INTERNAL DROP BEAM - 'IDB2'

1:20



SECTION B

1:20

B
S10.2

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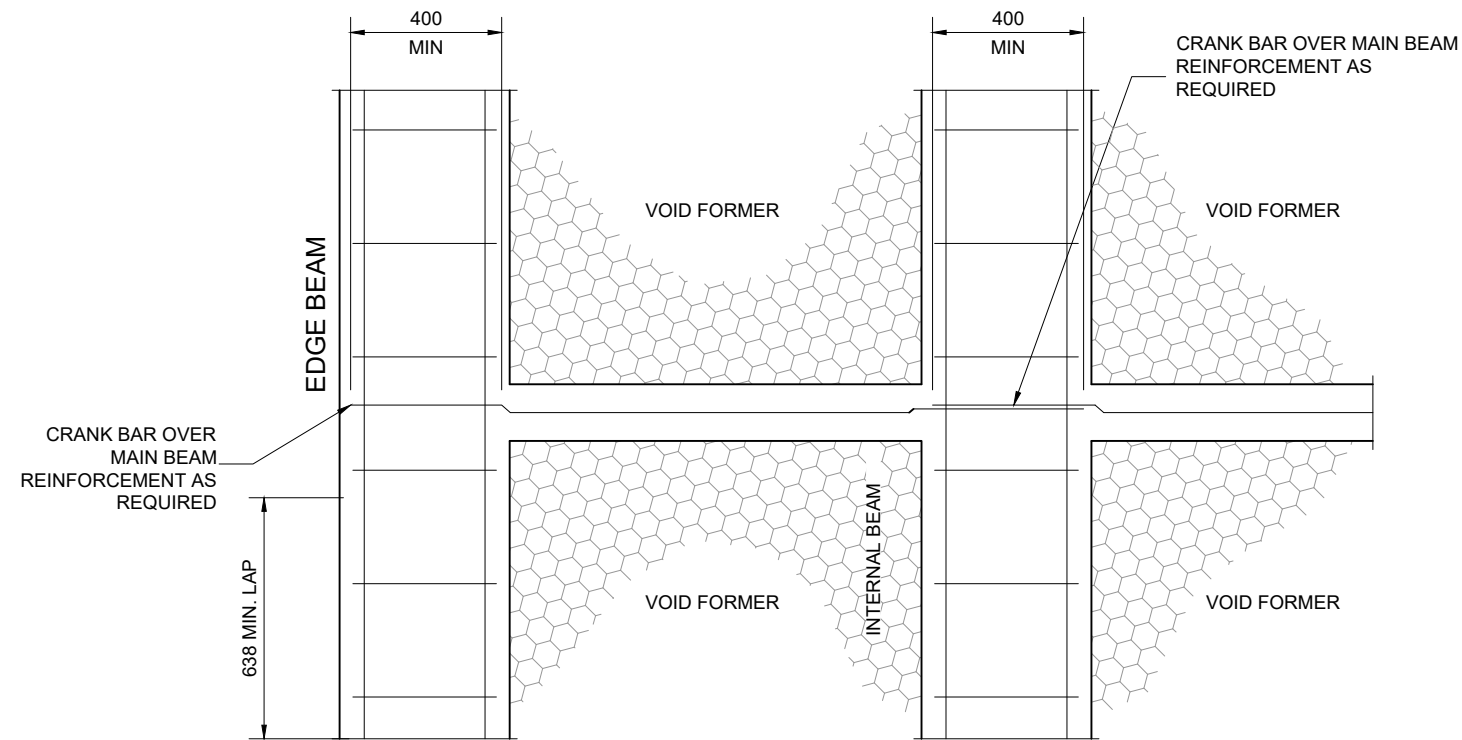
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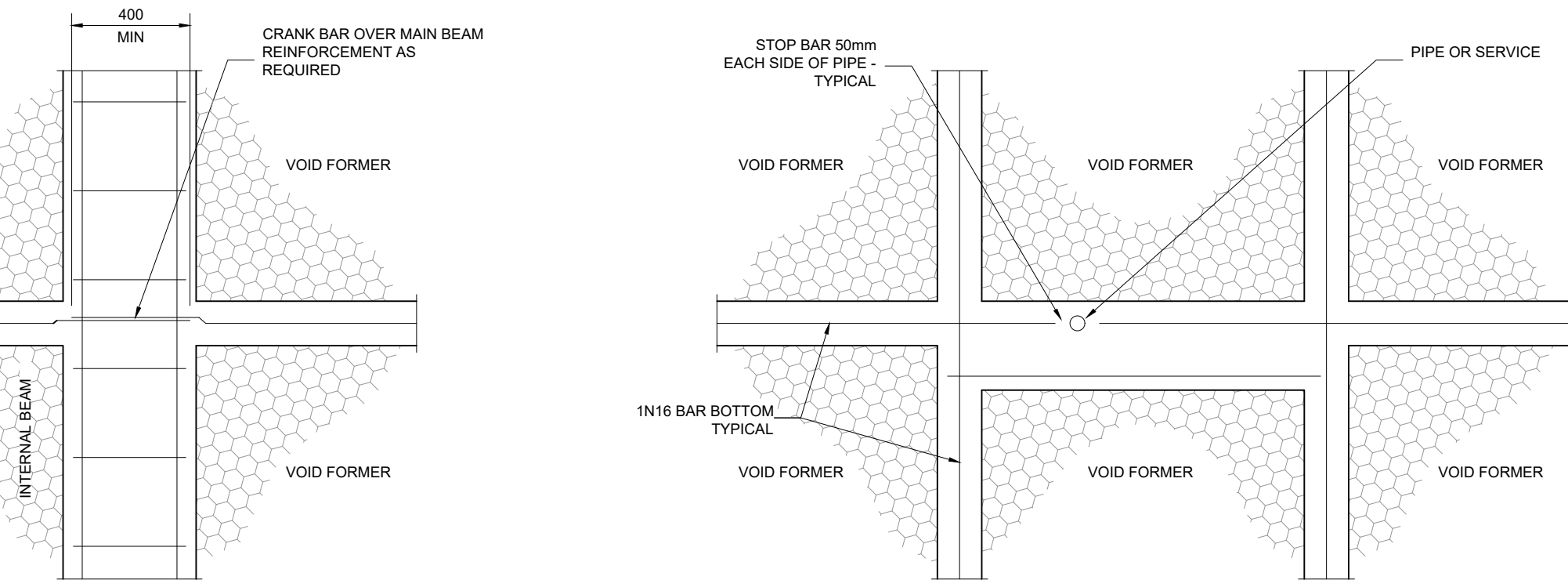
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PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939
GROUND FLOOR
SLAB DETAILS (SHEET 2)

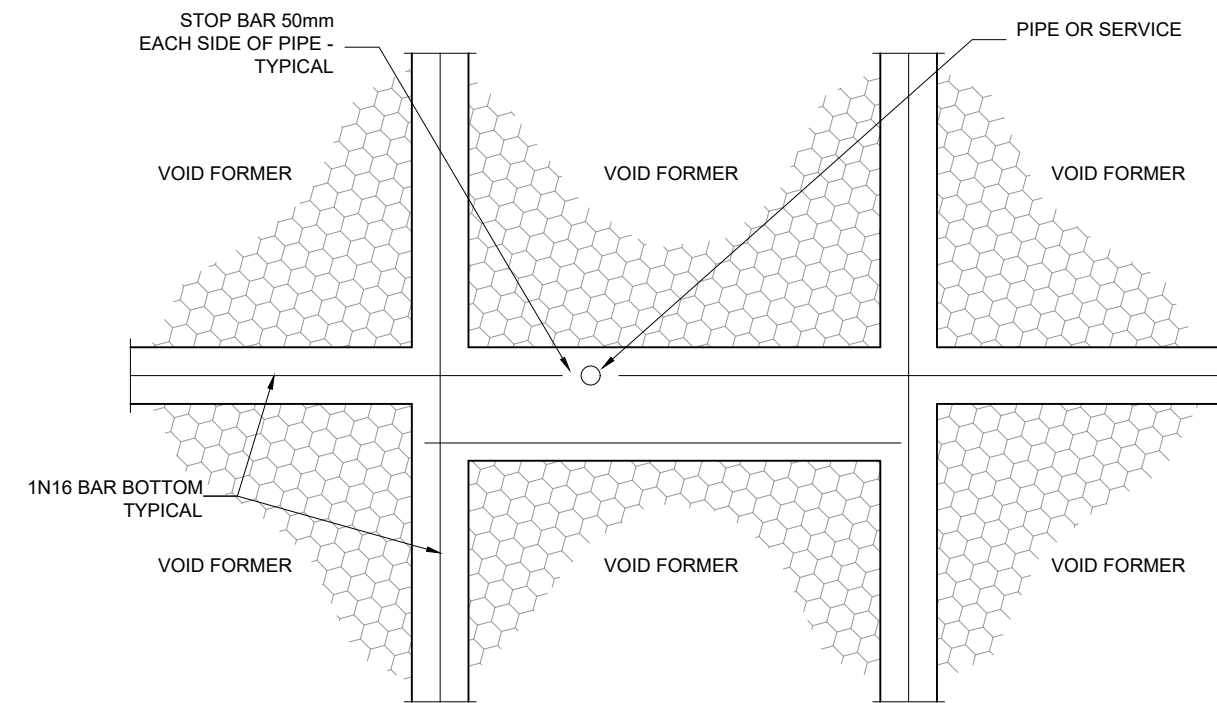
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DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	



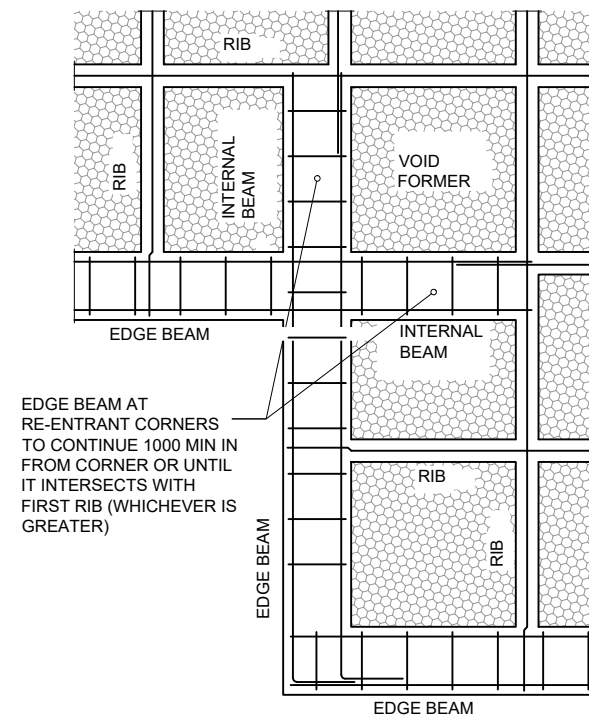
END JUNCTION - PLAN
1:20



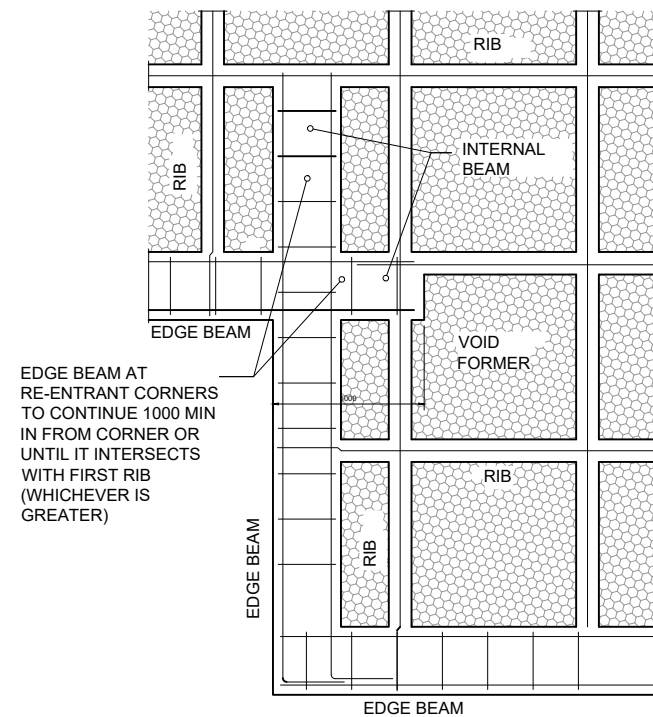
'T' JUNCTION - PLAN
1:20



TYPICAL PIPE THROUGH RIB DETAIL
1:20



ALIGN WITH RIBS



OFFSET WITH RIBS

TYPICAL WAFFLE POD LAYOUT AT RE-ENTRANT CORNERS
1:20

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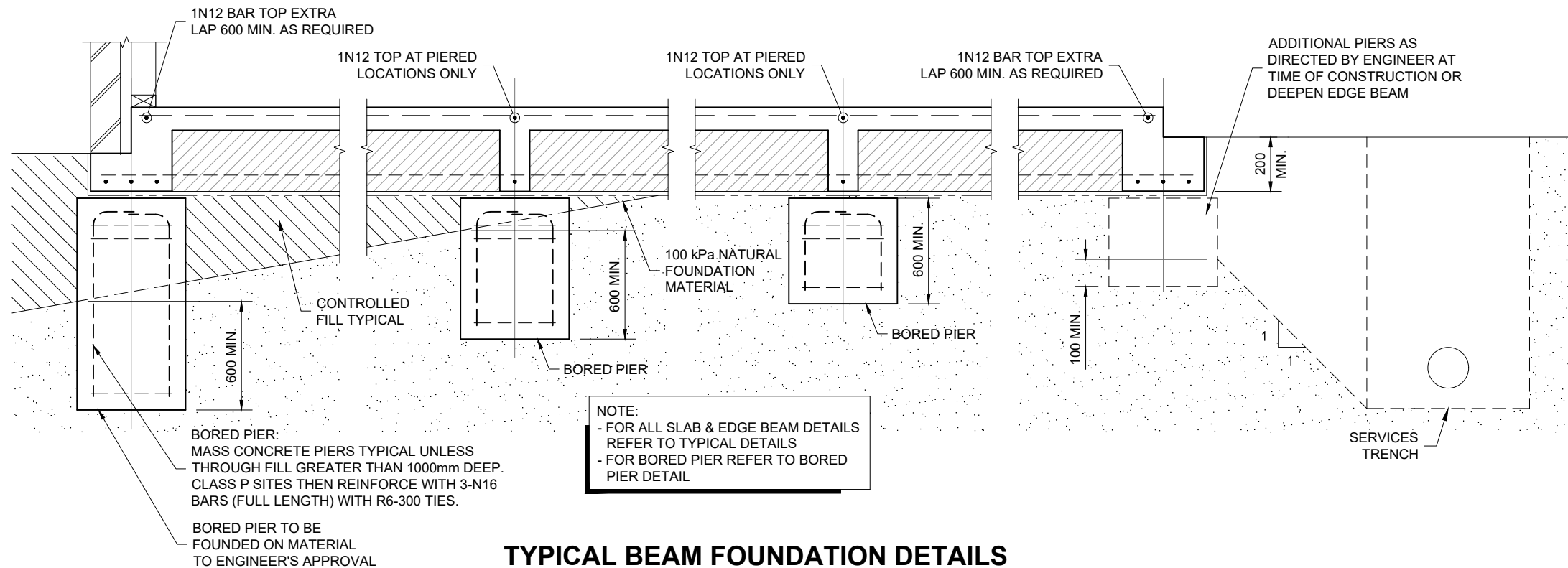
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PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939
GROUND FLOOR
SLAB DETAILS (SHEET 3)

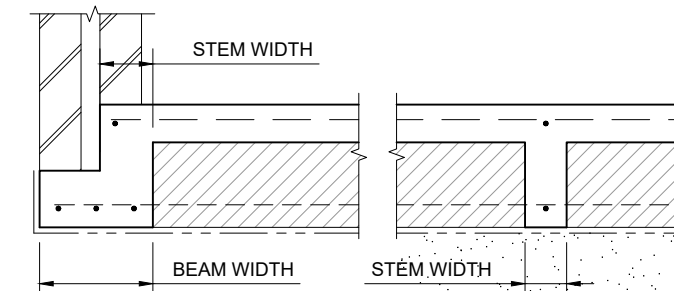
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DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	



TYPICAL BEAM FOUNDATION DETAILS

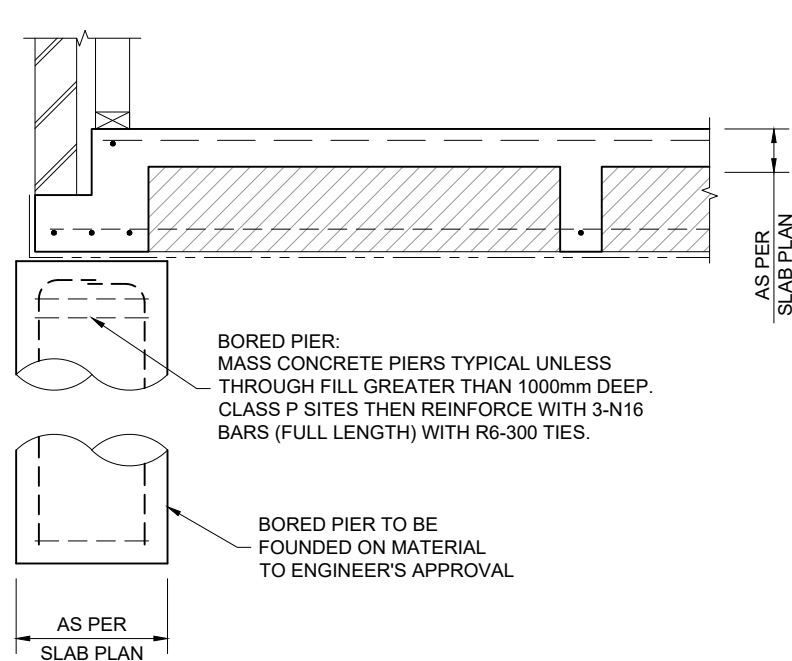
1:20

ADDITIONAL STEEL FOR EDGE & INTERNAL BEAMS		
STEM WIDTH OR BEAM WIDTH	TOP STEEL (No. N12 BARS)	BTM STEEL (No. N12 BARS)
110 TO 199	0	1
200 TO 299	1	2
300 TO 399	2	3
400 TO 499	3	4
500 TO 599	4	5



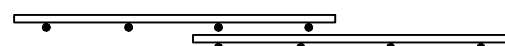
**ADDITIONAL STEEL FOR
EDGE & INTERNAL BEAMS**

1:20

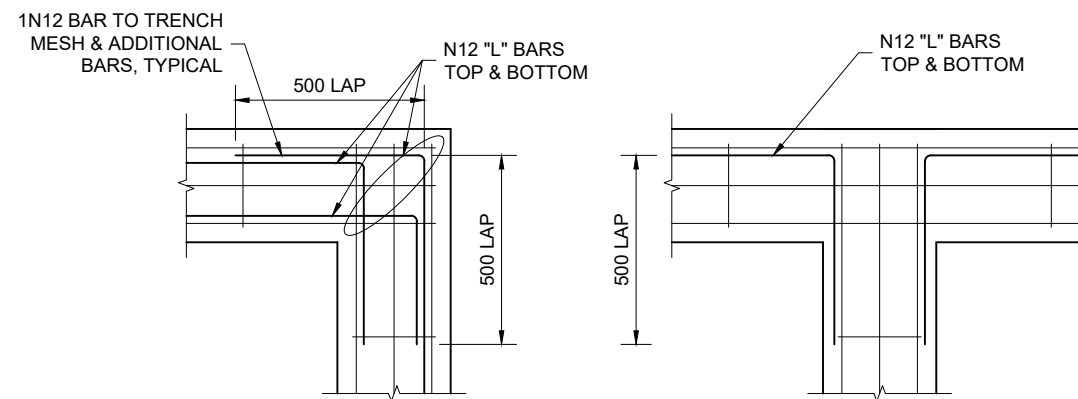


BORED PIER DETAIL

1:20

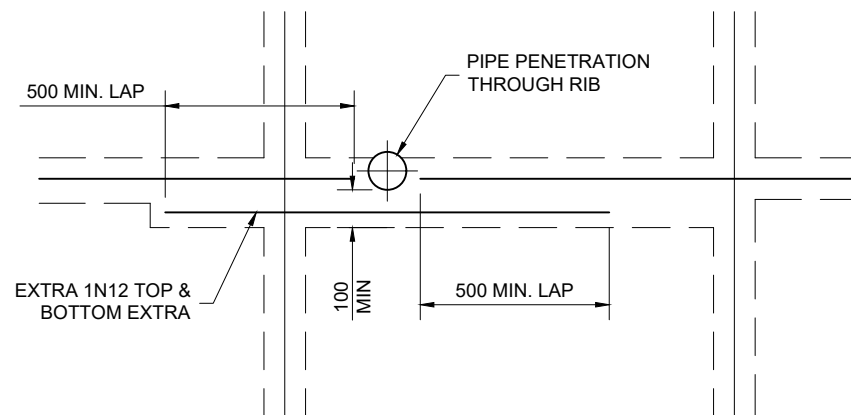


END LAP



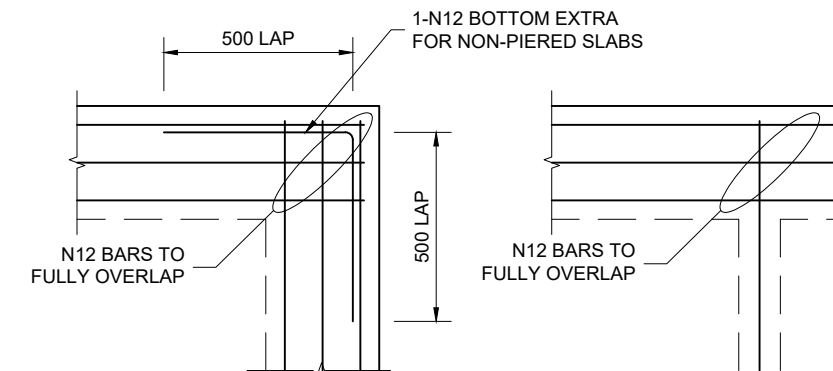
TYPICAL FOOTING CORNER DETAILS

1:20



WAFFLE POD DETAILS AT PENETRATION

1:20



WAFFLE POD LAP DETAILS

1:20

BORED PIER NOTE

- BORED PIERS SHALL BE USED IN ACCORDANCE WITH THE FOLLOWING:
- o SET OUT AS PER THE ADJACENT PLAN.
 - o FOUNDED OFF **VERY STIFF CLAY** THAT IS UNIFORM & STABLE THROUGHOUT.
 - o CONC. PIERS TO BE FOUNDED TO A MINIMUM OF **250 kPa** BEARING CAPACITY. GEOTECH TO VERIFY ON SITE.
 - o WHERE ROCK IS ENCOUNTERED, ALL PIER TO BE FOUNDED OFF ROCK THAT IS UNIFORM & STABLE WITH A MINIMUM OF **700 kPa** BEARING CAPACITY
 - o WHERE PIER LENGTH EXCEEDS 3000MM, REINFORCE PIERS WITH 5N16 VERT + R10-300TIES.
 - o WHERE FOOTINGS AND FOOTING BEAMS FOUND PARTLY ON ROCK AND PARTLY ON CLAY OR FILL, THE SECTION OF BUILDING NOT FOUNDED ON ROCK SHALL BE PIERED TO ROCK.

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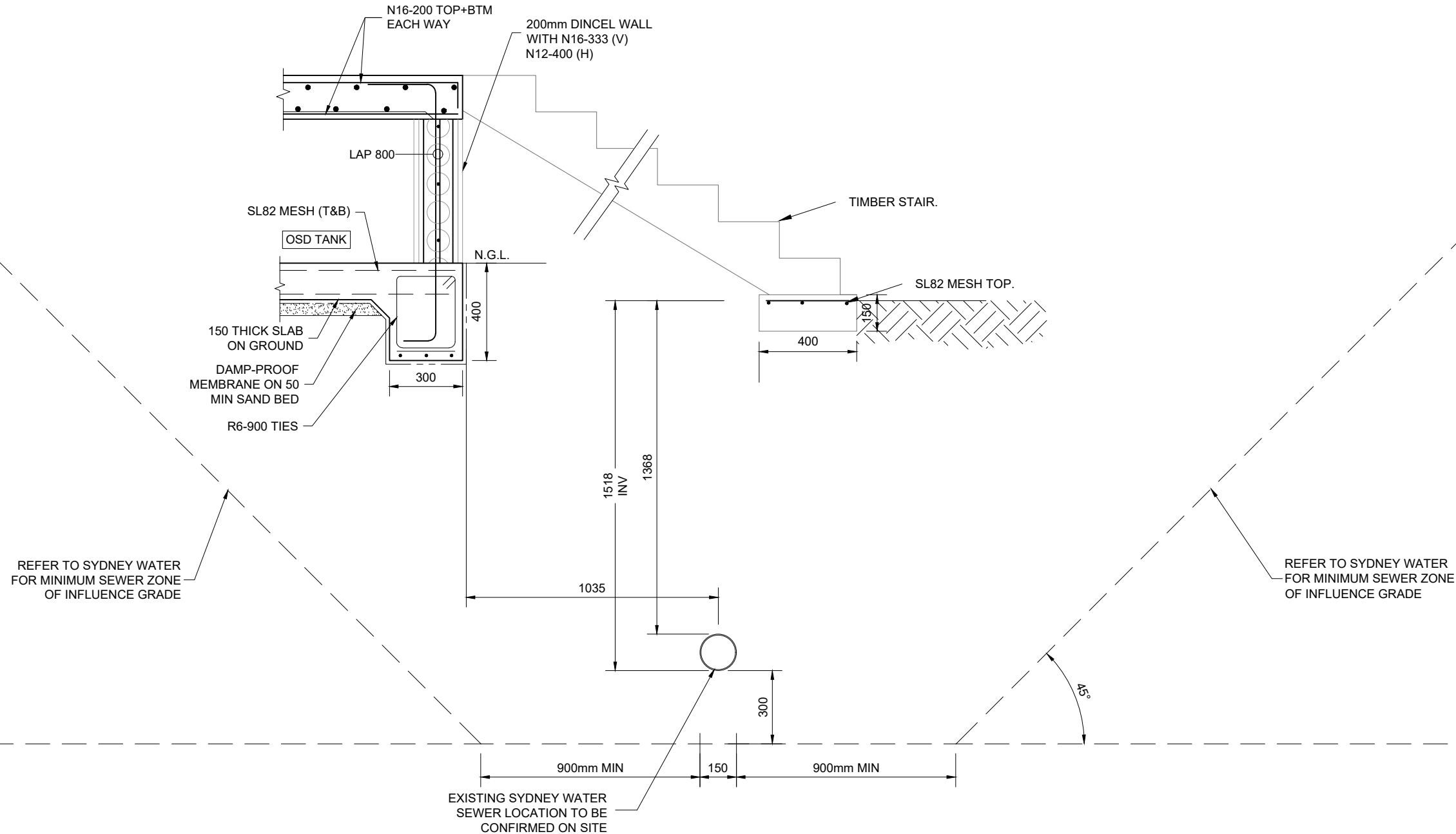
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PROPOSED ATTACHED DUAL OCCUPANCY
**166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939**
**GROUND FLOOR
SLAB DETAILS (SHEET 4)**

JOB NUMBER: 24244	DWG NUMBER: S14	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	



SECTION
1:20

A
S20

- MESH END AND SIDE LAPS 200mm NOMINAL.
- ADJACENT MESH RUNS TO BE SIDE LAP NESTED AND PLACED HALF SHEET LAP STRETCHER PATTERN.
- DESIGN LOADING AT FOOTING LEVEL NOT EXCEEDING 50KPA

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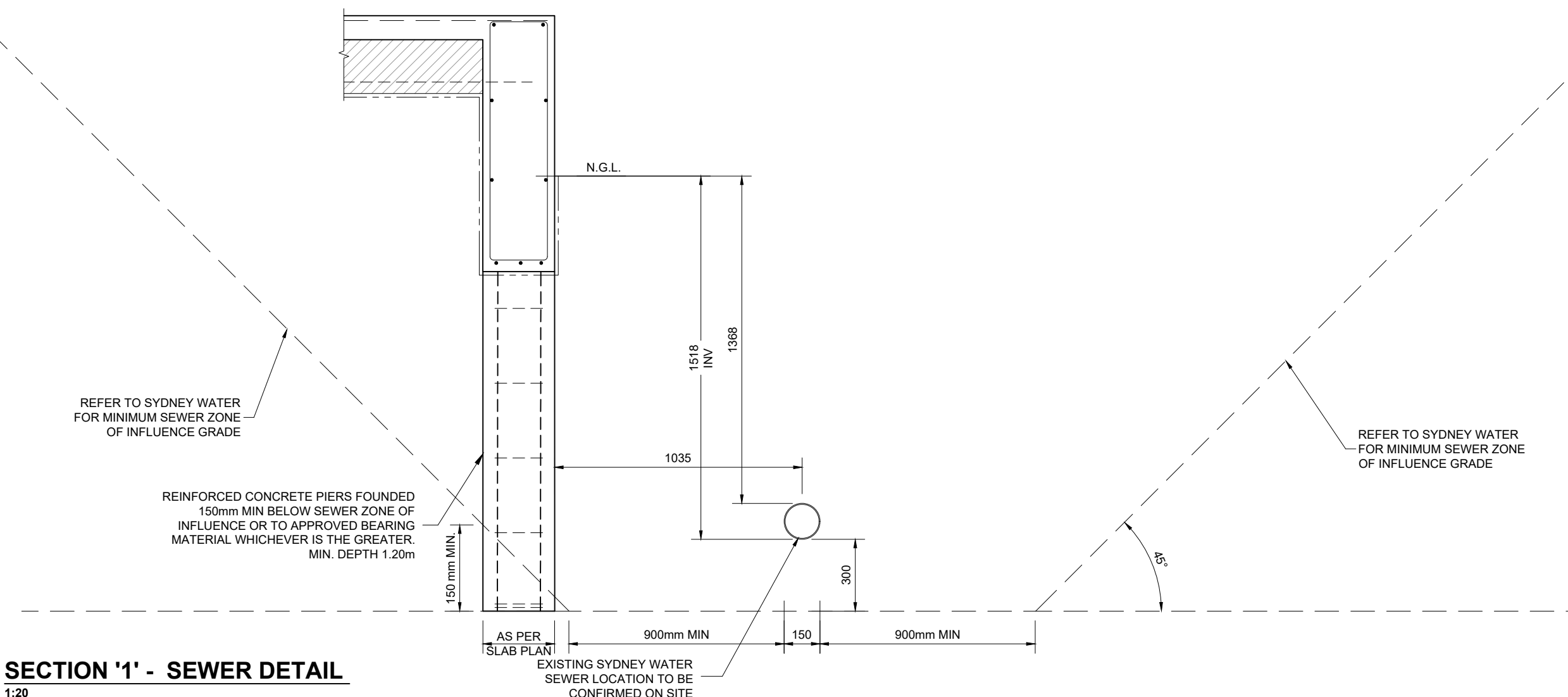


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PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939

STAIR DETAIL AND SEWER SECTION

JOB NUMBER: 24244	DWG NUMBER: S15	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	



SECTION '1' - SEWER DETAIL
1:20

NOTE: ALL CONSTRUCTION WORKS OVER OR ADJACENT TO SYDNEY WATER ASSETS TO BE IN ACCORDANCE WITH SYDNEY WATER REQUIREMENTS.

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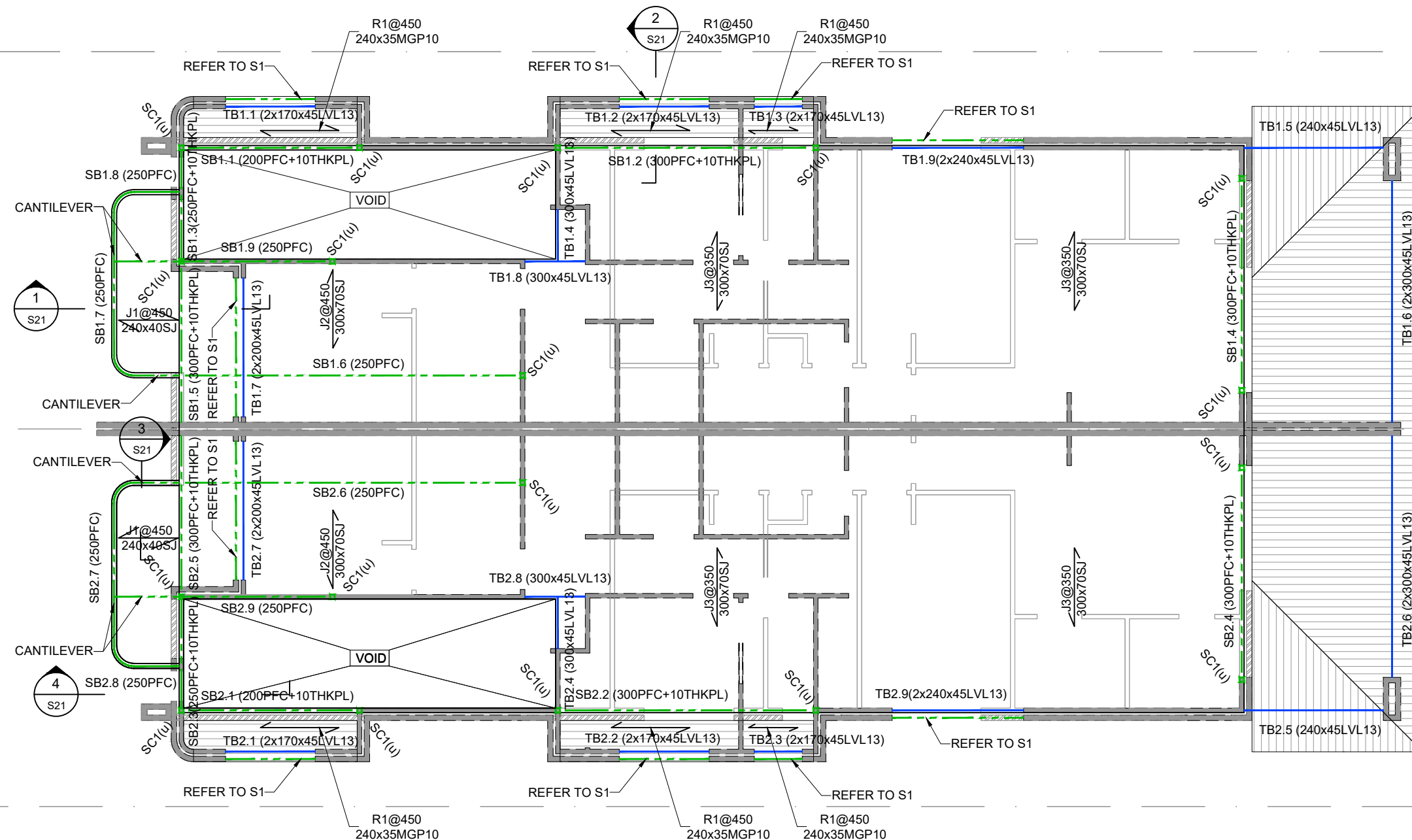


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PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN LOT 2, DP 38939
SEWER SECTION

JOB NUMBER: 24244	DWG NUMBER: S16	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	



FIRST FLOOR FRAMING PLAN

1:100

NOTES:

1. SC1 STEEL COLUMN 89 x 89 x 5 SHS.
2. ALL BEAMS TO BE SUPPORTED BY TRIPLE STUDS IF NO HARDWOOD POST IS DENOTED ON THE PLAN.
3. ALL LOAD BEARING WALLS CARRYING ROOF TO BE SUPPORTED BY DOUBLE PARALLEL JOISTS.
4. ALL OPENINGS ABOVE 900mm ARE TO BE SUPPORTED BY DOUBLE STUD ON EITHER SIDE.

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PROPOSED ATTACHED DUAL OCCUPANCY

166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939

FIRST FLOOR FRAMING PLAN

JOB NUMBER:
24244

DESIGNED BY:
A.N.

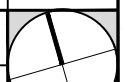
DRAWN BY:
A.N.

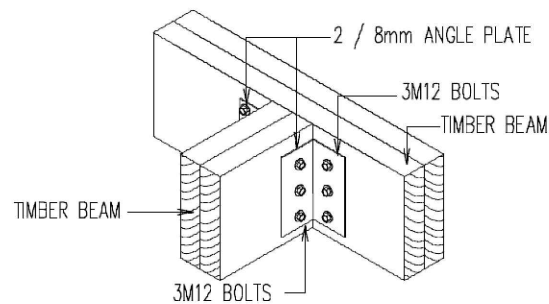
DWG NUMBER:
S20

DATE:
03.09.2024

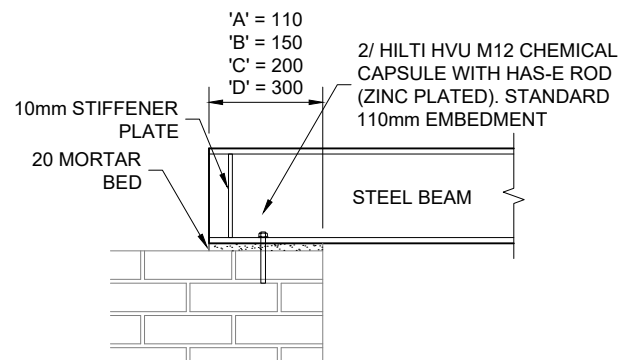
SCALE:
AS SHOWN

ORIGINAL SIZE:
A3

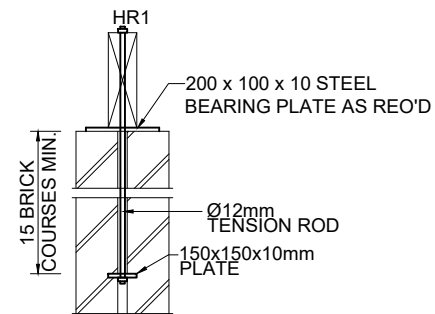




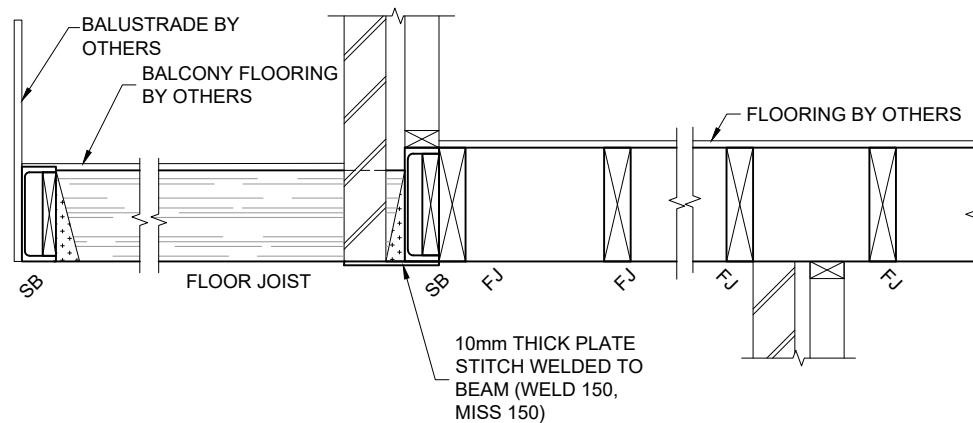
**TIMBER BEAMS
CONNECTION DETAIL**
NTS



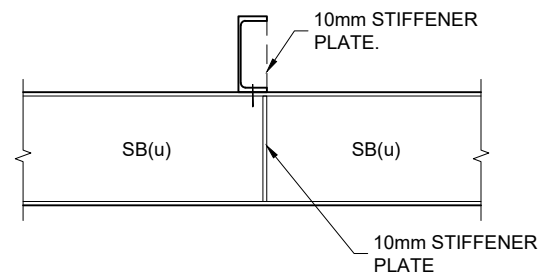
BEAM END BEARING DETAIL
1:20



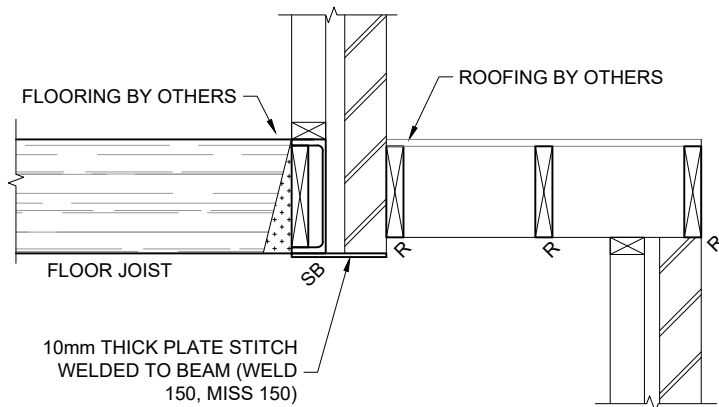
**TYPICAL TIMBER BEAM
HOLD DOWN ROD**
N.T.S



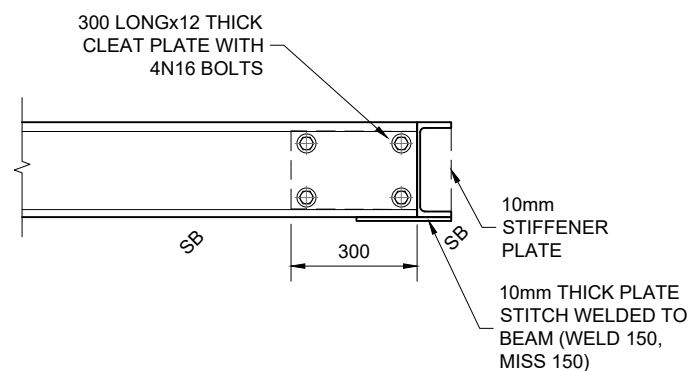
SECTION 1
1:20
S20



SECTION 3
1:20
S20



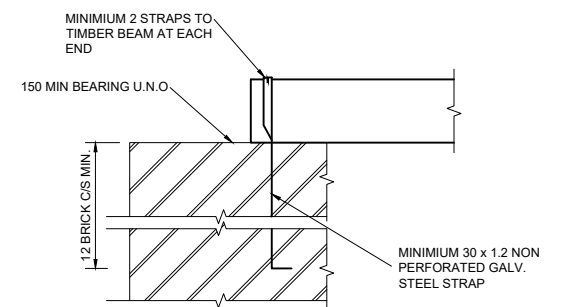
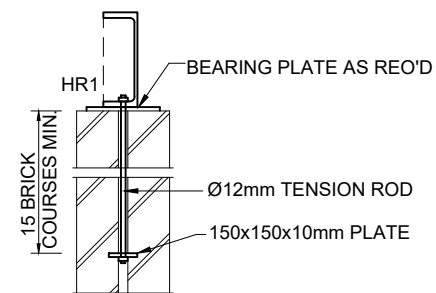
SECTION 2
1:20
S20



SECTION 4
1:20
S20

TIMBER FRAMING CONNECTION SCHEDULE		
MEMBER	CONNECTION	NAILING
BATTENS TO RAFTERS	-	2/75 x 3.05 DEFORMED SHANK NAILS
RAFTERS TO TOP PLATE OR BEAM	1 FRAMING ANCHOR	3/Ø2.8 NAILS TO EACH MEMBER
LINTELS TO STUDS	1 LOOPED 30 x 0.8 G.I. STRAP	3/Ø2.8 NAILS TO EACH MEMBER
TOP PLATE TO STUDS	1 LOOPED 30 x 0.8 G.I. STRAP TO EVERY THIRD STUD	3/Ø2.8 NAILS TO EACH MEMBER
STUDS TO BOTTOM PLATE	1 LOOPED 30 x 0.8 G.I. STRAP TO EACH STUD STRAPPED TO TOP PLATE	3/Ø2.8 NAILS TO EACH MEMBER
BOTTOM PLATE TO SLAB	M12 DYNABOLT WITHIN 100mm OF EACH STRAPPED STUD	-
BOTTOM PLATE TO JOIST	1 LOOPED 30 x 0.8 G.I. STRAP TO AT EACH STRAPPED STUD	3/Ø2.8 NAILS TO EACH MEMBER

**TYPICAL STEEL BEAM
HOLD DOWN ROD**
N.T.S



BEAM TIE DOWN DETAILS IN MASONRY
1:20

S1 - NON LOAD BEARING BRICK LINTEL SCHEDULE

SPAN	LINTEL SIZE	MIN. END BEARING
UPTO 2000	90 x 90 x 6.0 EA	150
OVER 2001 - 2400	90 x 90 x 8.0 EA	150
OVER 2401 - 2700	100 x 100 x 6.0 EA	150
OVER 2701 - 2900	100 x 100 x 8.0 EA	150
OVER 2901 - 3300	150 x 90 x 8.0 UA	150
OVER 3301 - 3600	150 x 100 x 10.0 UA	150

NOTE: ALL EXTERNAL STEEL TO BE HOT DIPPED GALVANISED
MAXIMUM HEIGHT OF BRICKWORK OVER LINTEL = 3000

TIMBER FRAMING MEMBER SCHEDULE

MEMBER	SIZE
BOTTOM PLATE	1/50 x 100 F7
WALL STUDS	100 x 38 F7 AT 600 MAX CTS *
TOP PLATE	2/50 x 100 F7
RAFTERS	REFER TO PLAN
BATTENS	35 x 70 F7

* PROVIDE TRIPLE NAIL LAMINATED STUDS AT EACH SIDE OF WINDOWS AND DOORS

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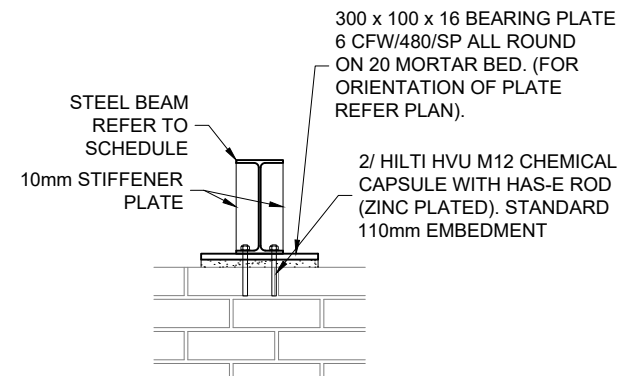
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E: abraham@nemcodesign.com.au

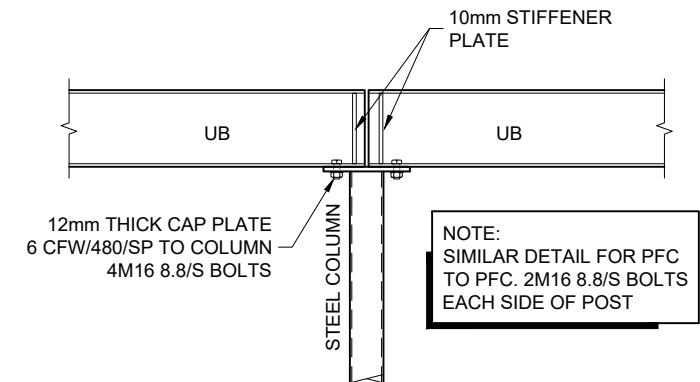
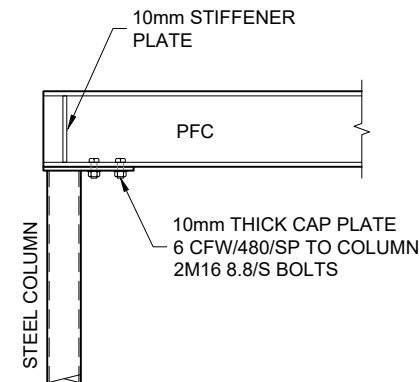
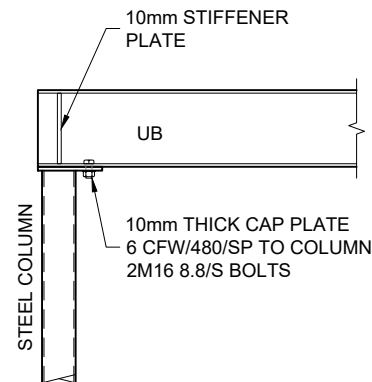
PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939

FIRST FLOOR FRAMING DETAILS

JOB NUMBER: 24244	DWG NUMBER: S21	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	



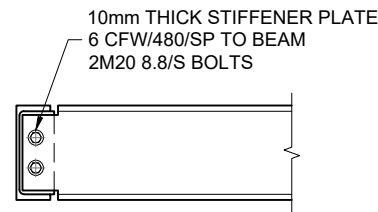
**TYPICAL BEARING
PLATE DETAIL**
1:20



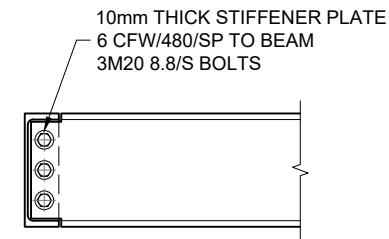
TYPICAL COLUMN CAP DETAILS
1:20
BEAMS TO BE LOCATED CENTRALLY OVER COLUMN TYPICAL
ALTERNATIVELY SITE WELD USING 6 CFW/480/SP ALL ROUND



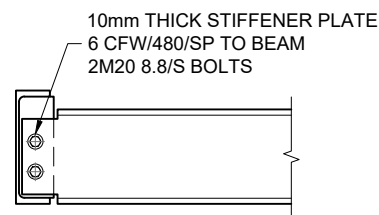
STEEL BEAM CONNECTION - 200 PFC TO 200 PFC
180 PFC TO 180 PFC SIM.
(CONNECTION CAPACITY 55 kN ULTIMATE)
ALTERNATIVELY SITE WELD USING 6 CFW/480/SP ALL ROUND



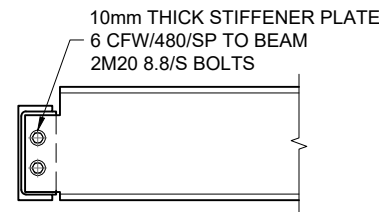
STEEL BEAM CONNECTION - 250 PFC TO 250 PFC
(CONNECTION CAPACITY 100 kN ULTIMATE)
ALTERNATIVELY SITE WELD USING 6 CFW/480/SP ALL ROUND



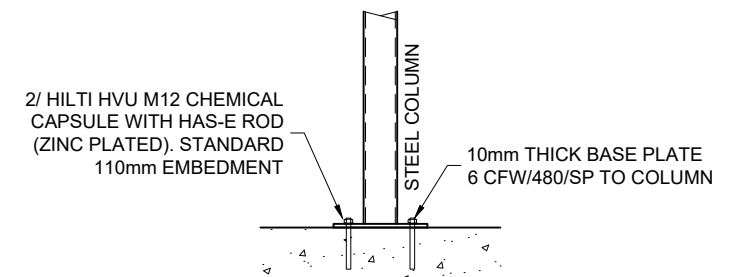
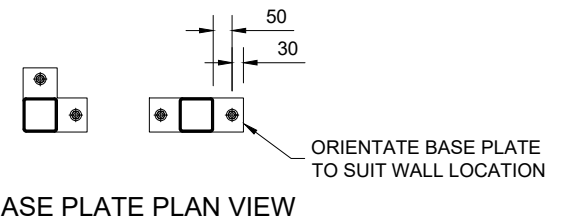
STEEL BEAM CONNECTION - 300 PFC TO 300 PFC
(CONNECTION CAPACITY 100 kN ULTIMATE)
ALTERNATIVELY SITE WELD USING 6 CFW/480/SP ALL ROUND



LARGER BEAM SUPPORTING SMALLER BEAM
SMALLER BEAM MAX. SIZE = 250 PFC
(CONNECTION CAPACITY 100 kN ULTIMATE)
ALTERNATIVELY SITE WELD USING 6 CFW/480/SP ALL ROUND



SMALLER BEAM SUPPORTING LARGER BEAM
LARGER BEAM MAX. SIZE = 300 PFC
(CONNECTION CAPACITY 100 kN ULTIMATE)
ALTERNATIVELY SITE WELD USING 6 CFW/480/SP ALL ROUND



TYPICAL COLUMN BASE DETAIL
1:20

NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO
ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE.

REVISION
A

REV	DATE	DESCRIPTION	BY
A	03.09.2024	ISSUED FOR CDC	SJ

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PROPOSED ATTACHED DUAL OCCUPANCY
166 FLUSHCOMBE RD, BLACKTOWN
LOT 2, DP 38939

TYPICAL STEEL DETAILS

JOB NUMBER: 24244	DWG NUMBER: S30	ORIGINAL SIZE: A3
DESIGNED BY: A.N.	DATE: 03.09.2024	
DRAWN BY: A.N.	SCALE: AS SHOWN	