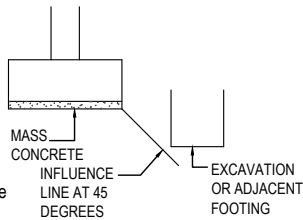


GENERAL NOTES

- 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, UNO (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

- F1 Assumed classification of site: M (Moderately Reactive Site) UNO.
- F2 Footings have been designed for an allowable bearing pressure of 150 kPa UNO. 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, UNO.
- F5 Where an excavation is required or exists below the base of a footing the side of the excavation shall be located away from edge of footing by the same distance that the excavation is below footing base. where this cannot be achieved, 'hyten engineering' shall be contacted for further direction. mass concrete is to extend to the influence line as required.



- F6 All walls and columns shall be concentric with the supporting footings unless noted otherwise on the drawings.

LOADING

- L1 Superimposed floor loads are generally in accordance with AS 1170.1 or as noted in Table L4.
- L2 Wind loads are in accordance with AS/NZS 1170.2 as follows:  
Region : A 2 Regional Wind Velocity, V500 : 45 m/s Category : 3, UNO.
- L3 Earthquake loads are in accordance with AS 1170.4 as follows:  
a = 0.08 S = 1.0 I = 1.0, UNO.
- L4 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 (Fuc) = 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 Portland Type A	20
Slabs on Ground	80	20		25
Suspended Floors	80	20		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	(50)	30	25	20	20
B1	-	(60)	40	30	25
B2	-	-	(65)	45	35
C	-	-	-	(70)	50

For bracketed figures refer to AS 3600 current edition table 4.10.3.2

- 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.
- C19 All thicknesses shown are minimum structural requirements, no reduction thickness due to falls or topping is permitted. refer architect drawings for all slab falls and confirmation of slab steps. No penetrations greater than 150mm diameter, or embedment of pipes greater than 40mm
- C20 diameter other than those shown on the structural drawings shall be made in concrete slabs. for all other concrete members no penetrations, chases or embedments shall be made without prior approval by 'hyten engineering'

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, UNO:  
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.
- S5 All welds shall be 6 mm continuous fillet type SP, UNO. All butt welds shall be complete penetration in accordance with AS 1554.1, UNO.
- S6 Bolt designation:  
4.6/S: Commercial bolts to AS 1111, snug tightened  
8.8/S: High strength structural bolts to AS 1562, snug tightened  
8.8/TB: High strength structural bolts to AS 1562, fully tensioned bearing joint to AS 1511  
8.8/TF: High strength structural bolts to AS 1562, fully tensioned friction joint to AS 1511
- S7 All bolts shall be M16 8.8/S, with a minimum of 2 bolts per connection, UNO. 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, UNO.
- S9 Concrete encased steelwork shall be wrapped with SL41 fabric and shall have a minimum of 50 mm cover, UNO.
- 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

MASONRY NOTES

- M1 All workmanship and materials shall be in accordance with as 3700.
- M2 All blockwork walls shall be constructed in grade 16 blocks (15mpa) according to as 2733. all Bricks shall have a minimum unconfined compressive strength of 20 mpa according to as 3600. the maximum unrestrained five year expansion of bricks shall be in accordance with nata test bo1. All masonry supporting or supported by concrete floors shall be provided with vertical joints to match any control joints in the concrete.
- M3 Non load bearing wall shall be separated from concrete above by 12mm thick close cell polyethelene strips.
- M4 No chases or recesses are permitted in the load bearing masonry without the approval of the engineer.
- M5 Mortar admixtures shall not be used without the written approval of the engineer. unless noted otherwise the nominal proportions by volume of mortar shall be 1 : 1 : 6 of cement, lime and sand. no plasticisers to be used in the mix.
- M6 Grout used to fill cavities and cores in reinforced masonry 15mpa and a slump of 230mm (+/- 25mm). maximum aggregate size of 10mm rounded gravel. nominal proportions shall be 1 : 0.3 : 3 : 2 of cement, lime, sand and aggregate and with a minimum cement content of 300 kg/cm. provide clean out holes at base of pilasters and every core of reinforced walls.
- M7 Horizontal joint reinforcement shall be provided at maximum 600 vertical spacing for all concrete blockwork, concrete brickwork, and calcium silicote brickwork.
- M8 Hollow blockwork openings greater than 600mm vertically or horizontally shall be trimmed at the sides and bottom by filling one core and reinforce with 1n12 extending 600mm past opening. the top of the opening shall have a reinforced lintel beam, arch bar or steel angle support as detailed. All ties and reinforcement shall have a minimum clear cover of 50mm to external face of masonry. All walls shall be tied or bonded at their intersections.
- M1 No cavity or core shall be filled to a height greater than 1200mm without suitable shoring.
- M1 All masonry walls and piers supporting slabs and beams between concrete soffit and the top of the masonry element, denoted as 's.j.' throughout.
- M1 Provide vertical control joints at 10m maximum centres and 5m maximum from corners in all masonry walls, u.n.o. by as2870.
- M1 Backfill to retaining walls to be free draining granular material unless noted otherwise. provide subsoil drain to weep holes.
- M1 Do not construct masonry walls on suspended concrete slabs until slab has been stripped and de-propped.
- M1 All cavity construction to have galvanised/stainless steel wall ties installed as per clause 3.8, in as 3700.

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), in accordance with AS 1289.
- 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.

BRICK LINTEL SCHEDULE

OPENING SIZE (mm)	INTERNAL SKIN	EXTERNAL SKIN	END BEARING
UP TO 900mm	100 x 8mm FLAT BAR	100 x 6mm FLAT BAR	100 mm
1200	100 x 10mm FLAT BAR	100 x 8mm FLAT BAR	100 mm
1500	100 x 100 x 8mm ANGLE	100 x 100 x 6mm ANGLE	150 mm
2100	150 x 100 x 8mm ANGLE	150 x 100 x 6mm ANGLE	150 mm
2400	150 x 100 x 8mm ANGLE	150 x 100 x 8mm ANGLE	150 mm
2700	150 x 100 x 10mm ANGLE	150 x 100 x 10mm ANGLE	150 mm
3000	150 x 100 x 12mm ANGLE	150 x 100 x 12mm ANGLE	150 mm

\*ALL STEEL LINTELS TO BE HOT DIPPED GALVANIZED

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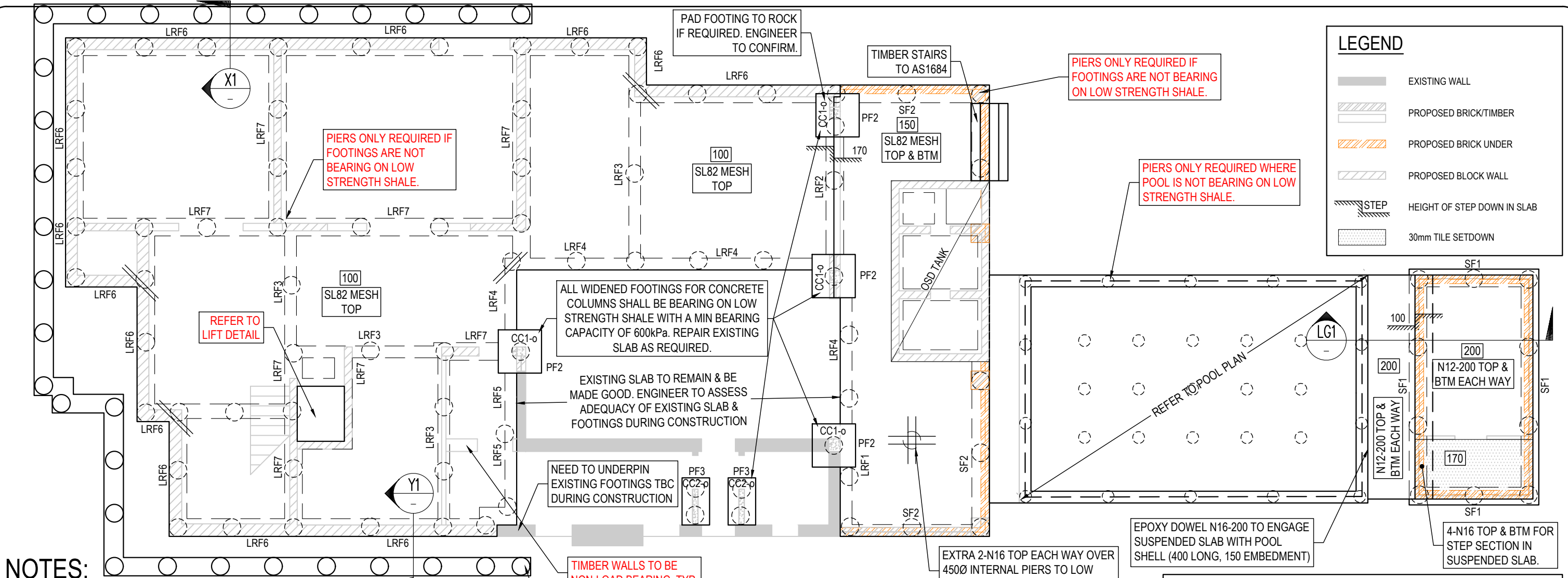
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Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	COVER SHEET	Design	M.A.	Drawn	D.B.
ISSUED FOR CONSTRUCTION CERTIFICATE		Project Number 23 H 104		Drawing Number S00	





## NOTES:

1. DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECTURALS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL SETOUT, LEVELS, FALLS ETC.
3. GEOTECHNICAL ENGINEER TO VERIFY THE SAFE BEARING CAPACITY OF FOUNDATION MATERIAL PRIOR TO CONSTRUCTION.

CONCRETE QUALITY				
ELEMENT	SLUMP	AGGREGATE MAX. SIZE	CEMENT TYPE	f <sub>c</sub>
SLAB ON GROUND	80mm	20mm	A	25 MPa
FOOTING	80mm	20mm	A	25 MPa
SUSPENDED SLAB	80mm	20mm	A	40 MPa
BLOCK WALL	120mm	20mm	A	40 MPa

REINFORCEMENT COVER SCHEDULE				
MEMBER	COVER			EXPOSURE CLASSIFICATION
	TOP	BOTTOM	SIDES	
SLAB ON GROUND	40mm	40mm	40mm	A1
FOOTING	40mm	40mm	40mm	A1
EXTERNAL SUSPENDED SLAB	45mm	45mm	45mm	B2
BLOCK WALL	50mm	50mm	50mm	B2

## LOWER GROUND FLOOR PLAN

SCALE 1:100

## RAFT SLAB NOTES:

1. IN LOCATIONS WHERE BEARING IS INADEQUATE OR NON UNIFORM, PROVIDE PIERS IN ACCORDANCE WITH ENGINEERS INSTRUCTIONS ON SITE. IT IS THE BUILDERS RESPONSIBILITY TO ADVISE THE ENGINEER OF ANY SUCH CONDITION PRIOR TO PLACING REINFORCEMENT.
  2. ALL TOPSOIL AND GRASS ROOTS TO BE REMOVED FROM THE AREA ON WHICH THE SLABS ARE TO REST. FILLING TO BE INERT ( NON REACTIVE ) GRANULAR MATERIAL, WHERE REQUIRED, WELL WATERED AND COMPACTED IN 200 MM. MAX. LAYERS IN ACCORDANCE WITH AS2870.
  3. POUR SLABS ON FORTECON MEMBRANE LAID OVER 50 COMPACTED SAND BED
  4. ALL EXPOSED SLABS TO BE WATERPROOFED WITH APPROVED SYSTEMS
  5. NOTE: ALL SLABS ON GROUND TO BE TYPE S1 UNLESS FILL EXCEEDS 600MM ACCORDINGLY IF FILL EXCEEDS 600MM, USE TYPE S2.
- SLAB S1 TO BE 100 THICK WITH SL82 MESH TOP THROUGHOUT.  
SLAB S2 TO BE 150 THICK WITH SL82 MESH TOP AND BTM. THROUGHOUT.

## FOUNDATION NOTE

THE FOOTINGS SHALL BE FOUNDED ON **LOW STRENGTH SHALE** WITH A MINIMUM SAFE BEARING CAPACITY OF **600 kPa**. IF LOW STRENGTH SHALE IS NOT FOUND THEN PIERS MUST BE PROVIDED AS PER PLAN.

## BORED PIER NOTE

- BORED PIERS SHALL BE USED IN ACCORDANCE WITH THE FOLLOWING:
- ALL PIERS TO BE 450Ø MASS CONCRETE ( $f'c=25MPa$ ) U.N.O
  - SET OUT AS PER THE ADJACENT PLAN.
  - PIERS TO BE FOUND ON **LOW STRENGTH SHALE** THAT IS UNIFORM & STABLE THROUGHOUT.
  - FOUNDED A MINIMUM OF **700mm** BELOW EXISTING GROUND LEVEL.
  - ALL PIER GREATER THAN 2m or THROUGH FILL GREATER THAN 1m DEEP or CLASS P SITE TO BE REINFORCED WITH: 4N16 + R10-300 HELICAL TIES
  - MINIMUM SAFE **END BEARING OF 600 kPa & SKIN FRICTION OF 30 kPa**.

## IMPORTANT:

IT SHOULD BE NOTED THAT EXISTING STRUCTURE AND DETAILS HAVE BEEN ASSUMED BASED ON LOCAL KNOWLEDGE. IN ADDITION, PLANS AND DETAILS ISSUED FOR THIS PROJECT MAY BE SUBJECT TO CHANGE DURING CONSTRUCTION. IT IS THE BUILDERS RESPONSIBILITY TO ADVISE HYTEN ENGINEERING IF CHANGES ARE REQUIRED &/OR WHAT IS INDICATED ON THE PLANS DO NOT CORRELATE TRUE TO SITE &/OR DURING CONSTRUCTION.

EXISTING STRUCTURE HAS BEEN ASSUMED TO BE ADEQUATE. IF THIS IS NOT TRUE &/OR THERE APPEARS TO BE STRUCTURAL ADEQUACY CONCERNS OF THE EXISTING STRUCTURE THEN IT IS THE BUILDERS RESPONSIBILITY TO ADVISE HYTEN ENGINEERING PRIOR OR DURING CONSTRUCTION.

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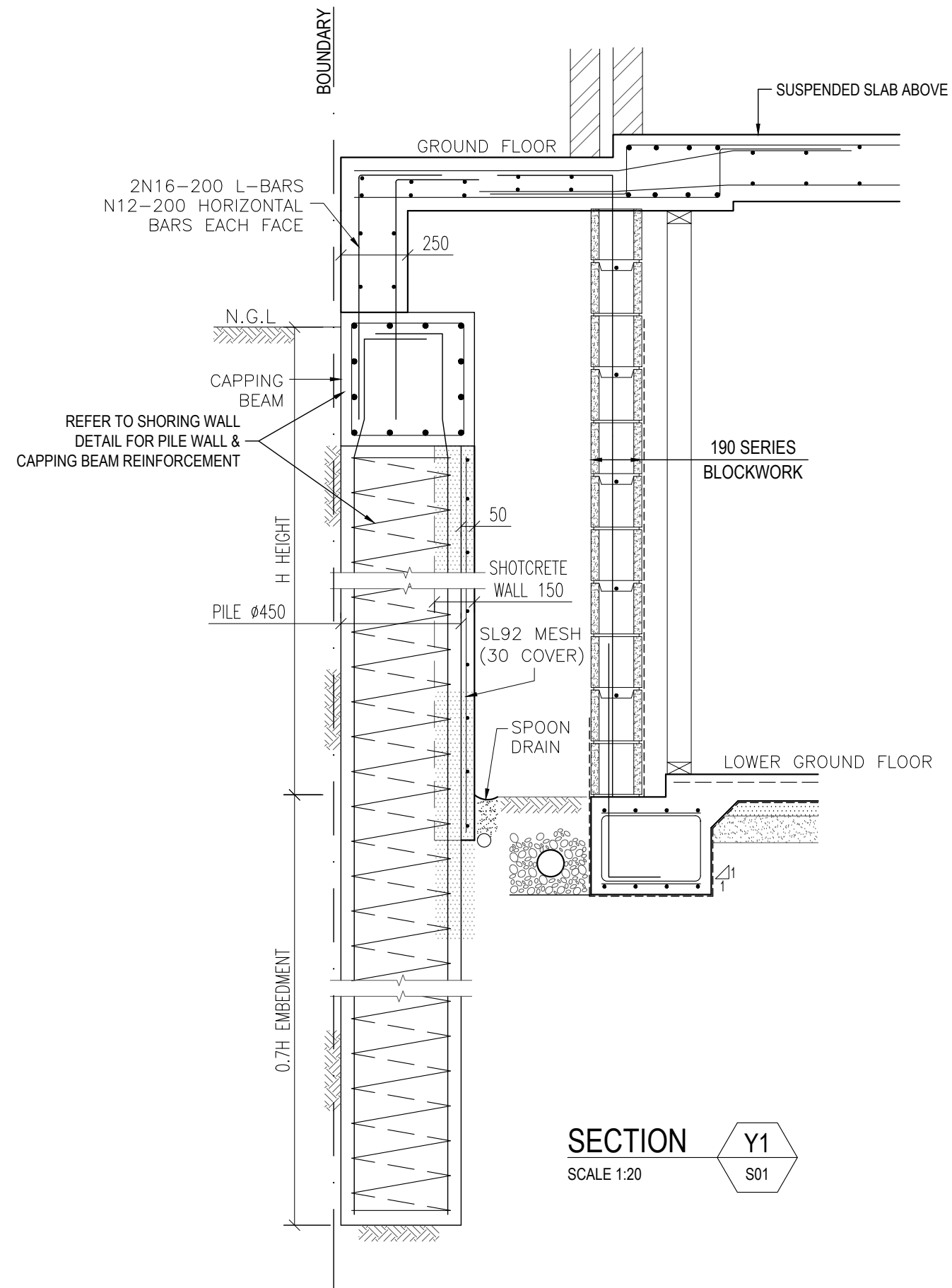
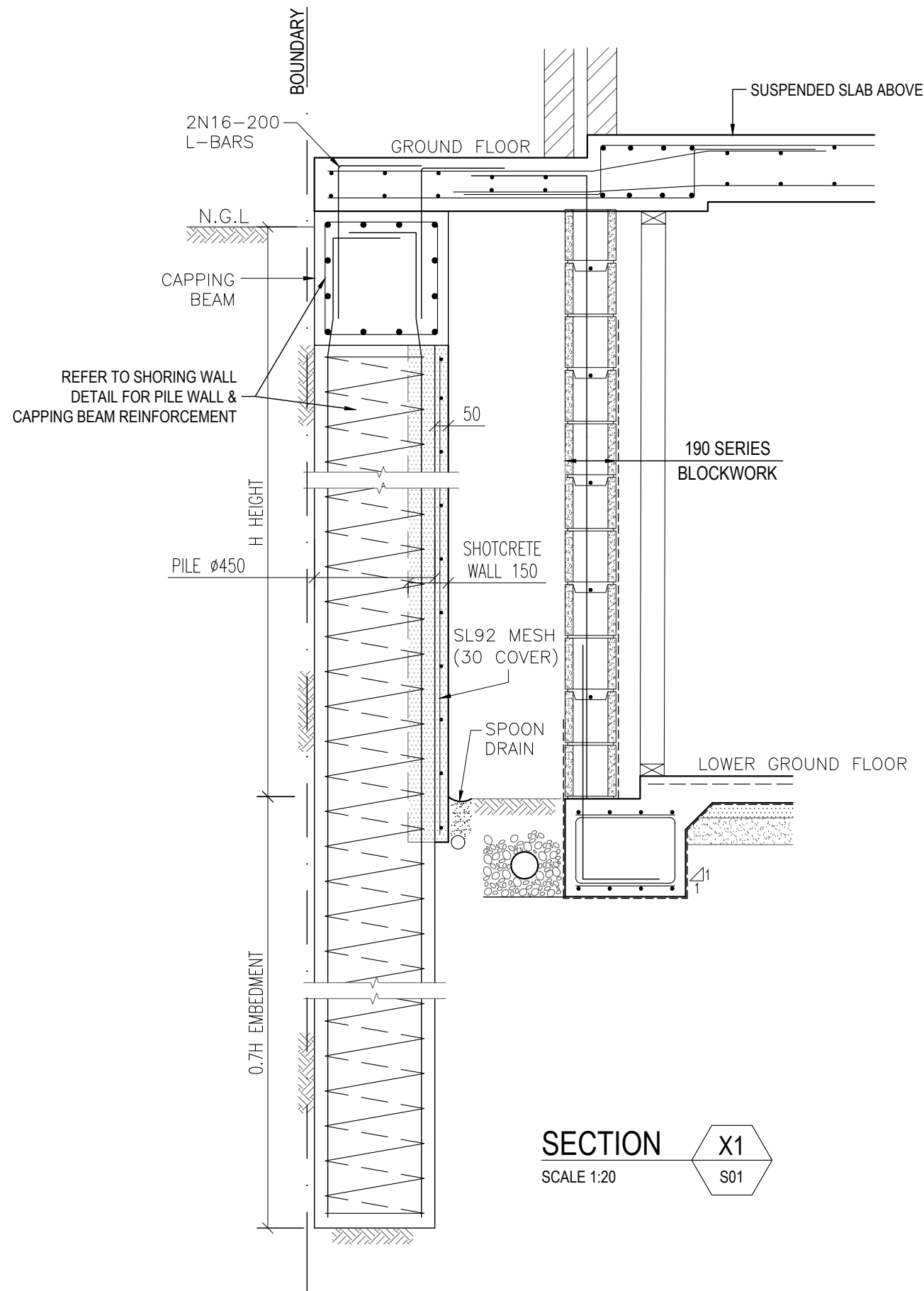
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Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	LOWER GROUND FLOOR PLAN	Design	M.A.	Drawn	D.B.
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S01





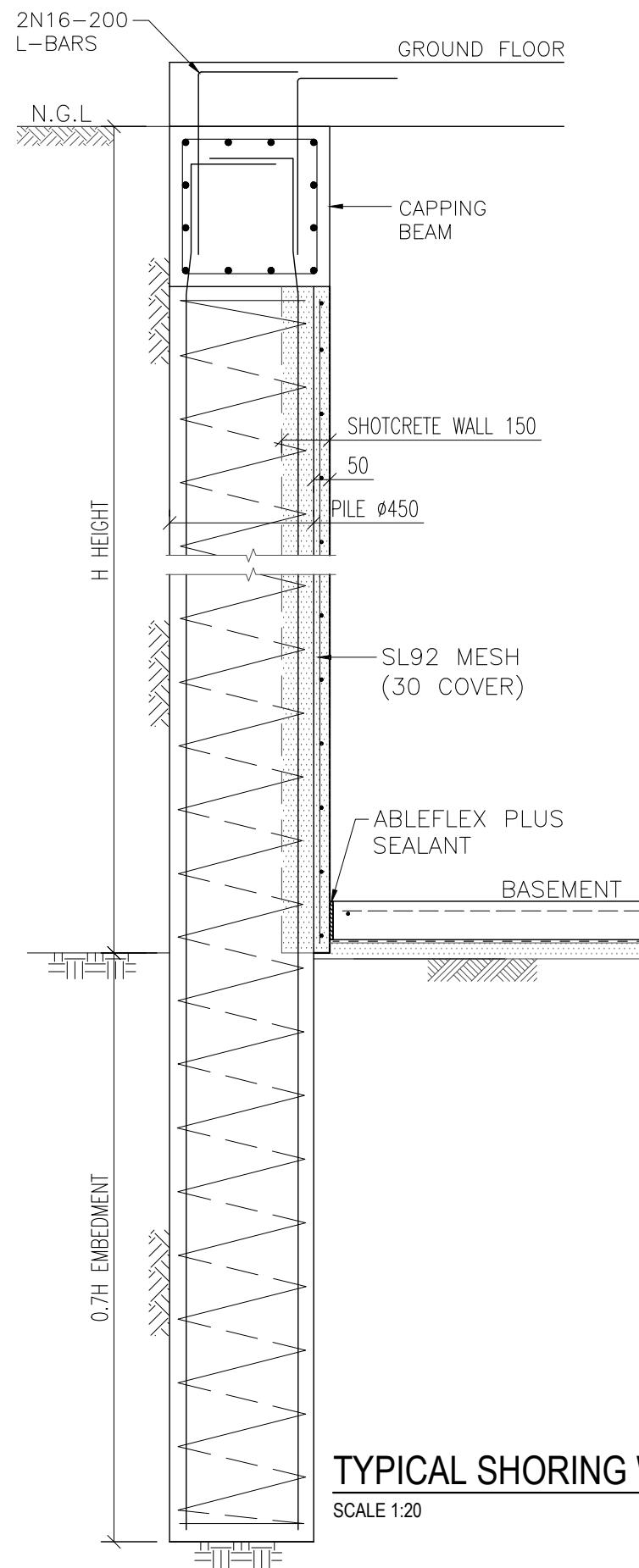
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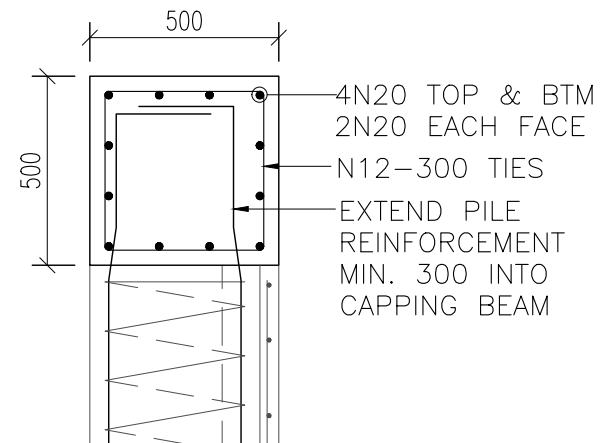


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Project	23 HAY STREET, COLLAROY

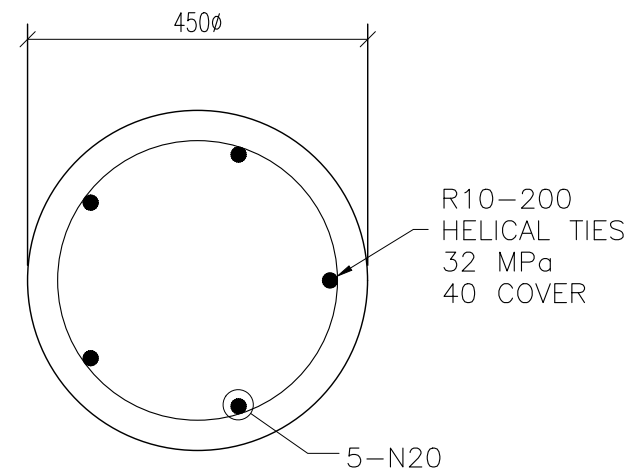
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ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S01a



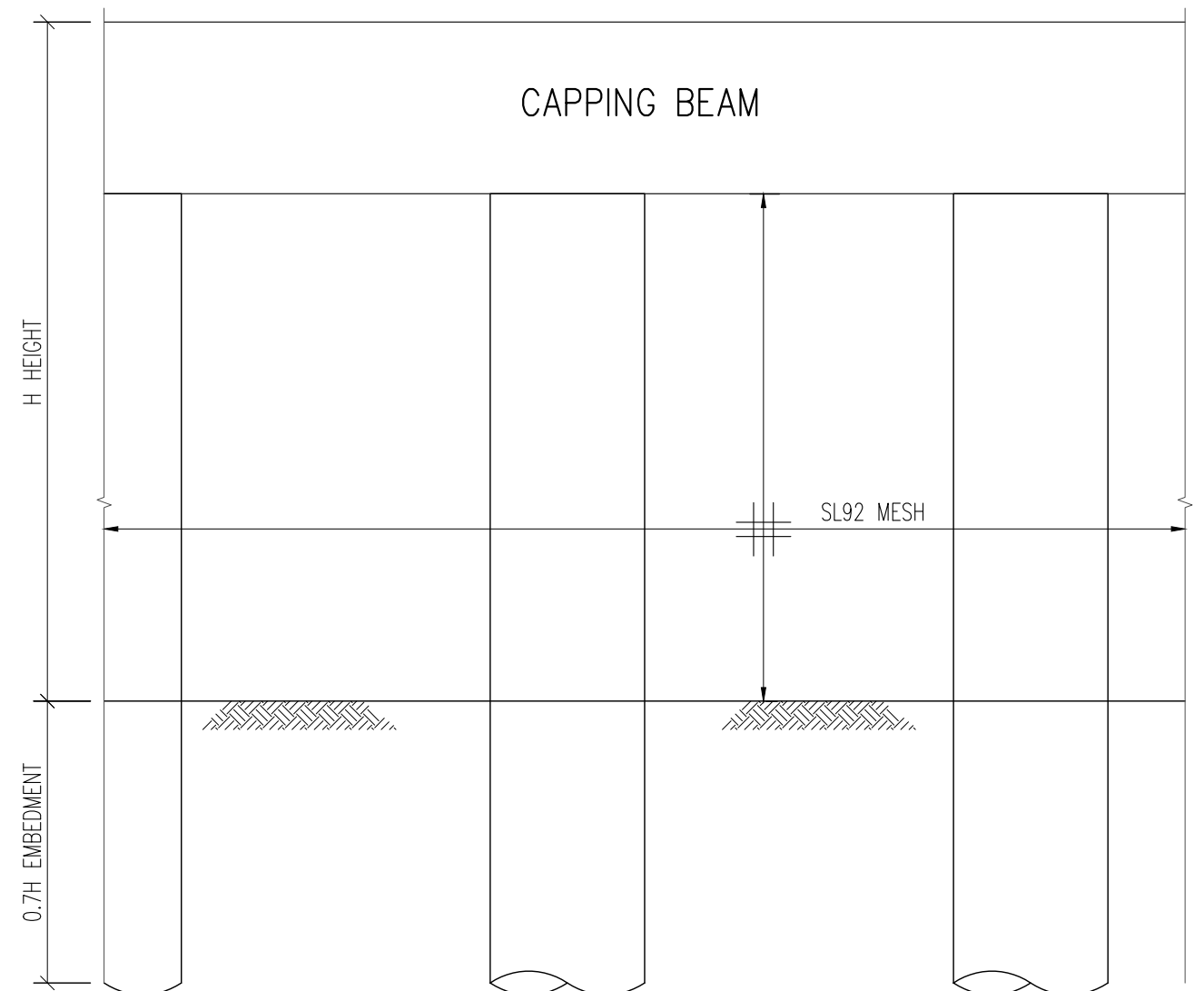
**TYPICAL SHORING WALL DETAIL**  
SCALE 1:20



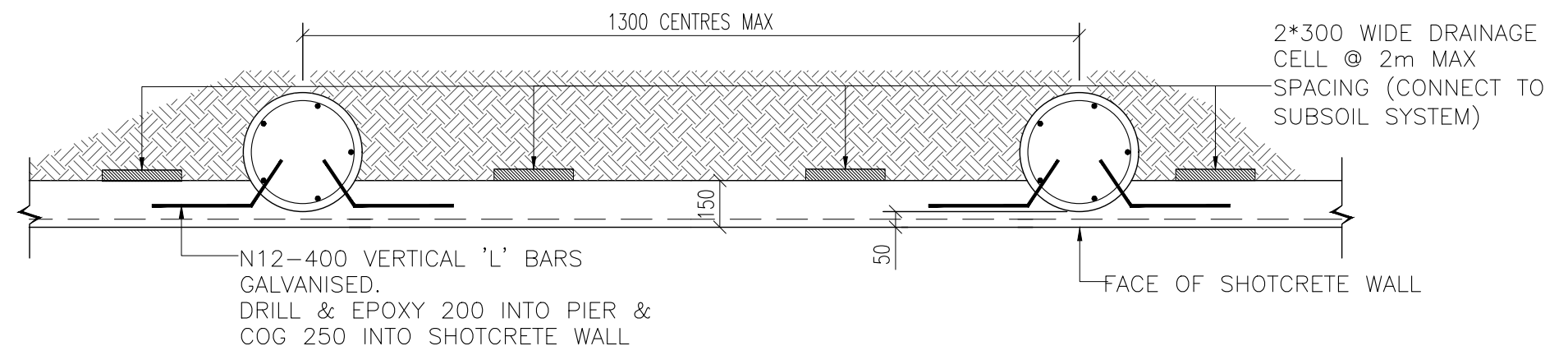
**TYPICAL CAPPING BEAM DETAIL**  
SCALE 1:20



**PILE SECTION**  
SCALE 1:10



**TYPICAL SHOTCRETE WALL REINFORCEMENT LAYOUT**  
SCALE 1:20



**SHOTCRETE WALL PLAN**

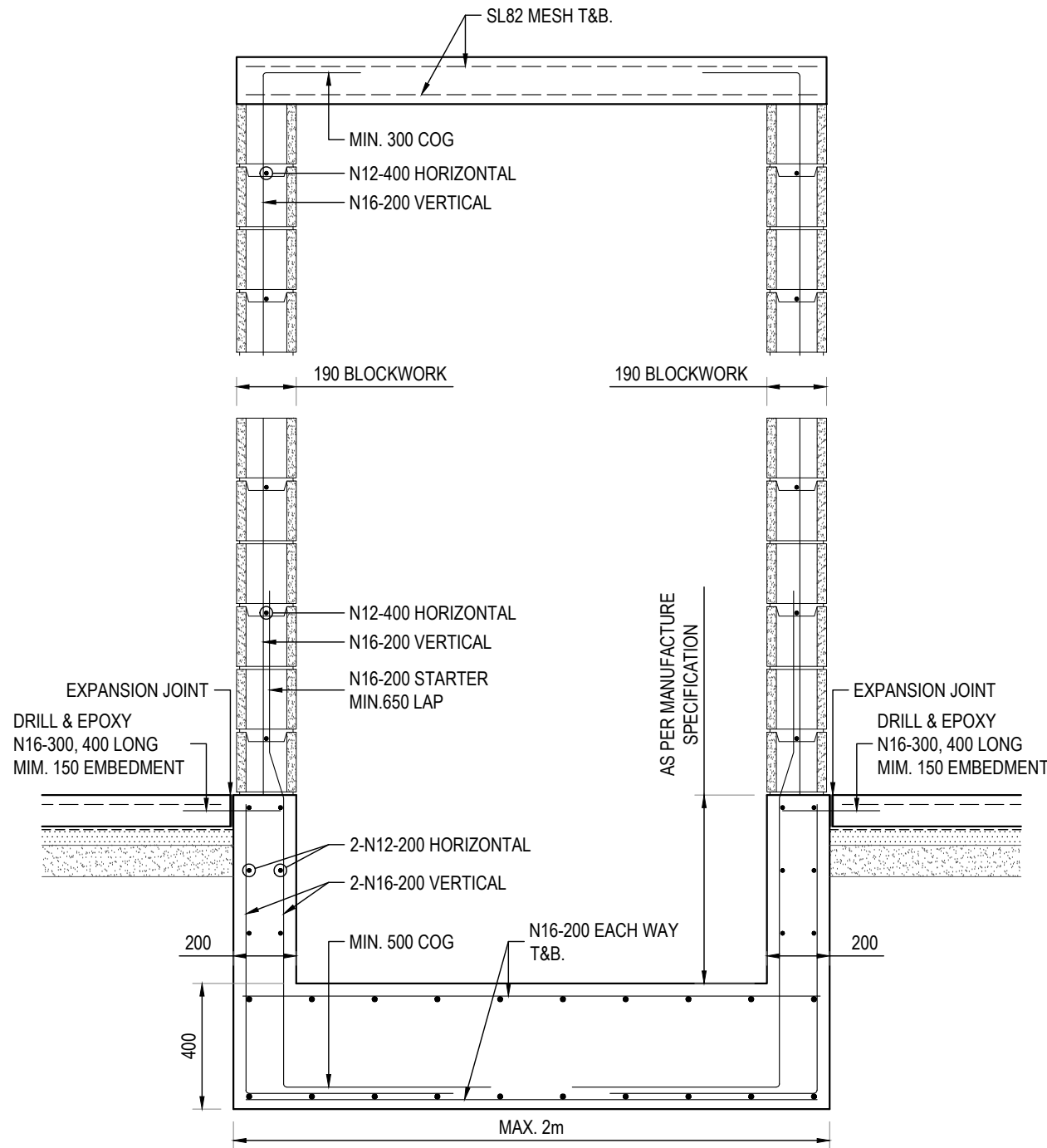
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Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	TYPICAL SHORING WALL DETAILS	Design	M.A.	Drawn	D.B.
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S01b



### LIFT SHAFT DETAIL

SCALE 1:20

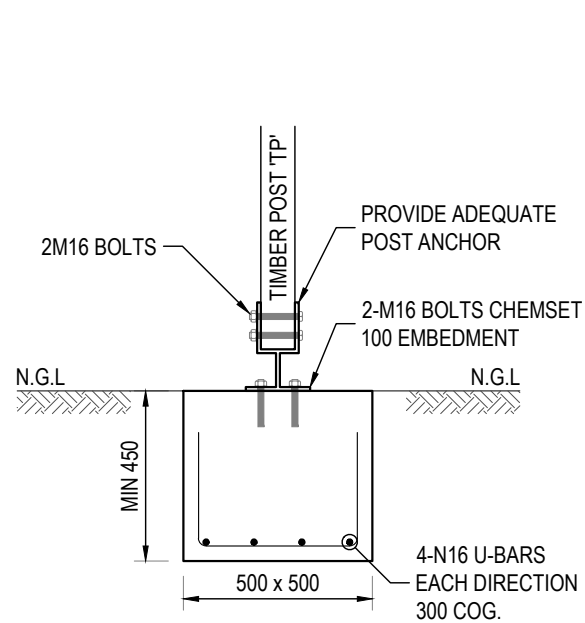
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D	ISSUED FOR C.C.	D.B.	M.A.	21.06.2024
C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024

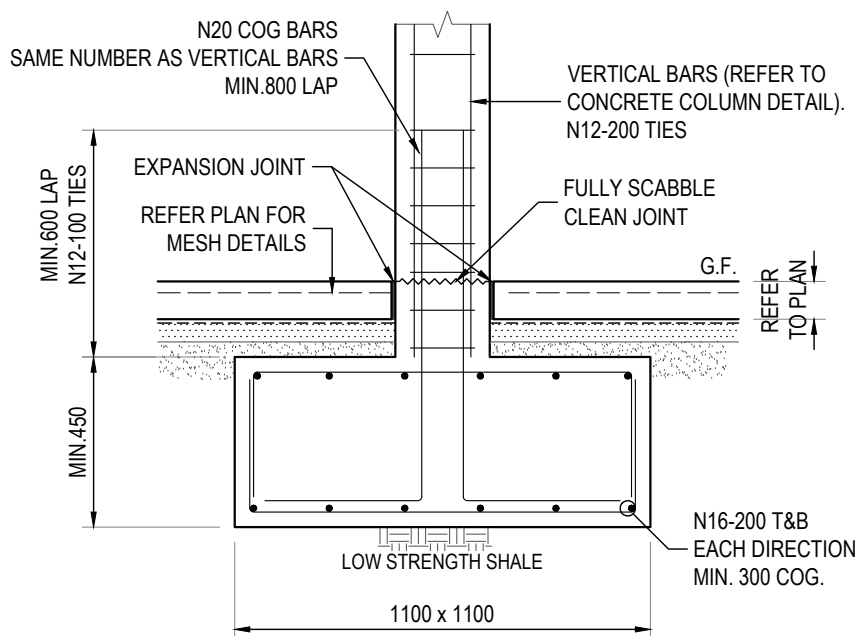


Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

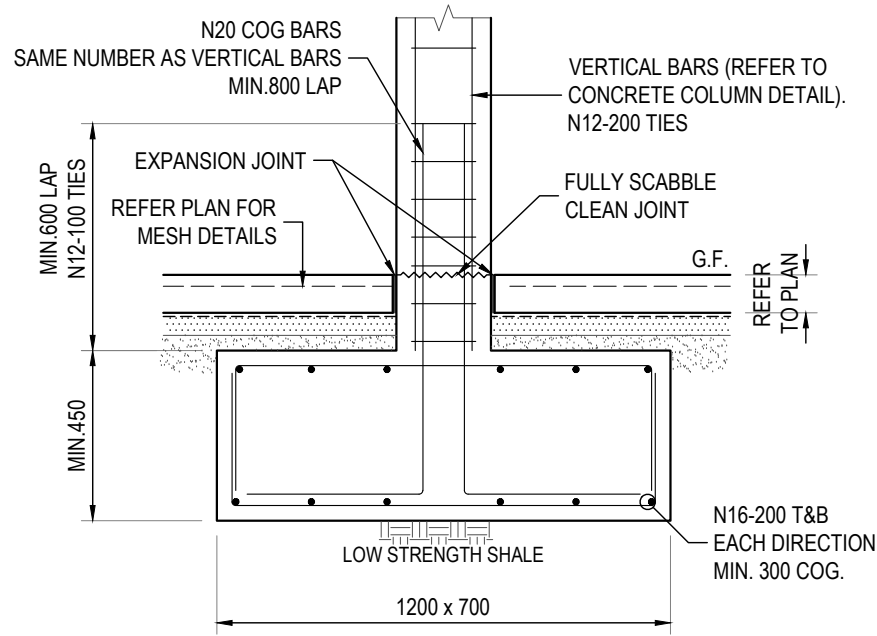
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LIFT DETAILS		M.A.	D.B.
ISSUED FOR		Project Number	Drawing Number
CONSTRUCTION CERTIFICATE		23 H 104	S01c



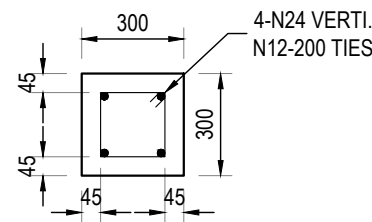
**PAD FOOTING: PF1**  
SCALE 1:20



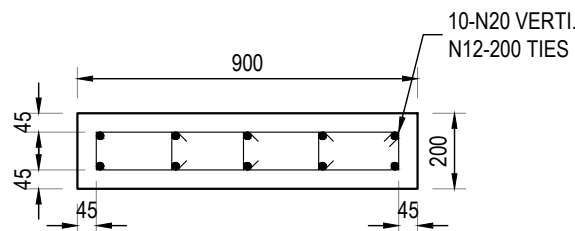
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SCALE 1:20



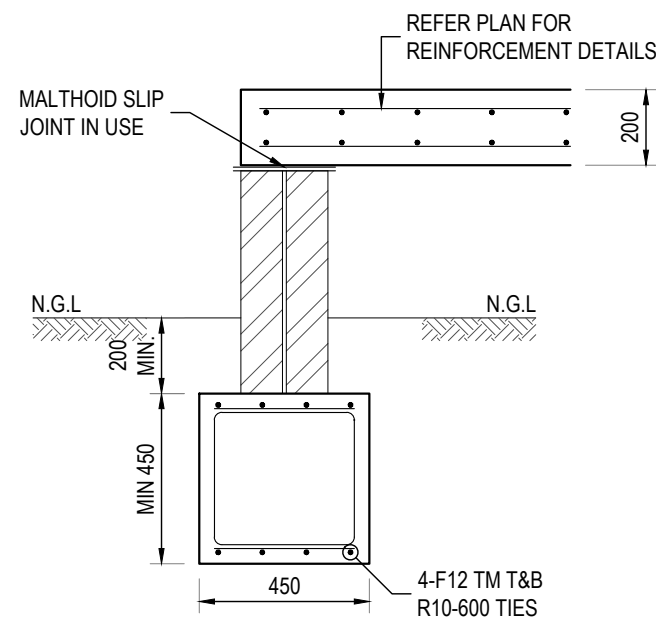
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SCALE 1:20



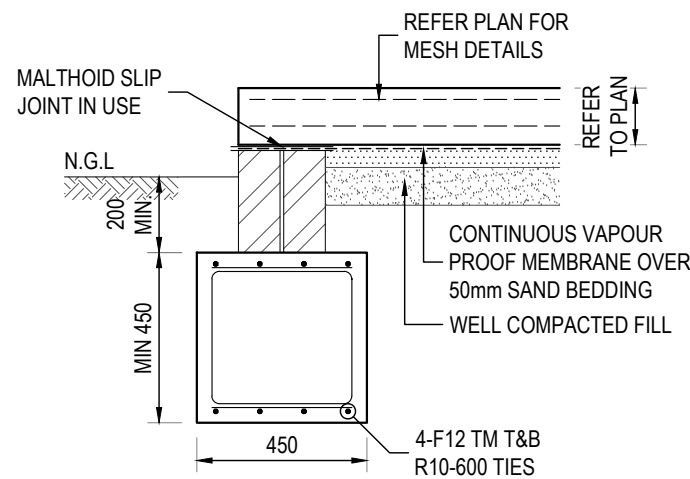
**CONCRETE COLUMN: CC1**  
SCALE 1:20



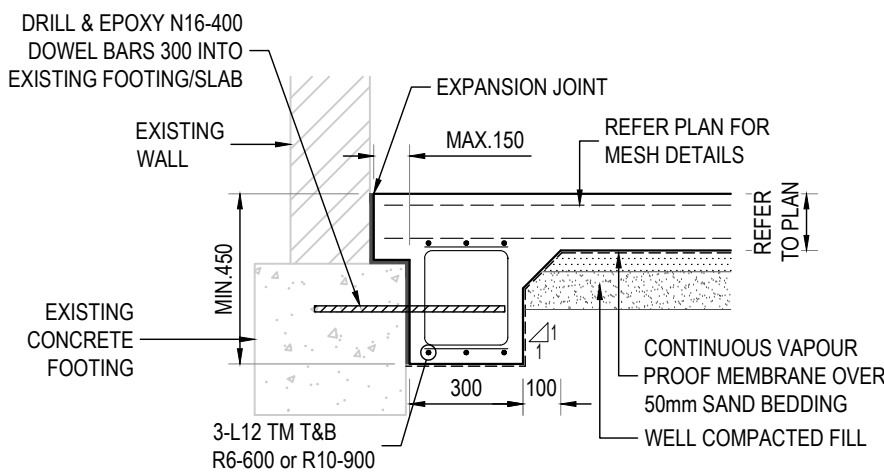
**CONCRETE COLUMN: CC2**  
SCALE 1:20



**STRIP FOOTING: SF1**  
SCALE 1:20



**STRIP FOOTING: SF2**  
SCALE 1:20



**RAFT FOOTING: LRF1**  
SCALE 1:20

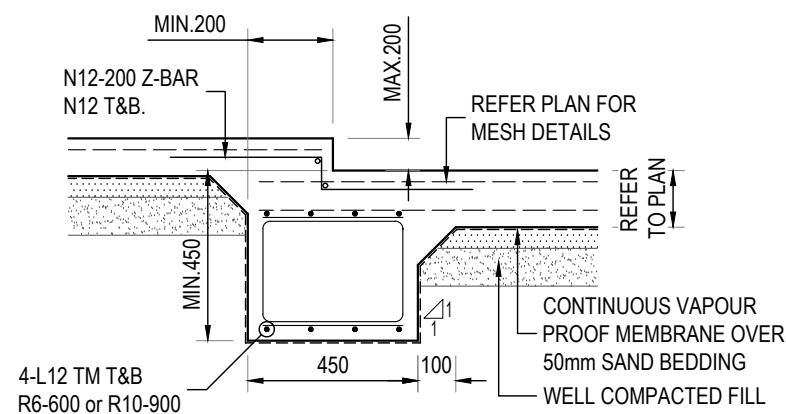
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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



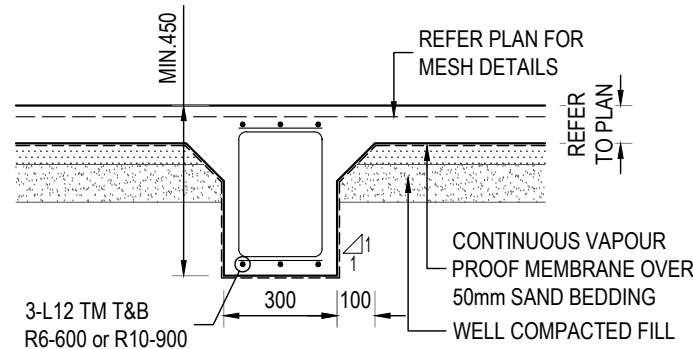
Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	LOWER GROUND FLOOR DETAILS 1 of 3
ISSUED FOR	CONSTRUCTION CERTIFICATE
Project Number	23 H 104
Design	M.A.
Drawn	D.B.
Drawing Number	S02



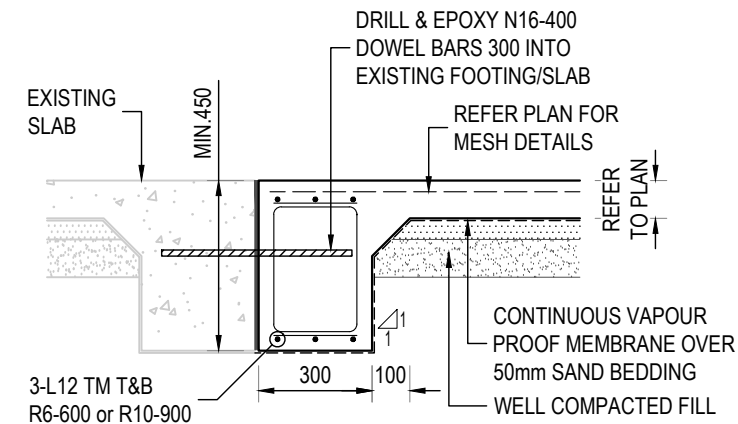
**RAFT FOOTING: LRF2**

SCALE 1:20



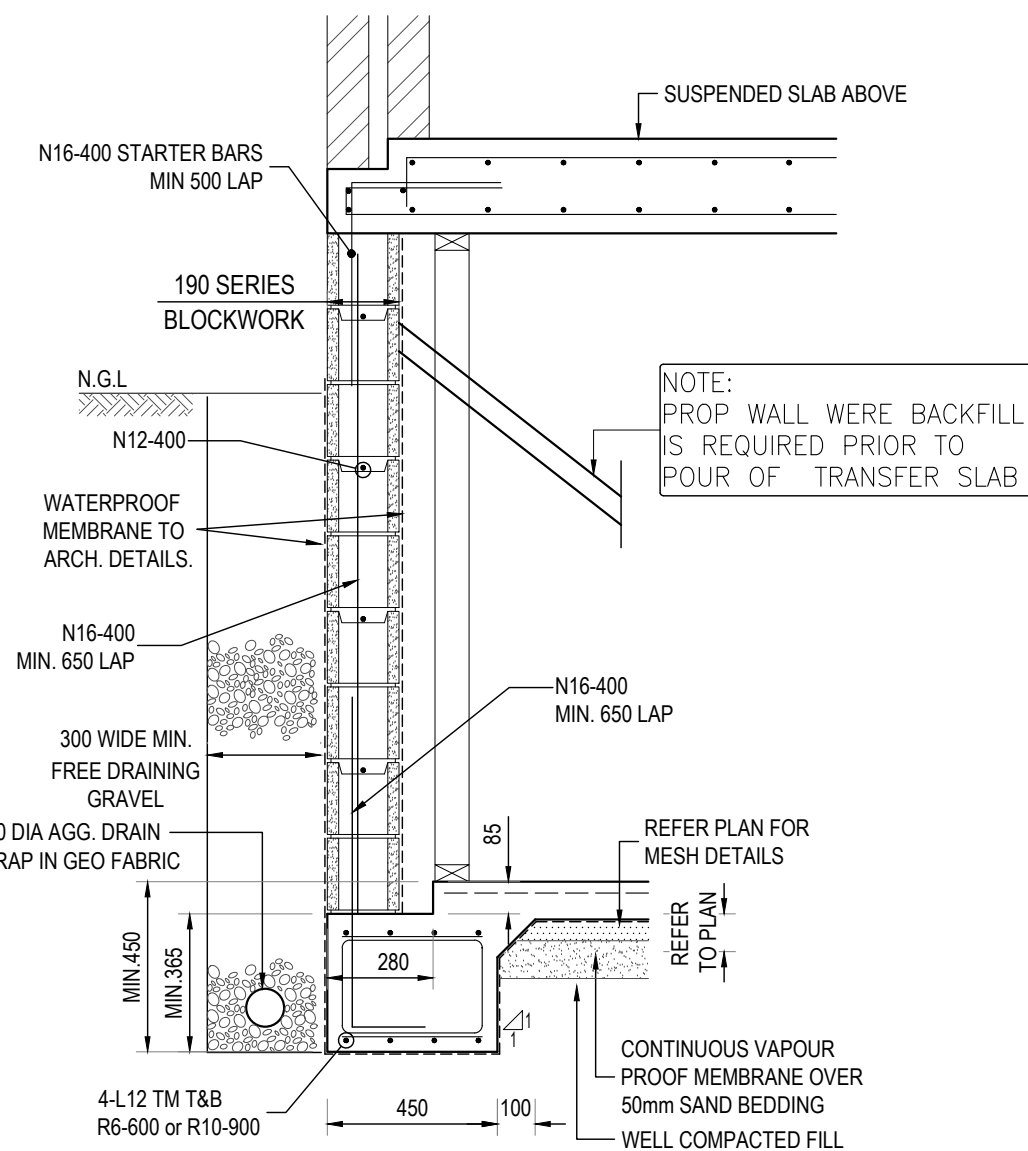
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SCALE 1:20



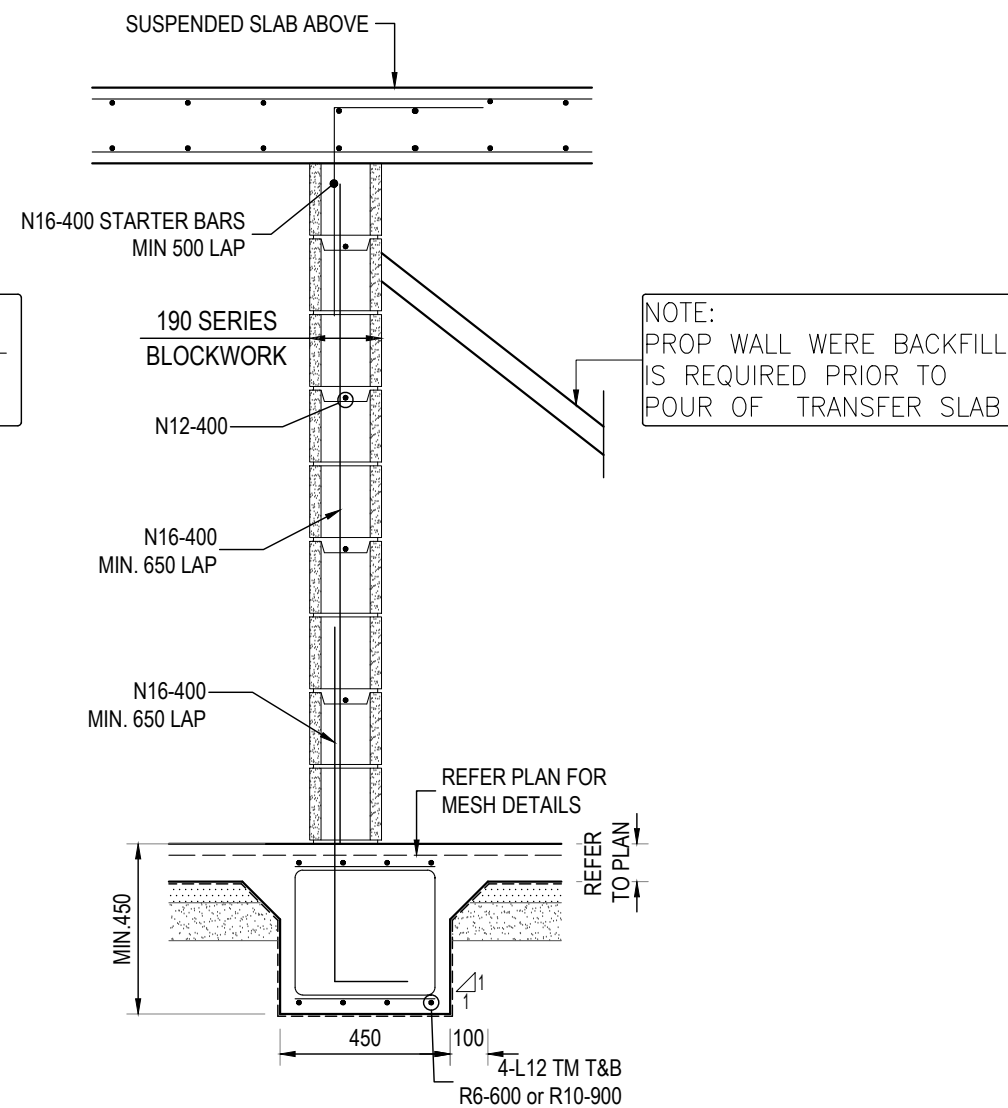
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SCALE 1:20



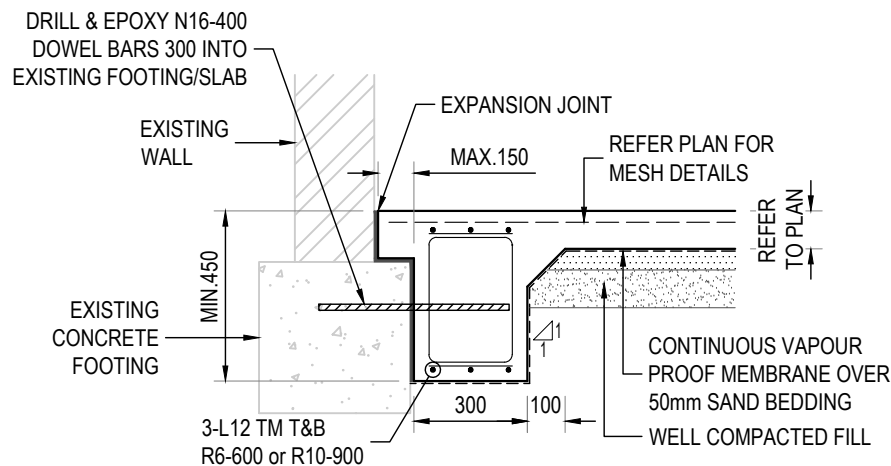
**RAFT FOOTING: LRF6**

SCALE 1:20



**RAFT FOOTING: LRF7**

SCALE 1:20



**RAFT FOOTING: LRF5**

SCALE 1:20

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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024

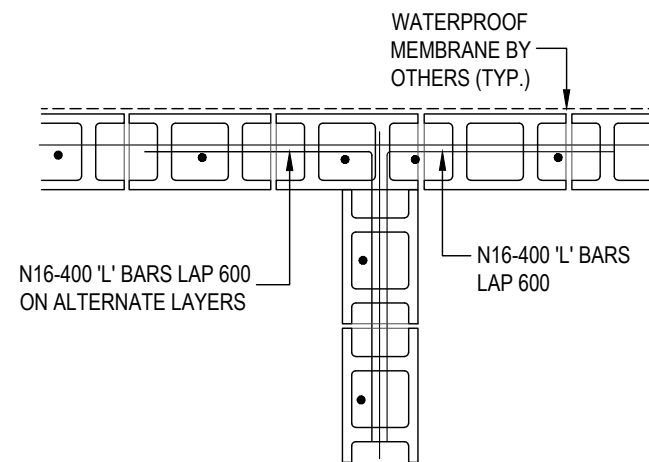


Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	LOWER GROUND FLOOR DETAILS	Design	M.A.	Drawn	D.B.
	2 of 3				
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S03

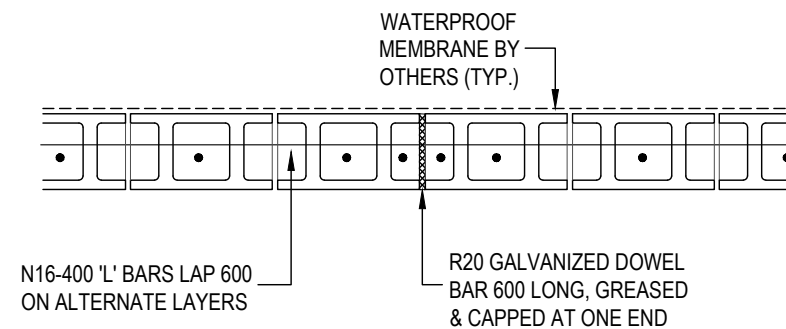
A3 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150





**TYPICAL 'T' INTERSECTION DETAIL**

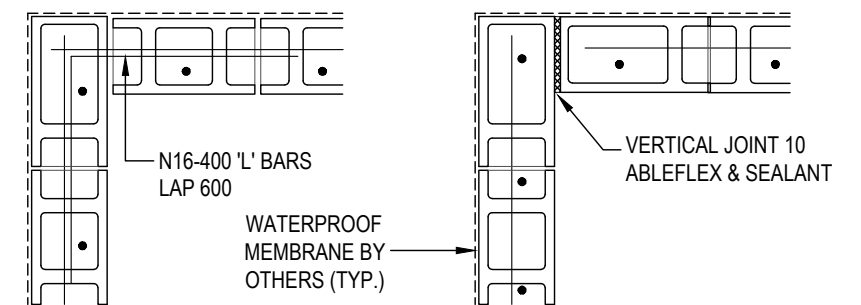
SCALE 1:20



**BLOCK WALL EXPANSION JOINT**

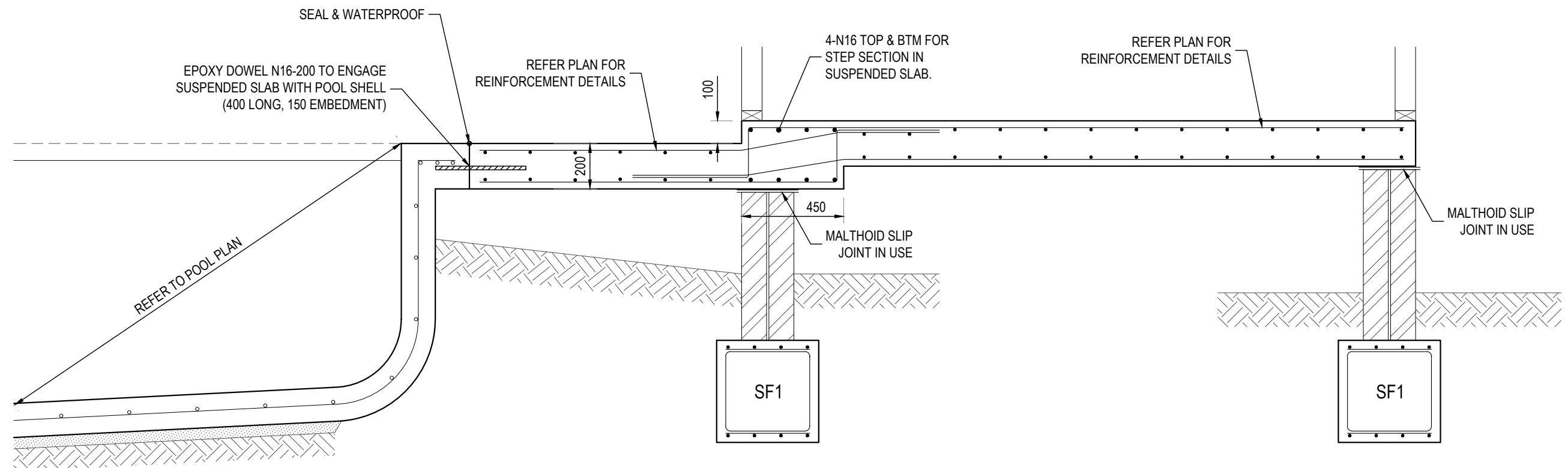
SCALE 1:20

(RECOMMENDED EVERY 8m)



**TYPICAL CORNER DETAIL**

SCALE 1:20



**SECTION**

LG1

SCALE 1:20

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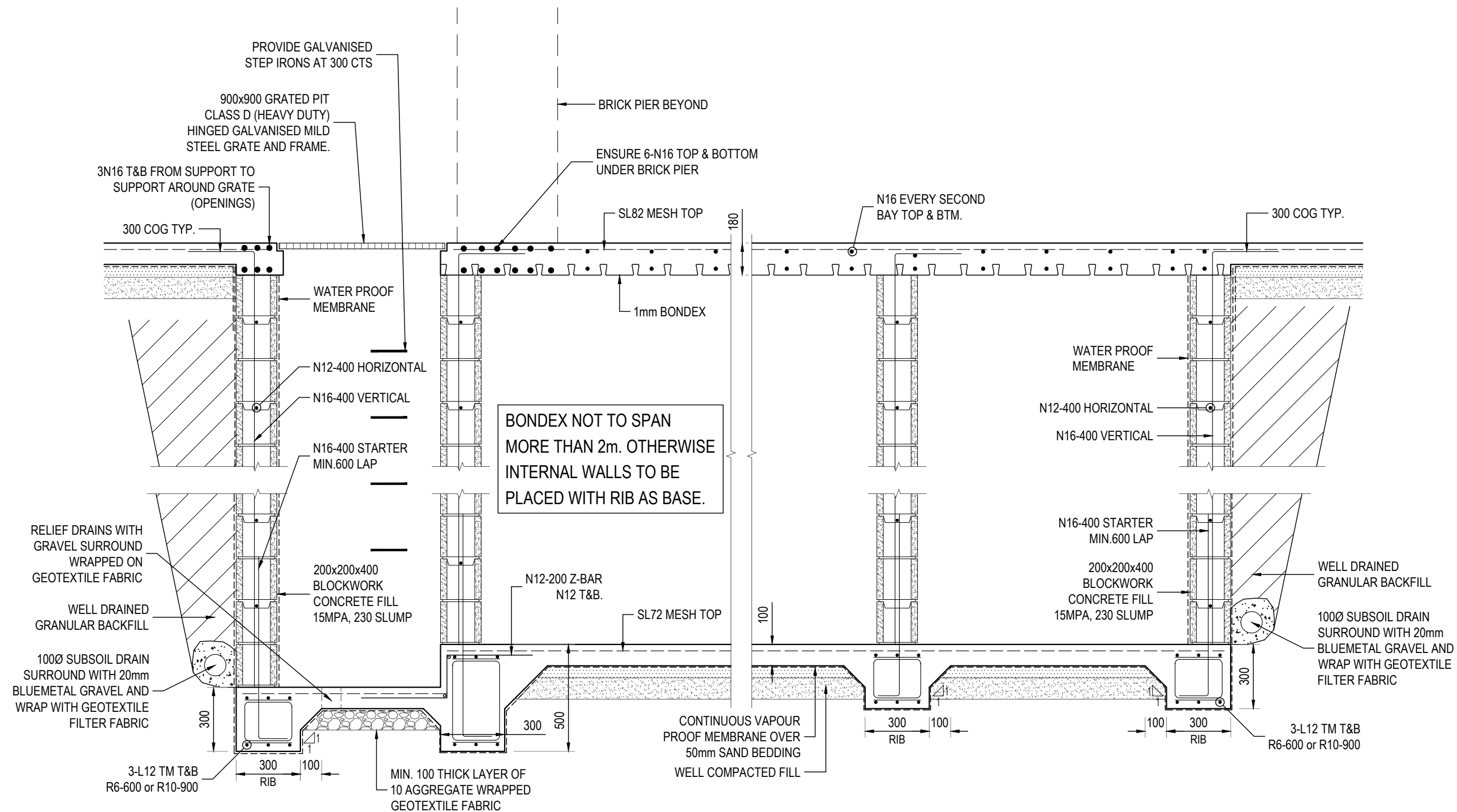
Rev.	Description	By.	App.	Date
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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	LOWER GROUND FLOOR DETAILS	Design	M.A.	Drawn	D.B.
	3 of 3				
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S04





## IN-GROUND OSD TANK DETAIL

N.T.S. (WHERE REQUIRED)

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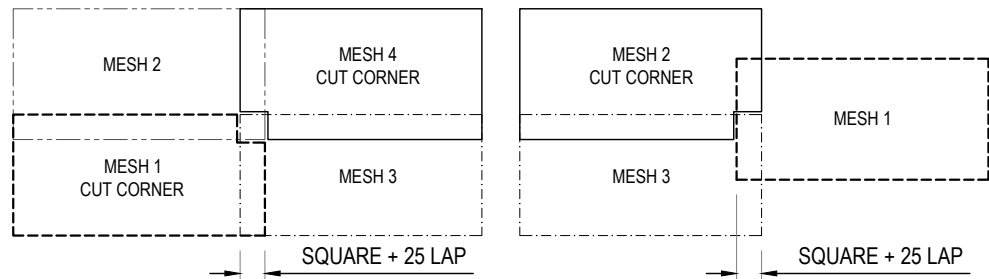
Rev.	Description	By.	App.	Date
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E	GENERAL REVISIONS	D.B.	M.A.	08.10.2024
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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

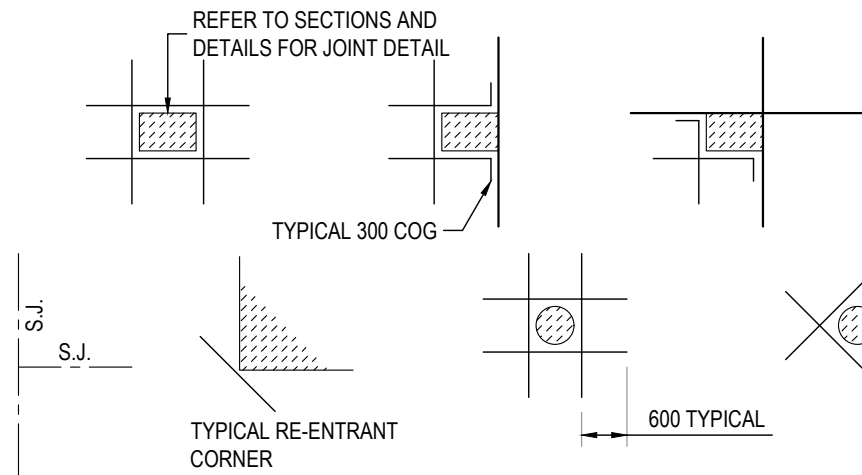
Title		Design	Drawn
IN-GROUND OSD TANK DETAIL		M.A.	D.B.
ISSUED FOR	Project Number	Drawing Number	
CONSTRUCTION CERTIFICATE	23 H 104	S04a	

A3 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



## MESH IN SLAB ON GROUND LAPPING DETAIL

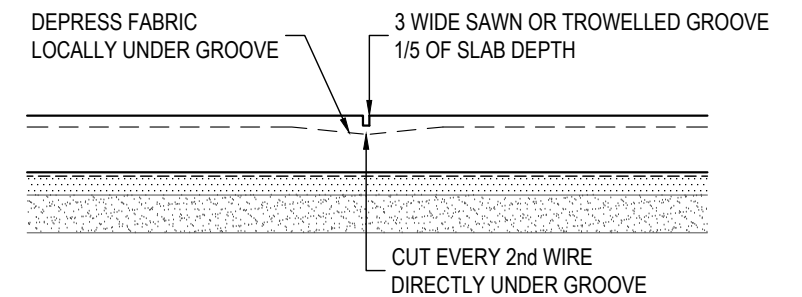
ALL MESH LAPS TO COMPLY WITH ALTERNATE DIAGRAMS AND CONSTRUCTION NOTES



SLAB ON GROUND - ALL TRIMMERS TO BE 2N12 TOP U.N.O.  
SUSPENDER SLAB - ALL TRIMMERS TO BE 3 N16 T&B. U.N.O.

## TYP. TRIMMER DETAIL

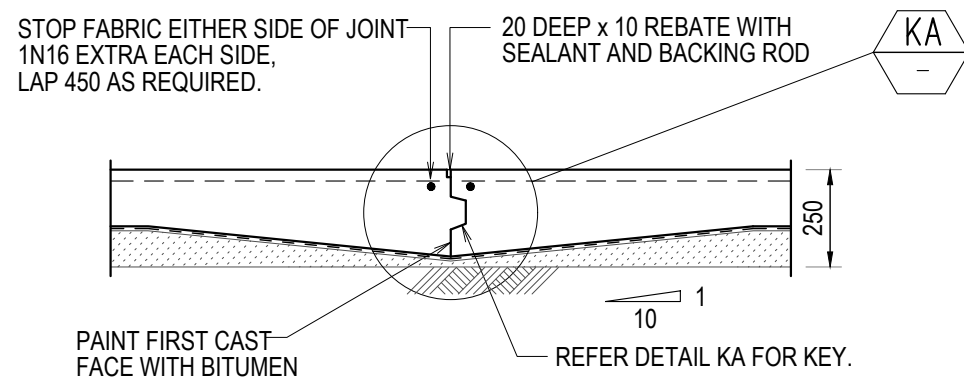
AT ALL COLUMNS, WALLS, PITS, FLOOR WASTES, ETC.  
THAT CAUSE A PENETRATION THROUGH THE SLAB



## S.J. - SAWN CONTROL JOINT

N.T.S.

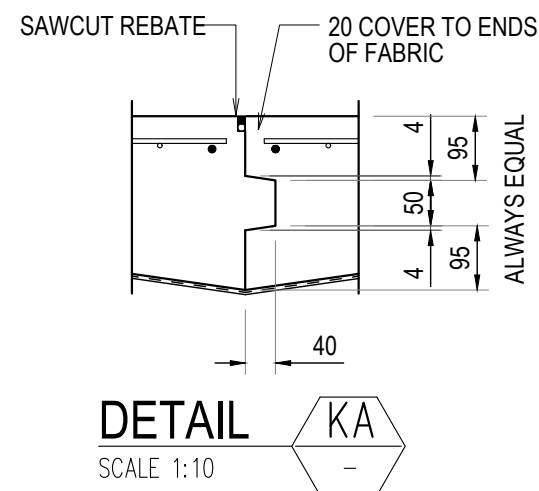
NOTE: SAWCUT TO BE MADE WITHIN 16 HOURS OF CASTING SLAB



## K.J. - KEYED CONSTRUCTION JOINT

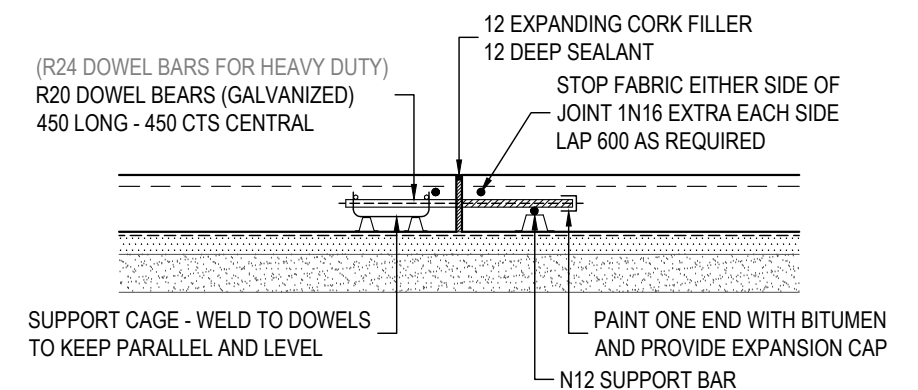
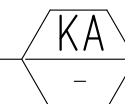
SCALE 1:20

CARPARK AND OFFICE FLOORS



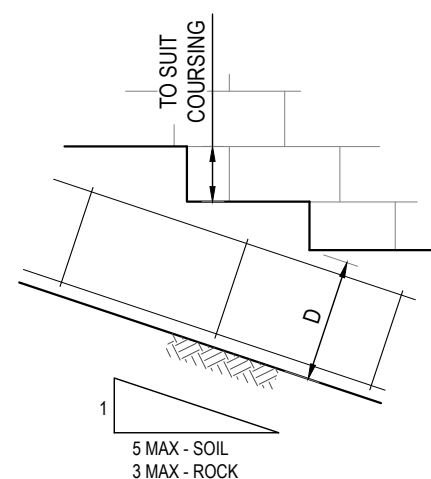
## DETAIL

SCALE 1:10



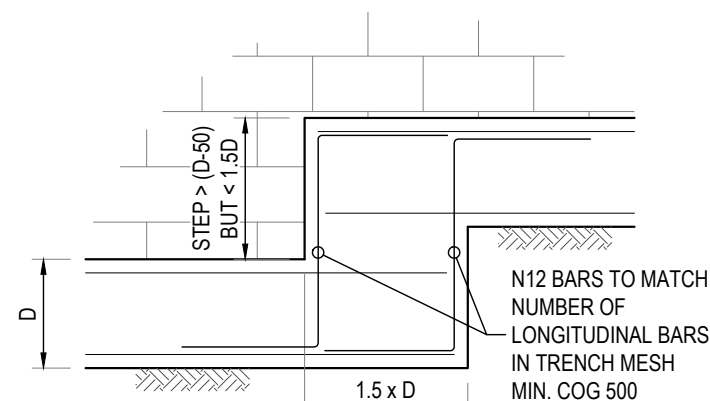
## E.J. - EXPANSION JOINT

N.T.S.



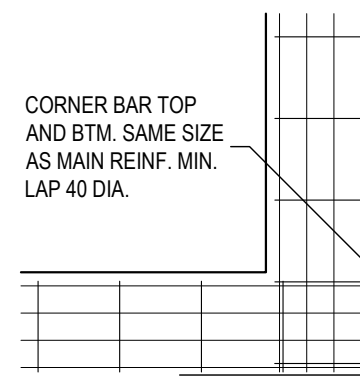
## STEP - GENTLE SLOPES

N.T.S.



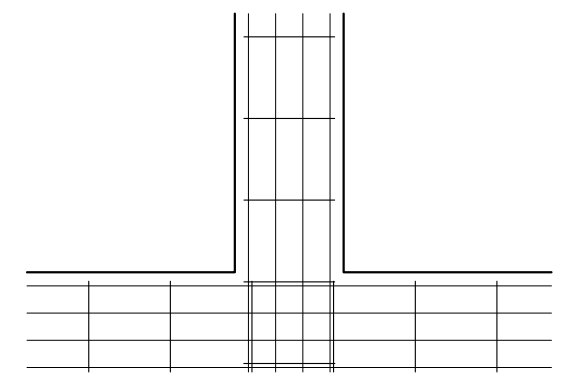
## FOOTING STEP DETAIL

N.T.S.



## CORNER JUNCTION

N.T.S.



## 'T' / CROSS JUNCTION

N.T.S.

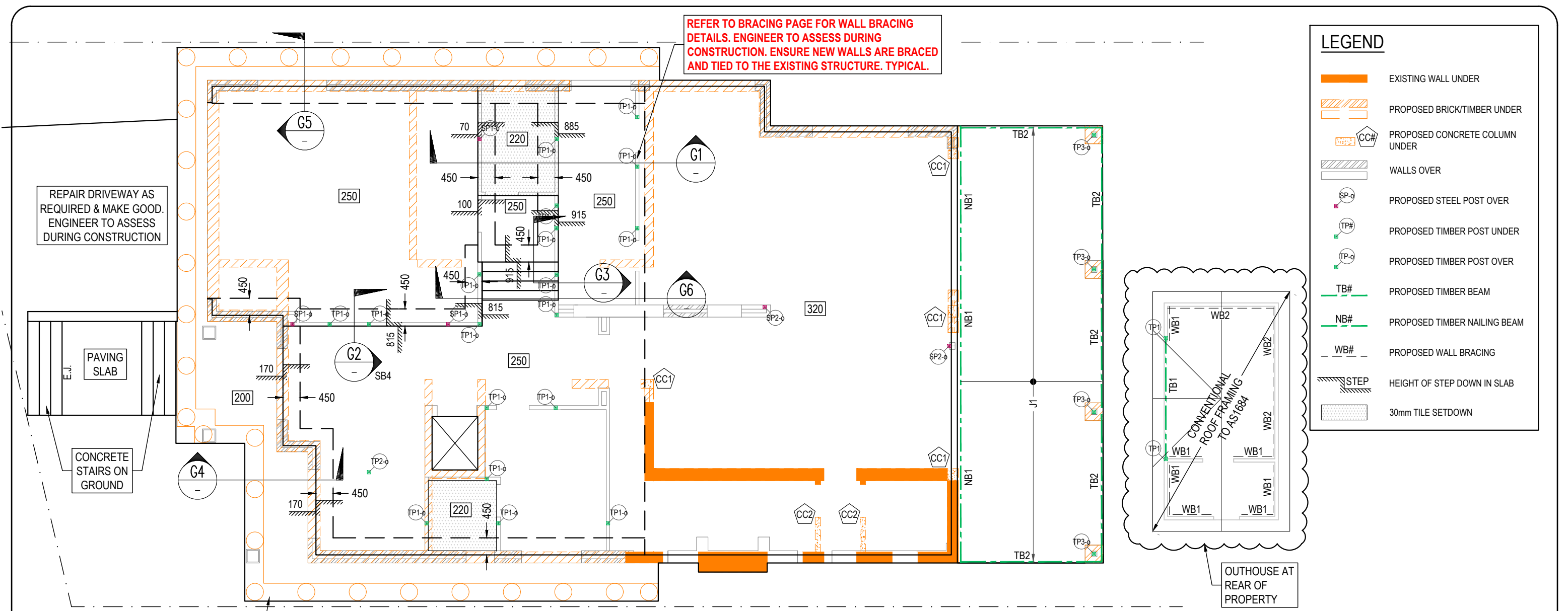
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D	ISSUED FOR C.C.	D.B.	M.A.	21.06.2024
C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	TYPICAL FOOTING DETAILS
ISSUED FOR	CONSTRUCTION CERTIFICATE
Project Number	23 H 104
Drawing Number	S05



## GROUND FLOOR PLAN

SCALE 1:100

### SUSPENDED SLAB NOTES:

- SLAB TO BE CURED BY ONE OF THE FOLLOWING METHODS:
  - WETTING TWICE DAILY FOR THE FIRST THREE DAYS.
  - USING AN APPROVED CURING COMPOUND
- ALL EXPOSED SLABS TO HAVE 45mm COVER
- ALL EXPOSED SLABS TO BE WATERPROOFED WITH APPROVED SYSTEM.
- CHAMFER, FILLET AND DRIP GROOVES TO ARCHITECTURAL SPECIFICATIONS AND TO BUILDER REQUIREMENTS.
- ALL STAIRS TO ARCHITECTURAL SPECIFICATIONS
- ACOUSTIC ENGINEER TO CHECK AND VERIFY ALL FLOOR SLABS FOR ACOUSTIC REQUIREMENTS IN ACCORDANCE WITH THE BCA REGULATIONS AND ADVISE ON ANY ACOUSTIC TREATMENT NEEDED TO SATISFY THE REGULATIONS.

### FRAMING NOTES:

ALL EXPOSED STEEL TO BE PRESSURE GALVANIZED  
ALL DETAILS TO BE CONFIRMED DURING CONSTRUCTION  
ALL STEEL FIXINGS TO BE IN ACCORDANCE TO AS4100  
ALL EXPOSED TIMBER TO BE PRESSURE TREATED TO AS1684  
ALL TIMBER TO BE IN ACCORDANCE TO AS1684  
ROOF TO BE BUILT IN ACCORDANCE TO AS1684  
NOMINAL TIMBER CONNECTIONS TO AS1684

### STRUCTURAL MEMBER SCHEDULE

MARK	DESCRIPTION	SIZE	COMMENTS
TP1	TIMBER POST	2 / 90 x 45 MGP10 (DOUBLE STUD)	-
TB1	TIMBER BEAM	2 / 170 x 45 hySPAN	-
TB2	TIMBER BEAM	2 / 240 x 45 F7	TREATED PINE
J1	TIMBER JOIST	240 x 45 F7 @ 450 CTS	TREATED PINE
NB1	NAILING BEAM	240 x 45 F7	TREATED PINE
WB1	WALL BRACING	PLY BRACE (REFER TO DETAILS)	-
WB2	WALL BRACING	SPEED BRACE (REFER TO DETAILS)	-

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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client **C & A PARISI**

Project **23 HAY STREET,  
COLLAROY**

Title **GROUND FLOOR PLAN**

ISSUED FOR  
**CONSTRUCTION CERTIFICATE**

Project Number  
**23 H 104**

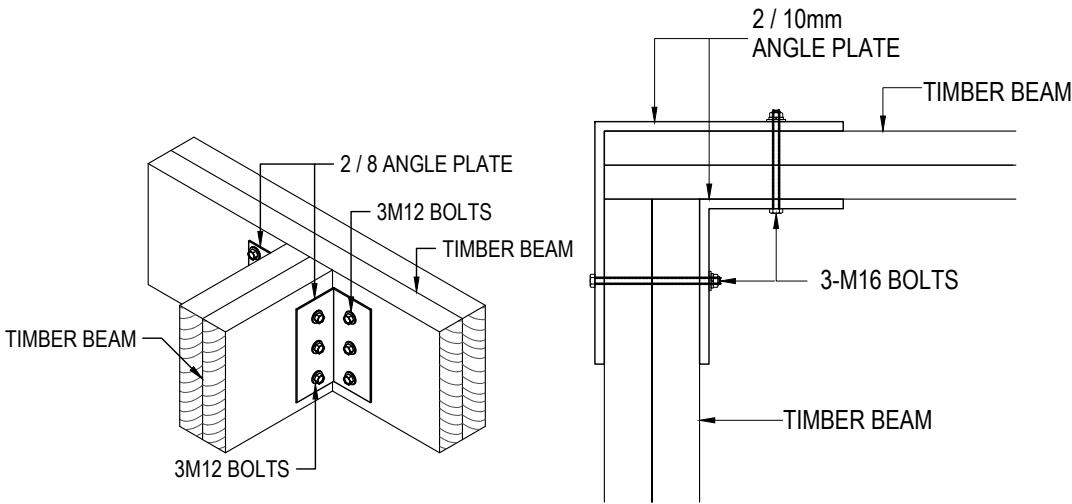
Design **M.A.**  
Drawn **D.B.**

Drawing Number  
**S06**

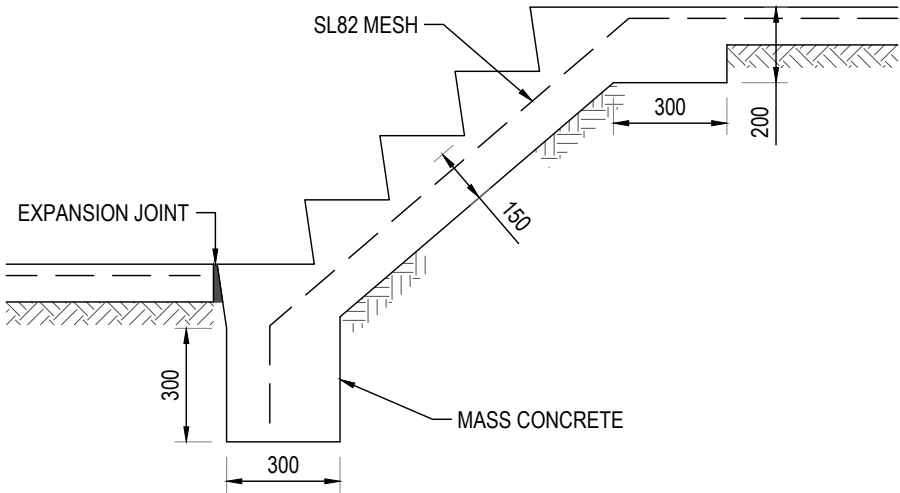
**IMPORTANT:**  
IT SHOULD BE NOTED THAT EXISTING STRUCTURE AND DETAILS HAVE BEEN ASSUMED BASED ON LOCAL KNOWLEDGE. IN ADDITION, PLANS AND DETAILS ISSUED FOR THIS PROJECT MAY BE SUBJECT TO CHANGE DURING CONSTRUCTION. IT IS THE BUILDERS RESPONSIBILITY TO ADVISE HYTEN ENGINEERING IF CHANGES ARE REQUIRED &/OR WHAT IS INDICATED ON THE PLANS DO NOT CORRELATE TRUE TO SITE &/OR DURING CONSTRUCTION.

EXISTING STRUCTURE HAS BEEN ASSUMED TO BE ADEQUATE. IF THIS IS NOT TRUE &/OR THERE APPEARS TO BE STRUCTURAL ADEQUACY CONCERNS OF THE EXISTING STRUCTURE THEN IT IS THE BUILDERS RESPONSIBILITY TO ADVISE HYTEN ENGINEERING PRIOR OR DURING CONSTRUCTION.

PAVING SLAB - 100mm SLAB WITH SL82 MESH TOP U.N.O  
NOTE :  
1. MAX 4m SAWN CONTROL JOINT  
2. MAX 10m KEYED CONSTRUCTION JOINT  
3. MAX 20m EXPANSION JOINT



TYP. TIMBER BEAM  
CONNECTION DETAIL  
N.T.S.

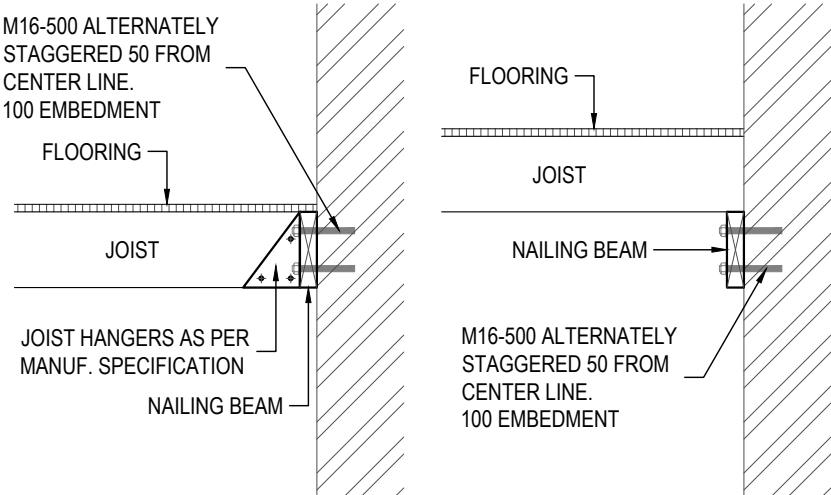


TYP. CONCRETE STAIR  
ON GROUND DETAILS  
SCALE 1:20

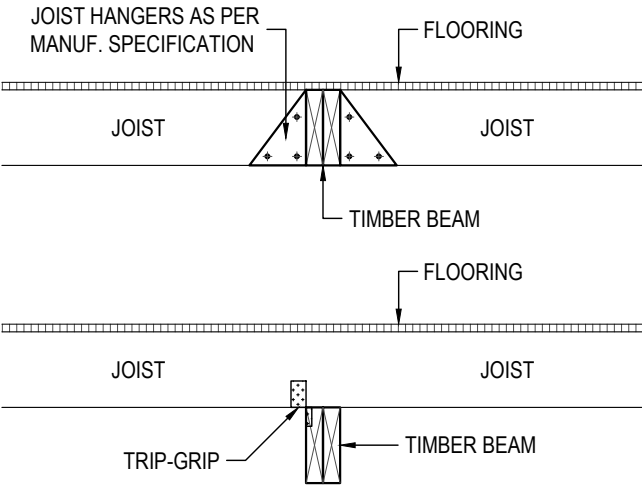
- NOTES:**
- 1. DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECTURALS.
  - 2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL SETOUT, LEVELS, FALLS ETC.
  - 3. GEOTECHNICAL ENGINEER TO VERIFY THE SAFE BEARING CAPACITY OF FOUNDATION MATERIAL PRIOR TO CONSTRUCTION.

CONCRETE QUALITY				
ELEMENT	SLUMP	AGGREGATE MAX. SIZE	CEMENT TYPE	f <sub>c</sub>
SLAB ON GROUND	80mm	20mm	A	25 MPa
FOOTING	80mm	20mm	A	25 MPa
SUSPENDED SLAB	80mm	20mm	A	40 MPa
BEAMS & COLUMNS	80mm	20mm	A	40 MPa

REINFORCEMENT COVER SCHEDULE				
MEMBER	COVER			EXPOSURE CLASSIFICATION
	TOP	BOTTOM	SIDES	
SLAB ON GROUND	40mm	40mm	40mm	A1
FOOTING	40mm	40mm	40mm	A1
INTERNAL SUSPENDED SLAB	30mm	30mm	30mm	A1
EXTERNAL SUSPENDED SLAB	45mm	45mm	45mm	B2
BEAMS & COLUMNS	45mm	45mm	45mm	B2



TYP. TIMBER JOIST TO  
NAILING BEAM DETAIL  
N.T.S.



TYP. TIMBER JOIST TO  
TIMBER BEAM DETAIL  
N.T.S.

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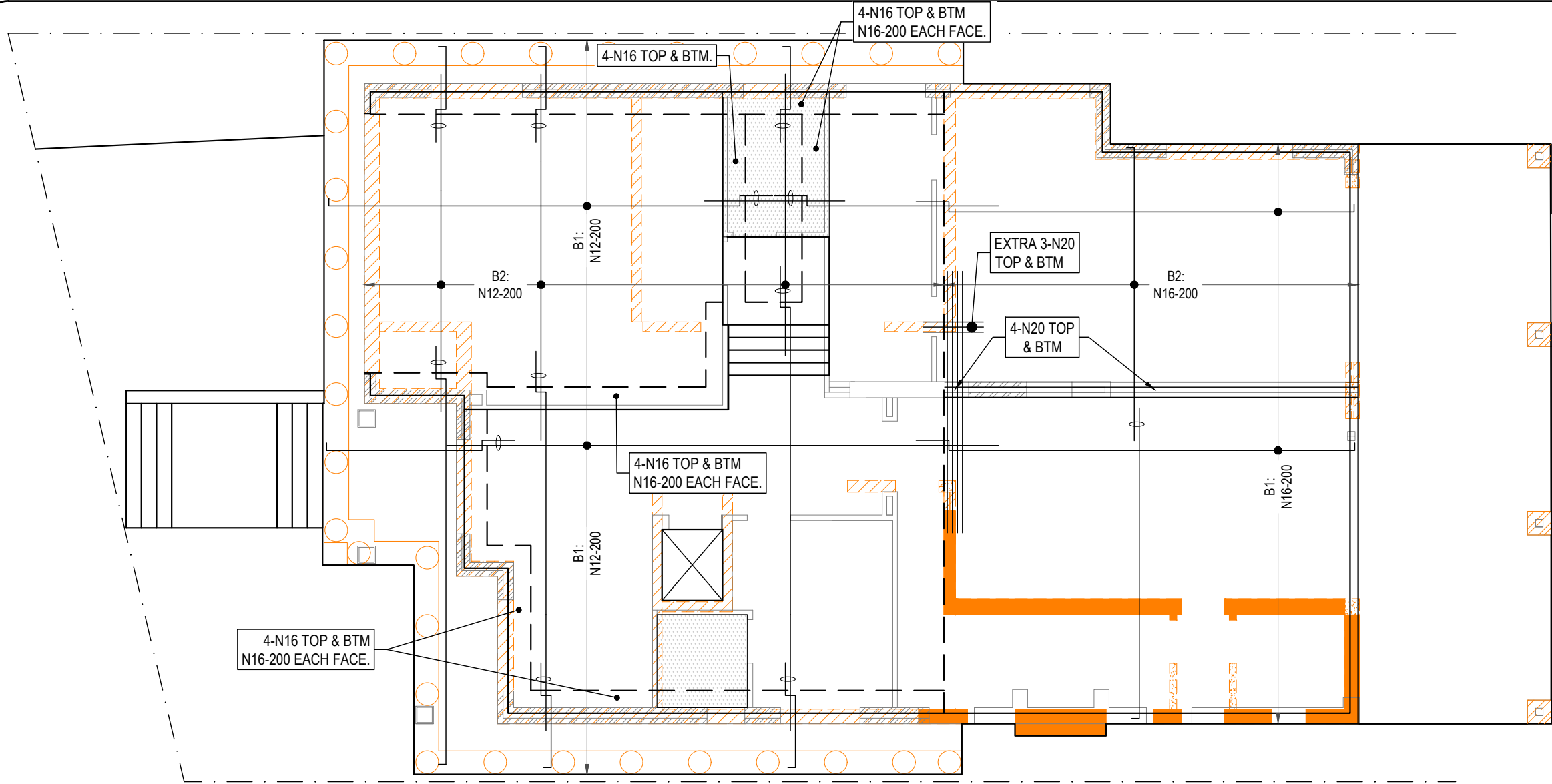
**HYTEN**  
ENGINEERING  
STRUCTURAL | STORMWATER | GLASS ENGINEERING  
0413 863 363 michael@hyten.com.au www.hyten.com.au

Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	
GROUND FLOOR DETAILS	
ISSUED FOR	Project Number
CONSTRUCTION CERTIFICATE	23 H 104

Design	Drawn
M.A.	D.B.
Drawing Number	
S07	



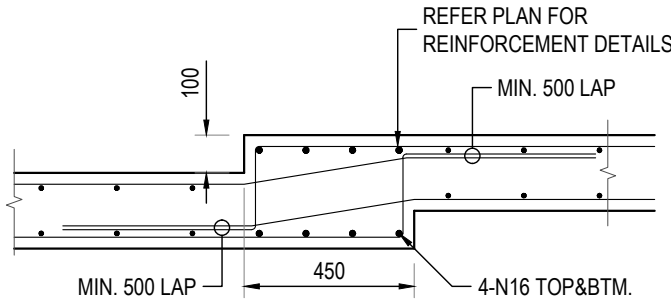


## BOTTOM REINFORCEMENT FOR SUSPENDED SLAB

SCALE 1:100

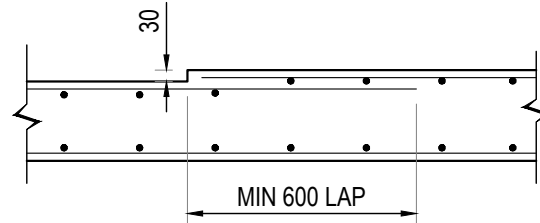
### LEGEND

	EXISTING WALL UNDER
	PROPOSED BRICK/TIMBER UNDER
	PROPOSED CONCRETE COLUMN UNDER
	WALLS OVER
	30mm TILE SETDOWN



### TYPICAL STEP SECTION

SCALE 1:20



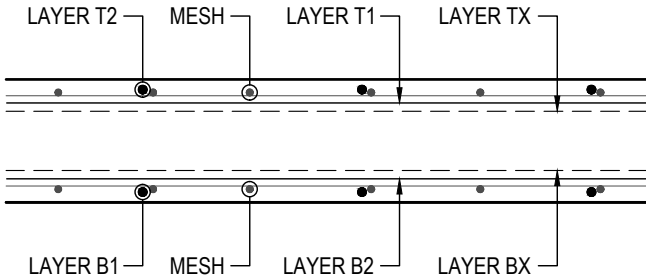
### TYPICAL INTERNAL TILE SETDOWN

SCALE 1:20

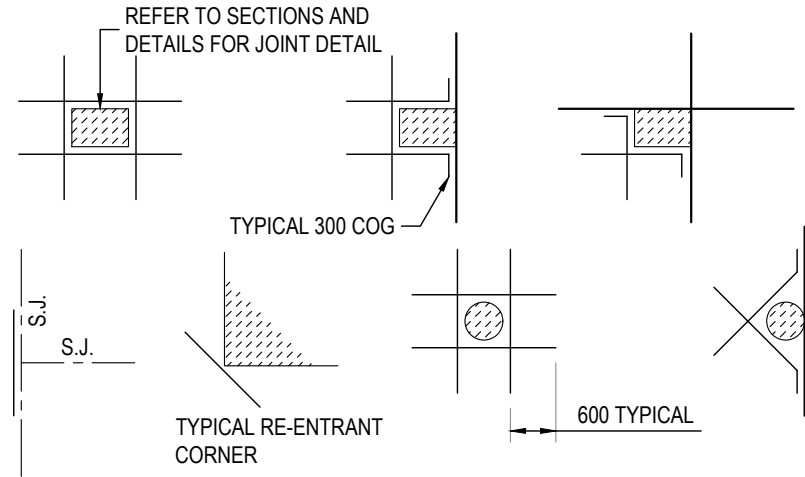
### REINFORCEMENT NOTES:

1. ENSURE 50mm MINIMUM SPACING BETWEEN BARS IN SLABS & ENSURE 100mm MINIMUM SPACING BETWEEN BARS IN BEAMS

2. SLAB REINFORCEMENT LAYING SEQUENCE NOMINATION ONLY.



3. TYPICAL TRIMMERS AT PENETRATION DETAIL:



4. PROVIDE TOP & BOTTOM BARS ON ALL WALL OPENINGS AS PER THE SCHEDULE BELOW:

LENGTH OF OPENING (m)	BTM. BAR	TOP BAR
1.0 - 1.8	2-N16	2-N16
1.8 - 2.5	3-N16	3-N16
2.5 - 3.5	3-N20	3-N20

2-N12 (75 SPACING 1200 LONG)  
TRIMMERS TOP SHALL BE  
LOCATED 50 FROM ALL  
RE-ENTRANT CORNERS, TYP.

EXTRA 3-N16 TOP & BTM.  
(75 SPACING 1200 LONG)

### LAPPING SCHEDULE:

ADEQUATE OVERLAP FOR MESH AS FOLLOWS:

MESH	MIN LAPPING
SL82	400mm
SL92	450mm
SL102	500mm

ADEQUATE OVERLAP FOR BARS AS FOLLOWS:

BAR	MIN LAPPING
N12	500mm
N16	650mm
N20	800mm
N24	1000mm

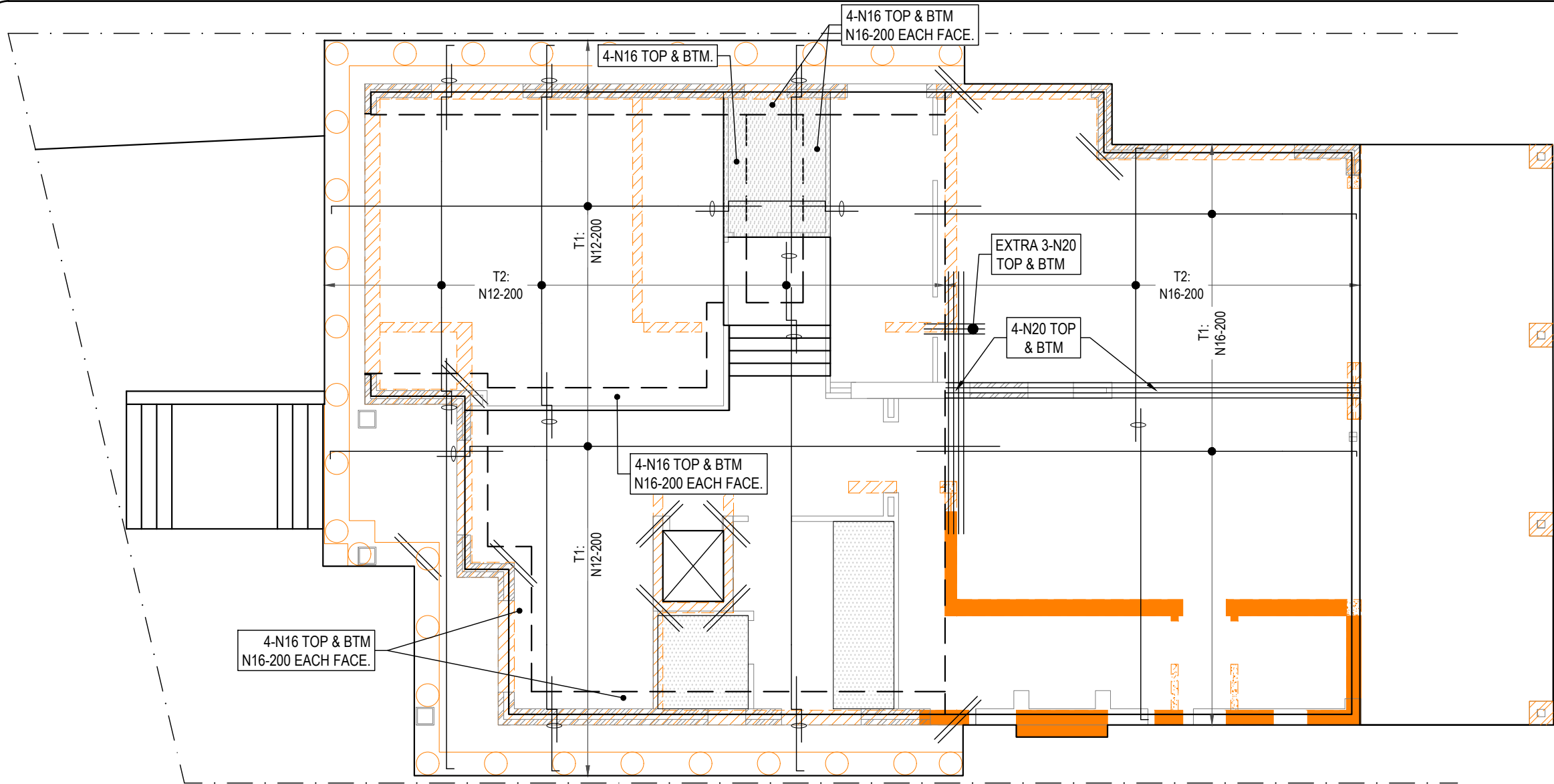
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E	GENERAL REVISIONS	D.B.	M.A.	08.10.2024
D	ISSUED FOR C.C.	D.B.	M.A.	21.06.2024
C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	GROUND FLOOR BTM REINFORCEMENT	Design	M.A.	Drawn	D.B.
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S08

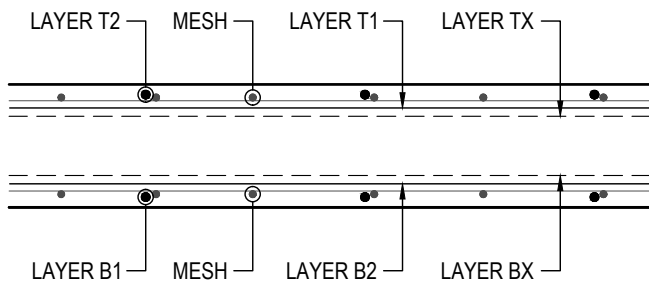


## TOP REINFORCEMENT FOR SUSPENDED SLAB

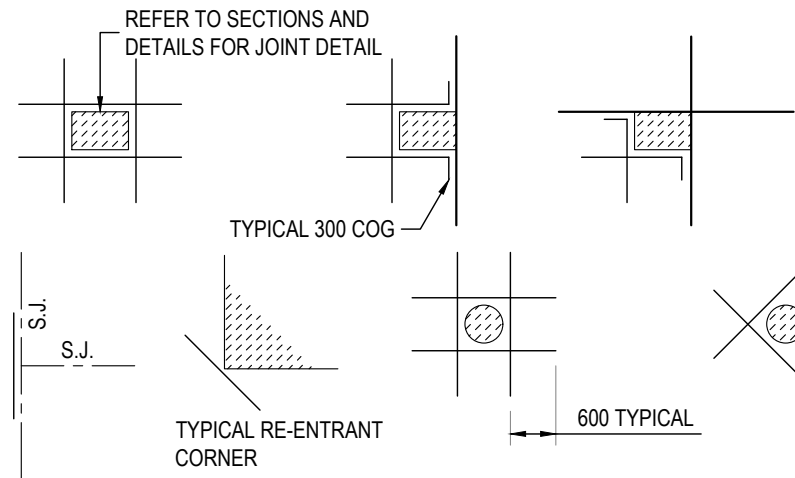
SCALE 1:100

### REINFORCEMENT NOTES:

- ENSURE 50mm MINIMUM SPACING BETWEEN BARS IN SLABS & ENSURE 100mm MINIMUM SPACING BETWEEN BARS IN BEAMS
- SLAB REINFORCEMENT LAYING SEQUENCE NOMINATION ONLY.



### 3. TYPICAL TRIMMERS AT PENETRATION DETAIL:



### 4. PROVIDE TOP & BOTTOM BARS ON ALL WALL OPENINGS AS PER THE SCHEDULE BELOW:

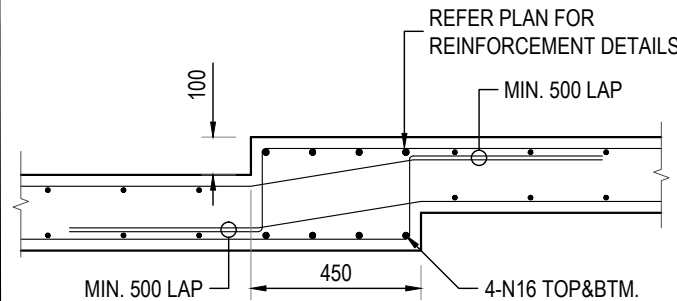
LENGTH OF OPENING (m)	BTM. BAR	TOP BAR
1.0 - 1.8	2-N16	2-N16
1.8 - 2.5	3-N16	3-N16
2.5 - 3.5	3-N20	3-N20

2-N12 (75 SPACING 1200 LONG)  
TRIMMERS TOP SHALL BE  
LOCATED 50 FROM ALL  
RE-ENTRANT CORNERS, TYP.

EXTRA 3-N16 TOP & BTM.  
(75 SPACING 1200 LONG)

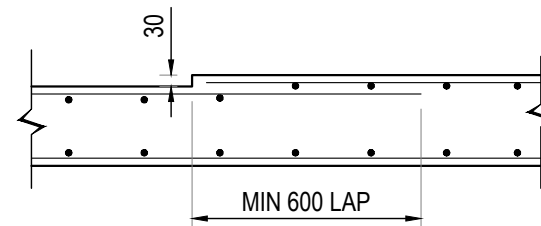
### LEGEND

	EXISTING WALL UNDER
	PROPOSED BRICK/TIMBER UNDER
	PROPOSED CONCRETE COLUMN UNDER
	WALLS OVER
	30mm TILE SETDOWN



### TYPICAL STEP SECTION

SCALE 1:20



### TYPICAL INTERNAL TILE SETDOWN

SCALE 1:20

### LAPPING SCHEDULE:

ADEQUATE OVERLAP FOR MESH AS FOLLOWS:

MESH	MIN LAPPING
SL82	400mm
SL92	450mm
SL102	500mm

ADEQUATE OVERLAP FOR BARS AS FOLLOWS:

BAR	MIN LAPPING
N12	500mm
N16	650mm
N20	800mm
N24	1000mm

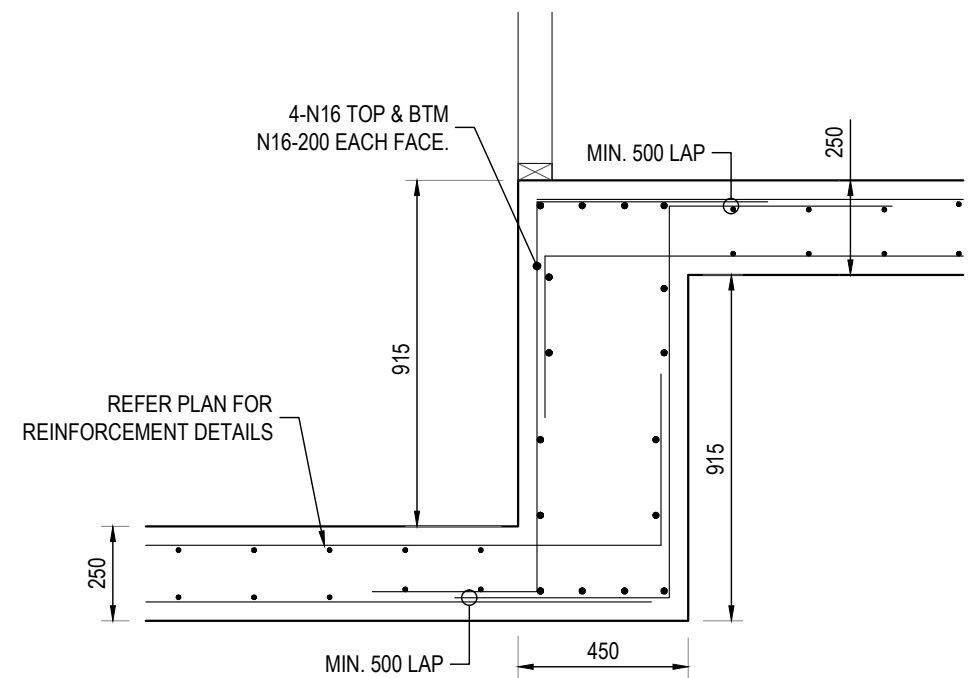
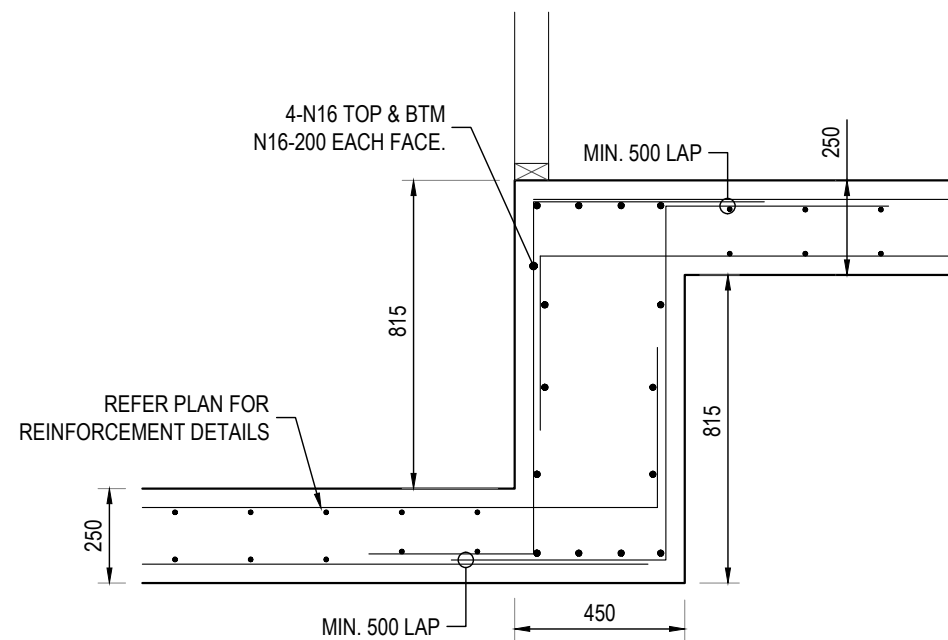
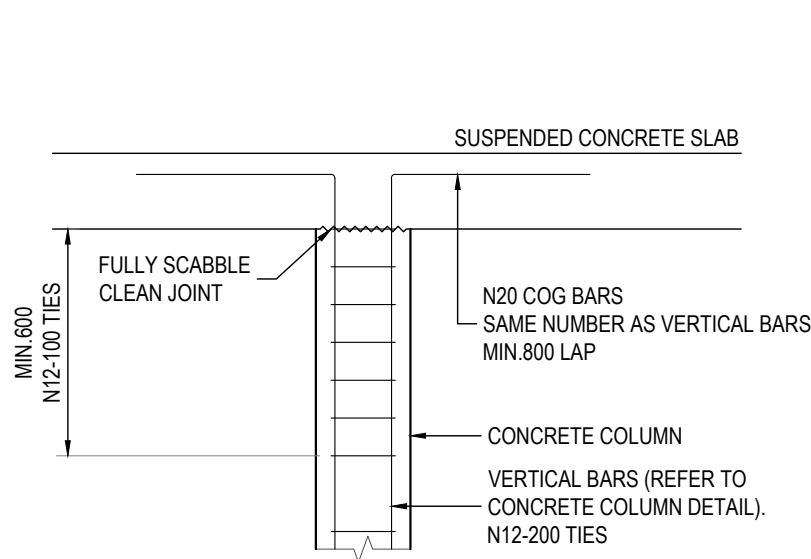
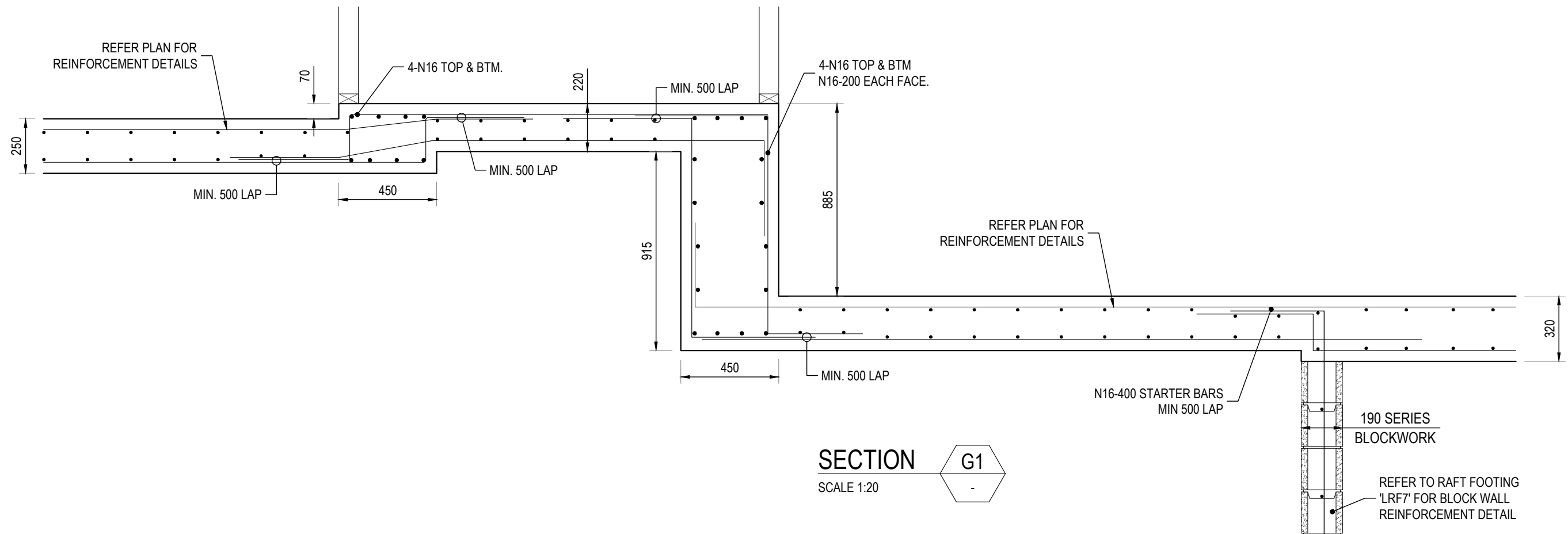
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D	ISSUED FOR C.C.	D.B.	M.A.	21.06.2024
C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	GROUND FLOOR TOP REINFORCEMENT	Design	M.A.	Drawn	D.B.
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S09



## TYPICAL CONCRETE COLUMN INTO SUSPENDED SLAB DETAIL.

SCALE 1:20

SECTION G2  
SCALE 1:20

SECTION G3  
SCALE 1:20

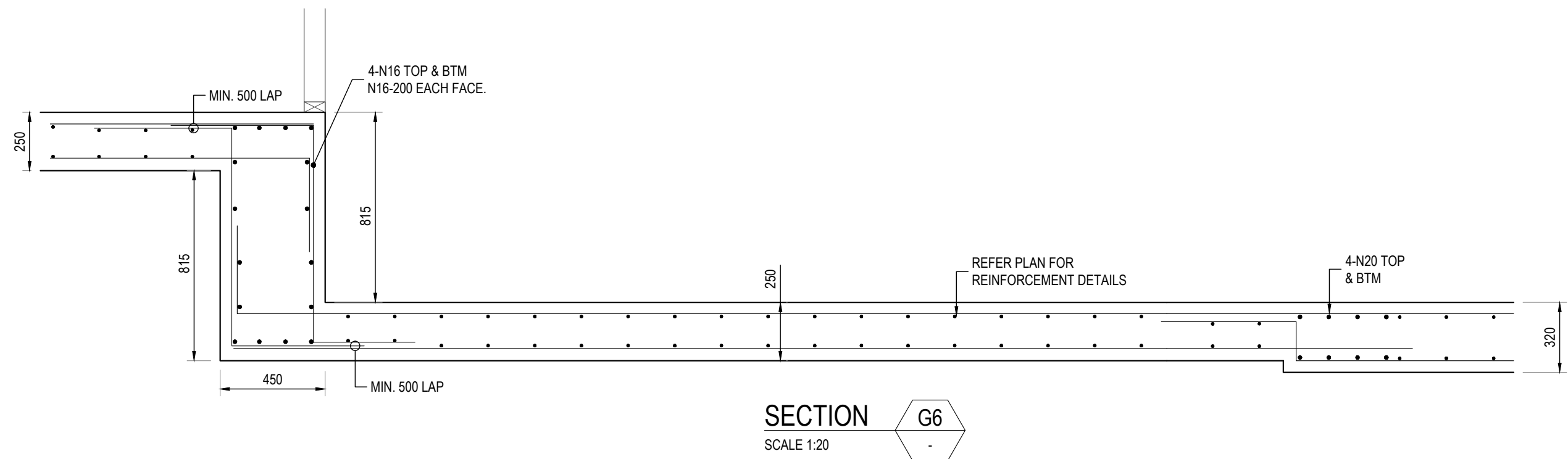
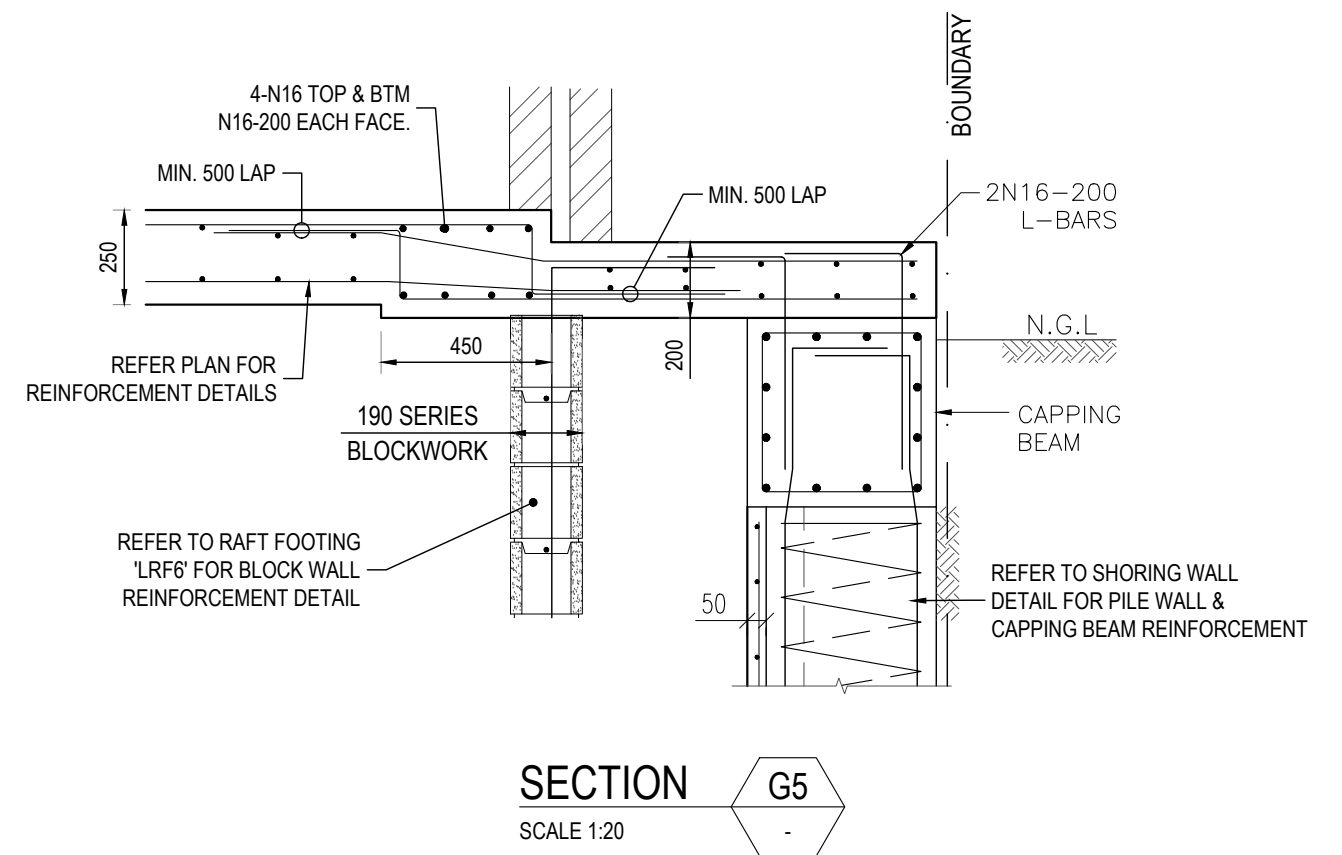
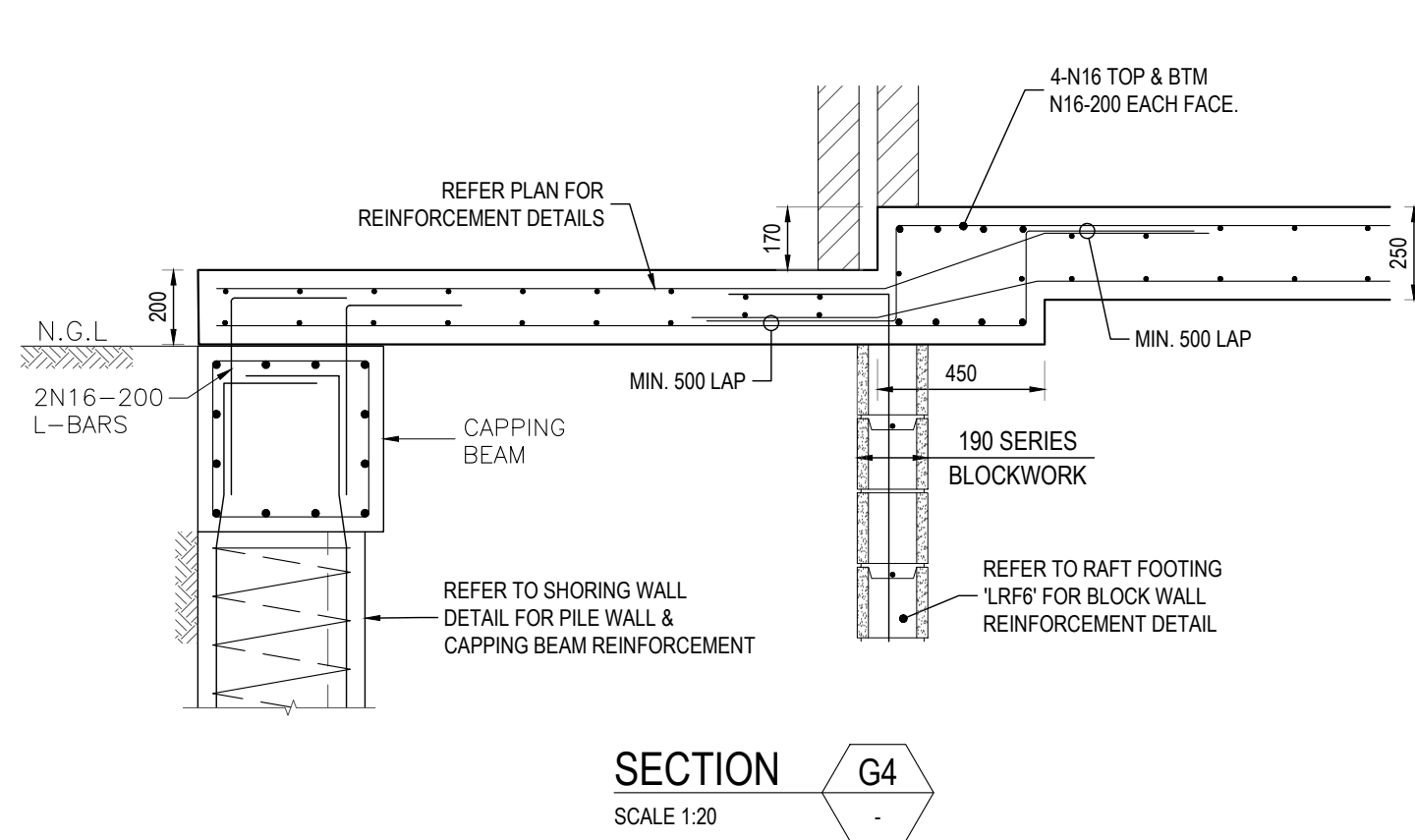
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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	GROUND FLOOR SECTIONS	Design	M.A.	Drawn	D.B.
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S10



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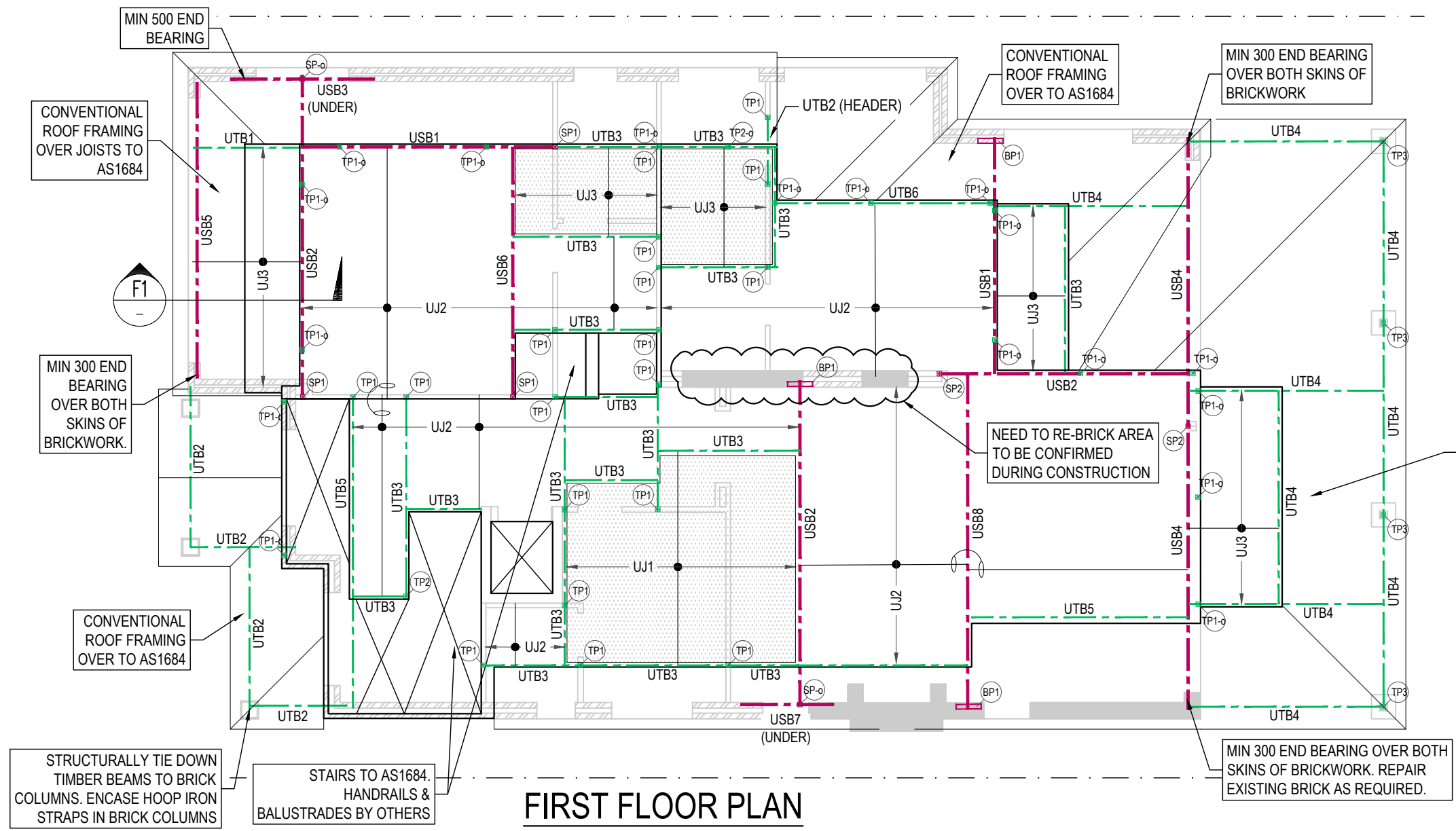
Rev.	Description	By.	App.	Date
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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title GROUND FLOOR SECTIONS CONT.		Design M.A.	Drawn D.B.
ISSUED FOR CONSTRUCTION CERTIFICATE	Project Number 23 H 104	Drawing Number S11	





**LOAD-BEARING TIMBER LINTEL FOR WINDOW & DOOR OPENING AS FOLLOW, UNO.**  
0m - 1m    2 / 100 x 45 hySPAN  
1m - 2m    2 / 150 x 45 hySPAN  
2m - 3m    2 / 200 x 45 hySPAN

**LEGEND**  
EXISTING WALL  
PROPOSED BRICK/TIMBER  
PROPOSED STEEL POST UNDER  
PROPOSED STEEL POST OVER  
PROPOSED TIMBER POST UNDER  
PROPOSED TIMBER POST OVER  
PROPOSED STEEL BEAM  
PROPOSED TIMBER BEAM  
PROPOSED TIMBER JOIST  
PROPOSED STEEL BEARING PLATE

**IMPORTANT:**  
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FRAMING NOTES:

- ALL EXPOSED STEEL TO BE PRESSURE GALVANIZED
- ALL DETAILS TO BE CONFIRMED DURING CONSTRUCTION
- ALL STEEL FIXINGS TO BE IN ACCORDANCE TO AS4100
- ALL EXPOSED TIMBER TO BE PRESSURE TREATED TO AS1684
- ALL TIMBER TO BE IN ACCORDANCE TO AS1684
- ROOF TO BE BUILT IN ACCORDANCE TO AS1684
- NOMINAL TIMBER CONNECTIONS TO AS1684

NON LOAD BEARING STEEL LINTEL SCHEDULE		
SPAN	LINTEL SIZE	MIN. END BEARING
UP TO 900mm	100 x 100 x 8mm ANGLE BAR	100mm
900mm - 2400mm	150 x 100 x 8mm ANGLE BAR	150mm
2400mm - 3000mm	150 x 100 x 12mm ANGLE BAR	150mm
MAXIMUM HEIGHT OF BRICKWORK OVER LINTEL = 3000mm		
ALL EXTERNAL LINTELS TO BE HOT DIPPED GALVANISED		

FIRST FLOOR PLAN  
SCALE 1:100

STRUCTURAL MEMBER SCHEDULE

MARK	DESCRIPTION	SIZE	COMMENTS	MARK	DESCRIPTION	SIZE	COMMENTS
SP1	STEEL POST	89 x 89 x 5 SHS	-	USB8	STEEL BEAM	310 UC 158	-
SP2	STEEL POST	100 x 100 x 5 SHS	-	UTB1	TIMBER BEAM	2 / 200 x 45 hySPAN	-
TP1	TIMBER POST	2 / 90 x 45 MGP10 (DOUBLE STUD)	-	UTB2	TIMBER BEAM	2 / 150 x 45 hySPAN	TREATED IF EXPOSED
TP2	TIMBER POST	90 x 90 F7	TREATED PINE	UTB3	TIMBER BEAM	2 / 240 x 45 hySPAN	-
TP3	TIMBER POST	150 x 150 GL10	GLULAM	UTB4	TIMBER BEAM	2 / 300 x 45 hySPAN	TREATED IF EXPOSED
USB1	STEEL BEAM	310 UB 40.4	-	UTB5	TIMBER BEAM	2 / 300 x 63 hySPAN	-
USB2	STEEL BEAM	310 UC 118	-	UTB6	TIMBER BEAM	2 / 400 x 45 hySPAN	-
USB3	STEEL BEAM	200 PFC + 10 PLATE	-	UJ1	TIMBER JOIST	200 x 45 hySPAN @ 300 CTS	-
USB4	STEEL BEAM	380 PFC + 10 PLATE	-	UJ2	TIMBER JOIST	240 x 45 hySPAN @ 450 CTS	-
USB5	STEEL BEAM	250 PFC + 10 PLATE	-	UJ3	TIMBER JOIST	200 x 45 hySPAN @ 450 CTS	-
USB6	STEEL BEAM	250 UB 37.3	-	BP1	BEARING PLATE	500 x 100 x 10 STEEL PLATE	-
USB7	STEEL BEAM	180 PFC + 10 PLATE	-				

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Client **C & A PARISI**

Project **23 HAY STREET, COLLAROY**

Title **FIRST FLOOR PLAN**

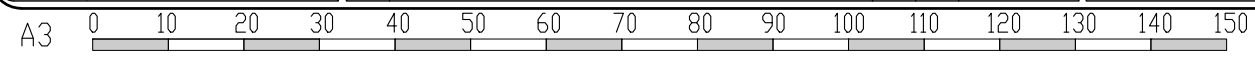
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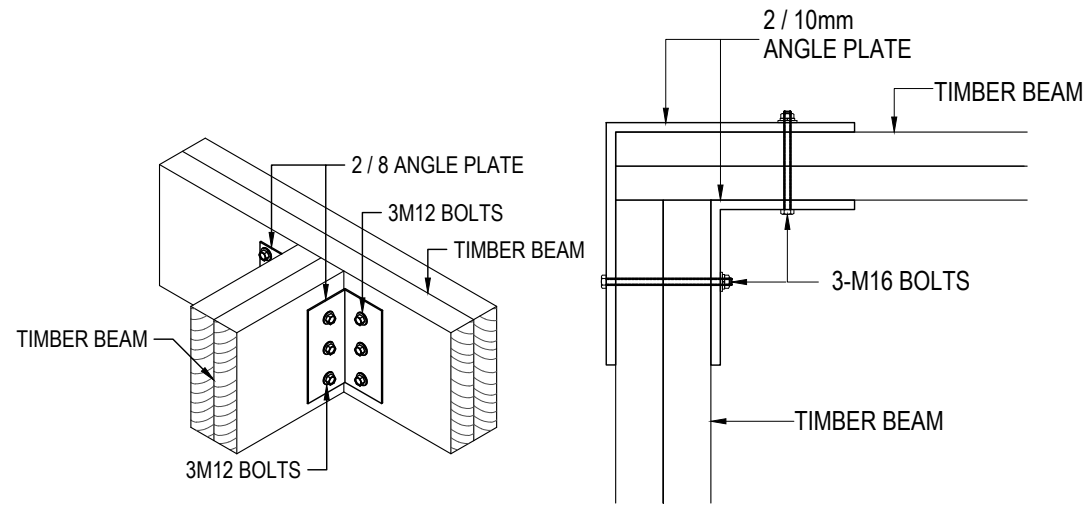
Project Number **23 H 104**

Drawing Number **S12**

Design **M.A.**

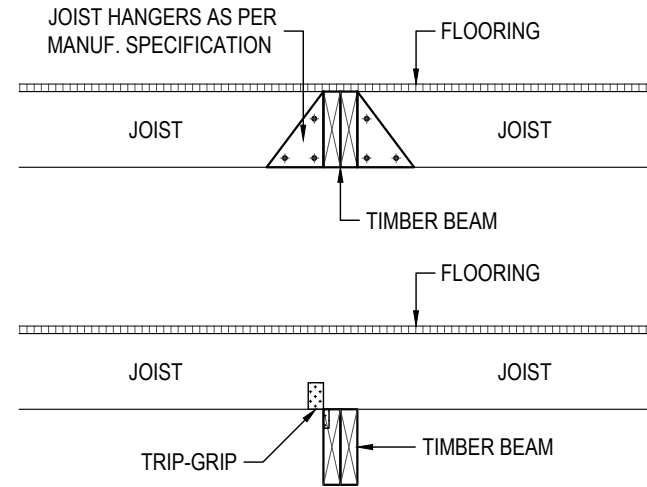
Drawn **D.B.**





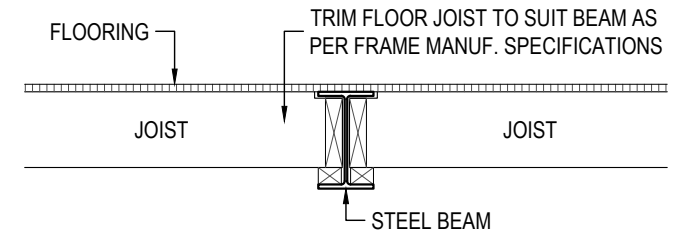
**TYP. TIMBER BEAM  
CONNECTION DETAIL**

N.T.S.



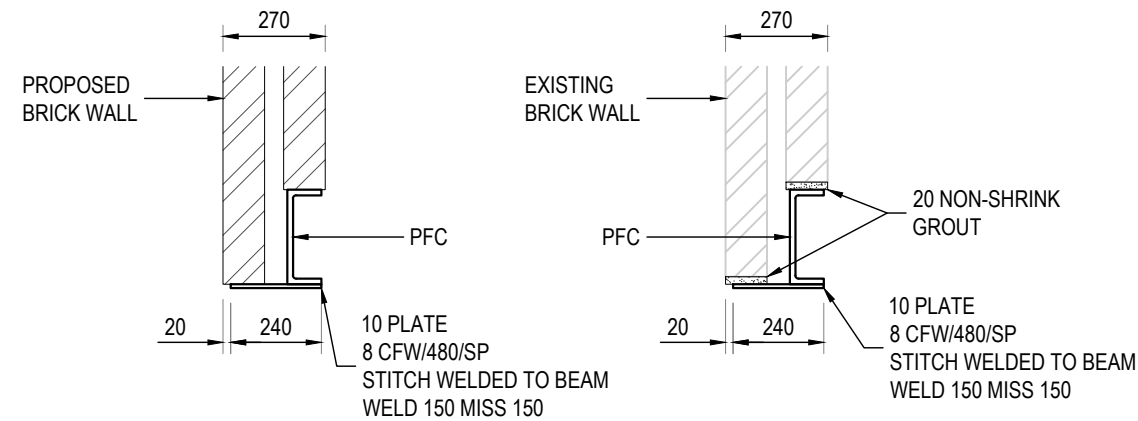
**TYP. TIMBER JOIST TO  
TIMBER BEAM DETAIL**

N.T.S.



**TYP. TIMBER JOIST TO  
STEEL BEAM DETAIL**

N.T.S.



**STEEL BEAM WITH PLATE SUPPORTING BRICKWORK DETAIL**

N.T.S.

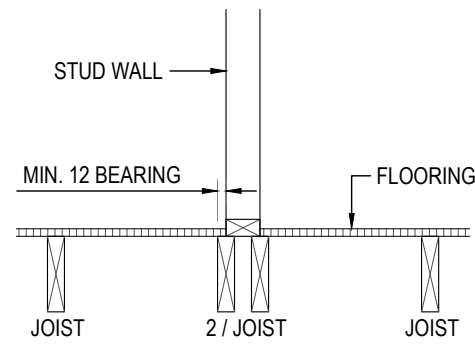
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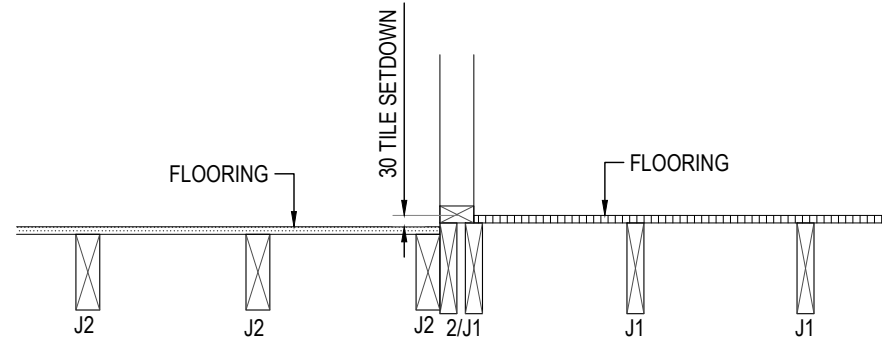


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Project	23 HAY STREET, COLLAROY

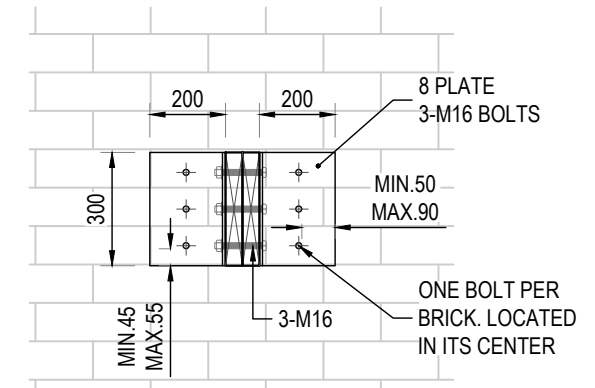
Title FIRST FLOOR DETAILS 1 of 3		Design M.A.	Drawn D.B.
ISSUED FOR CONSTRUCTION CERTIFICATE	Project Number 23 H 104	Drawing Number S13	



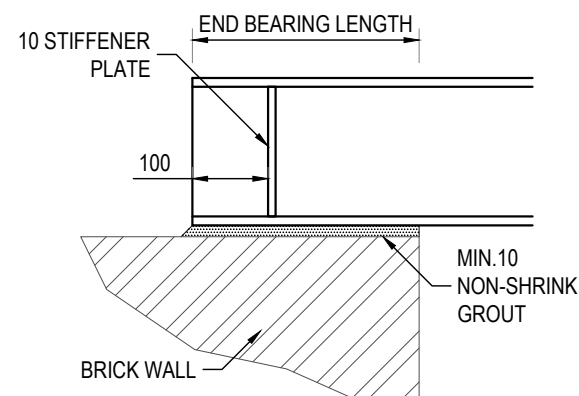
**TYP. DOUBLE JOISTS UNDER  
LOAD BEARING WALL**  
N.T.S.



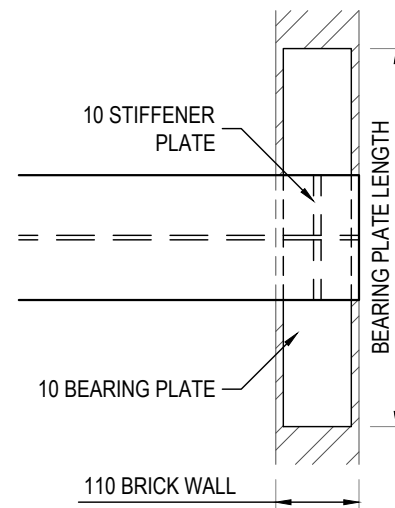
**TYP. TILE SETDOWN DETAIL**  
N.T.S.



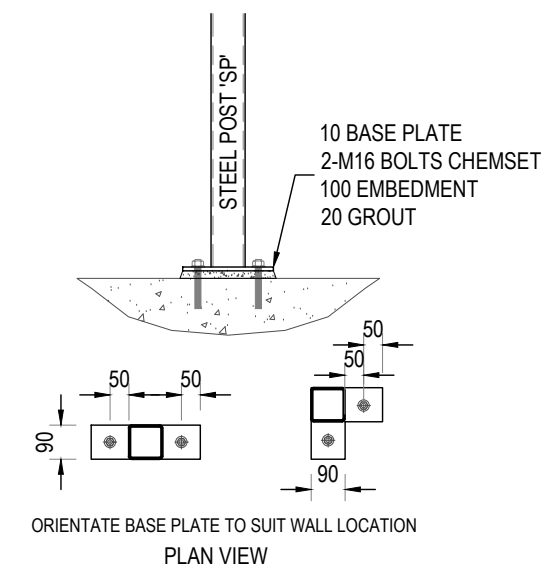
**TYP. TIMBER BEAM BOLT  
TO BRICK WALL DETAIL**  
N.T.S.



**TYP. STEEL BEAM BEAR  
ON BRICK WALL DETAIL**  
N.T.S.



**TYP. STEEL BEAM BEAR  
ON BRICK WALL DETAIL**  
N.T.S. (OPTION 2)



**TYP. STEEL POST BASE DETAIL**  
SCALE 1:20

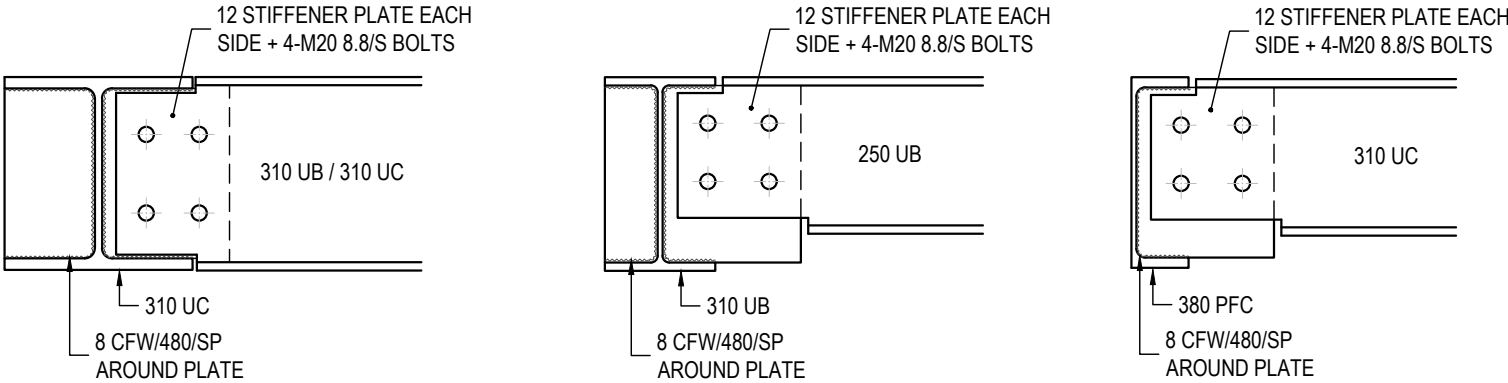
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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024

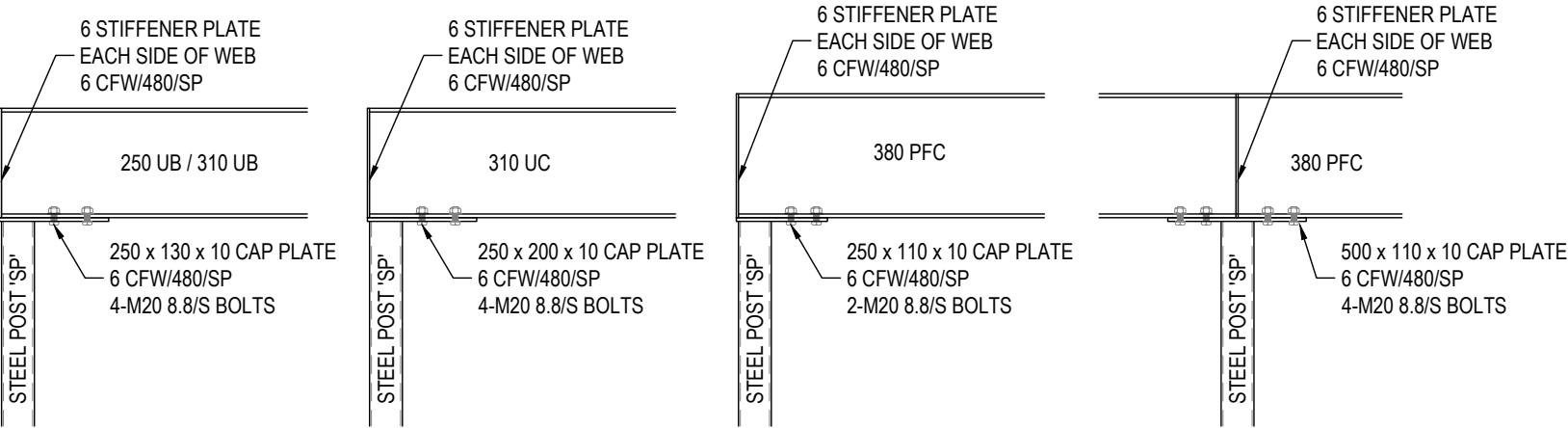


Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

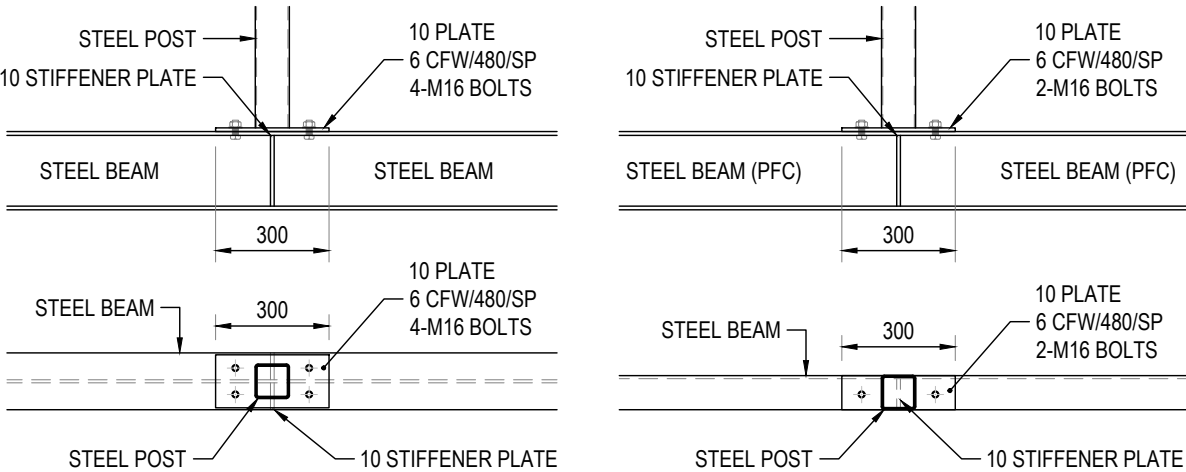
Title	FIRST FLOOR DETAILS 2 of 3
ISSUED FOR	CONSTRUCTION CERTIFICATE
Project Number	23 H 104
Design	M.A.
Drawn	D.B.
Drawing Number	S14



STEEL BEAM CONNECTION DETAILS  
N.T.S.



STEEL POST CAP DETAILS  
(BOLT OPTION)  
N.T.S.  
BEAMS TO BE LOCATED CENTRALLY OVER COLUMN TYPICAL



TYP. STEEL POST TO STEEL BEAM DETAIL  
N.T.S.

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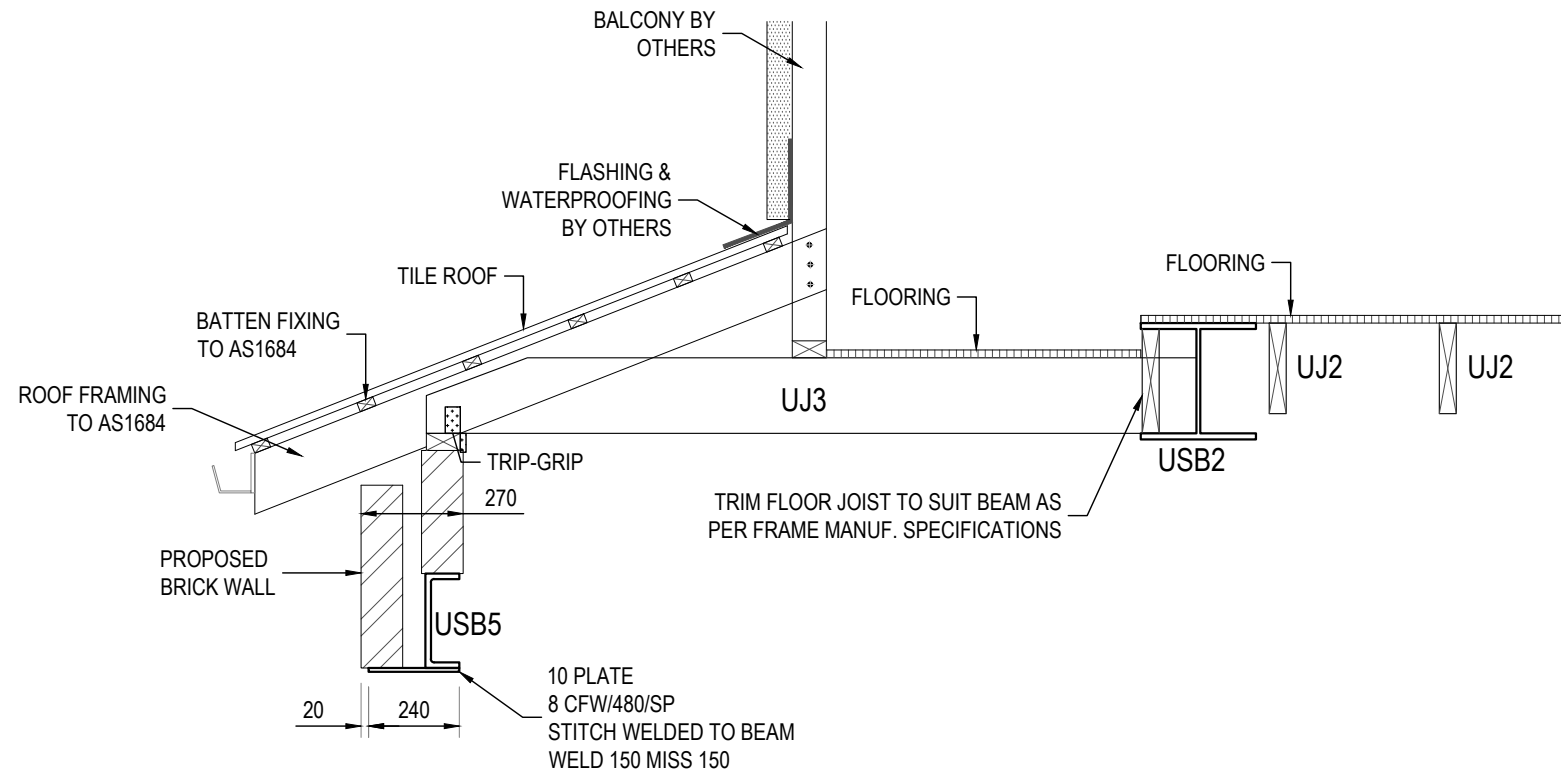


Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	FIRST FLOOR DETAILS 3 of 3
ISSUED FOR	CONSTRUCTION CERTIFICATE
Project Number	23 H 104

Design	Drawn
M.A.	D.B.
Drawing Number	S15





SECTION F1  
SCALE 1:20

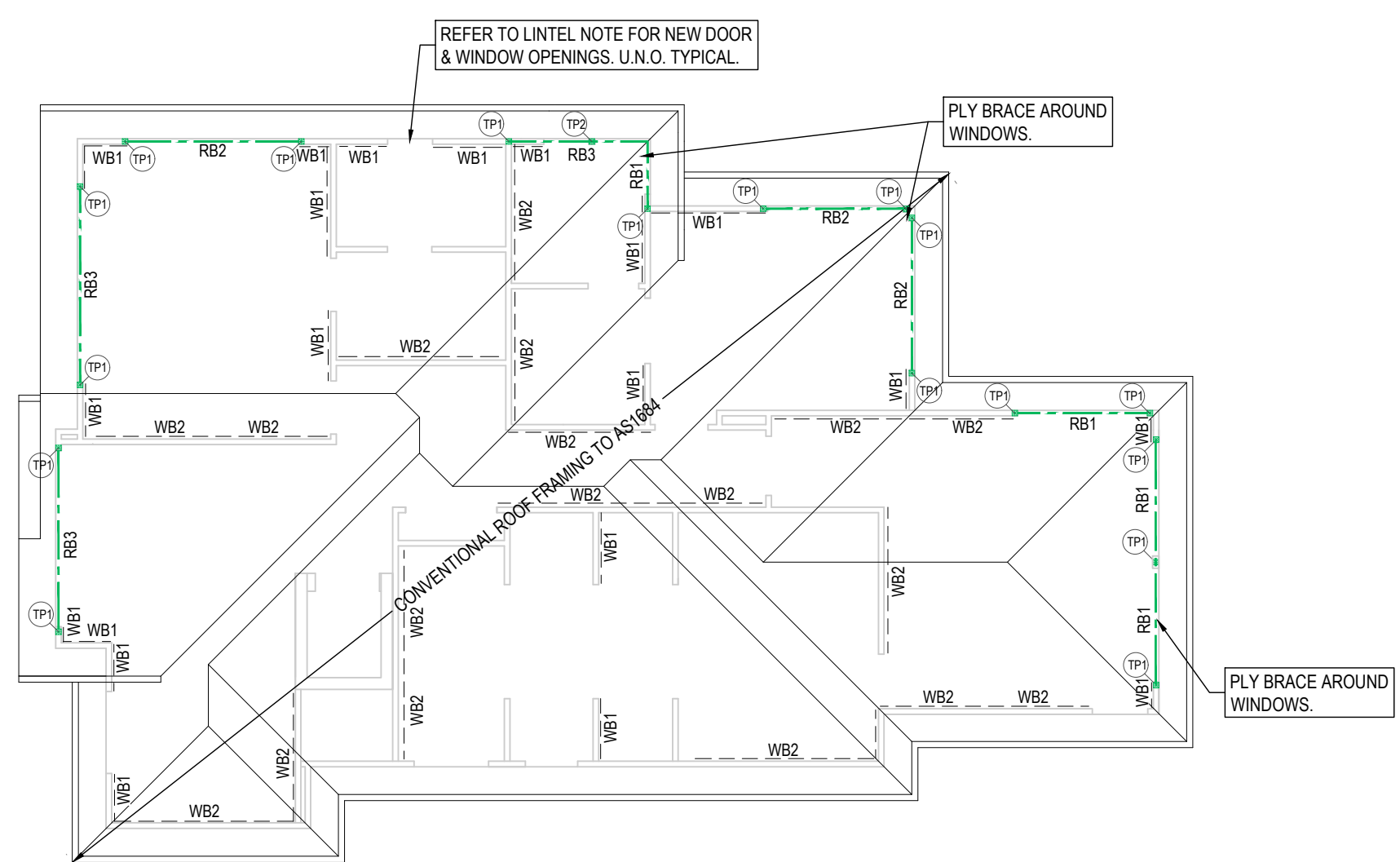
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Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title		Design	Drawn
FIRST FLOOR SECTIONS		M.A.	D.B.
ISSUED FOR CONSTRUCTION CERTIFICATE		Project Number	Drawing Number
		23 H 104	S16



**LOAD-BEARING TIMBER LINTEL**  
FOR WINDOW & DOOR OPENING  
AS FOLLOW, UNO.

0m - 1m	2 / 100 x 45 hySPAN
1m - 2m	2 / 150 x 45 hySPAN
2m - 3m	2 / 200 x 45 hySPAN

**LEGEND**

- EXISTING WALL
- PROPOSED BRICK/TIMBER
- PROPOSED TIMBER POST UNDER
- PROPOSED TIMBER BEAM
- PROPOSED WALL BRACING

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**ROOF FRAMING PLAN**  
SCALE 1:100

**FRAMING NOTES:**  
ALL EXPOSED STEEL TO BE PRESSURE GALVANIZED  
ALL DETAILS TO BE CONFIRMED DURING CONSTRUCTION  
ALL STEEL FIXINGS TO BE IN ACCORDANCE TO AS4100  
ALL EXPOSED TIMBER TO BE PRESSURE TREATED TO AS1684  
ALL TIMBER TO BE IN ACCORDANCE TO AS1684  
ROOF TO BE BUILT IN ACCORDANCE TO AS1684  
NOMINAL TIMBER CONNECTIONS TO AS1684

STRUCTURAL MEMBER SCHEDULE			
MARK	DESCRIPTION	SIZE	COMMENTS
TP1	TIMBER POST	2 / 90 x 45 MGP10 (DOUBLE STUD)	-
TP2	TIMBER POST	90 x 90 F7	TREATED PINE
RB1	TIMBER BEAM	2 / 150 x 45 hySPAN	-
RB2	TIMBER BEAM	2 / 200 x 45 hySPAN	-
RB3	TIMBER BEAM	2 / 240 x 45 hySPAN	-
WB1	WALL BRACING	PLY BRACE (REFER TO DETAILS)	-
WB2	WALL BRACING	SPEED BRACE (REFER TO DETAILS)	-

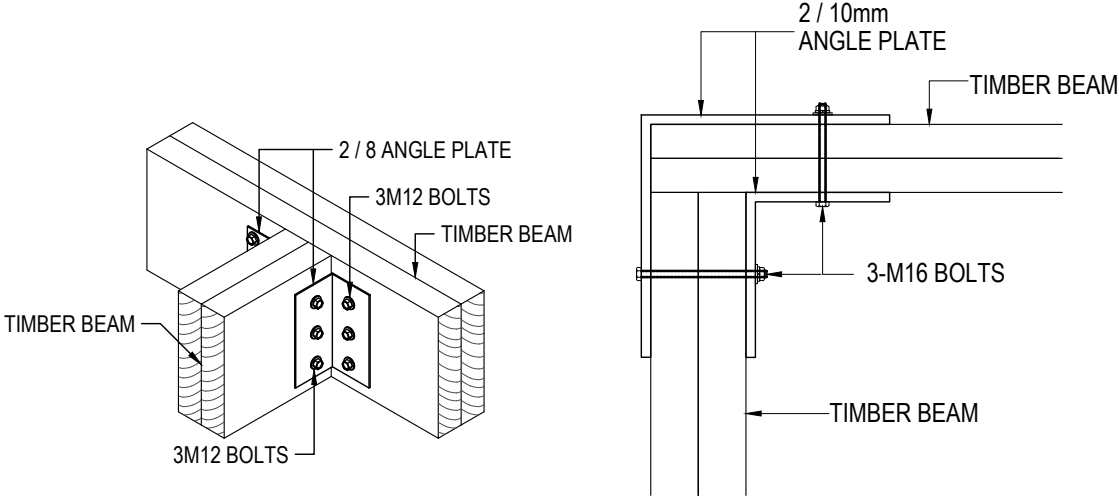
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F	ISSUED FOR C.C.	D.B.	M.A.	19.11.2024
E	GENERAL REVISIONS	D.B.	M.A.	08.10.2024
D	ISSUED FOR C.C.	D.B.	M.A.	21.06.2024
C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024

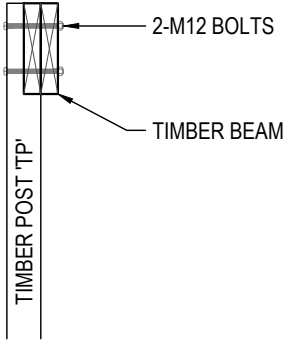
STRUCTURAL | STORMWATER | GLASS ENGINEERING  
0413 863 363 michael@hyten.com.au www.hyten.com.au

Client	C & A PARISI	Title	ROOF PLAN		Design	Drawn
Project	23 HAY STREET, COLLAROY	ISSUED FOR	CONSTRUCTION CERTIFICATE		M.A.	D.B.
		Project Number	23 H 104	Drawing Number	S17	

A3



TYP. TIMBER BEAM  
CONNECTION DETAIL  
N.T.S.



TYP. TIMBER BEAM TO  
TIMBER POST DETAIL  
N.T.S.

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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



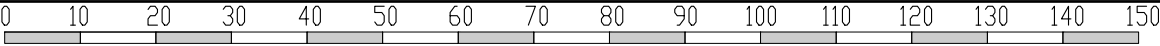
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ENGINEERING

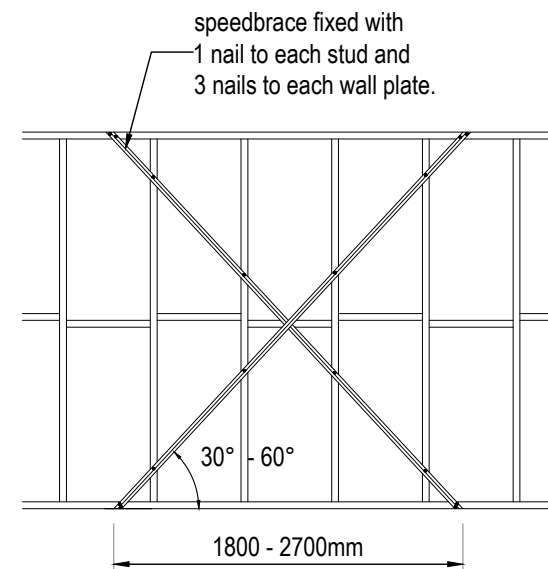
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Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

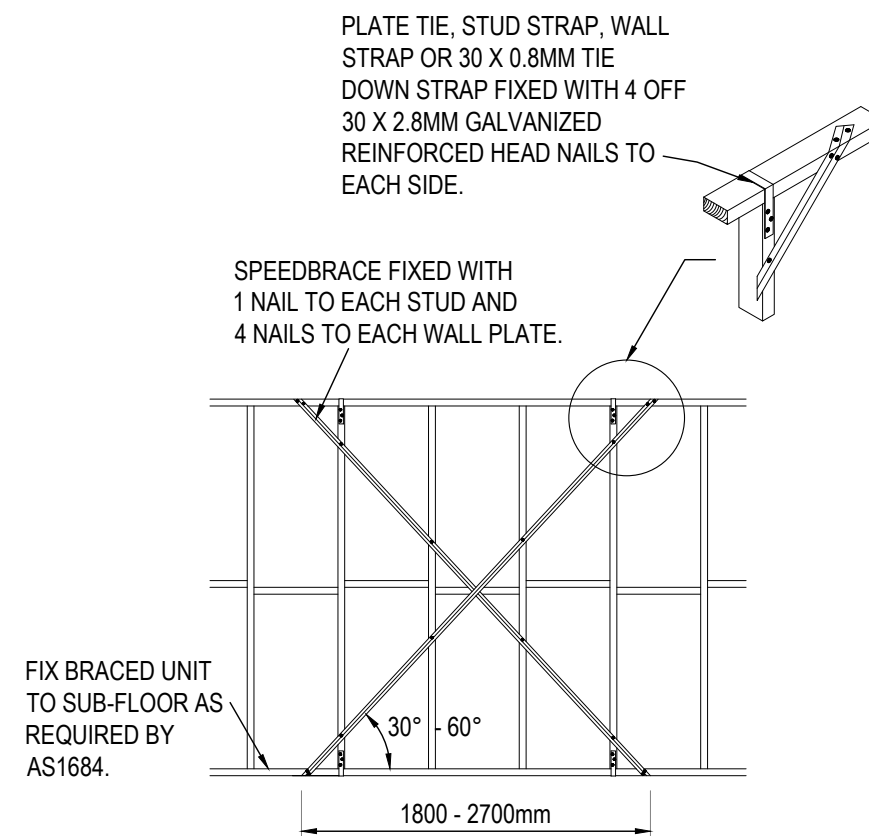
Title	ROOF DETAILS
ISSUED FOR	CONSTRUCTION CERTIFICATE
Project Number	23 H 104

Design	Drawn
M.A.	D.B.
Drawing Number	S18

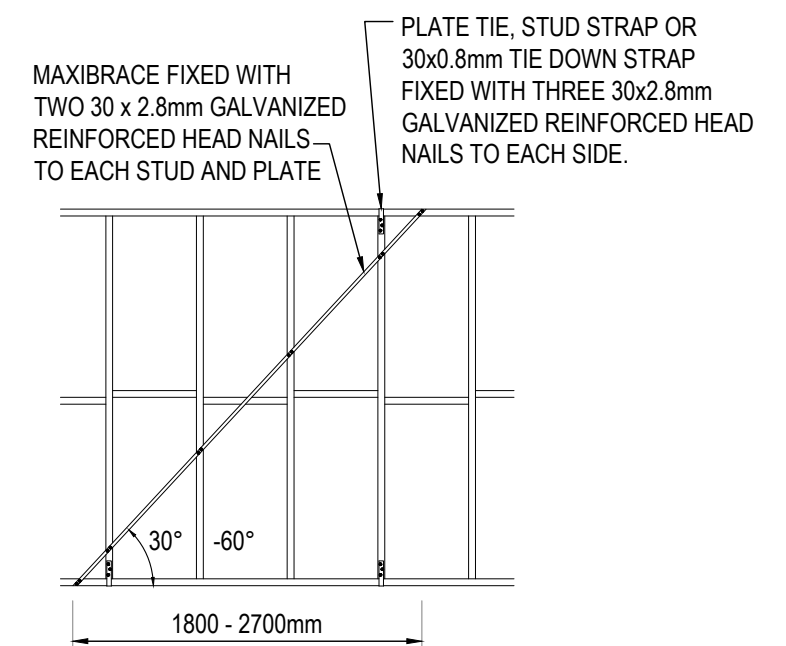




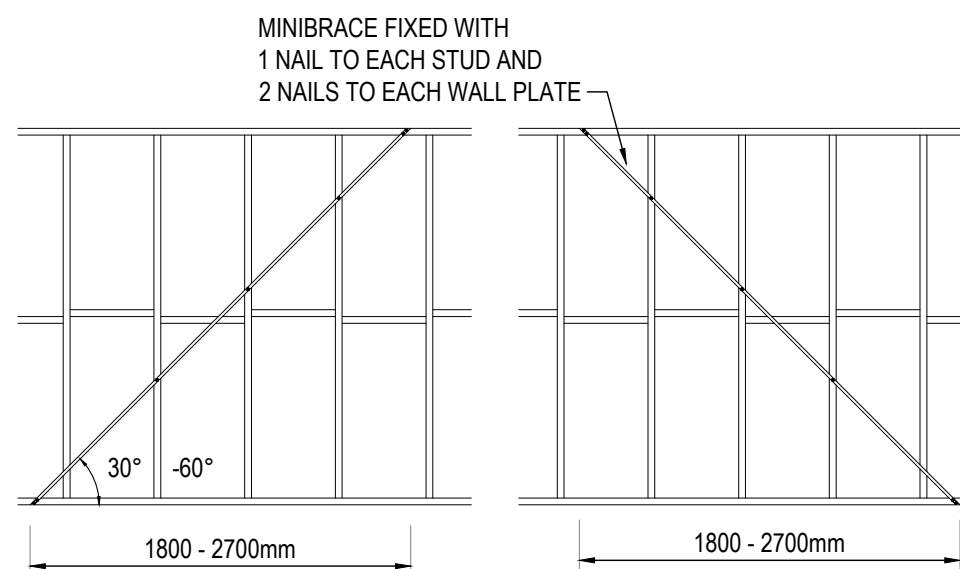
1.5kN/m BRACING TYPE -  
GANG-NAIL SPEEDBRACE



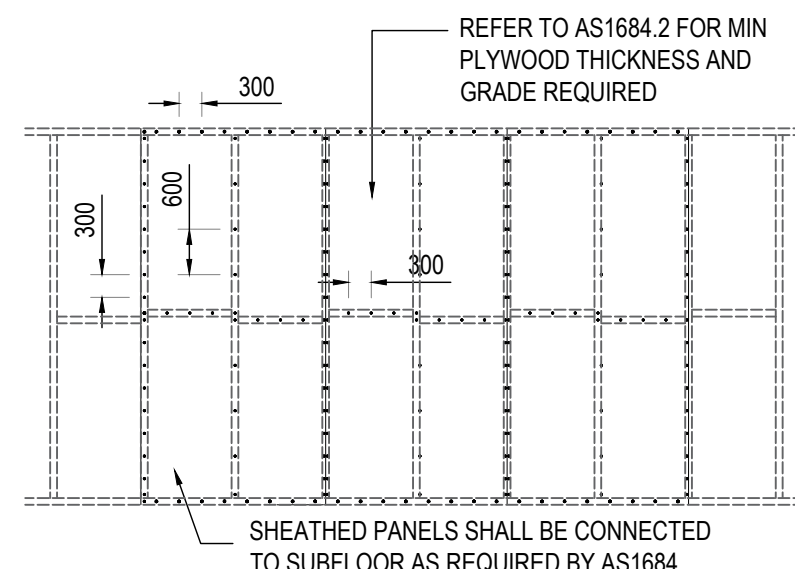
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GANG-NAIL SPEEDBRACE



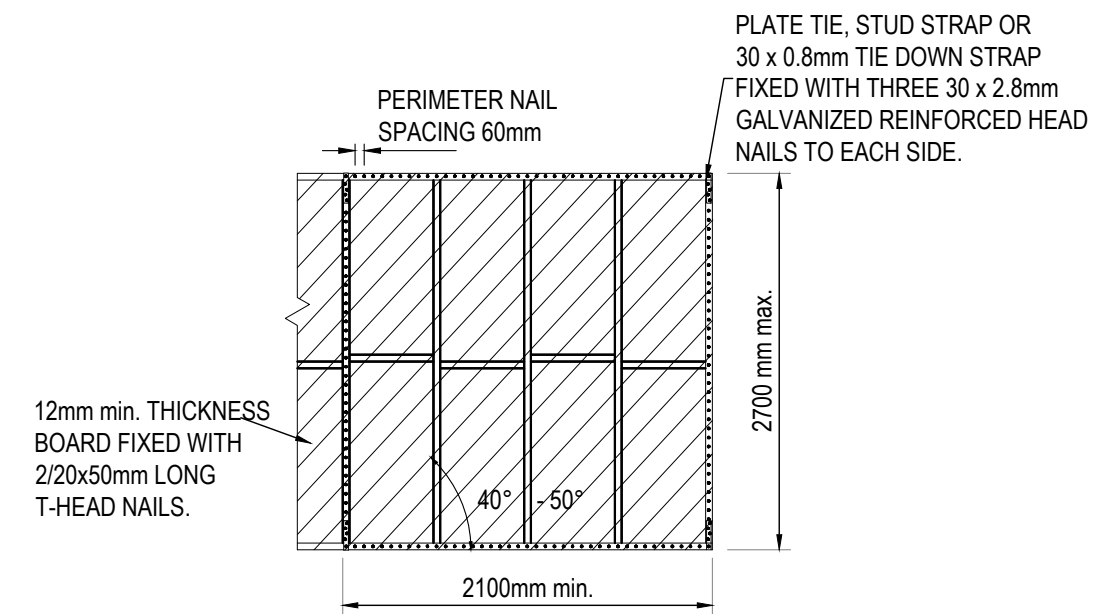
1.5kN/m BRACING TYPE -  
GANG-NAIL MAXIBRACE



0.8kN/m BRACING TYPE - PAIR OF GANG-NAIL  
MINIBRACES IN OPPOSING DIRECTIONS.



3.4kN/m BRACING TYPE -  
PLYWOOD BRACE



2.1kN/m BRACING TYPE -  
DIAGONAL TIMBER WALL LINING

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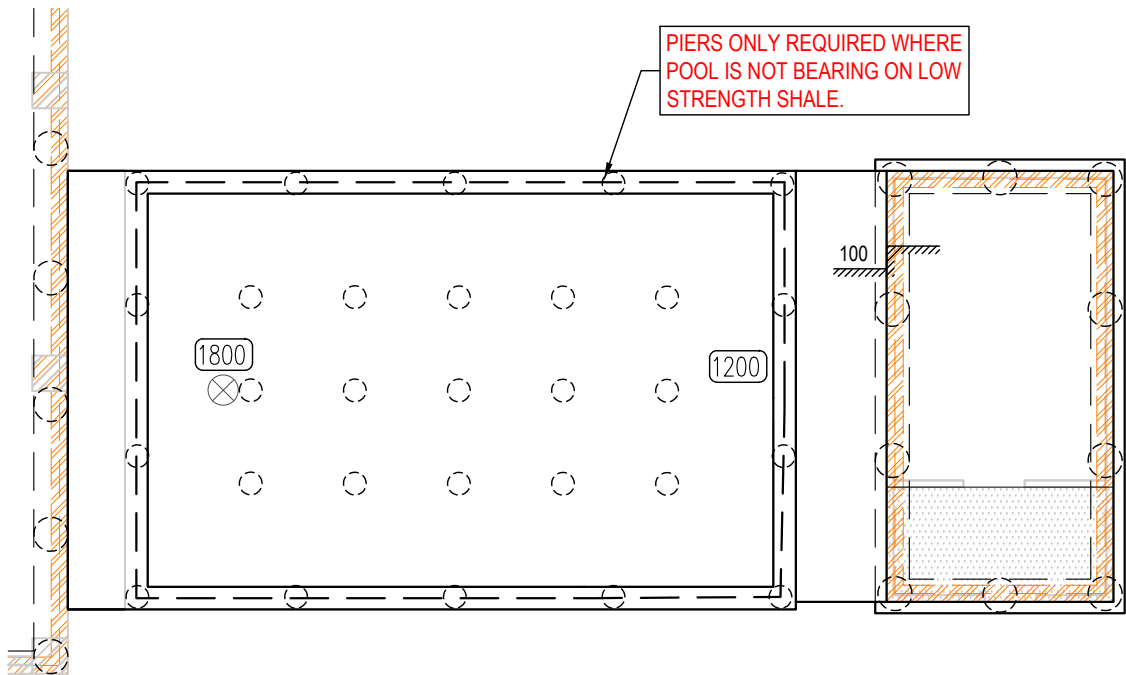
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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	WALL BRACING DETAILS	Design	M.A.	Drawn	D.B.
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S19





## POOL PLAN

SCALE: 1:100

NOTES:

- CONCRETE STRENGTH  $F'c = 40 \text{ MPa}$
- DESIGN SUITABLE FOR CLASS M SITE CLASSIFIED UNDER AS2870-1996
- SUPPORTING FOUNDATION MATERIAL TO BE **LOW STRENGTH SHALE** OF UNIFORM MOISTURE CONTENT WITH SAFE BEARING CAPACITY OF **600 kPa**. (POOL BASE TO BE FOUND INTO VIRGIN MATERIAL.)
- TYPICAL WALL & FLOOR REINFORCEMENT TO BE S12-300 IN EACH DIRECTION.
- PROVIDE AN EXPANSION JOINT BETWEEN THE SWIMMING POOL STRUCTURE AND ANY OTHER STRUCTURE SUCH AS CONCRETE WALKWAYS, FOOTING, ETC

## LEGEND

	POOL COPING
	POOL DEPTH
	H.R. VALVE
	3000 CONCRETE PIER
	E.J. - EXPANSION JOINT

## GENERAL

- DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECTURALS (SETOUT, LEVELS, FALLS ETC.).
- WRITTEN DIMENSIONS TO BE TAKEN IN REFERENCE TO SCALE.
- SKIMMER TO BE POSITIONED BY BUILDER.
- STEP & FILTER LOCATION TO BE DISCUSSED WITH CLIENTS DURING CONSTRUCTION
- PLUMBING IS TO BE IN ACCORDANCE WITH WRITTEN RECOMMENDATIONS OF FILTER MANUFACTURER.
- THIS DRAWING IS A STANDARD SPECIFICATION: ITEMS SHOWN ARE INCLUDED ONLY WHEN INDICATED IN CONTRACT.
- PLANS ARE ONLY APPROVED WHEN BEARING AN ORIGINAL SIGNATURE OF THE ENGINEER.
- POOL SETOUT ONSITE TO BE CONFIRMED WITH OWNER BEFORE COMMENCING TO DIG.
- POOL FENCE AS PER APPROVAL DOCUMENTS TO BE 1200 HIGH CHILD SAFETY POOL FENCE AND SELF (LATCHING) CLOSING GATE TO AS1926-86 BY OTHERS (NOTE: POOL FENCING IS OWNER'S RESPONSIBILITY.)

## CONCRETE AND REINFORCEMENT NOTES

- CONCRETE TO HAVE A MINIMUM DESIGN STRENGTH OF  $F'c = 25 \text{ MPa}$  AT 28 DAYS (**32MPa WHERE WITHIN ONE KILOMETRE OF SEA OR OUT OF GROUND**) USING 10mm MAXIMUM AGGREGATE SIZE (POOL MIX) SLUMP 75MM. ADDITIVES NOT PERMITTED WITHOUT APPROVAL. UPON COMPLETION OF CONCRETING THE HYDROSTATIC VALVE IS TO BE CHECKED TO ENSURE EFFECTIVE AND SUFFICIENT OPERATION
- CONCRETE TO BE CURED BY HOSING TWICE DAILY FOR SEVEN DAYS SEEK ADDITIONAL ADVICE FOR SITES NOT CONNECTED TO TOWN WATER SUPPLY
- REINFORCEMENT TO BE STRUCTURAL GRADE 250 DEFORMED BAR TO AS1302 LAPPED 450MM AS REQUIRED, TIED SECURELY WITH 1.2MM ANNEALED WIRE AND SHALL BE SUPPORTED ON APPROVED TYPE BAR CHAIRS AT 900MM CENTRES BOTH WAYS
- ALTERNATIVE REINFORCEMENT TO BE TEMCORE BARS IN ACCORDANCE WITH AS 1302 410 Y
- SPLICES IN BOND BEAM BARS SHALL BE STAGGERED
- WATER FACE REINFORCEMENT TO HAVE 65MM CONCRETE COVER REAR FACE REINFORCEMENT HAVE 50MM COVER FROM REAR REAR FACE IF FORMED AND 65MM COVER IS SPRAYED AGAINST GROUND

## POOL DESIGN

- WALKWAYS ARE NOT DESIGNED TO SUPPORT MASONRY WALLS UNLESS OTHERWISE NOTED
- DESIGN LIVE LOAD FOR WALKWAYS AND CONCOURSES 3 KPA
- GEOTECHNICAL ENGINEER TO VERIFY THE SAFE BEARING CAPACITY OF FOUNDATION MATERIAL PRIOR TO CONSTRUCTION.
- NOTE POOL IS NOT DESIGNED FOR DIVING.
- DESIGN COMPLIES WITH RELEVANT SECTIONS OF AS3600 AND AS2783 ISSUE 1992 FOR PNEUMATICALLY APPLIED CONCRETE FOR USE IN REINFORCED SWIMMING POOLS.
- NO ALLOWANCE HAS BEEN MADE FOR SURCHARGE LOADING FROM ANY STRUCTURE, UNLESS INDICATED ON PLAN.

## CONSTRUCTION NOTES

- WHERE IT IS CONSIDERED THAT GROUND WATER CAN BUILD UP TO A LEVEL 500MM ABOVE THE FLOOR OF THE EXCAVATION ADEQUATE DRAINAGE SHALL BE PROVIDED UNDER THE POOL FLOOR
- PVC PLUMBING PIPES TO BE 50MM FROM STEEL REINFORCEMENT, OR IF TIED TO STEEL REINFORCEMENT TO BE FULLY ENCASED WITH AT LEAST 50MM CONCRETE COVER.
- CONCRETE SIZES SHOWN ARE EXCLUSIVE OF RENDER OR OTHER INTERNAL FINISH AND SHALL NOT BE VARIED OR PENETRATED BY HOLES UNLESS SHOWN ON PLAN OR APPROVED BY ENGINEER.
- PROVIDE 10MM CONTROL JOINTS AT MAXIMUM 3500MM CENTRES AND AT ALL POINTS OF CONTRA-CURVATURE IN PLAN VIEW OF WALKWAY FINISH. PROVIDE 10MM CONTROL AT JUNCTION OF ANY ADDITIONAL PAVING TO POOL STRUCTURE AND/OR POOL FINISHES.
- TILE PAVEMENTS IN POOL AREA TO BE LAID IN ACCORDANCE WITH AS3958-1 AND AS3958-2.
- PROVIDE 10MM EXPANSION JOINT MATERIAL BETWEEN POOL CONCRETE AND ALL EXISTING RIGID STRUCTURES ON THE SITE INCLUDING BRICK WALLS OF HOUSE, DRIVEWAY SLAB ETC.
- WHERE POOL WALKWAY/COPING LEVEL IS IN PART BELOW ADJOINING GROUND LEVEL, PROVIDE SURFACE CATCH DRAINS AND/OR SUB-SURFACE DRAINS TO DIVERT STORMWATER AND/OR GROUND WATER AWAY FROM POOL

## NOTIFY ENGINEER

- STRUCTURAL ENGINEER TO BE NOTIFIED TO INSPECT STEEL PLACEMENT 48 HRS PRIOR TO CONCRETE PLACEMENT. ( FEE APPLICABLE AT TIME OF INSPECTION)
- ENGINEER TO BE ADVISED IF EXCAVATION IS IN FILL OR IF EXCESSIVE GROUND WATER IS ENCOUNTER.
- POOL WALLS NOT TO PROJECT MORE THAN 600MM OUT OF GROUND SUPPORTING MATERIAL (AT LEAST 200KPA MATERIAL) OR SEEK ENGINEERING ADVICE.
- IF POOL IN ZONE OF INFLUENCE OF EXISTING STRUCTURE, UNDERPINNING OF MAYBE REQUIRED, ENGINEER TO CONFIRM ON SITE

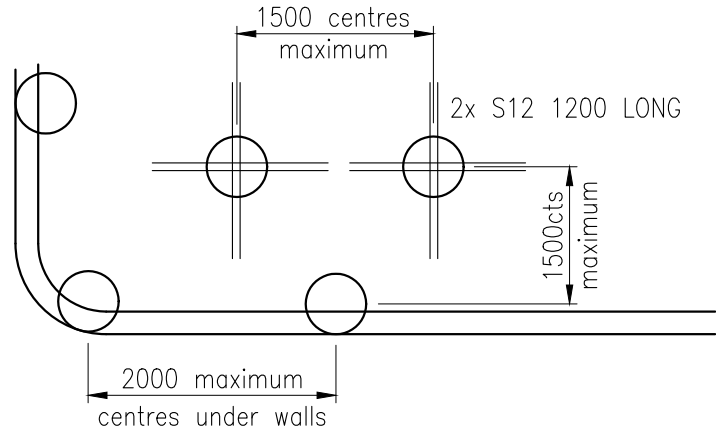
## PIERING NOTES (IF REQUIRED):

PIERS REQUIRED IF:

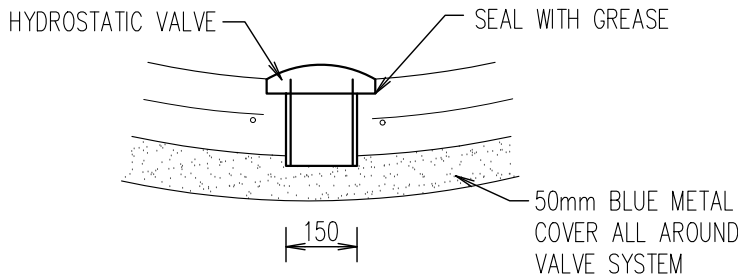
- POOL FOUND IN INADEQUATE STRATA or NON-VIRGIN MATERIAL (IE. FILL)
- BASE OF POOL FOUND IN STRATA THAT REVEALS DISSIMILAR MATERIAL (POOL TO HAVE EVEN BEARING THROUGHOUT)

TYPE OF PIERS TO BE USED WHERE REQUIRED:

- 450Ø PIERS TO LOW STRENGTH SHALE OF 600Kpa BEARING CAPACITY,
- PIER DEEPER THAN 1500mm or OUT OF GROUND, TO BE REINFORCED WITH 6N12 VERTICAL + R10-300 TIES



## PIER LAYOUT WHERE REQUIRED



## HYDROSTATIC RELIEF VALVE

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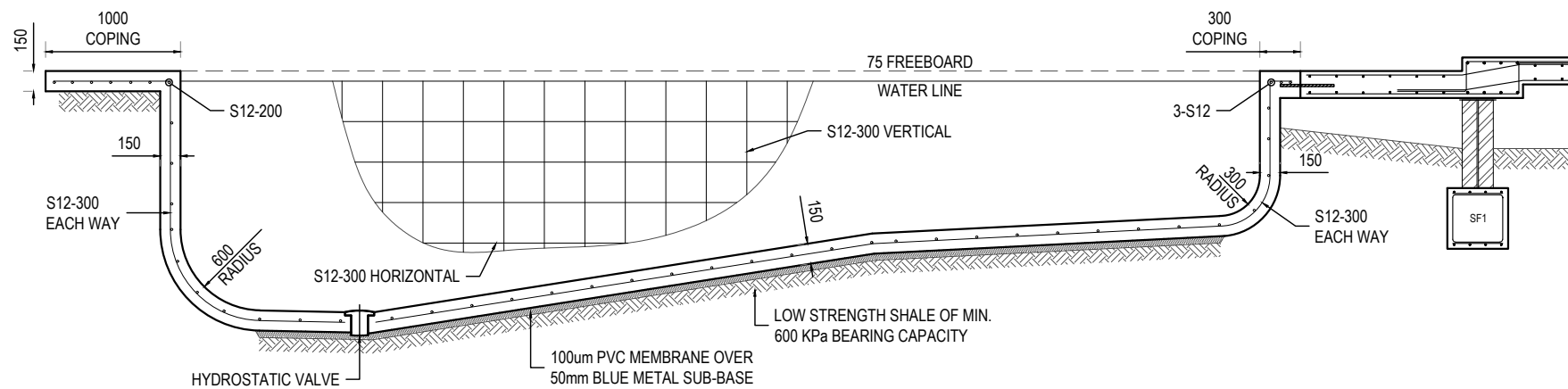
Rev.	Description	By.	App.	Date
F	ISSUED FOR C.C.	D.B.	M.A.	19.11.2024
E	GENERAL REVISIONS	D.B.	M.A.	08.10.2024
D	ISSUED FOR C.C.	D.B.	M.A.	21.06.2024
C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

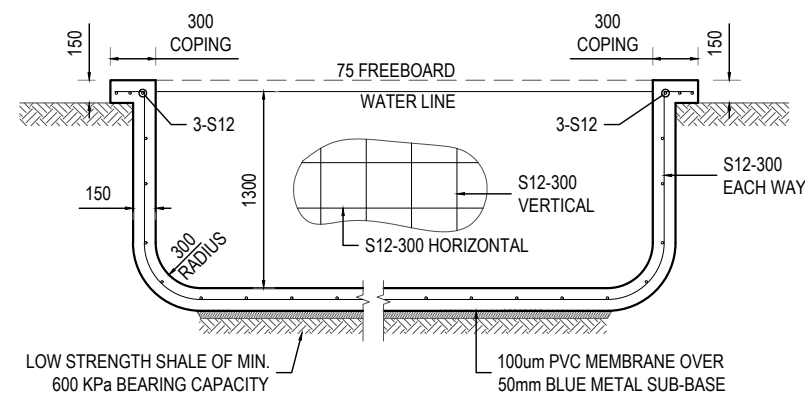
Title	POOL PLAN
ISSUED FOR	CONSTRUCTION CERTIFICATE
Project Number	23 H 104

Design	Drawn
M.A.	D.B.
Drawing Number	S20



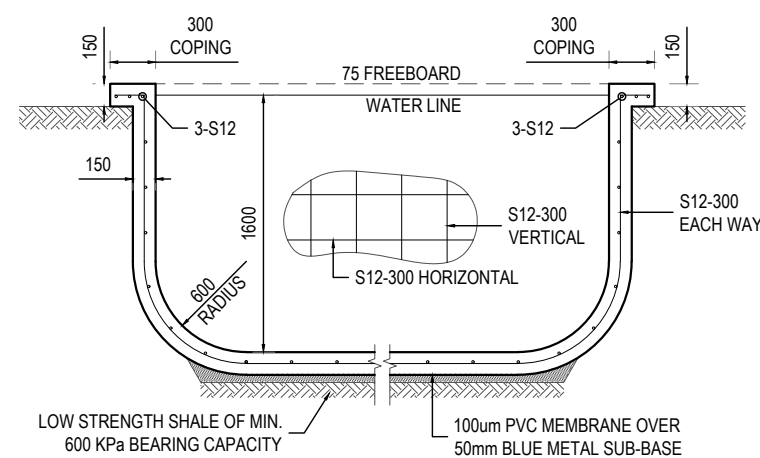
## POOL LONG SECTION

SCALE 1:50



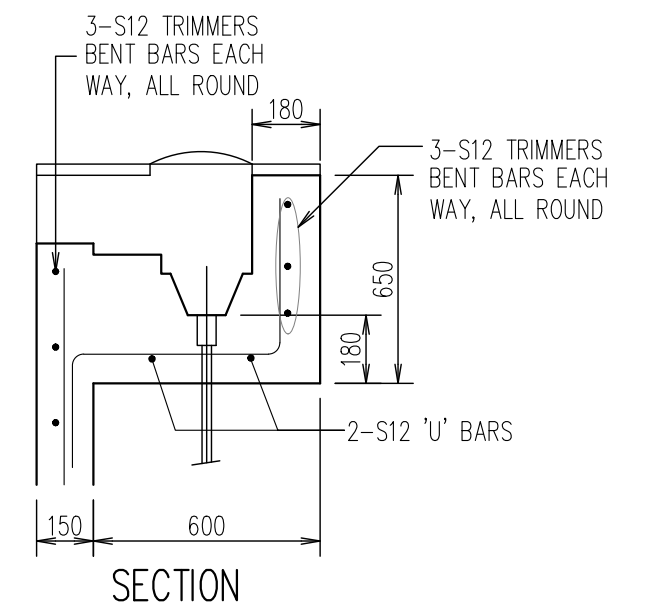
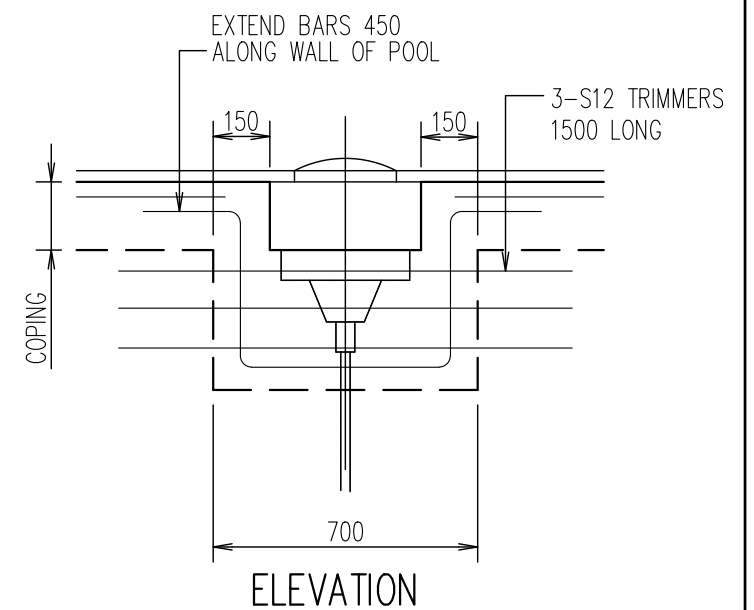
## POOL SHORT SECTION AT SHALLOW END

SCALE 1:50



## POOL SHORT SECTION AT DEEP END

SCALE 1:50

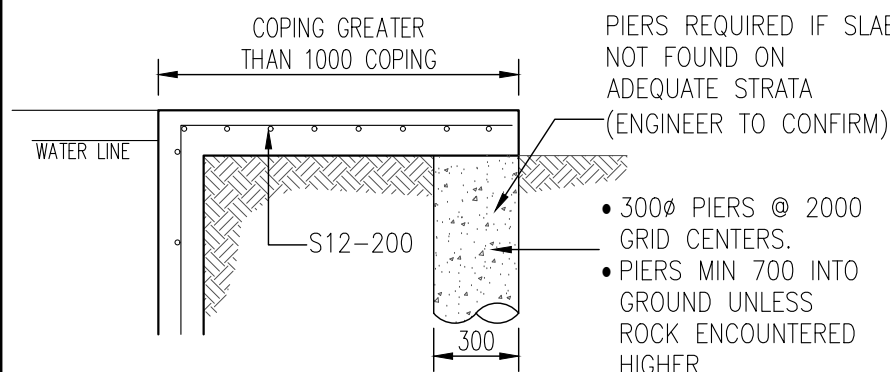


## SKIMMER BOX DETAIL

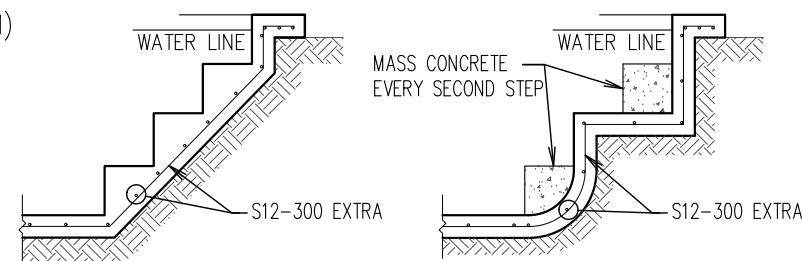
SCALE 1:20

NOTE:

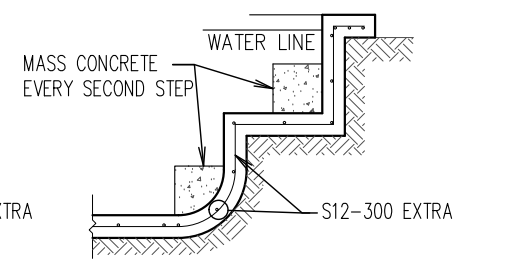
- LOCATION TO SUIT PUMP MANUFACTURER'S SPECIFICATION
- ALL PVC PIPE TO BE MIN 50mm FROM STEELWORK, UNLESS FULLY ENCASED IN 50mm CONCRETE COVER



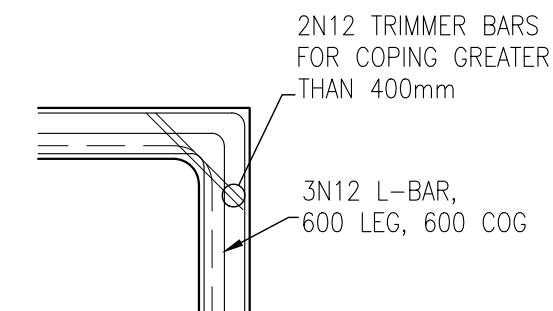
## CANTILEVERED WALKWAY DETAIL



## STEP SECTION



## STEP & BENCH SECTION



## COPING (BOND BEAM) DETAIL

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C	ISSUED FOR C.C.	D.B.	M.A.	04.06.2024



Client	C & A PARISI
Project	23 HAY STREET, COLLAROY

Title	POOL SECTIONS	Design	M.A.	Drawn	D.B.
ISSUED FOR	CONSTRUCTION CERTIFICATE	Project Number	23 H 104	Drawing Number	S21

A3 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150