

GENERAL NOTES:
GENERAL

- G1. The drawings are to be read together with all Architects drawings and specifications.
- G2. Engineer's drawings shall not be used for dimensions. All setting out dimensions shall be verified and discrepancies shall be referred to the Engineer prior to commencement of work.
- G3. During construction the structure shall be maintained in a stable condition and no part shall be overstressed. Temporary bracing shall be provided by the builder to keep the works and excavations stable at all times.
- G4. Design, materials and workmanship are to be in accordance with current S.A.A standards and statutory authority regulations except where varied by these documents.
- G5. Design live loads are in accordance with AS 1170.1

FOOTINGS

- F1. FOUNDATION STRATA IS ASSUMED FOR DESIGN PURPOSES IN ACCORDANCE WITH AS 2870-2011 "RESIDENTIAL SLAB AND FOOTINGS-CONSTRUCTION". SEE FOOTNOTE. CLASSIFICATION TO BE VERIFIED BY A GEOTECHNICAL ENGINEER COMMISSIONED BY THE CLIENT FOR CERTIFICATION OF FOUNDATIONS.
- F2. Footings to be constructed and back filled as soon as possible following excavation to avoid softening by rain or drying out by exposure.
- F3. Footings must bear into undisturbed natural ground clear of organic material. Refer to details.
- F4. If rock or variable bearing strata is encountered during excavation of the footings all footings/piers are to be excavated to similar material of greater bearing capacity. The Engineer is to be contacted at that time for approval or review.
- F5. Footings to be cast in approved material having an allowable capacity as follows:
- Sand Foundations:
- SA1. Required minimum bearing capacity 150 kPa.
- SA2. Trenches must be cleaned of all debris and hand compacted prior to placement of reinforcement.
- Clay Foundations:
- CL1. Required minimum bearing capacity 150 kPa.
- CL2. Trenches must be cleaned of all debris. Soft spots must be cut out and filled as per compacted fill notes, prior to placement of reinforcement.
- Shale Foundations:
- SH1. Required minimum bearing capacity 400 kPa.
- SH2. Excavation for footings into shale must be cast or capped with plain concrete on the same day as excavation.
- Sandstone Foundations:
- SS1. Required minimum bearing capacity 600 kPa.
- SS2. Scrape weathered surface to remove cleaved sandstone under footings. Refer below for assumed Design bearing strata.
- F6. Future development of neighboring properties may effect ground water conditions on this site. Consequently, reactivity in subgrade beneath footings may be locally altered therefore putting footing at risk of differential settlement. We recommend that, particularly in clay subgrades, agricultural drainage is installed to the upstream perimeter of the building at a distance from the building which is outside the zone of influence of the footings. The agricultural drain must be installed below the fluctuating seasonal zone which should be identified by geotechnical investigation.

CONCRETE

- C1. All workmanship and materials shall be in accordance with AS 3600-2001.
- C2. Concrete quality shall be as follows and shall be verified by tests.
- C3. All concrete unless otherwise noted shall have a slump of 80mm at point of placement, a max. aggregate size of 20 mm. No water shall be added to the mix prior to or during placement of concrete. Strength as specified on plans.
- C4. Clear concrete cover to reinforcement shall be as follows unless otherwise shown-

ELEMENT	INTERIOR	EXTERIOR	EXTERIOR CAST AGAINST GROUND
FOOTINGS	-	-	50
COLUMNS/PEDESTALS	30 UNO	REFER TO PLAN	-
SLABS/WALLS	25	REFER TO PLAN	40 ON MEMBRANE
BEAMS	25 UNO	REFER TO PLAN	50
BLOCKWORK	55 FROM APPROPRIATE FACE		

- C5. Sizes of concrete elements do not include thickness of applied finishes.
- C6. All Construction Joints locations shall be approved by the Structural Engineer.
- C7. Beam depths are written first and include slab thickness, if any.
- C8. No holes or chases other than those shown on the structural drawings shall be made in concrete elements without the prior approval of the engineer.
- C9. Shrinkage reducing admixtures such as 'Eclipse' or approved equivalent, if specified, must be added to mix prior to pour.
- C10. Water reducing agents, if specified, must be added to mix prior to pour. No extra water is to be added to increase slump.
- C11. Where vertical slab/beam surfaces are formed against a masonry (or other) wall, provide 10 mm styrene separation material.
- C12. Water must not be added to concrete mix prior to placement of concrete.
- C13. Above covers may have to be adjusted if fire rating is a requirement.

REINFORCEMENT

- R1. All reinforcement specified is Grade D500 unless noted otherwise.
- R2. Reinforcement is represented diagrammatically it is not necessarily shown in true projection.
- R3. Top reinforcement is to be continuous over supports. Bottom reinforcement to be lapped at supports.
- R4. Welding of reinforcement shall not be permitted unless shown on the structural drawings.
- R5. Pipes or conduits shall not be placed within the zone of concrete cover to the reinforcement without the approval of the engineer.
- R6. All reinforcing bars and fabric shall comply with AS 4671-2001.
- R7. Reinforcement symbols:
- N - Grade 500N deformed bar (D500) Normal Ductility
- R - Grade 250N plain round bar (R250) Normal Ductility.
- SL - Grade 500L welded deformed ribbed mesh (D500) Square Low Ductility.
- RL - Grade 500L welded deformed ribbed mesh (D500) Rectangular Low Ductility.
- The number immediately following these symbols is the number of millimeters in the bar diameter.
- Example : 8 N12-250
- Denotes 8, Grade 500N deformed bars, 12 mm diameter at 250 cts.
- R8. Fabric reinforcement to be lapped 1 complete square + 25 mm unless noted otherwise.
- R9 All reinforcement shall be firmly supported on bar chairs spaced at a maximum of 750 centres both ways under rod and fabric reinforcement. Reinforcement shall be tied at alternate intersections.

FORMWORK

- FW1. Formwork must be cleaned of all debris prior to casting of concrete.
- FW2. Minimum stripping times for form work shall be as recommended in AS 3610 - 1995 or as directed by the engineer.
- FW3. The finished concrete shall be a dense homogeneous mass, completely filling the form work, thoroughly embedding the reinforcement and free of stone pockets. All concrete elements including slabs on ground and footings shall be compacted with mechanical vibrators.
- FW4. Curing of all concrete is to be achieved by keeping surfaces continuously wet for a period of 3 days, followed by prevention of loss of moisture for seven days followed by a gradual drying out. Approved sprayed on curing compounds may be used where no floor finishes are proposed. Polythene sheeting or wet hessian may be used if protected from wind and traffic.

BRICKWORK

- BR1. Brickwork is to be constructed to AS 3700-2001.
- BR2. Two layers of approved greased metal based slip material shall be used over all load bearing walls that support concrete slabs and placed on smooth brickwork or trowelled mortar finish. Non load-bearing walls shall have 10 mm compressible material and ties to the slab soffit.
- BR3. No brickwork shall be constructed on suspended slabs until all propping has been removed from the underside of the slab and the concrete has the specified 28 day cylinder strength verified by tests.
- BR4. Control joints to be placed at a maximum of 8m centres or in accordance with AS 3700-2001.
- BR5. Exposure grade bricks to be used below damp proof course.
- BR6. Vertical control joint material where specified on plan between slabs and brick walls shall be: 10 mm Spandex External UNO. Bitumastic fibreboard internal UNO.

- BR7. Provide stainless steel wall ties below DPC to AS 3700-2001. Provide galvanized wall ties above DPC to AS 3700 & Local Council Specifications. Stainless steel ties to be used within 1 km of coast & east of Harbour Bridge.

BLOCKWORK

- BL1. Concrete blocks shall have a minimum compressive strength of 15 MPa and conform to AS 3700-2001.
- BL2. Where cores of hollow blocks are to be filled, properly compacted 20MPa concrete with 10 mm aggregate and 230 mm slump shall be used. Clean out openings must be utilized for all cores.
- BL3. Location of actual starters is critical to suit block cores, allow 55 mm cover from the outside face of blockwork. All reinforcement lap lengths to conform to AS 3600-2001.
- BL4. Control joints to be placed at a maximum of 8 m centres or in accordance with AS 3700-2001.
- BL5. Vertical control joint material where specified on plan between slabs and brick walls shall be: 10 mm Spandex External UNO. Bitumastic fibreboard internal UNO.
- BL6. Retaining walls or any reinforced and concrete core filled block walls to be of Double 'U' Block Construction.
- BL7. No blockwork shall be constructed on suspended slabs until all propping has been removed from the underside of the slab and the concrete has the specified 28 day cylinder strength verified by tests. unless approved by the Structural Engineer.
- BL8. Max. pour height for unrestrained blockwork is 1000 mm.

STEEL

- S1. All Structural steelwork to be Grade 300 or greater. Design, fabrication and erection to be in accordance with AS 4100-1998.
- S2. Materials and workmanship shall comply with AS 1250 - 1981, SAA Steel Structures Code and the specification for Structural Steel.
- S3. Rolled steel sections including steel plates shall comply with AS 3678 - 1996.
- S4. Cold formed steel sections shall be Grade 450 Zinc coated in accordance with AS 4600-2005.
- S5. Welded and seamless steel hollow sections shall comply with AS 1163. Grade 350.
- S6. Bolt Designation:
- 4.6S - Commercial bolts Grade 4.6, snug tightened.
- 8.8S - High Strength structural bolts Grade 8.8, snug tightened.
- 8.8TB - High Strength structural bolts Grade 8.8, fully tightened to AS 1511 and acting as a Bearing Joint.
- 8.8TF - High Strength structural bolts Grade 8.8, fully tensioned to AS 1511 and acting as a Bearing Joint.
- Unless noted otherwise, all bolts will be 8.8S.
- S7. Unless shown otherwise, minimum connection shall be 2M16 bolts, 10 thick gusset plates, 6mm continuous fillet welds.
- S8. Load indicating washers shall be used in all fully tensioned joints. (8.8TF & 8.8TB).
- S9. All welding shall be carried out in accordance with AS 1554-2007 SAA Structural Steel Welding Code.
- S10. Unless noted otherwise all welds shall be category SP using E41xx Electrodes. All butt welds shall be complete penetration butt welds category SP.
- S11. Grouting of anchor bolt sleeves and base plates shall be completed by the contractor using High Strength, Non-Shrink grout.
- S12. Fabrication and erection tolerances for Structural Steelwork shall be in accordance with AS 4100-1998.
- S13. Purlin bolts shall be M12 - 4.6S galvanised.
- S14. Steel work shall have one of the following grades of corrosion protection:-
INTERNAL
- a. Thoroughly cleaned wire brushing, followed by two coats of zinc phosphate primer equivalent to Dulux Luxaprime applied by hand using brushes to achieve a total dry film thickness of 70 microns.
- EXTERNAL ELEMENTS, & ELEMENTS WITHIN EITHER SKIN OF EXTERNAL CAVITY WALLS
- b. Preparation Blast clean to a minimum standard Class 2.5 in accordance with AS 1627-1997 Part 4.
- Provide paint protective coating to AS/NZ2312:2014, C4 Category, High Corrosivity Primer 2-pack epoxy phosphate at dft 75 microns (e.g. Dulux Durepon P14 OR Zincode 304/402).
- Barrier Coat 2-pack epoxy micaeous iron oxide, dft 125 microns (e.g. Dulux Duremax GPE M10)
- Finish Coat 2-pack epoxy epoxy micaeous iron oxide, dft 125 microns (e.g. Dulux Duremax GPE M10) in an approved colour.
- c. Hot dipped galvanized to AS 4680-2006. (Only to be used where more than 5 km from salt water.)
- Where the galvanic (Hot Dip Galvanized) coating is compromised by welding, bolting or damage, inorganic zinc-rich paint (minimum 95% zinc content.) is to be applied after wire brushing affected area (use 3 coats minimum). or Hot Metal Spray in accordance with AS 4680-2006.
- S15. Workshop drawings shall be prepared and two copies submitted to the engineer for review prior to fabrication commencement.

TIMBER

- T1. All workmanship and materials to be in accordance with AS 1684 -2006, AS 1720-1997 and as 3959-1999. All soft wood to be grade F7 unless noted otherwise. All hardwood to be minimum grade F14 unless otherwise noted. Exposed timber to be CCA treated (to AS 1604-2005) redried after full impregnation, or durability class 1, 2 or 3. We recommend that all softwood timber framing have a minimum treatment protection of H2 or T2 treatment for termite protection unless noted otherwise.
- T2. All joists deeper than 150 to have blocking over support bearers and at a maximum 3000 mm centres.
- T3. Roof trusses to be designed by the manufacturer to the relevant standards. Pre camber to be an amount equal to dead load deflection u.n.o.
- T4. All holes for bolts to be exact size. Washers to be used under all heads and nuts and to be at least 2.5 times the bolt diameter. Bolts to be M16 grade 4.6 unless noted otherwise.
- T5. Treat all exposed cut ends with Reseal by Protim to manufacturers specification to achieve required Hazard Level Exposure Classification.
- T6. Battens for T & G to be Kiln Dried to 12 %. 38mm minimum deep treated pine or as recommended by supplier. Flooring to be installed no sooner than 28 days after slab pour.
- T7. Hot dip galvanized nails/clouts/screws to be used with all timber connections.
- T8. Continuous nailing must not be used for any timber connections.
- T9. All exposed CCA treated pine to have an application of penetrating sealer to reduce warping and twist of the timber due to varying. moisture content in service.

COMPACTED FILL

- CF1. Compacted fill only to be used with approval of the Engineer and to be certified by a Geotechnical Engineer.
- CF2. Remove all organic material and topsoil under proposed slabs & footings.
- CF3. Filling shall be granular material compacted in not more 200 mm layers to a minimum dry density ratio (AS 1289-2002) of 98 percent.
- CF4. During clearing and excavation for slabs and footings cut out soft spots and fill as above.

INSPECTIONS BY ENGINEER

- 48 HOURS NOTICE IS REQUIRED BEFORE ANY SITE INSPECTION
- Bearing strata of all footings to be inspected by the Geotechnical Engineer prior to concrete pour.
 - Any reinforcement prior to concrete pour.
 - Timber and Steel framing prior to cladding or lining.
 - Steel lintels after installation.
 - Contact your PCA (Principal Certifying Authority) as to requirements for 'mandatory critical stage' inspections.

DRAWING SCHEDULE:

- S01 - GENERAL NOTES AND DRAWING SCHEDULE
- S02 - BASEMENT FLOOR PLAN
- S03 - BASEMENT DETAILS SHEET 1
- S04 - BASEMENT DETAILS SHEET 2
- S05 - BASEMENT DETAILS SHEET 3
- S06 - BASEMENT DETAILS SHEET 4
- S07 - BASEMENT DETAILS SHEET 5
- S08 - BASEMENT DETAILS SHEET 6
- S09 - FIRST FLOOR SLAB PLAN
- S10 - FIRST FLOOR DETAILS SHEET 1
- S11 - FIRST FLOOR DETAILS SHEET 2
- S12 - FIRST FLOOR DETAILS SHEET 3
- S13 - FIRST FLOOR DETAILS SHEET 4
- S14 - ROOF FRAMING PLAN
- S15 - ROOF DETAILS SHEET 1
- S16 - ROOF DETAILS SHEET 2
- S17 - WALL BRACING DETAILS
- S18 - WALL TIE DOWN DETAILS

ASSUMED FOUNDATION CLASSIFICATION FOR DESIGN PURPOSES - 'M'

ASSUMED BEARING STRATA FOR DESIGN PURPOSES - MODERATELY REACTIVE CLAY, 150 kPa.

CONTRACTOR TO ENGAGE GEOTECHNICAL CONSULTANT TO VERIFY FOUNDATION CLASSIFICATION.

DOCUMENT CERTIFICATION

Date: *July 20*

Base

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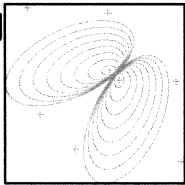
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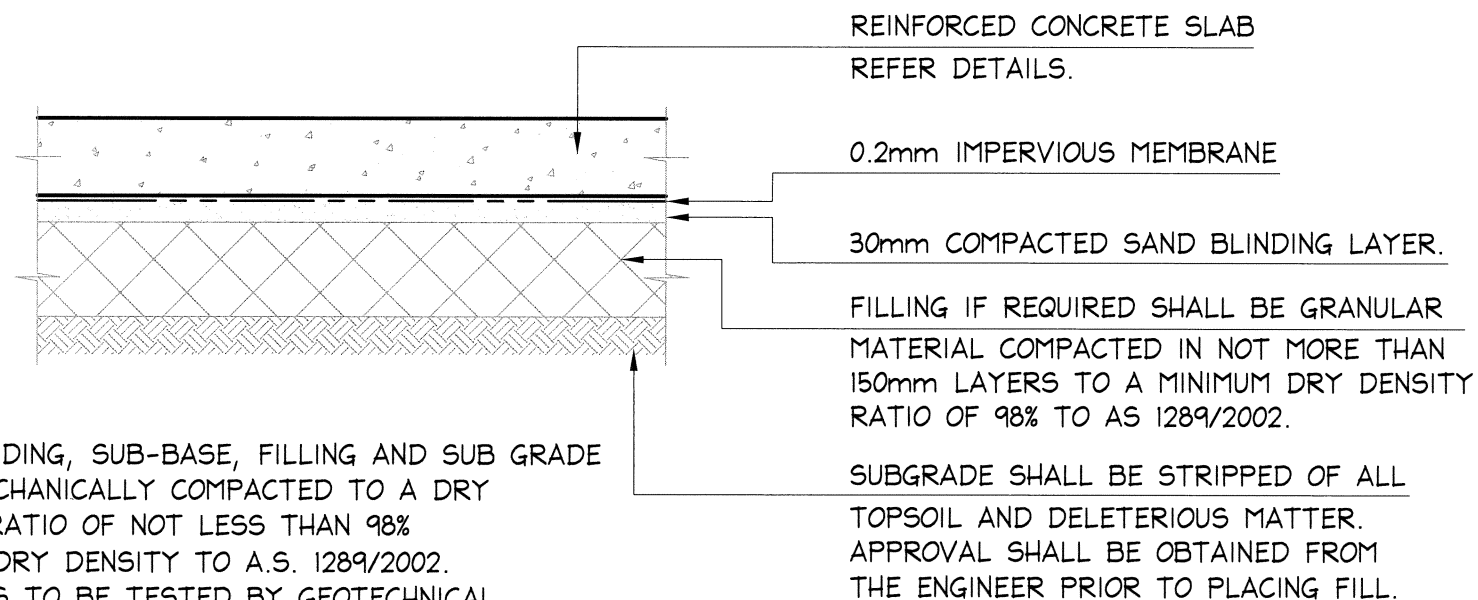
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for: MS RAE & MR GATES

Drawing Title:

GENERAL NOTES
AND DRAWING SCHEDULE

Job No:	Drawing No:	Rev:
20-0516	S01	-



NOTE :

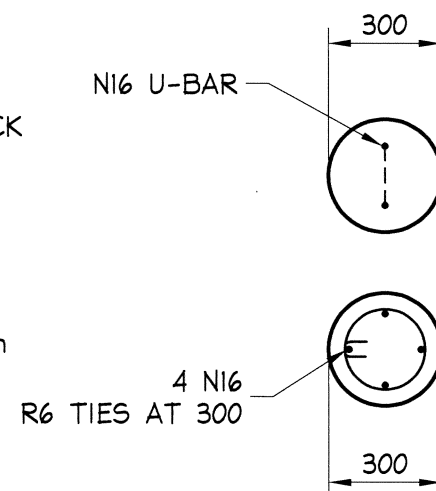
SAND BLINDING, SUB-BASE, FILLING AND SUB GRADE TO BE MECHANICALLY COMPACTED TO A DRY DENSITY RATIO OF NOT LESS THAN 98% MAXIMUM DRY DENSITY TO A.S. 1289/2002. ALL AREAS TO BE TESTED BY GEOTECHNICAL ENGINEER AND RESULTS FORWARDED TO STRUCTURAL ENGINEER PRIOR TO POURING CONCRETE.

TYPICAL SLAB PREPARATION TYPE A SLAB ON GRADE

N.T.S.

CONCRETE PIERS:

1. PIERS TO BE 300mm DIAMETER
FOUNDED AT MAX 1800 CTS ON ROCK
2. FOR DEPTH LESS THAN 1200mm
UNREINFORCED.
3. FOR DEPTH GREATER THAN 1200mm
AND LESS THAN 2400mm.
1 N16 U-BAR.
4. FOR DEPTH GREATER THAN 2400mm
4 N16, R6 TIES AT 300.



TYPE 'FPI' FOOTING PIER SECTION

SCALE = 1 : 20

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: SOI.



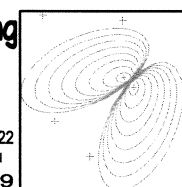
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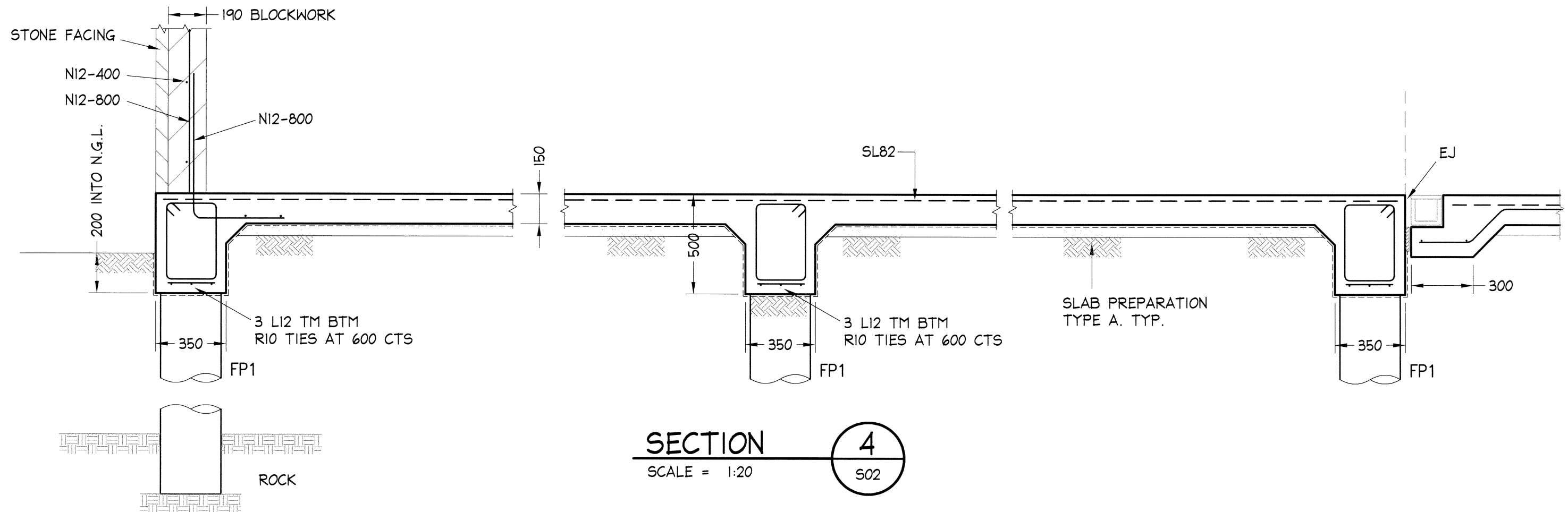
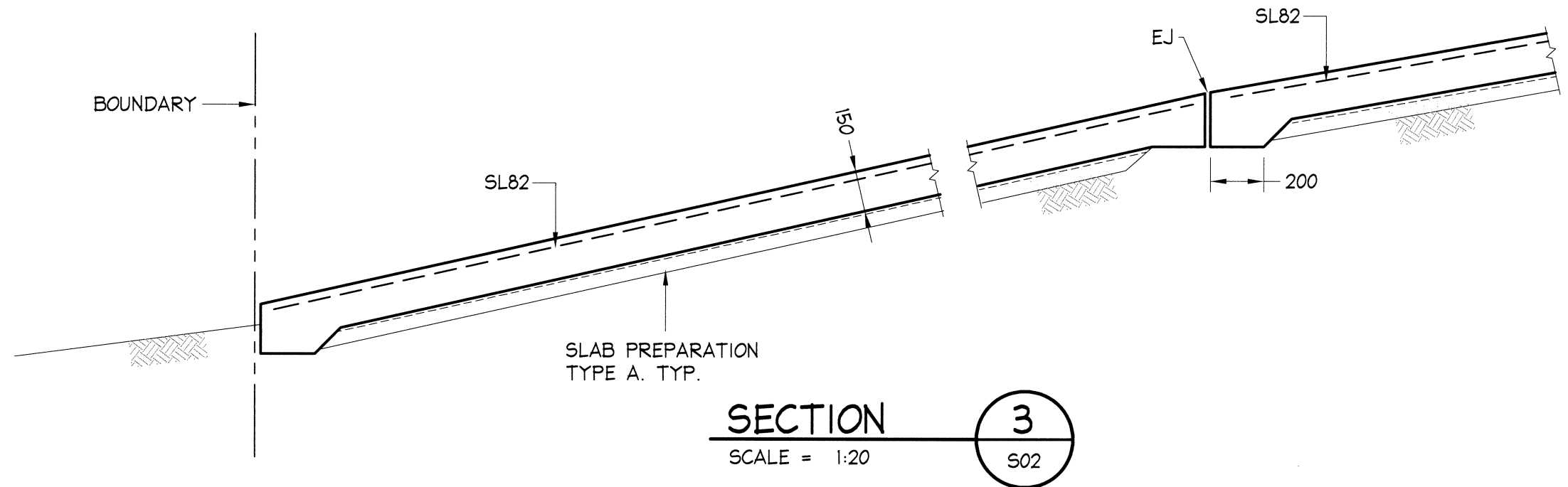


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Project: **PROPOSED WORKS**
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for: MS RAE & MR GATES

Drawing Title: **BASEMENT FLOOR DETAILS**
SHEET 1

Job No:	Drawing No:	Rev:
20-0516	S03	-



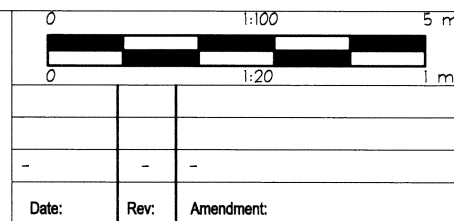
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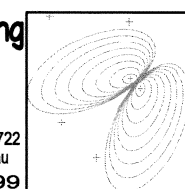
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BASEMENT FLOOR DETAILS
SHEET 3

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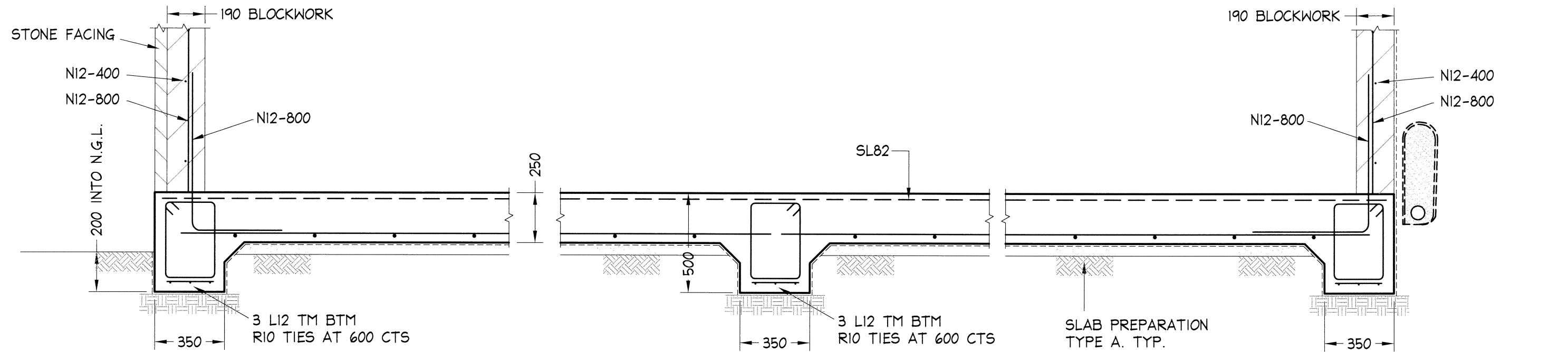
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S05

Rev:

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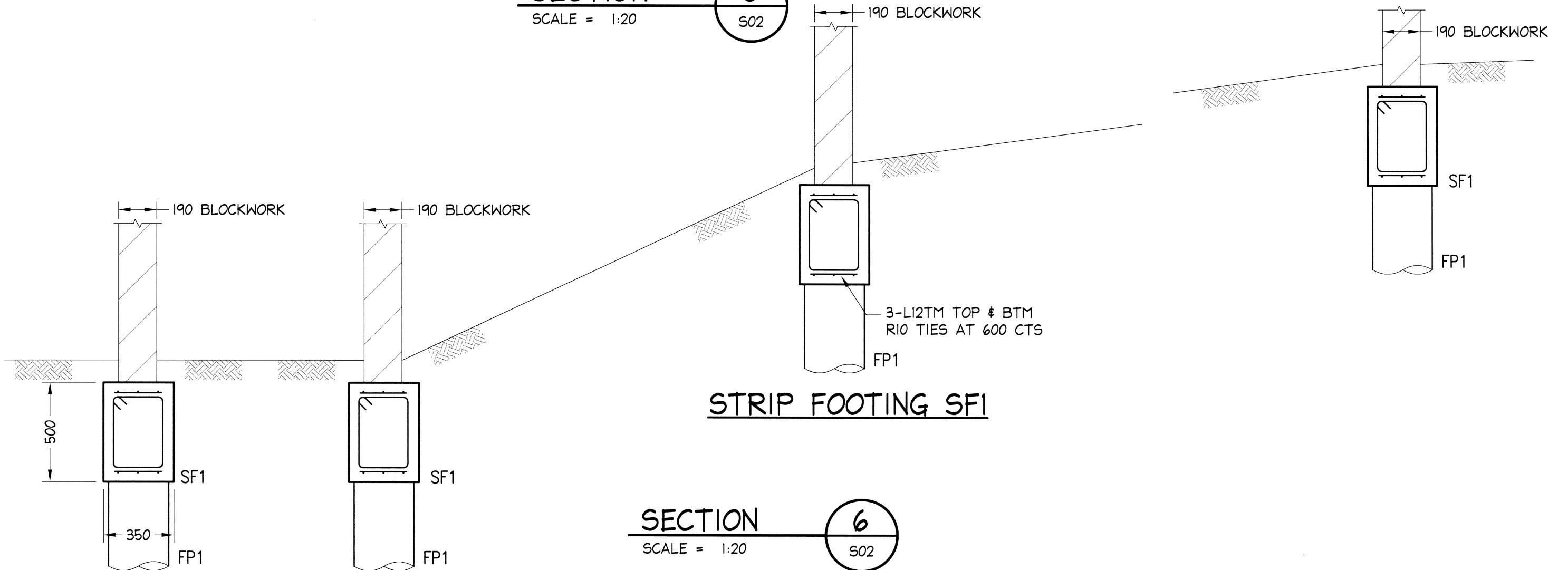


SECTION 5

SCALE = 1:20

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S02



STRIP FOOTING SF1

SECTION 6

SCALE = 1:20

6

S02

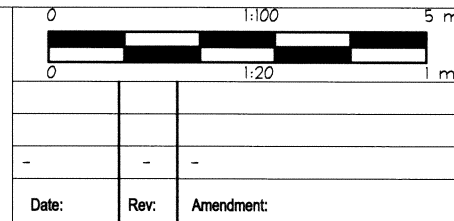
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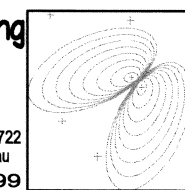
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BASEMENT FLOOR DETAILS
SHEET 4

Job No:

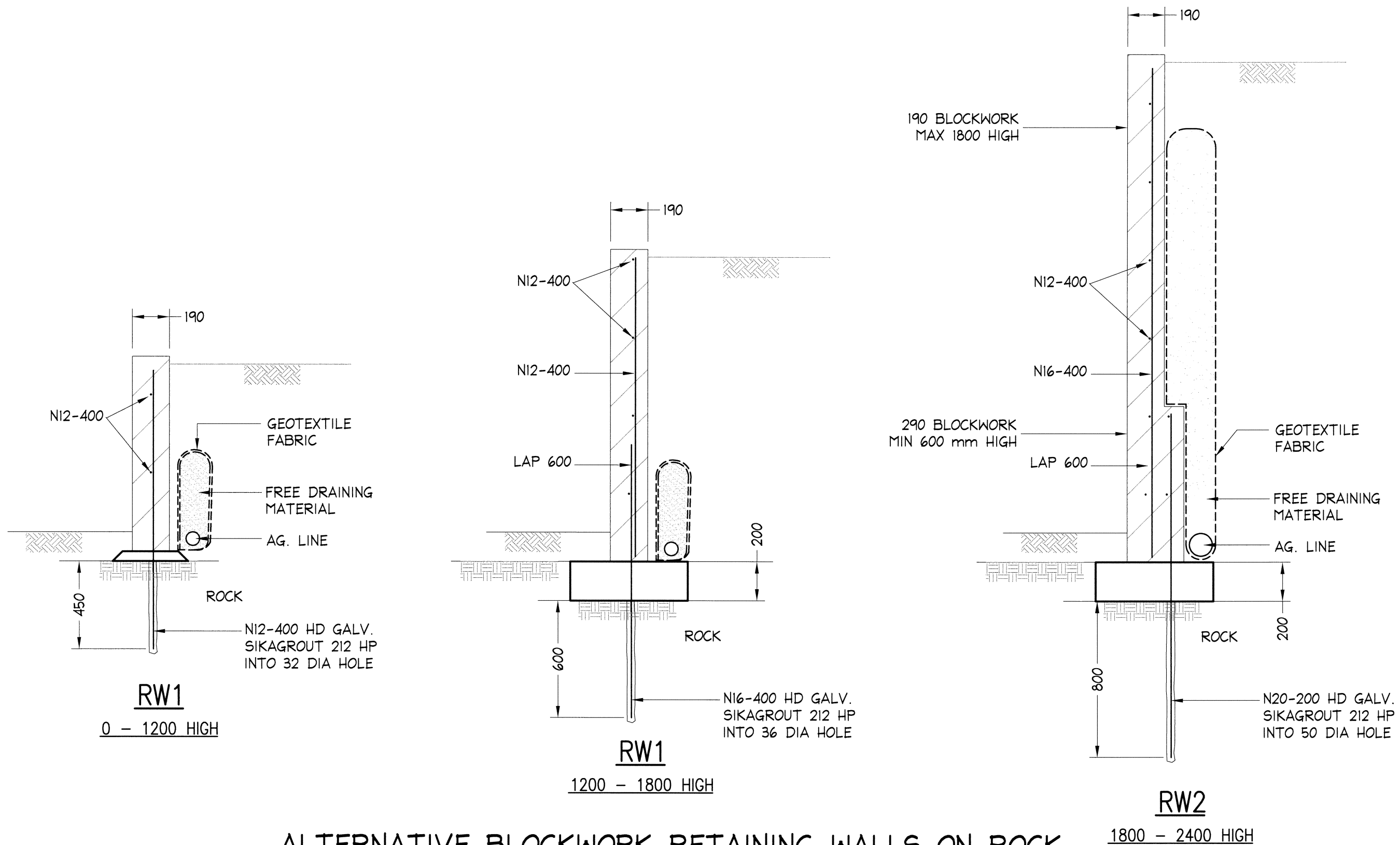
20-0516

Drawing No:

S06

Rev:

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ALTERNATIVE BLOCKWORK RETAINING WALLS ON ROCK

SCALE = 1 : 20

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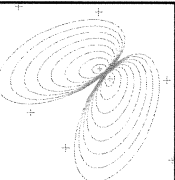


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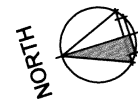
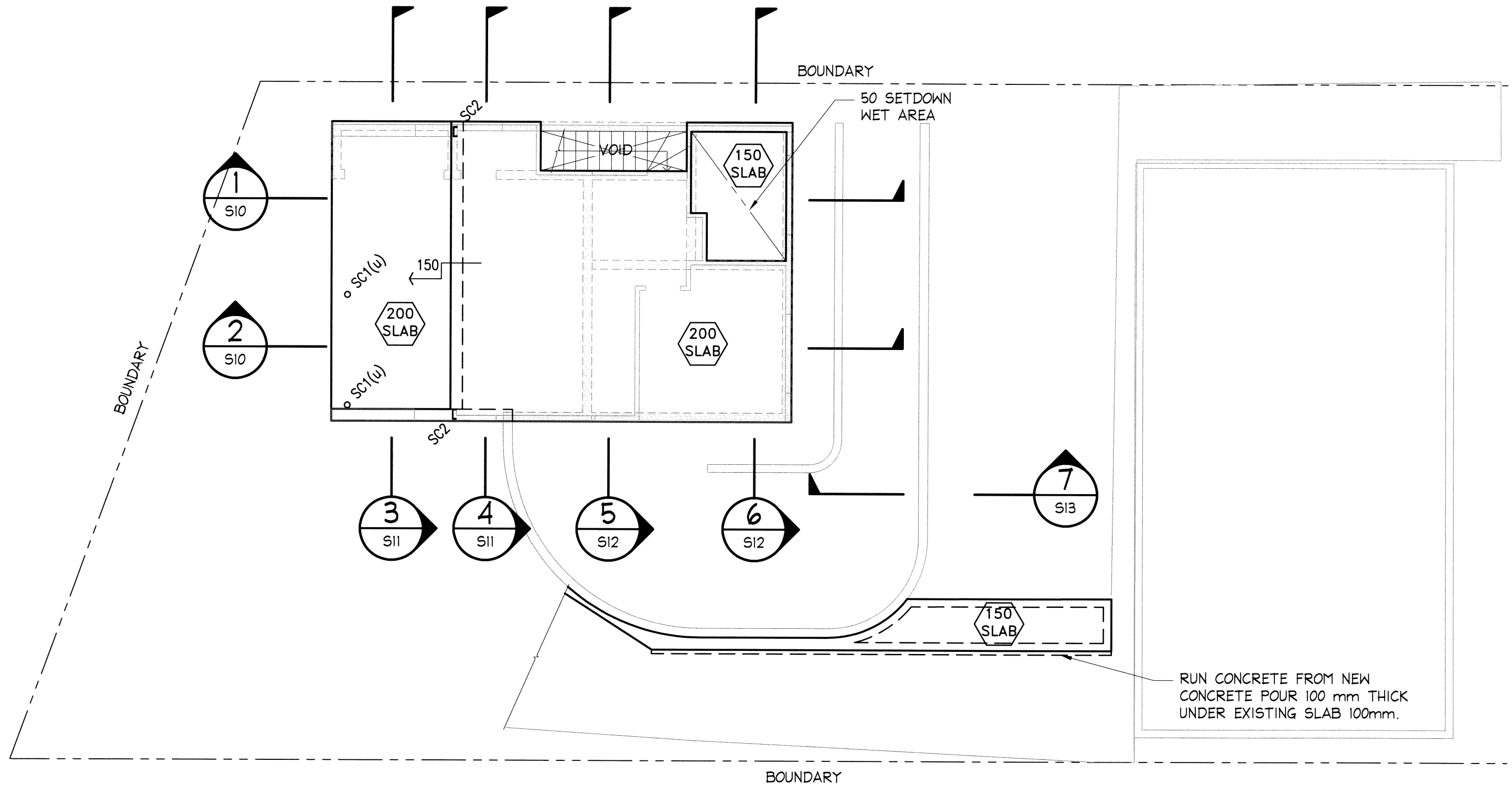
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Drawing Title: BASEMENT FLOOR DETAILS SHEET 6		
Job No: 20-0516	Drawing No: S08	Rev: -



FIRST FLOOR SLAB PLAN

SCALE - 1:50

NOTE:

- CONCRETE STRENGTH $F'c=40MPa$, COVER=45mm

MEMBER SCHEDULE:

- SC1 - 141.3 ϕ x 4.6 CHS C450 GRADE COLUMN
- SC2 - 250 PFC PORTAL COLUMNS

NOTES:

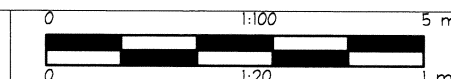
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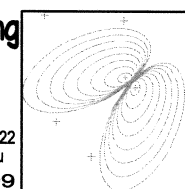
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Drawing Title:

FIRST FLOOR
SLAB PLAN

Job No:

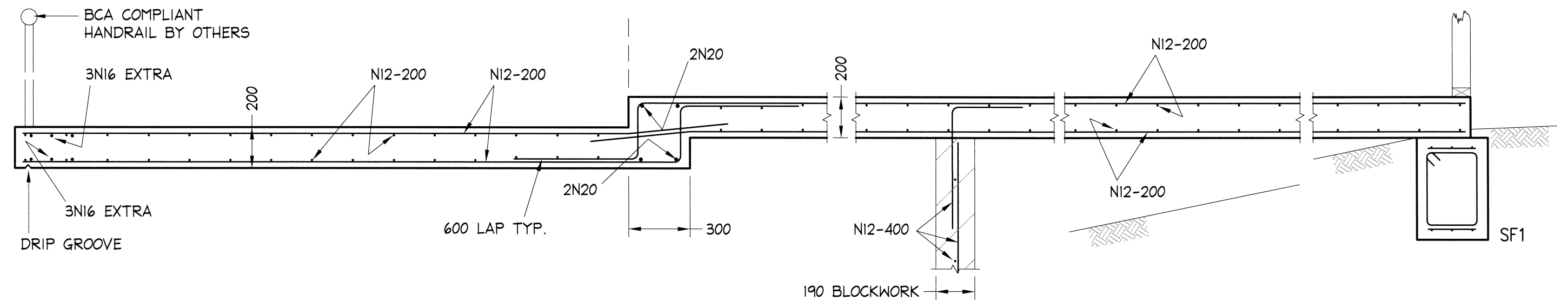
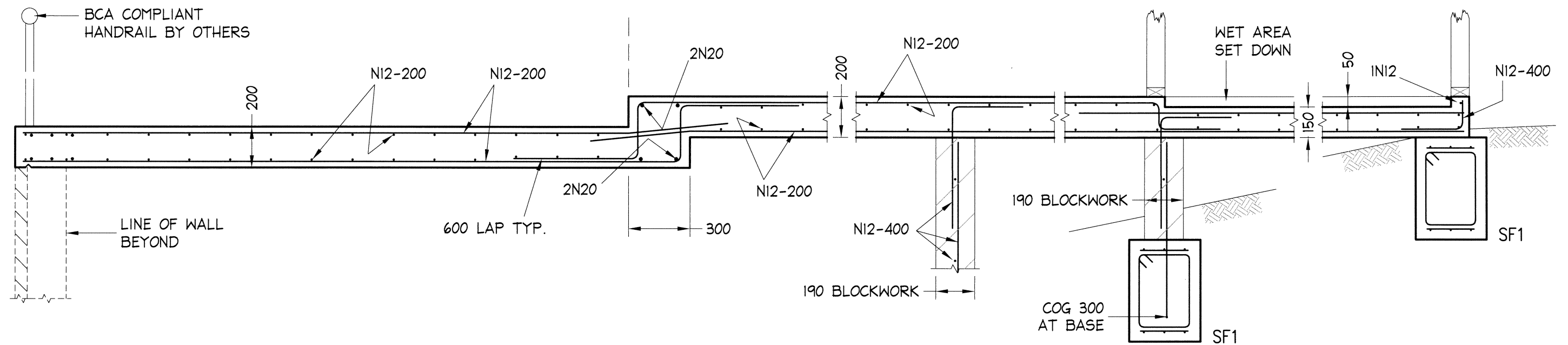
20-0516

Drawing No:

S09

Rev:

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NOTES:

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Date:	Rev:	Amendment:

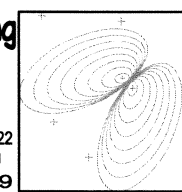
Peninsula Consulting Engineers

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E: bruce@peninsulaconsulting.com.au

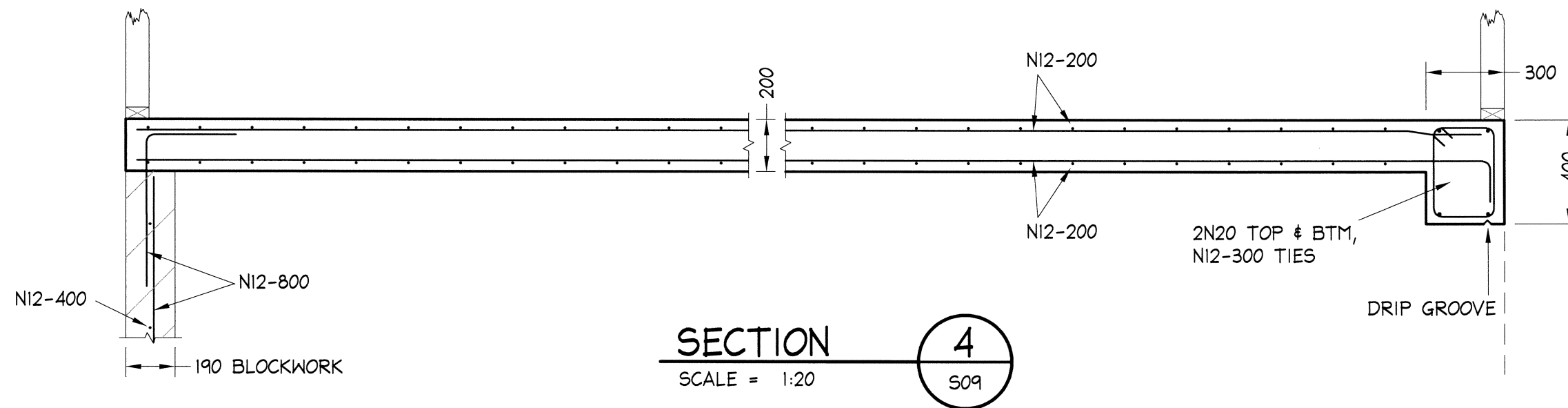
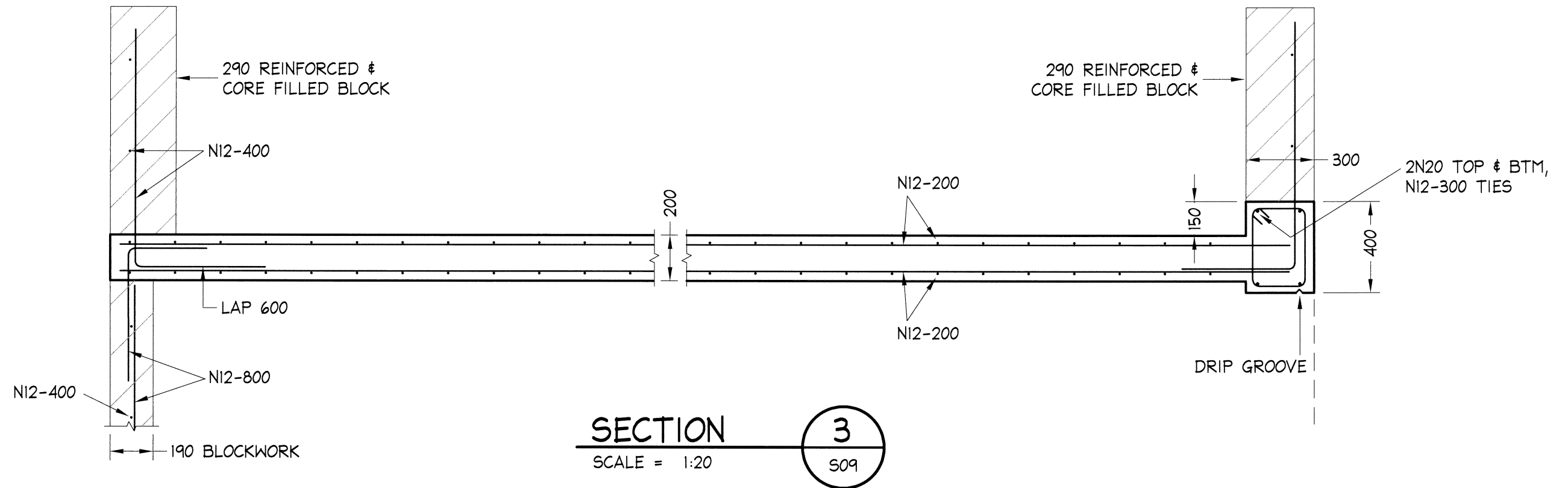
A.B.N. 60 493 390 399



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Project: **PROPOSED WORKS**
at: 15 HUDSON PARADE
AVALON BEACH
for: MS RAE & MR GATES

Drawing Title: FIRST FLOOR DETAILS SHEET 1		
Job No: 20-0516	Drawing No: S10	Rev: -



NOTES:

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2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.



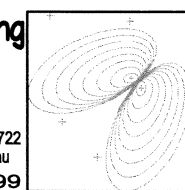
DOCUMENT CERTIFICATION

Date: *July 20*
Bruce Lewis
 (Principal : Peninsula Consulting Engineers)
 BE(Civil), CPEng, MIEAust., NPER.
 Institute of Engineers Membership No. 879131

0 1:100 5 m		
0 1:20 1 m		
Date:	Rev:	Amendment:

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at: 15 HUDSON PARADE
AVALON BEACH
for: MS RAE & MR GATES

Drawing Title:

FIRST FLOOR DETAILS
SHEET 2

Job No:

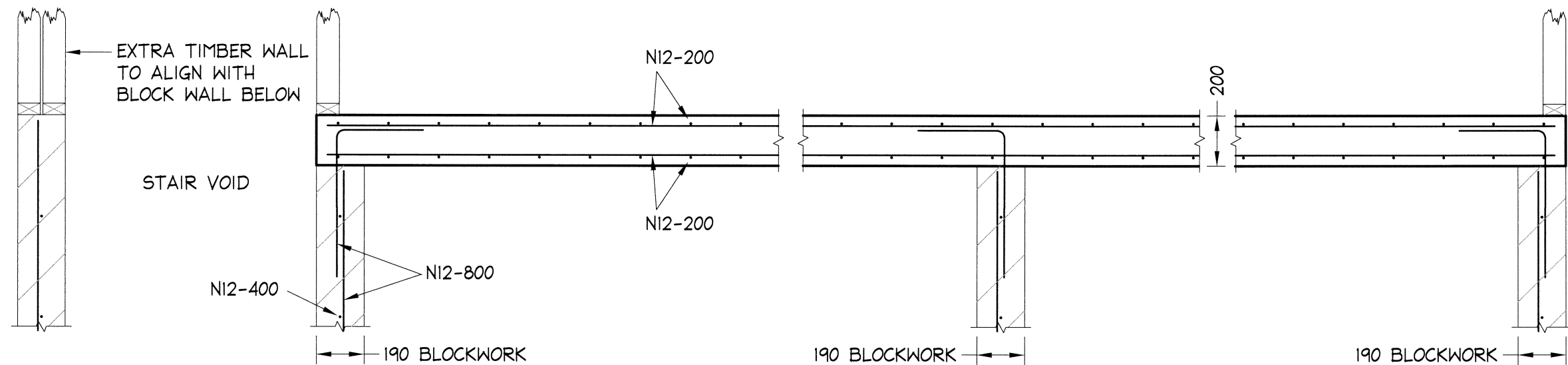
20-0516

Drawing No:

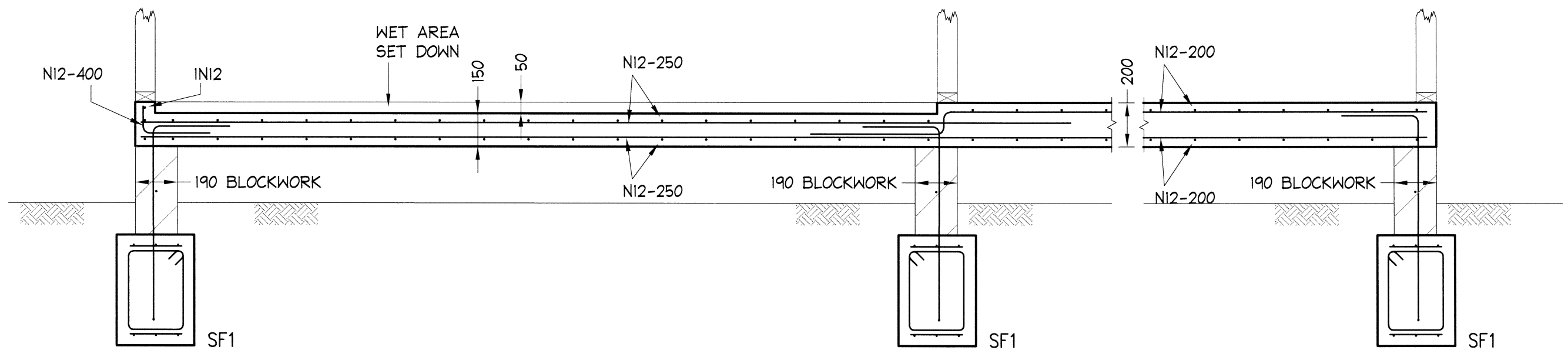
S11

Rev:

-



SECTION 5
SCALE = 1:20



SECTION 6
SCALE = 1:20

NOTES:

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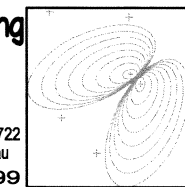
DOCUMENT CERTIFICATION

Date: *July 20*
BWL
Bruce Lewis
(Principal : Peninsula Consulting Engineers)
BE(Civil), CPEng, MIEAust., NPER.
Institute of Engineers Membership No. 879131

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Date:	Rev:	Amendment:

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AVALON BEACH
for: MS RAE & MR GATES

Drawing Title:

FIRST FLOOR DETAILS
SHEET 3

Job No:	Drawing No:	Rev:
20-0516	S12	-

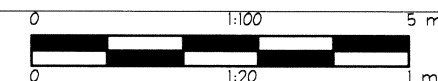


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DOCUMENT CERTIFICATION

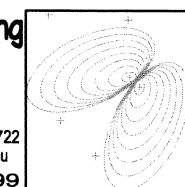
Date: July 20 BVE
Bruce Lewis
 (Principal : Peninsula Consulting Engineers)
 BE(Civil), CPEng, MIEAust., NPER.
 Institute of Engineers Membership No. 879131



0	1:20	1 m
-	-	-
Date:	Rev:	Amendment:

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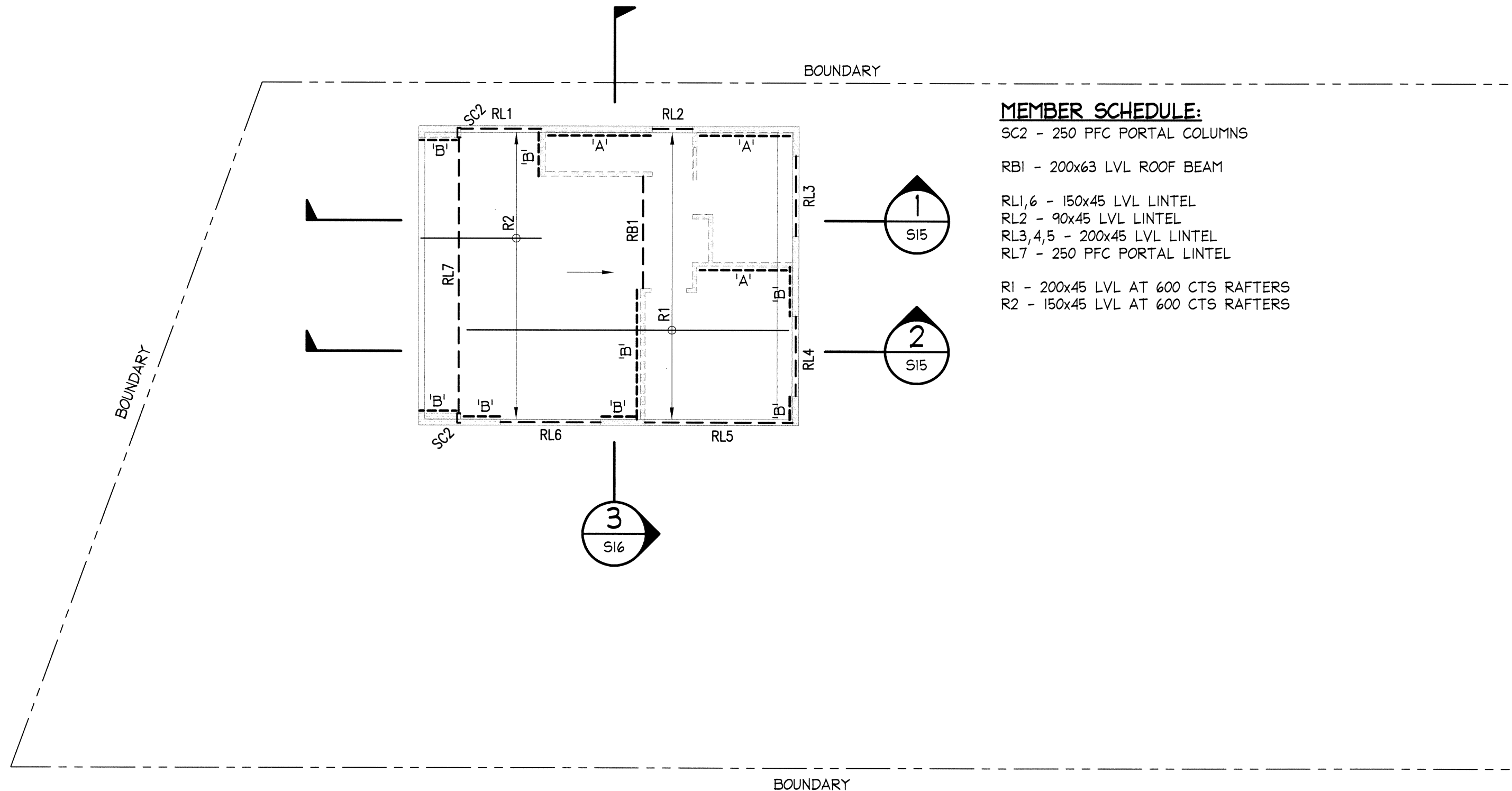
Project: PROPOSED WORKS
at: 15 HUDSON PARADE
AVALON BEACH
for: MS RAE & MR GATES

Drawing Title:

FIRST FLOOR DETAILS

SHEET 4

Job No:	Drawing No:	Rev:
20-0516	S13	-



MEMBER SCHEDULE:

SC2 - 250 PFC PORTAL COLUMNS

RB1 - 200x63 LVL ROOF BEAM

RL1,6 - 150x45 LVL LINTEL

RL2 - 90x45 LVL LINTEL

RL3,4,5 - 200x45 LVL LINTEL

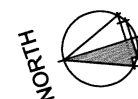
RL7 - 250 PFC PORTAL LINTEL

R1 - 200x45 LVL AT 600 CTS RAFTERS

R2 - 150x45 LVL AT 600 CTS RAFTERS

NOTE:

- PROVIDE DOUBLE STUDS UNDER ALL LOAD CONCENTRATION POINTS
- PROVIDE ROOF BRACING TO ASI684.
- 'A' - ANGLE BRACING TO WALLS, TO ASI684, REFER TYPICAL DETAILS
- 'B' - PLY BRACING TO WALLS, TO ASI684, REFER TYPICAL DETAILS
- LOAD BEARING WALLS ARE SHOWN HATCHED.



ROOF FRAMING PLAN

SCALE - 1:50

NOTES:

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2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.



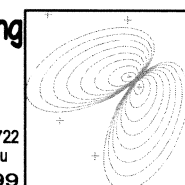
DOCUMENT CERTIFICATION

Date: *July 20*
Bruce Lewis
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 Institute of Engineers Membership No. 879131

0 1:100 5 m		
0 1:20 1 m		
Date:	Rev:	Amendment:

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Project:
PROPOSED WORKS
at: 15 HUDSON PARADE
AVALON BEACH
for: MS RAE & MR GATES

Drawing Title:

ROOF FRAMING PLAN

Job No:

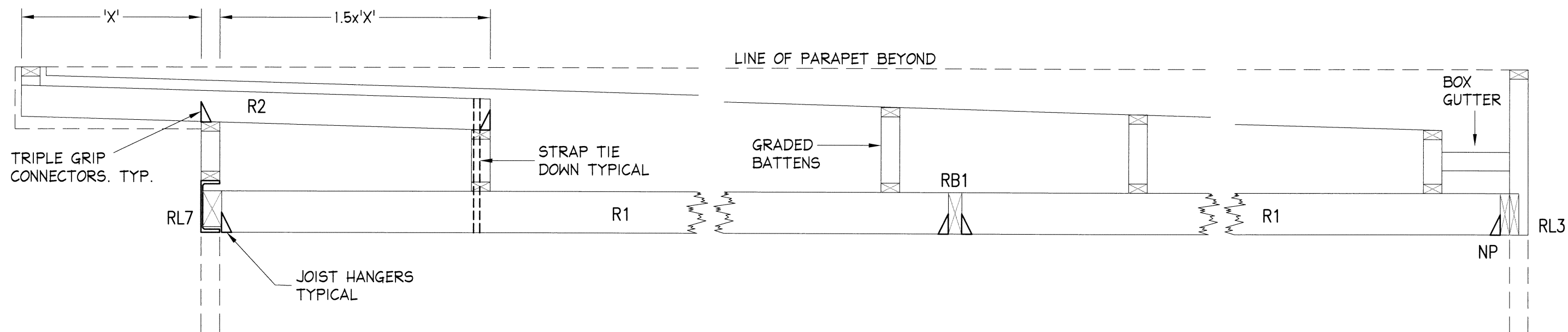
20-0516

Drawing No:

S14

Rev:

-

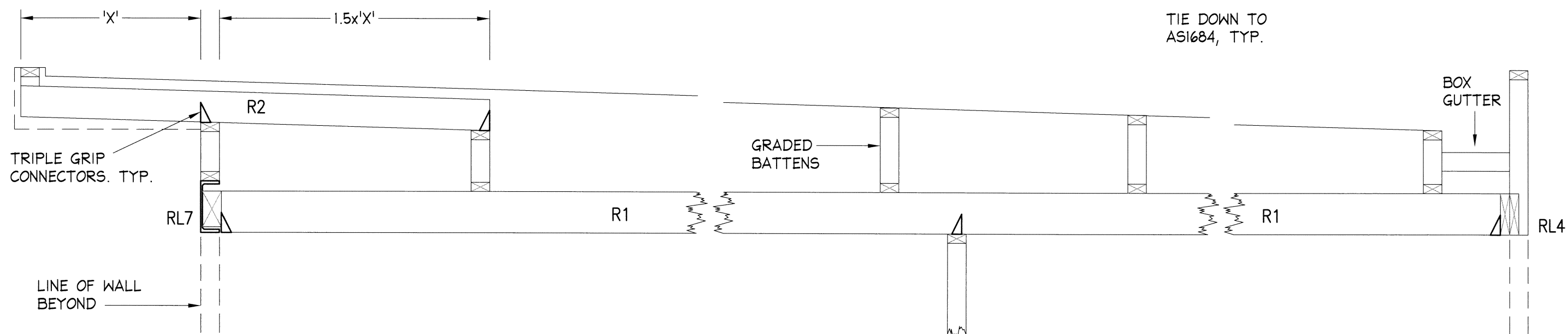


SECTION

SCALE = 1:20

1

S14



SECTION

SCALE = 1:20

2

S14

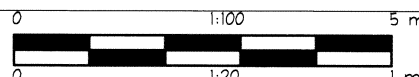
NOTES:

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2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.



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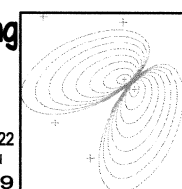
Date: *JULY 20*
Bruce Lewis
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Date:	Rev:	Amendment:

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Project: **PROPOSED WORKS**
at: 15 HUDSON PARADE
AVALON BEACH
for: MS RAE & MR GATES

Drawing Title:

ROOF DETAILS
SHEET 1

Job No:

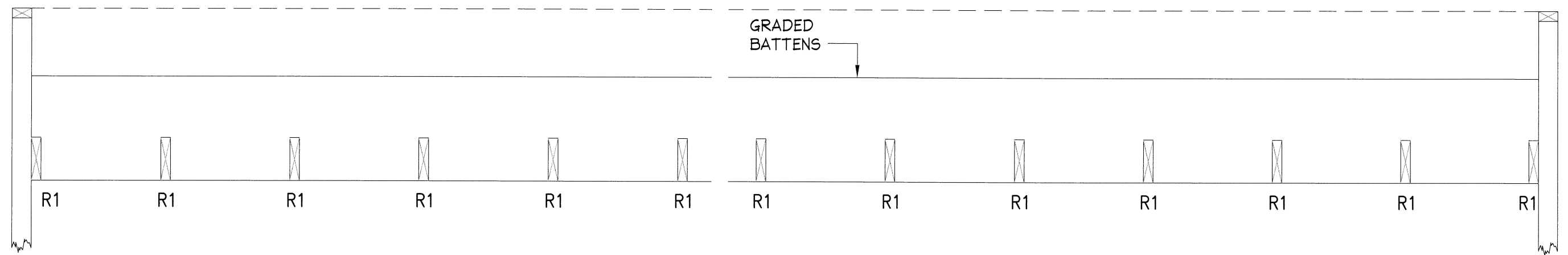
20-0516

Drawing No:

S15

Rev:

-

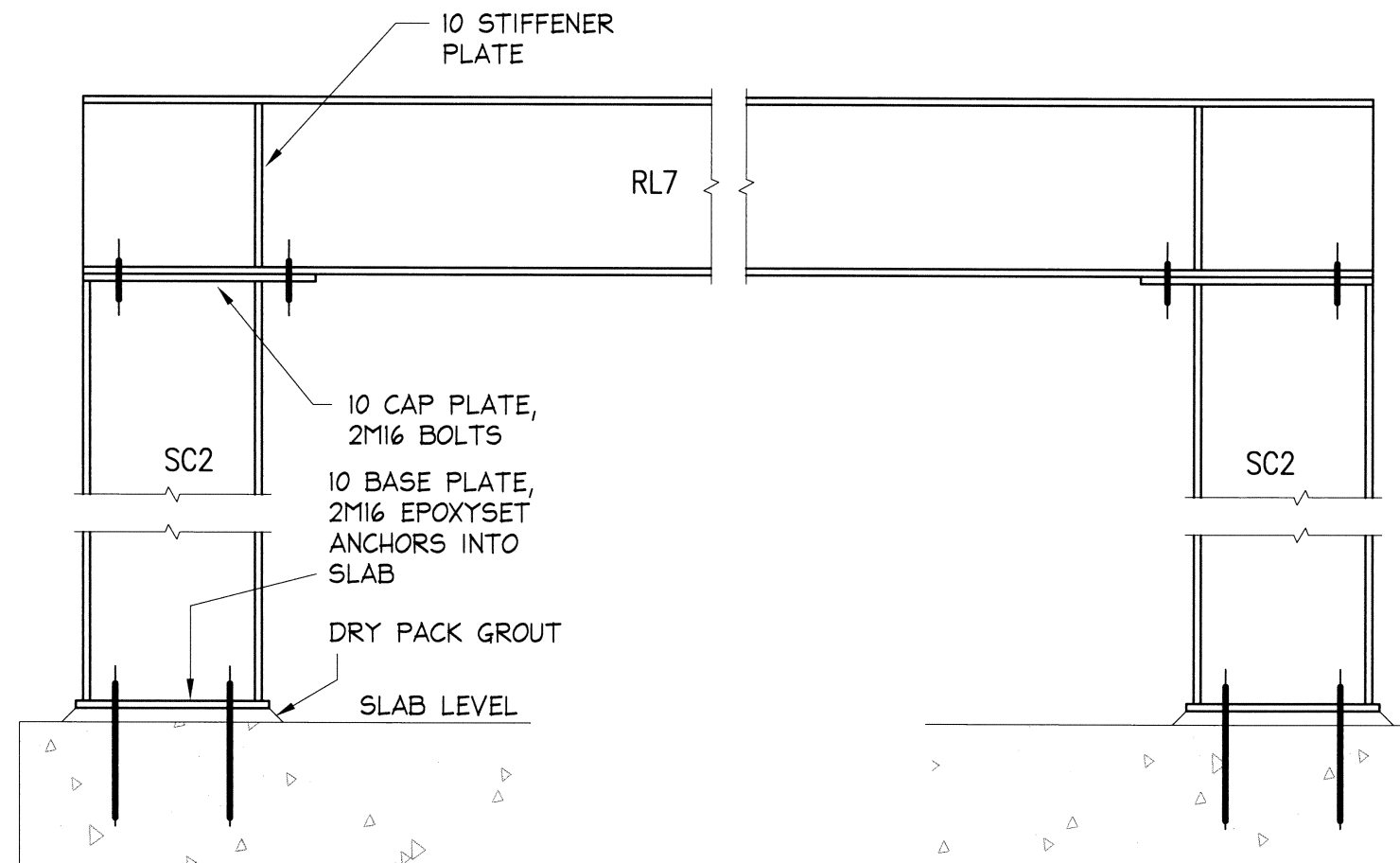


SECTION

SCALE = 1:20

3

S14



PORTAL FRAME ELEVATION

SCALE = 1 : 10

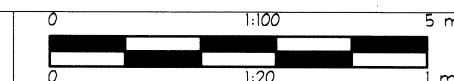
NOTES:

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2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.



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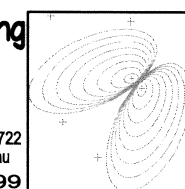
Date: 04/12/20
 Bruce Lewis
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 Institute of Engineers Membership No. 879131



Date:	Rev:	Amendment:

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Project: PROPOSED WORKS
 at: 15 HUDSON PARADE
 AVALON BEACH
 for: MS RAE & MR GATES

Drawing Title:

ROOF DETAILS
 SHEET 2

Job No:

20-0516

Drawing No:

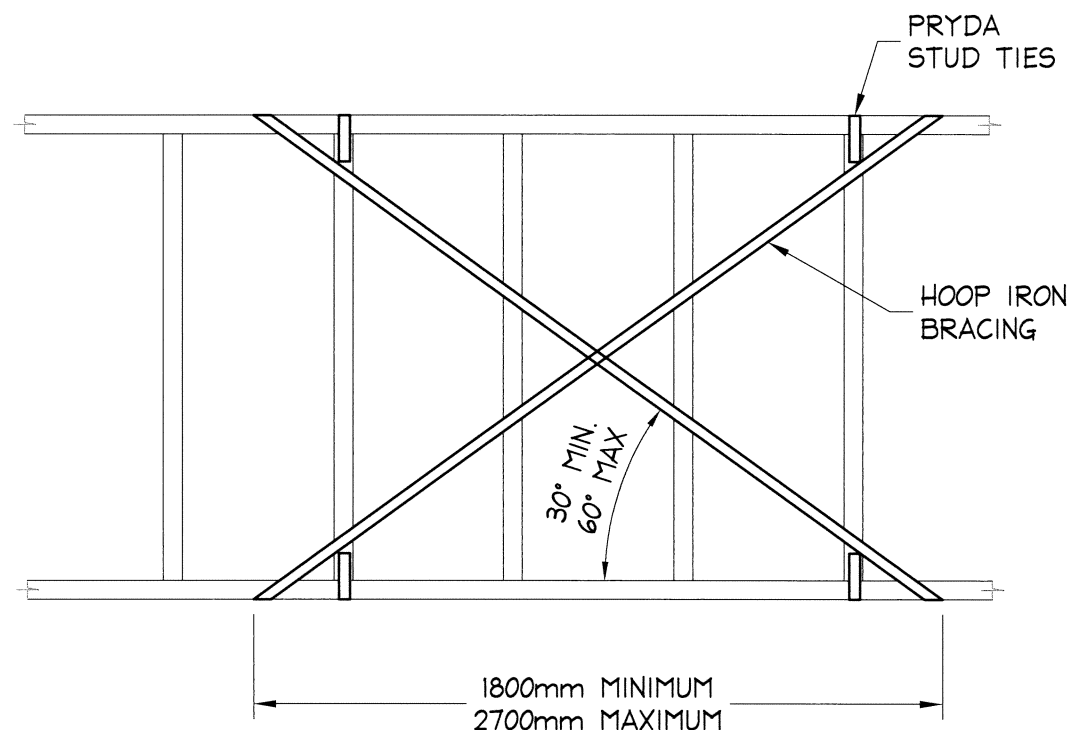
S16

Rev:

-

METAL TENSION STRAP BRACING:

30 x 0.8 mm TENSIONED HOOP IRON STRAP BRACING
FIXED WITH ONE GALVANISED FLATHEAD NAILS
30 mm x 2.8mm ϕ TO EACH STUD, AND THE
FACE OF THE TOP AND BOTTOM PLATE.
PROVIDE FOUR GALVANISED FLATHEAD NAILS
30mm x 2.8mm ϕ TO THE STRAP RETURN
OVER THE TOP PLATE AND UNDER THE BOTTOM PLATE.



NOTES:

1. FOR POWER DRIVEN NAILS REFER ABOVE.
2. NOGGINGS HAVE BEEN OMITTED FOR CLARITY.
3. BASED ON WALL HEIGHT OF 2.7 m. AT 4.0 m HIGH, CAPACITY OF WALL BRACING IS DECREASED BY ALMOST 40%.

TYPE A - WALL BRACING UNIT

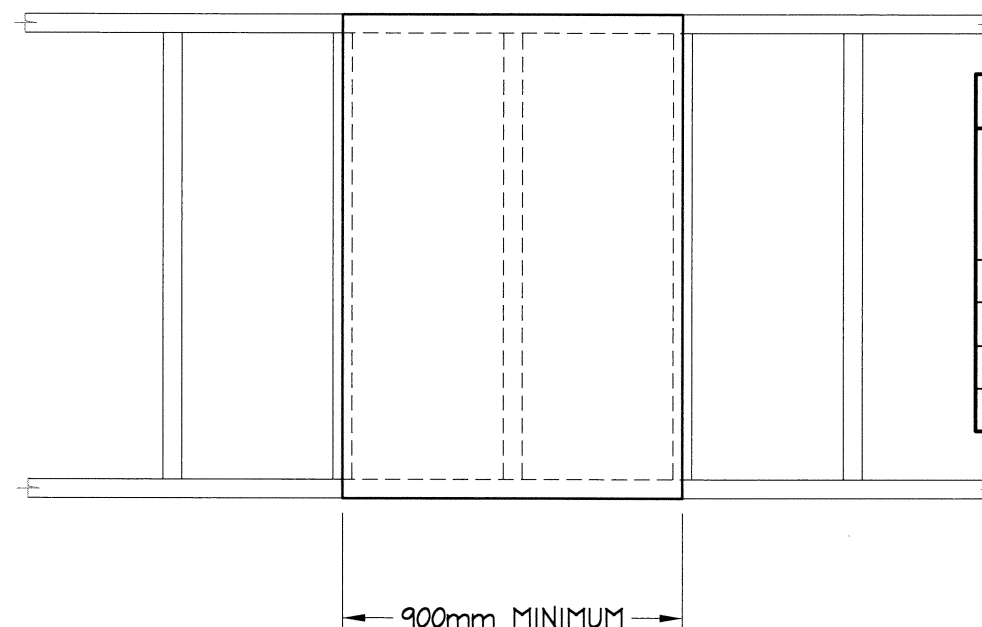
SCALE = 1 : 20

CAPACITY TO ASI684 - 3.0 KN

PLYWOOD BRACING:

FIX PLYWOOD PANELS WITH GALVANISED FLATHEAD NAILS 30 mm x 2.8 ϕ
LONG MINIMUM OR EQUIVALENT. MINIMUM PANEL WIDTH 900mm.
FOR METHOD B: 6.0KN CAPACITY

- NAILS TO BE FIXED AT 50 mm CTS ALONG TOP & BTM PLATES
 - NAILS TO BE FIXED AT 150 mm CTS ALONG VERTICAL EDGES
 - NAILS TO BE FIXED AT 300 mm CTS ALONG INTERMEDIATE STUDS.
 - NAILS SHALL BE LOCATED A MINIMUM OF 7mm FROM PANEL EDGES.
- POWER DRIVEN GALVANISED NAILS OR COATED STAPLES MAY BE USED
WHERE THEY PROVIDE AT LEAST THE EQUIVALENT STRENGTH TO HAND
DRIVES 30 mm x 2.8 ϕ LONG GALVANISED CLOUTS OR FLATHEAD NAILS.
FOR PANEL WIDTHS 600-900 mm WIDTH, PROVIDE M12 BOOKER ROD AT
BOTH VERTICAL EDGES OF PANELS FROM TOP TO BTM PLATE.



PLYWOOD THICKNESS		
PLYWOOD STRESS GRADE	PLYWOOD THICKNESS	
	MAXIMUM STUD SPACING	
	450mm	600mm
F8	7.0mm	9.0mm
F11	6.0mm	7.0mm
F14	4.0mm	6.0mm
F27	4.0mm	4.5mm

NOTES:

1. FOR PLYWOOD THICKNESS REFER TO TABLE.
2. FOR POWER DRIVEN NAILS REFER ABOVE.
3. PANEL EDGES SHALL BE SUPPORTED BY STUDS.
4. NOGGINGS HAVE BEEN OMITTED FOR CLARITY.
5. SHEETS MAYBE JOINED HORIZONTALLY WITH NAILS AT 50 mm CTS AT BOTH SIDES OF BUTT JOINT.

TYPE B - WALL BRACING UNIT

SCALE = 1 : 20

CAPACITY TO ASI684 - 6.0 KN/m

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: SOI.



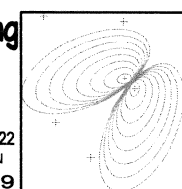
DOCUMENT CERTIFICATION

Date: 01/12/20
Bruce Lewis
(Principal : Peninsula Consulting Engineers)
BE(Civil), CPEng, MIEAust., NPER.
Institute of Engineers Membership No. 879131

0 1:100 5 m		
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Date:	Rev:	Amendment:

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E : bruce@peninsulaconsulting.com.au
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Project: **PROPOSED WORKS**
at: 15 HUDSON PARADE
AVALON BEACH
for: MS RAE & MR GATES

Drawing Title:

WALL BRACING
DETAILS

Job No:

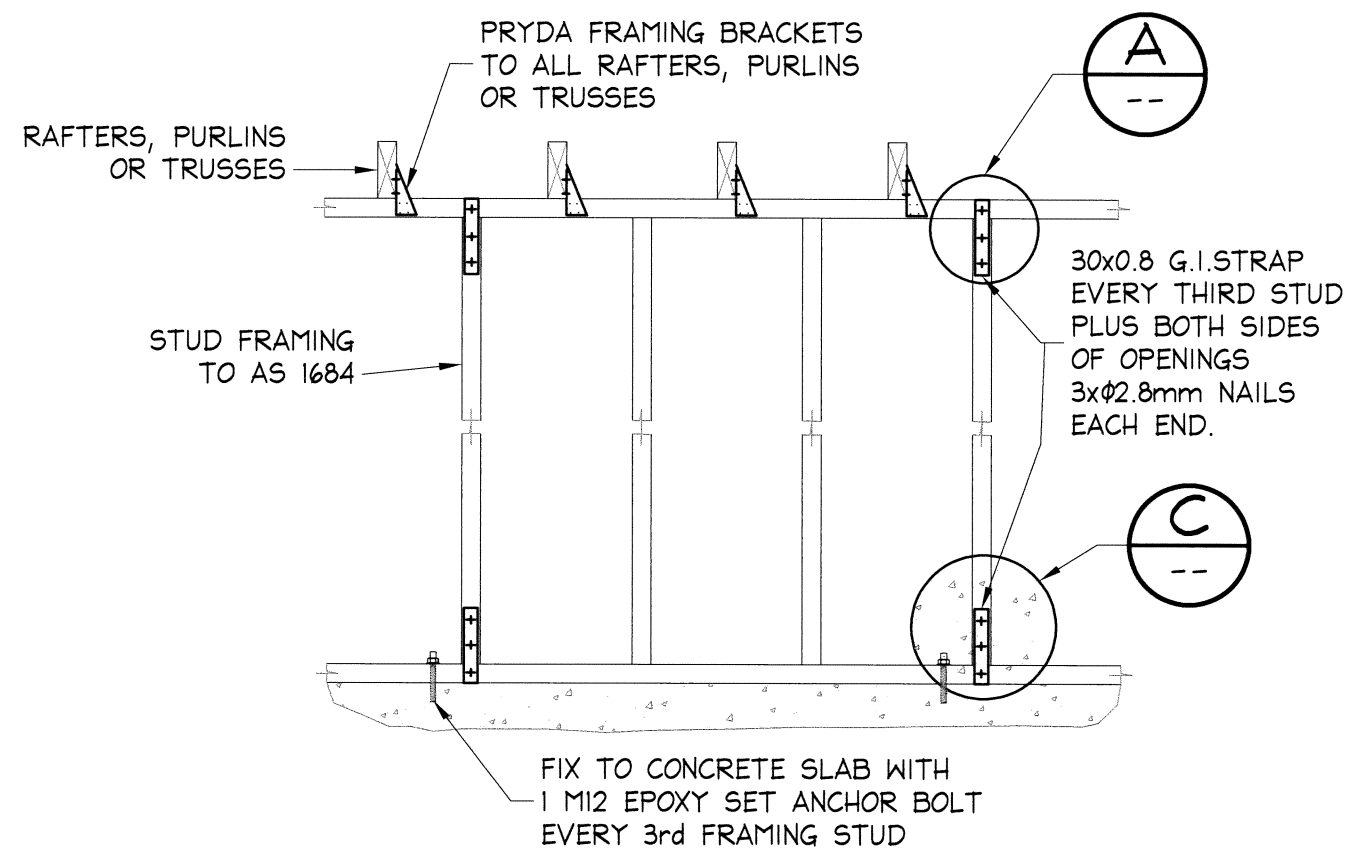
20-0516

Drawing No:

S17

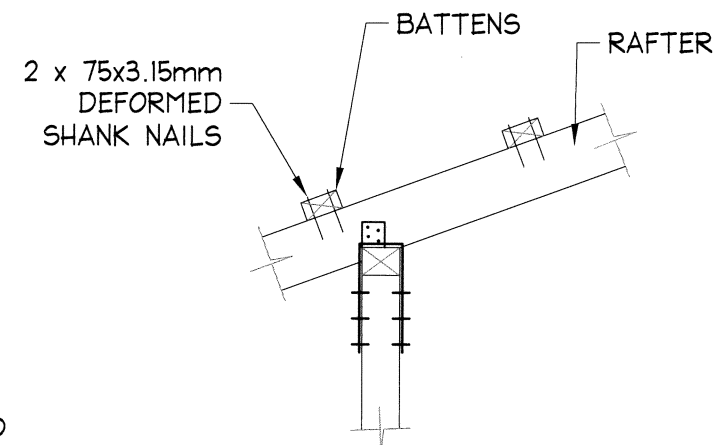
Rev:

-



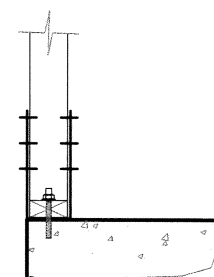
TYPICAL TIE DOWN DETAIL

SCALE = 1 : 20



DETAIL A

SCALE = 1:20



DETAIL C

SCALE = 1:20

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WITH WORK.
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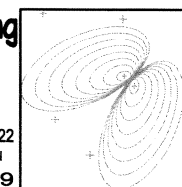
DOCUMENT CERTIFICATION

Date: *July 2018*
Bruce Lewis
 (Principal - Peninsula Consulting Engineers)
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 Institute of Engineers Membership No. 879131

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Date:	Rev:	Amendment:

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Project: **PROPOSED WORKS**
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AVALON BEACH
for: MS RAE & MR GATES

Drawing Title:

WALL TIE DOWN DETAILS

Job No:

20-0516

Drawing No:

S18

Rev:

-